

A text dump on wildism

John Jacobi, Ted Kaczynski, etc.

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Wildism & Eco-Extremism; An Intro & A Critique

An Intro to Individualists Tending toward the Wild

Source: The Politics of Attack.

[ITS] has explicitly rejected association with anarchism, and via a subsequent (i.e. second generation) moniker, rejected both the label of “leftist” and “insurrectionary”.

In a rare interview the group provided in 2014, it describes its purpose, stating:

[ITS] deemed it necessary to carry out the direct attack against the Technoindustrial System. We think that the struggle against this is not only a stance of wanting to abandon Civilization, regressing to Nature, or in refuting the system’s values, without also, attacking it.

ITS has received international attention after repeatedly targeting scientists and researchers with lethal force. ITS has stood out from other bombers due to its lengthy, academic-styled communiqués and direct attacks on individuals from outside the typical target set: heads of state and corporations, officials in law enforcement, jailing, etc. ITS is unique in at least two matters: its stated objective to *kill*, and its specific, tech-related target set. In the 2014 interview, cell members explain:

Our immediate objectives are very clear: injure or kill scientists and researchers (by the means of whatever violent act) who ensure the Technoindustrial System continues its course. As we have declared on various occasions, our concrete objective is not the destruction of the Technoindustrial system, it is the attack with all the necessary resources, lashing out at this system which threatens to close off all paths to the reaching of our Individual Freedom, putting into practice our defensive instinct

... ITS has from the beginning proposed the attack against the system as the objective, striving to make these kinds of ideas spread around the globe through extreme acts, in defense of Wild Nature, as we have done.

According to their own historical account, the group began experimenting in 2011 with “arson attacks on cars and construction machinery, companies and institutions

... until we decided to focus on terrorism and not sabotage”. From 2011–2014, ITS deployed at least 13 mail bombs, two mailed threats accompanied by bullets, and assassinated Méndez Salinas, a biotechnologist with the Institute of Bio-Technology at the National Autonomous University of Mexico. Salinas was shot in the head, and according to ITS, killed by “the most violent cell of ITS in Morelos, being already familiar with the purchase and use of firearms.”

Through their various communiqués and interviews, ITS has claimed responsibility for a series of attacks, many of which were claimed under other monikers and later linked to the ITS network. For example, in August 2014, ITS declared the formation of Wild Reaction (RS):

After a little more than three years of criminal-terrorist activity, the group ... [ITS] ... begins a new phase in this open war against the Technoindustrial System ... we want to explain that during all of 2012 and 2013, various groups of a terrorist and sabotage stripe were uniting themselves with the group ITS, so that now, after a long silence and for purely strategic reasons, we publicly claim [10 attacks from newly affiliated networks] ... All of these have now fused with the ITS groups in Morelos, Mexico City, Guanajuato, Hidalgo, Coahuila and Veracruz ... Due to this union, the extravagant and little-practical pseudonym of “Individualists Tending toward the Wild” (ITS) ceases to exist, and from now on the attacks against technology and civilization will be signed with the new name of “Wild Reaction”(RS).

Prior to this announcement, in April 2014 a group calling itself Obsidian Point Circle of *Analysis* (OPCAn) activated a new clandestine cell (which would later be absorbed into RS) called Obsidian Point Circle of *Attack* (OPCA). The formation of OPCAn was preceded by three commentaries on ITS and the authors “becoming tired of simply writing.” In its opening declaration OPCA writes:

It has been some time since we started writing about some situations that had arisen in Mexico concerning the terrorist group ITS; we published a total of three analyses, in which we have publicly demonstrated our support of the group ITS, in their actions as much as their position. Until now we have decided to solely be those who comfortably spread and highlighted the group’s communiques and actions, but that is over. The violent advance of the techno-industrial system, the degradation that civilization leaves in its wake and the oblivion they are forcing us toward, ceasing to be natural humans to the point of turning into humanoids: there must be a convincing response.

We abandon words and analyses in order to begin with our war ... We only seek confrontation with the system, the sharpening of the conflict against it. From this day we publicly put aside the word “analysis,” in order to become The Obsidian Point Circle of Attack.

Thus, according to its own narrative, ITS inspired public commentary and critique by OPCAn and, in September 2014, when ITS became RS, it was announced that RS

included OPCA as well. In the first declaration by RS, the authors explain: “during this year ... two more terroristic groups have united with us who have put the development of the Technoindustrial System in their sights ... The ‘Obsidian Point Circle of Attack’ ... [and] ... The ‘Atlatl Group.’” Therefore, a complete history of ITS’s actions includes both attacks claimed under their name, those claimed under the OPCA and RS, as well as smaller groupings merged under the network’s banner. According to a chronology assembled from the networks’ communications, the network has claimed at least 27 distinct actions including 22 IED attacks (mostly mail and package/parcel bombs), three written threats, several arsons of property, one animal release, and one fatal shooting.

In early 2016, the ITS moniker saw its first usage outside of the borders of Mexico. In the second ITS communiqué of 2016, the “Uncivilized Southerners” cell “abandoned a homemade explosive charge” on a bus in Santiago, Chile writing:

The Eco-Extremist tendency spreads ... We are accomplices to its ideas and acts, forming part of it. We are giving life to an international project against civilization.

Because we are bullets to the head, mail-bombs, indiscriminate bombings and incinerating fire, we are:

Individualists Tending Toward the Wild – Chile.

A few days later, in the fourth ITS communiqué of 2016, an ITS cell in Argentina claimed responsibility for placing an IED in a Buenos Aires bus station. In the message accompanying the bomb, the attackers wrote: “ITS is in Argentina”. The emergence of new ITS cells appears to be an ongoing trend. Five days after the Argentina communiqué was posted to a Spanish-language insurrectionary hub, the same site featured a communiqué signed by five cells of ITS, three from Mexico, and one each from Argentina and Chile. The communiqué traces the origin and expansion of the ITS and RS monikers and announces “a new phase of the war against all that represents and sustains the advance of civilization and progress”.

In Mexico, ITS’s bombs have targeted civilian, seemingly ‘non-political’ scientists, professors, technical experts, researchers, and technocrats and within a politic most closely described as (Green) anarcho-primitivism. Famed “Unabomber” Theodore Kaczynski popularized this framework in the 1980s during a 17-year (1978–1995) bombing campaign involving 16 bombs, which killed three people and injured 23. Following the publication of “Industrial Society and its Future” – popularly known as the “Unabomber manifesto” and released five months after his final attack – Kaczynski’s spirit has been carried forth by ITS and a few similar networks.

The group's origins broadly

Source: Does the Unabomber have any relevance to anarchism?

ITS Mexico were originally part of the green & insurrectionary anarchist milieus and likely grew up on earth first monkey-wrenching manuals from the 80s:¹

The group draws its inspiration from anarcho-primitivism, an “*anti-civilization anarchy*” from which ITS is largely inspired. “*I took the theories of the ‘Earth Liberation Front’ further, and gave them a different tone,*” explains Xale. “*I was interested in the issues facing the American continent, in the indigenous cultures that opposed civilization,*” assures the Mexican member of ITS in the video.

With anarchism, the relationship at the moment is one of rupture, although there is no dishonor in accepting that many eco-extremists and some members of ITS come from anarchism, mostly from insurrectionist and eco-anarchist tendencies. Although at the time there were some ties, today the vast majority of anarchists hate us.

Referring to the groups history, Xale, a member of ITS Mexico wrote:²

This chronology could well be added to that of Individualities Tending to the Wild (2011–2013), or that of the anti civilization cells of the Earth Liberation Front (2008–2012), but we decided to focus on RS, for now.

Searching through the over 300 sabotage actions that occurred in Mexico between 2018 & 2012, and the at least 10 with ELF in the title of the post, there do appear to be a few attacks that fit ITS modus operandi and communiqués which fit their early idiolect:³

¹ Faarlund originally writes this as ‘Free Nature,’ which accents what to him is the most desirable quality of wildness. — ed.

² *Wild Nature*: having the seasonal, diurnal and growth rhythms unimpaired.

³ Caramelised milk sugar—an exquisite ‘up hill food’ from Norway.

Early this morning, September 21, our cell placed a bomb made of butane gas at the gates of the headquarters of Nueva Escuela Tecnológica [*New School of Technology*] in the municipality of Coacalco, Mexico State.

The authorities in that municipality had previously implemented security systems that belong in the worst nightmares of Orwell.

Security cameras, artificial eyes guarding their damned social peace, throughout the major avenues in Coacalco.

In the commercial area, the police presence is evident, state police and the mediocre municipal police pass through the streets and on Lopez Portillo Avenue.

Guarding the centers of domination and domestication that are also protected by surveillance cameras and the idiot guardians of the imposed order.

Facing this situation of high surveillance, it seemed impossible to strike, but rebellious creativity is greater than the highest degree of ‘security’ that the state implements.

The Coacalco commercial area had been previously visited by eco-anarchist cells who conducted significant strikes right in front of the police, who were flabbergasted by an arson, a butane explosion, graffiti and paint spilled in anthropocentric business.

Our action was censured both by the directors of the Nueva Escuela Tecnológica and the Mexico State authorities. They hid the damage that we caused and concealed the evidence of our presence at night. This is not unusual; it happened after the ‘celebrations’ of the ephemeral bicentennial celebration which were held in ‘total’ peace.

The Agencia de Seguridad Estatal [*state security agency*] as well as detectives from the Mexico City police department are aware of our actions and our presence; they know that we were there and that we detonated our explosive charge as the lackeys on patrol passed by unable to stop us.

We chose to attack the NET because it represents the new era of these centers of domestication called schools, where they learn things that are useless for a free life, but necessary for a life of slavery and alienation. They create beings that depend on technology in order to live in these concrete nests called cities, but more closely resemble large prisons. They train malleable minds to be used for entrepreneurship and to expand civilization over wild nature. We will not permit this.

Once again we say: not with their cameras, nor their police officers, nor with their investigators, nor their prisons, will they be able to stop us; we once again skinned the rotten bastards, godammit!

This action is dedicated to the Chilean anarchist prisoners, captured after the wave of repression in that country on August 14; we send much strength, from Mexico we remember them in every direct action.

We did not want to wait until the 24th to show our solidarity.

Support is not only for one day, it is in our everyday actions!

Direct solidarity for the eco prisoners Abraham López and Adrian Magdaleno, for the eco revolutionaries on hunger strike in Switzerland, for the animal liberation prisoner Walter Bond in the U.S., and the vegan warriors imprisoned in Italy!

Keep running Diego, you're fucking awesome!

Earth Liberation Front/Mexico

Upon reading translated Unabomber material they started along a road that began with committing arsons aimed at sabotaging evil companies and ended with them desiring to have the wider effect of terrorizing people through fear of injury or death out of a simple hatred for humanity:⁴

... in 2011 the (newly formed) ITS was testing various modus operandi (from known and attempted arson attacks on cars and construction machinery, companies and institutions in Coahuila, Guanajuato, and Veracruz State of Mexico, until we decided to focus on terrorism and not sabotage).

Here are old members of the FAI / CCF in Mexico acknowledging former collaboration and ideological crossover:⁵

Exactly 5 years and seven months ago we signed a “joint statement” at the request of a comrade for whom we feel great affection and respect. That text was entitled “2nd Joint Statement of the Anarchist Insurrectional and Eco-Anarchist Groups”. ...

Back then, we let it be known publicly and energetically that:

“With these ITS partners, we can have theoretical differences and discuss them (always arguing fraternally in a constant attempt to update ideas

⁴ Faarlund's original text reads: ‘to elaborate on our versions of the fusion of the natural science of ecology and the philosophical keel and rudder—values orientation—for an ecophilosophy’ Later in the original text, he repeats the phrase ‘values orientation.’ Although for clarity I had to amend the specific wording, it is important to note the importance Faarlund places on *orientation* and *values* as instrumental to the paradigm shift necessary for the respect of Wild Nature. — ed.

⁵ Askeladden is the main character of many Norwegian folktales. In many stories he is rejected as eccentric and unusual compared to his two brothers, but, when a challenge presents itself to all three, he is the only one to succeed, thanks to unconventional thinking and creativity. He often represents the innovator who instigates a paradigm shift. — ed.

and by building a unitary criticism attuned to the reality of the anarchist struggle), but we have never disagreed with the methods used, understanding anti-authoritarian violence and propaganda for the facts as they are : valid practices consistent with our ethical principles.”

Although ITS were one of the few clusters with which we did not directly coordinate when undertaking joint actions, we were in solidarity with them, in the same way that some of the comrades that made up our affinity groups obtained monetary resources for them to solve specific difficulties when requested. That has been (and is) the basis of practical co-ordination between the new anarchic insurrectionalism and eco-anarchism.

In their early communiques they would express solidarity with anarchist prisoners:⁶

Total support with the Anti-civilization prisoners in Mexico, with the Chilean comrades and with the furious Italians and Swiss. ...

One more time: Direct and total support with the anti-civilization prisoners of Mexico, with those eco-anarchists of Switzerland, to the affinities in Argentina, Spain, Italy, Chile and Russia.

Here is an answer members of ITS gave in a text interview in 2014 I think showing they were part of a leftist milieu, in that they only later rejected leftist mass movement building and so are not simply post-left-&-right:⁷

Individualists tending towards the wild formed at the beginning of 2011, and was motivated by the reasoning acquired during a slow process of getting to know, questioning, and the rejection of all that encompasses leftism and the civilized, and accordingly, employing all the above, we deemed it necessary to carry out the direct attack against the Technoindustrial System. We think that the struggle against this is not only a stance of wanting to abandon Civilization, regressing to Nature, or in refuting the system's values, without also attacking it.

Finally, ITS also claimed that more ELF and Anarchist groups joined them later when they briefly took on the name Wild Reaction:⁸

⁶ The phrase ‘home of culture’ is an idiosyncratic one developed by Faarlund and others in the article “Nature is the Home of Culture—*Friluftsliv* is a Way Home.” The article explained the Norwegian tradition of *Friluftsliv*, of which Faarlund is part, and its ultimate quest to ‘to bring about a change in the modern affluent societies [by working] to help re-establish cultures where nature is the home of culture.’ — ed.

⁷ A *conwayor* (‘outdoor educator’) is a mentor in the Norwegian *Friluftsliv* tradition, whose main purpose is to find wild ‘learning rooms’ for students to develop a positive and freely developing relationship with nature. — ed.

⁸ Translates literally into ‘spring break,’ but is similar to the phrase ‘var losning’—‘our response.’ — ed.

First of all, we want to explain that during all of 2012 and 2013, various groups of a terrorist and sabotage stripe were uniting themselves with the group ITS, so that now, after a long silence and for purely strategic reasons, we publicly claim:

- 1) The “Informal Anti-civilization Group,” which on June 29, 2011, took responsibility for the explosion that severely damaged a Santander bank in the city of Tultitlan, Mexico.
- 2) “Uncivilized Autonomous,” who on October 16, 2011 set off a bomb inside the ATMs of a Banamex, located between the cities of Tultitlan and Coacalco in Mexico State. ...
- 4) “Wild Indomitables,” who on October 16, 2011 left a butane gas bomb that did not detonate in a Santander bank in the Álvaro Obregón district of Mexico City. The act was never claimed until now.
- 5) “Terrorist Cells for the Direct Attack – Anti-civilization Fraction,” which in 2010 and 2011 left a fake bomb in front of the IFaB (Pharmacological and Biopharmaceutical Research), and detonated an explosive outside the building of the National Ecology Institute (INE), both in the Tlalpan district of Mexico City.
- 6) “Luddites against the Domestication of Wild Nature,” who during 2009 to 2011 had taken part in various incendiary attacks in some cities in Mexico State and various districts of Mexico City, claimed or unclaimed.
- 8) “Earth Liberation Front – Bajío”, which on November 16, 2011 set off an explosive charge creating damages within the ATM area of a branch of the Federal Electricity Commission (CFE) in the city of Irapuato in Guanajuato.

All of these have now fused with the ITS groups in Morelos, Mexico City, Guanajuato, Hidalgo, Coahuila and Veracruz.

Due to this union, the extravagant and little-practical pseudonym of “Individualists Tending toward the Wild” (ITS) ceases to exist, and from now on the attacks against technology and civilization will be signed with the new name of “Wild Reaction” (RS).

These were groups that other anarchists were relating to as anarchists also. As the *joint declaration of the insurrectional anarchist and eco-anarchist groups of Mexico* referred to earlier was signed by some of these groups who later merged with ITS or had a very similar ideology:⁹

⁹ Foreman, along with most of the original members, left Earth First! in the late 1980s because the influx of leftists, anarchists, and counter-cultural types had taken the movement away from its original principles. You can read the prequel to his departure in the article “Whither Earth First!?” Howie Wolke, another founder, describes his version of events in the article “Earth First!: A Founder’s Story.” — Ed.

Luddites against the Domestication of Wild Nature (LDNS)

Earth Liberation Front (FLT)

Free, Dangerous, Savage and Incendiary Individuals for the Black Plague(ILPSIPN)

Kaczynski's influence specifically

An ITS propagandist:¹⁰

Born out of various radical ideologies such as animal liberation, insurrectionary anarchism, anarcho-primitivism, and the neo-Luddism of Theodore Kaczynski, it has germinated and sprouted forth into something entirely other ...

ITS:¹¹

We have never denied that the essay, "Industrial Society and Its Future" has been an important part of our formation into what we are now. For that reason, in the past we used such terms as "leftists," "power process," "feelings of inferiority," "liberty and autonomy," etc. that in the present we have omitted or changed for other words so that we distinguish ourselves from the "indomitistas" of Kaczynski. ...

Michael Loadenthal:¹²

[ITS] specifically address their relationship to Kaczynski in their fourth communiqué:

Have **ITS** copied Ted Kaczynski? The million-dollar question.

Without a doubt, we see this person as an individual who with his profound rational analysis contributed greatly to the advance of antitechnological ideas; his simple way of living in a manner strictly away from Civilization and the persecution of his Freedom in an optimal environment make him a worthy individual who due to a family betrayal is serving multiple life sentences in the United States ... If we cite Stirner, Rand, Kaczynski, Nietzsche, Orwell, some scientists and other people in our communiques they are only for references, we do not have reason to be in agreement with all

¹⁰ Foreman may be referring to the article "The Aftermath of Megafaunal Extinction," Science, 2012. — Ed.

¹¹ V. Smil, "Global Energy: The Latest infatuations," *American Scientist* 99, no. 3 (2011): 212–19.

¹² See "Note Concerning the Road to Revolution" to read Kaczynski's thoughts on this edition. — Ed.

their lines and positions ... It has been said that we imitate the Unabomber; perhaps we have seen as strategic the action of [Kaczynski's moniker] the Freedom Club against scientific personalities in the United States in the 70s, 80s and 90s, and we have adopted this, but let it be clear that we have not imitated all his discourse in its totality, since as we said above, there are points that are plainly contrary to the positions of the FC.

In their sixth communiqué, ITS (2012) notes that their early writings (i.e. first and second communiqués) did in fact borrow from Kaczynski, but that after reflecting on their “poor interpretations” the group has “discarded [Kaczynski's ideas] and now for us they have no validity.” Despite what many regard as similarities in critique, and despite ITS occasionally quoting Kaczynski directly, ITS subsequently denies ideological connections. In the first communiqué as “Wild Reaction, ‘Kill or Die’ Group” (2014) the group writes:

We deny being followers of Ted Kaczynski ... we have indeed learned many things from reading Industrial Society and Its Future, the texts after this and the letters before this text signed by ‘Freedom Club’ (FC), but that does not mean that we are his followers. In fact our position clashes with Kaczynski's, FC's ... since we do not consider ourselves revolutionaries, we do not want to form an ‘anti-technological movement’ that encourages the ‘total overthrow of the system,’ we do not see it as viable, we do not want victory, we do not pretend to win or lose, this is an individual fight against the mega-machine; we don't care about getting something positive from this, since we are simply guided by our instincts of defense and survival.

Here one can witness RS's declared revolutionary intent, to “bring it all crashing down” while avoiding the trapping of movement building and conceiving of the conflict in terms of winners and losers. In this communiqué, after the group changed its name, RS goes on to further declare their ideological independence from the prominent critics of technology (e.g. primitivists) as well as the global anarcho-insurrectional milieu through which their communications are circulated and consumed. In their proclamation of non-affiliation, RS states:

Thus neither Kaczynski ... or any other with the (supposed) “primitivist” stamp represents RS. Nor do the Informal Anarchist Federation (FAI), the Conspiracy of Cells of Fire (CCF), Feral Faun, or any other with the “ecoanarchist” or “anti-civilization cell of ...” stamp. RS and its groups only represent themselves. (Wild Reaction, “Kill or Die” Group 2014)

Despite ITS/RS's insistence to the contrary, prominent anarcho-primitivist thinker John Zerzen, often spoken of as the “founder” of the movement, notes that “ITS group is real slavish to Ted Kaczynski” (Morin 2014). Zerzen

goes on to say that he does not believe ITS's methods will prove successful and that he is "turn[ed] off" by their usage of mailed explosives and their cavalier dismissal of human causalities (Morin 2014).

Sean Fleming:¹³

In thought and in action, Kaczynski is a lone wolf. His Manifesto articulates a theory or worldview that is peculiar to him and built from a unique combination of Ellul's, Morris's, and Seligman's ideas. Terrorism scholars have recently questioned 'whether it is time to put the "lone wolf" category to rest altogether', since alleged lone wolves are rarely as independent as they appear: 'ties to online and offline radical milieus are critical'. Yet, as I have shown, Kaczynski is unusual in that most of his ideological formation took place in a library, outside of any radical milieu. His association with radical environmentalists, who shared his disdain for modern technology, was a consequence rather than a cause of his radicalization. The Unabomber case shows that terrorists can emerge from a relative ideological vacuum, even if this is rare, and that the concept of the lone wolf might therefore be worth retaining.

Although Kaczynski began his anti-tech bombing campaign as a lone wolf, he has since become the leader of a pack. Just as he had hoped, his Manifesto has spawned an ideology – a public discourse of anti-tech – and inspired a cluster of anti-tech radical groups. Kaczynski is not just an extreme example of an anti-tech radical, but also the founder and lodestar of a new form of anti-tech radicalism.

In the immediate aftermath of his arrest, many of Kaczynski's followers came from the outer fringe of the green movement. One of his early

¹³ Perhaps "leftism" is not the most appropriate term to express what Ultimo Reducto refers to here. Everyone has some intuitive notion of what "leftism" is, but often these notions vary considerably from one individual to another and few are able to correctly and consistently explain their idea of "leftism." Furthermore, like a loony bin (and not by coincidence), *ni estan todos los que son, ni son todos los que estan* [Translator's note: This is a difficult-to-translate Spanish proverb that references populations of people in insane asylums. It is used to mean that a given set of elements is wrong, because in some cases some elements that are included aren't correct and some other elements that are correct are left out.] (certain incomplete notions or definitions, at least, do not cover all the forms of leftism really existing -for example, they consider leftism to be only MarxismLeninism, or only anarcho-syndicalism, or only the "antagonist" subculture, etc. and certain overreaching and vague notions and definitions might include currents that are not, in reality, really leftists -for example, certain kinds of Islamism-). All this complicates the definition and interpretation of the concept to which "Ultimo Reducto is referring to with the term "leftism." However, the point here is trying to express, clarify and grasp the concept without getting lost in discussions about what to call it. Let each denominate the term as he is best willing and able.

correspondents and confidants was John Zerzan, a prominent anarcho-primitivist. Another was Derrick Jensen, cofounder of the radical environmentalist group Deep Green Resistance. Kaczynski's alliances with green anarchists and radical environmentalists were tenuous and short-lived. He ultimately fell out with Zerzan, Jensen, and their respective movements for the same reason: they are committed to many 'leftist' causes that he considers to be dangerous distractions. Whereas Kaczynski's opposition to technology is stubbornly single-minded, Zerzan and Jensen see technology as only one facet of 'civilization', alongside patriarchy, racism, and exploitation of animals. Only years later did Kaczynski begin to attract a following that was committed to *his* brand of anti-tech radicalism. As he notes in his 2016 book, 'it is only since 2011 that I've had people who have been willing and able to spend substantial amounts of time and effort in doing research for me'. Coincidentally or not, 2011 is also the year that the Mexican terrorist group ITS emerged.

John Jacobi, a follower of Kaczynski, distinguishes three clusters of Kaczynski-inspired anti-tech radicals. First are the 'apostles' of Kaczynski, the *indomitistas*, led by his pseudonymous Spanish correspondent *Último Reducto*. The *indomitistas* devote themselves mainly to translating and analysing Kaczynski's writings. They comprise part of his 'inner circle', which also conducts research for him and operates the publisher, Fitch & Madison, which prints his books. The other two clusters are the 'heretics', who are inspired by Kaczynski's writings but diverge from him and the *indomitistas* about the finer points of doctrine, strategy, and tactics. One is Jacobi's own group, the wildists, which broke away from the more orthodox *indomitistas* to build a broader coalition of 'anti-civilization' radicals. The other cluster of heretics, which is my focus in this article, comprises ITS and its offshoots. Whereas the *indomitistas* and the wildists focus on developing and propagating anti-tech ideas, ITS is eager for dramatic and violent action.

Journalists and terrorism scholars have labelled ITS 'eco-terrorists' and sometimes 'eco-anarchists', comparing the group to Deep Green Resistance and the Earth Liberation Front. ITS itself uses the term 'eco-extremist', which invites these comparisons. However, ITS is not just a more bellicose variant of radical environmentalism or green anarchism. An analysis of the group's communiqués shows that its ideology is a distinctly Kaczynskian form of anti-tech radicalism.

Although ITS was influenced by radical environmentalism, the 'eco' in 'eco-extremism' is misleading. It does not refer to 'deep ecology'; ITS rejects the 'sentimentalism, irrationalism and biocentrism' that it sees in many radical environmentalist groups. Instead, the 'eco' refers to the group's ideal of

‘wild nature’, which accords a central place to human nature. ITS’s central concern, like Kaczynski’s, is that ‘human beings are moving away more dangerously from their natural instincts’. Adopting Kaczynski’s ‘bioprimitivism’, as I have called it, ITS argues that ‘the human being is biologically programmed ... through evolution’ for the life of a ‘hunter-gatherer-nomad’.

Although it shares the hunter-gatherer ideal with green anarchists, ITS vehemently rejects any such label: ‘we are not “eco-anarchists” or “anarcho-environmentalists”’. The group describes as ‘delusional’ those who ‘romanticize Wild Nature’ and ‘believe that when Civilization falls everything will be rosy and a new world will flourish without social inequality, hunger, repression, etc’. This thinly-veiled attack on Zerzan’s anarcho-primitivism echoes Kaczynski’s essay, ‘The Truth About Primitive Life’, where he sets out to ‘debunk the anarcho-primitivist myth that portrays the life of hunter-gatherers as a kind of politically correct Garden of Eden’. ITS follows Kaczynski in condemning green anarchism as ‘leftist’.

Kaczynski’s influence on ITS is difficult to miss. Many parts of the group’s communiqués are merely paraphrases of the Manifesto: ‘The essence of the power process has four parts: setting out of the goal, effort, attainment of the goal, and Autonomy’. But the depth of Kaczynski’s influence on ITS is difficult to appreciate without knowing the origins of his ideas. ITS cites Morris’s *The Human Zoo* in support of its claim that ‘the Wild Nature of the human being in general was perverted when it started to become civilized’. The same communiqué later echoes Morris without citing him: ‘it is totally abnormal to live together with hundreds of strangers around you’.

ITS explicitly acknowledges some of its debts to Kaczynski. But this has not been enough to prevent misconceptions, because Kaczynski himself has also been lumped in with radical environmentalists and green anarchists. It is necessary to understand Kaczynski’s distinct constellation of concepts in order to appreciate the ideological distinctness of ITS. The group uses his signature vocabulary: the technological system, the power process, surrogate activities, leftism, feelings of inferiority, oversocialization, etc. This is not the vocabulary of radical environmentalism or green anarchism. With the exceptions of ‘civilization’ and ‘domination’, ITS explicitly rejects the ‘leftist’ vocabulary of anarchism: oppression, solidarity, mutual aid, class struggle, hierarchy, inequality, injustice, and imperialism. Further, as I have already shown, even the ‘green’ parts of ITS’s communiqués have been filtered through Kaczynski. ITS is not an eco-terrorist or green anarchist group, but a novel kind of *anti-tech* terrorist group. The group’s ideology is distinctly Kaczynskian, genealogically and morphologically.

The *modus operandi* of ITS is not typical of radical environmentalists or green anarchists, who tend to be saboteurs or ‘monkeywrenchers’. Environmental radicals almost always target property rather than people. ITS, on the other hand, declares that it ‘is not a group of saboteurs (we do not share the strategy of sabotage or damage or destruction of property)’. Instead, as Kaczynski did, ITS aims to kill or maim people, such as scientists, whose surrogate activities propel the development of the technological system.

Anti-tech radicals and environmental radicals have different attitudes towards violence in large part because they have different ideals. As Bron Taylor argues, environmental radicals share ‘general religious sentiments – that the earth and all life is sacred – that lessen the possibility that [environmental] movement activists will engage in terrorist violence’. As he correctly points out, there is ‘no indication that Kaczynski shared the sense, so prevalent in radical environmental subcultures, that life is worthy of reverence and the earth is sacred’. Kaczynski is instead committed to the ideal of wild nature, which serves to naturalize violence. He argues, and ITS concurs, that ‘a significant amount of violence is a natural part of human life’. Part of what it means to be a wild human being is to be a violent one, unencumbered by the fetters of civilized morality.

The ideal of wild nature helps to explain anti-tech radicals’ target selection. For Kaczynski and ITS, living things have value only insofar as they are wild, and to be wild is to be ‘outside the power of the system’. When human beings become instruments of the system, they forfeit any value or dignity that they might have had. Scientists and technicians are permissible targets of violence because they have betrayed their wild nature, and they are desirable targets because they symbolize the technological system. Whereas environmental radicals’ reverence for life tends to steer them away from violence, towards destruction of property, anti-tech radicals’ ideal of wild nature serves to justify their violence.

Yet ITS diverges from Kaczynski about the purpose of violence. For Kaczynski, violence is primarily a means to overthrow the technological system. ITS, on the other hand, argues that Kaczynski’s proposed revolution is ‘idealistic and irrational’. Not only is this revolution bound to fail; Kaczynski also falls into the trap of leftism when he models his revolution on the French and Russian revolutions. For members of ITS, violence is not a means to revolution, but a way to affirm or reclaim their own wildness: ‘the attack against the system ... is a survival instinct, since the human is violent by nature’. Kaczynski condemns ITS and accuses the group of misappropriating his ideas. He hurls the charge of leftism right back at them, along with a diagnosis of learned helplessness: ‘The most important error that ITS commits is that they express, and therefore promote, an attitude

of hopelessness about the possibility of eliminating the technological system'. This attitude of hopelessness gives ITS a more vengeful and nihilistic character than Kaczynski himself.

A short thread

Source: <x.com/rechelon/status/1799516136645484935>

nihilistgf: book a friend gave me. no I'm not pro-ITS.

Anon: Counterpoint: you are an eco-fascist who has promoted ITS while pretending not to and approve of Atassa

nihilistgf: atassa and ITS are not eco-fascist. they're eco-extremist. I call myself an eco-extremism because it has a lot to do with indigenous resistance. cope.

This Desiring-Machine Kills Fascists: To be clear, ITS's "indiscriminate attack" is code for rape. It's a deeply misogynistic collective and anyone looking approvingly on at them is not a friend of anarchists

ITS and its english language press office Atassa are not technically "fascist" because they're not *nationalist*. They're just hyper reactionaries who want to exterminate everyone on the planet, delight in misogyny, praise nazis, and had an alt-right trad cath spokesman/editor.

ITS was basically just a Mexico City crew that weren't indigenous and tried to murder anarchists, plus, in the US, a trad cath Berkeley graduate lawyer who married a vivisectionist and hosted all their content on the Atassa site back before he turned it into a journal.

Like the Mexico City ITS crew, Arturo was not indigenous in the sense of involved in any tribe or community, etc, he just had some genes and fetishized that on occasion.

He was also, and this is important, a snitch who snitched on anarchists to the FBI

<https://web.archive.org/web/20200601041750/https://325.nostate.net/2018/11/16/eco>

Arturo *was* Atassa. He created the website and popularized it, pretty much exclusively as the press office of ITS, then later he got together a crew (of mostly white contributors like the rich WASP John Jacobi) and edited them together in a print journal version of his site.

What NihilistGF is attempting to do with the "ITS is just ecoextremism which is just indigenous resistance" is a long chain of blurrings. This turns on the fact that when Arturo published the print journal version of Atassa he included an article cheering rape of colonizers.

Later, when there was anarchist blowup over the absurdity of LBC publishing Arturo and his Atassa website as a journal, they crafted the second issue with a pinwheel design on the cover taken from indigenous americans in the most immature “this’ll get them” level provocation.

Arturo is mexican and not a member of any tribe that used said pinwheel designs, plus the tribes in question explicitly retired and forbid use of the swastika/pinwheel after world war 2. Again Arturo is a trad cath. He’s fucking catholic!

It’s completely absurd to frame ITS and Atassa as being about “indigenous resistance”, they’re anarcho-primitivists who loudly and publicly ditched anarchism for nihilism, siding with Ted K over John Zerzan. Any reference to indigenous struggle was adopted opportunistically.

Ted explicitly rejected anarchism on the grounds that he believed that a non-industrial society would be patriarchal and warring, and that this was good. John clung to basic anarchist values against hierarchy. ITS were ideological primitivists who followed Ted in this.

ITS encouraged people to blow up nuclear plants and “kill 200 million in your local bioregion” as part of a campaign to exterminate humans. That kind of edgelording has absolutely nothing to do with indigenous struggles against settler colonialism and it’s gross to pretend so.

Now a whole fucking grip of edgelords in the US *loved* ITS, fucking adored it. The “anarchist” podcast Free Radical Radio that was prominent back then and run by the rich white dude Rydra pumped out endless praise for them and their “nihilism.”

In this original context “nihilism” was explicitly chosen as a term to signify a rejection of anarchism and break from it. Like ITS, over time Rydra repeatedly denounced anarchists and presented his nihilism as a rejection of anarchism.

While in Mexico City, ITS planted a bomb at an anarchist infoshop and planned to gun down an anarchist prisoner, in the US a bunch of rich white dipshit edgelords masturbated furiously to their provocations like endorsing murdering women for sport.

These US edgelords were completely unprepared for any sort of consequences, and after some Seattle insurrectos threw hands against them and the UK insurrecto journal 325 doxed Arturo and promised to murder him, they all fell apart trying to find excuses.

LBC tried pushing the line that Atassa was unrelated to ITS (utterly preposterous), and was just a journal that “raised interesting points that anarchists should engage with.” In this backpeddling the article praising indigenous warriors raping colonizers got held up.

In this desperate twisting, folks tried to reframe the entire issue as one of “do we abet violence and collateral damage in struggle?”

In this they tried to rally a bunch of older anarchists still smarting from the ideological nonviolence wars of the late 90s.

Basically LBC could go to a bunch of their genx and boomer connections and explain the backlash they were getting in terms these disconnected olds could get and would sympathize with. “The dastardly pacifists are back!!!”

Instead of being frank about the ITS/Atassa ideological platform of killing all humans, warring with anarchists, and endorsing rape and femicide as a return to “wild nature,” the shit got reframed as “some indigenous radicals said we should use violence and people hate that.”

But the problem is of course that while LBC’s middle aged book peddlers were terrified of drawing real fire and getting punched or even bombed and murdered by anarchists like we would respond to ITS directly, a bunch of younger edgelords didn’t want to retreat at all.

So the LBC line that Atassa doesn’t have anything to do with ITS got ignored, folks continued distroing ITS communiques (Atassa’s translations, but also it’s been widely claimed that Arturo just wrote his own communiques as ‘ITS’).

But of course occasionally they need to throw out defenses online when they get too much heat.

This creates a situation wherein the bullshit defense used to reframe Atassa as *not* ITS is now applied just as opportunistically to backpropagate into a defense of ITS.

Anyway, 325’s line on ITS/Atassa was shared widely by insurrectionary anarchists: It’s that ITS/Atassa should be ruthlessly murdered by anarchists and violence should freely be used against their defenders. This is not a pacifist position.

On eco-extremism and anarchy

Source: <autistici.org/cna/2016/05/23/chile-comunicato-del-branco-di-sabotatori-heriberto-salazar-fai-fri/>

We really do not want to stand in firm defense of every soul that sets itself up as an enemy against the state and every form of government (over man, animals and nature). We believe that — and many anarchist and other prisoners agree with this — not everyone can be friends and that it is not possible to develop a relationship with everyone.

More specifically, we want to encourage discussion about direct action groups that reject anarchy as a political goal and as a daily struggle. These are the so-called eco-extremists who relentlessly shout “death to anarchy”, rejecting their own origin and formation, an idea that nourished them through a fraternal relationship with the urban guerrilla fighters of today and the past, only to later move on to emphasize certain aspects that have always been part of anarchist milieu and its struggle for the liberation of man, our animal brothers and the earth.

Far from the constant tension that we who want and fight for a life of anarchy want to maintain, a certain trend that is considered eco-extremist throws in the trash the libertarian ideal that manifests itself through the insurgent struggle.

One small group, tied to a certain imaginary of “symbolic” peoples and to musical/alternative and university environments (they reject the university they still attend... and study what they hate so much), hates the human animal and therefore sees the enemy everywhere.

In that “wild fog”, caused by their own smugness and messianism, they include the last worker, the victim of this crappy exploitative system, among their enemies. They talk about killing workers, farmers or any other person who, let’s be honest, the discussion of our relatives over the years has not considered worthy interlocutors. Although we are accomplices, the enemy is someone else, and that is quite clear to any anarchist, libertarian, punk or nihilist. But for the eco-extremists, it is not so, in an attempt to be avant-garde and even trendy.

That is why we call on individuals and coordinated affinities who are fighting today to continue fighting for the liberation of all living beings and the earth, without losing sight of the political aspect of our actions, and the real enemies and targets.

Seven years since the death of Mauricio Morales, we salute the group “Manada de Choque Anarquico Nihilista” for its sober and insurgent action during the protests of May 1 and April 21, when they once again proved the success of coordination among affinities. In order to be clear and refute the “Maldicion Ecoextremista” page, which tried to present these acts as an act of irresponsible urban guerrillas, in order to appropriate libertarian activity!

We salute the fighters of the Paulino Scarfó Revolutionary Cell (FAI-FRI), who wrote in their statement of responsibility for the attack on the Santander Bank in La Cisterna: “ *The attack has its ethics and is not indiscriminate; we have embraced the arson attack and we no longer support the ideas that are trying to spread .*”

Pack of Saboteurs Heriberto Salazar (FAI-FRI)

There's Nothing Anarchist about Eco-Fascism

Source: <<https://itsgoingdown.org/nothing-anarchist-eco-fascism-condemnation/>>

“When horror knocks at your door, it’s difficult to hide from. All that can be done is to breathe, gather strength, and face it....I shared news of the woman found in University City. From the first moment, I was angered and protested the criminalization of the victim. The next morning I woke up to the horror and pain that she was my relative.”

– Statement from the family of Lesvy Rivera to Mexican society

“[W]e take responsibility for the homicide of another human in University City on May 3rd....Much has emerged about that damned thing leaning lifeless on a payphone... ‘that she suffered from alcoholism, that she wasn’t a student, this and that.’ But what does it matter? She’s just another mass, just another damned human who deserved death.”

– 29th Statement of Individualists Tending Toward the Wild (ITS)

Some things shouldn’t have to be said, but as is too often the case in this disaster of a world, that which should be most obvious often gets subsumed to the exigencies of politics, ideologies, money, emotion, or internet clicks. The purpose of this piece is to condemn the recent acts of eco-extremists in Mexico and those who cheer them on from abroad.

This critique does not aspire to alter the behavior of Individualists Tending Toward the Wild (ITS), Individualities Tending Toward the Wild (ITS), Wild Reaction (RS), Indiscriminate Group Tending Toward the Wild (GITS), Eco-extremist Mafia, or whatever they will change their name to tomorrow. Like any other deluded, sociopathic tyrant, these individuals have declared themselves above reproach, critique, reason, or accountability. They have appointed themselves judge, jury, and executioner; the guardians and enforcers of Truth using a romanticized past to justify their actions. As absolutist authoritarians, they have constructed a theoretical framework that, while

ever-shifting and inconsistent, somehow always ends with a justification for why they get to hold a knife to the throats of all of humankind. In short, they think and act like the State.

There was a discussion about ITS on an *IGD* podcast from last December. For those unfamiliar, ITS and its spawn of affiliated acronyms publicly emerged in 2011 as an anti-civilization grouping that blew things up and tried to kill people they didn't like, primarily university research scientists. In early statements, they spoke of favorably of anarchism and revolution. Over the course of just a few years and various groupings and splittings, they adopted a firm stance of rejection and reaction. They disavowed anarchism, revolution, leftism, or anything related to the social or human. They proudly adopted the mantle of eco-terrorism and proclaimed their disgust for the likes of John Zerzan or Ted Kaczynski, who they previously praised.

Unsurprisingly, through their increasing isolation and reactivity, ITS has turned into just plain murderers. (Or at least they'd like you to think so.) "The human being deserves extinction" and "We position ourselves against the human being, without caring about the use of civilization to carry out our acts" is now their creed. As such, in the State of Mexico, ITS claims it went out hunting for loggers to kill, but not finding any, they decided to ambush, shoot and murder a couple on a hike on April 30th, because, "We just want it to be clear that no human being will be safe in nature." They suggest humans should instead stay in the cities, but then claim responsibility for the May 3rd femicide of Lesvy Rivera at the National Autonomous University of Mexico, stating, "Not even in your damned cities will you be safe." The ITS phenomenon, while beginning in Mexico, has spread throughout much of Latin America, with groups using the ITS name claiming responsibility for attacks – including attempts at the mass murder of ordinary, working-class people – in multiple countries.

Understanding what led to the creation and evolution of groups such as ITS is a topic best addressed in a separate piece. As mentioned above and in the podcast, they find their roots in the insurrectionary and anti-civilization streams of anarchism. Mexico in particular has a vibrant clandestine, direct action insurrectionary movement. Mexico is also where 99 percent of all "crimes" go unpunished, where narcos, police, military and politicians either work hand in hand or kill one another and anyone else nearby in the tens of thousands. They also team up against aboveground social movements – repression being the only language the Mexican state speaks. It is not difficult to understand, in a country being gutted by neoliberalism, where appeals to the state are met with batons and bullets, where anarchists are already blowing things up, and where everyone else with an agenda seems to be killing people and getting away with it, why a group like ITS would emerge.

Yet at the same time in Mexico, aside from a few websites, ITS and its actions have not been praised or embraced by anarchists or anyone else. This likely also contributes to the escalating violence on ITS's part – no one really pays attention to them except to dismiss or condemn. At least one anarchist group has publicly stated its belief that ITS is a state-run operation, designed to delegitimize the broader radical movement.

It seems more likely that ITS is a genuine group that believes what it says. Whether it has actually done what it says is another matter. Some attacks have certainly occurred, but a curiously large number of ITS attacks fail or go unmentioned anywhere except in their statements. They claim this is due to the police and media conspiring to not call attention to their acts. Yet the typical insurrectionary anarchist direct action is almost always reported with precise information, photos showing the damage caused, and can be verified in corporate media reports. How ITS is so much worse than other direct action groups at carrying out direct actions is an unanswered question. That ITS killed any of the three people they recently claimed to have killed is unlikely. The statement shares no details of the killings and only includes a photo taken from Facebook. Especially with regards to the femicide of Lesvy Rivera at UNAM, ITS is likely seeking to get a free ride on the coattails of a tragedy that has generated considerable action and coverage amongst the anarchists and radicals they hate so much yet whose attention they so desperately seek.

So do we anarchists give it to them? Admittedly, even the existence of this piece is a capitulation to their attention seeking. But worse are those that promote, even implicitly, the actions of ITS. Sites such as Anarchist News, Free Radical Radio, Atassa, and Little Black Cart. The “a retweet does not constitute endorsement” excuse doesn’t fly here. As ITS says, “We’ve been warning you since the beginning.” And now they are claiming to have killed three humans simply because they were human. Will ITS fans continue to distribute the propaganda of a group that by its own admission is not only *not anarchist*, but proudly terroristic, rejecting of all ethics, morals, or principles of liberation? They solely exist to kill people. It should not have to be explained why such a position does not merit support. Of a less pressing matter is the way in which ITS conceives of “nature” is itself a social and civilizational construct. Their (already constantly shifting) ideological basis for murder falls apart under any real scrutiny.

Some defend the publications and discussions (or trolling, as it were) they engender because while perhaps they don’t agree with killing people, the analysis ITS presents is intellectually stimulating and worthy of consideration. If ITS did kill her, Lesvy Rivera can surely appreciate that her brutal murder was found intellectually stimulating for some. It is the peak of colonial, racist arrogance that those from the safety of their U.S. or European homes feel comfortable debating the finer points of an ideology that amounts to brown people killing other brown people. We eagerly await the publishing on these sites of ISIS or al-Qaida communiques due to their intellectually stimulating critiques of U.S. imperialism in the Middle East.

The only support ITS should be receiving from anarchists is encouragement that they practice their dedication to human extinction on themselves. Just as the fascists of ISIS are meeting a true anarchist response, the fascists of ITS should be called to task, rather than coddled.

Eco-extremism and the indiscriminate attack

Source: <web.archive.org/.../325.nostate.net/.../>

“And Severino Di Giovanni’s actions were never violent for the sake of it. They were never indiscriminate or striking at anything at all in order to create a tension that would favour power and its politics of consolidation. They were always guided by a precise revolutionary reasoning: to strike the centres of power with punitive actions that find their justification in the State’s violence, and which were aimed at pushing the mass towards a revolutionary objective. Di Giovanni always took account of the situation of the mass, even though he was often accused of not having done so”

— JW & AMB, *Anarchism and Violence: Severino Di Giovanni in Argentina* by Osvaldo Bayer, Elephant Editions

I don’t represent any organisation or group, I am writing this from my personal perspective, as nihilist-anarchist of an anti-civilisation insurrectional tendency. I have carried out direct action in defense of the Earth, so the state and society would probably view me as an “Eco-Extremist,” although I’m unconcerned with this term as it’s become a sect-like ideology of the Church. I haven’t written before about the Church of ITS Mexico or the idiot pseudo-nihilist(s) in Italy because over the last few years they clearly became reactionary and more akin to far-right “black” groupscules.

It has been some years since the Church of ITS Mexico said something like that “the FAI doesn’t represent us,” that the “CCF doesn’t represent us”... Well I can’t recall anything like that being said by CCF or FAI or anyone else in the first place, so why is the ITS Church still issuing sermons about it now and why have they not embarked on a one-way trip far away from the black anarchy they proclaim is irrelevant and gone off into the nihilising abyss like they said they would, leaving all us anarchist nuns alone?

It was obvious to foresee what this groupscule and their related neurotic fanclub was going towards—cultish green authoritarianism, paganism, irrationalism and indiscriminate attacks—and haven’t we seen this before? Although the Church of ITS Mexico

with its tiny few self-described eco-extremists and pseudo-nihilists like to pose as the *most radical* and *truly anarchistic* and *chaotic latest trend* that is *very different* and *abyssal*, far from anything that goes before, they are just another offshoot of an old idea with rotten roots in soil and blood, either that or they just have shit for brains.

The murders that ITS Mexico has done in their current phase and the words that accompany the actions are those of one of the enemies, no equivocation—it doesn't matter at this point what justifications and philosophical manipulations they use to explain how they became irrationalist fanatics. Those who indiscriminately attack regular people are authoritarians and would-be dictators, mass killers, and they and their fanclub of sychophants brag and boast as such behind a myriad of regressive ideas.

Reactionary, nationalist, neo-nazi, racist and pagan networks converging inward autonomously in Europe at least, is nothing new, because for decades we can find their groups dwelling in a spectrum of misanthropic nihilist-right planes of thought, often informed by various degrees of biocentrism, traditionalism, green authoritarianism, anti-humanism, anti-progress etc. It's easy to find their blogs with old runic indigenous obscurantism, glorification of mass murder, death camps, genocide imagery and glorification of weapons and killing.

In the UK in the 90's, a tiny few anarcho-primitivists also flirted with this eco-fascist thinking which had seeped in amongst "when animals attack"-type stories and news-clippings about earthquakes and plagues, in the newspaper "Green Anarchist." The idea was that indiscriminate attacks and/or mass killings of people are justified as "war against civilisation/society." There was a split in the newspaper "Green Anarchist" about the topic ("The Irrationalists" by Steve Booth). One of the editors left and started an eco-fascist paper. Green Anarchist continued to provide lists of direct actions which were taking place and had articles and reports. The controversy came during an operation by the state against the earth and animal liberation movement which was strong at the time (so-called GANDALF operation). The state spent millions of pounds trying to shut GA down and one of their editors was jailed. Looking back on the text that started the affair it is nothing in comparison to the shit that ITS Mexico have been spewing for the last few years, a hex upon them.

Indiscriminate killings and attacks only have authoritarian outcomes, the methods are elitist and fundamentally anti-individualist. The acts end up only entrenching power and the existing strategy of the techno-industrial system. It is a very dominant and conditioned human behaviour of mass psychology to harm or kill indiscriminately. It's what humans do to each other all the time, it gears the machine and it's certainly not an anti-civilisation act or one that cuts radically to the social system. Each person is just pathologically programmed under the stress of society—by religion and hierarchical orders—socially coded to distrust, hate, abuse and kill others. I want something different; it enlightens me as an anarchist and a nihilist—an individual defending their life and experience of the world. Discrimination of thought, choice and action.

The last couple of months in UK there have been three spectacular indiscriminate killings: the Manchester suicide bomb against a crowd of mostly (very) young women at an Ariana Grande concert, the London Tower Bridge suicide van and knife attack, both by those inspired by Daesh, who ITS Mexico and their adoring flock seem to idolise and fetishize now, much like the rest of the misanthropic and nihilist-right; and there also was the Grenfell Tower fire, which killed unknown scores of people, arguably a massacre which had an unavoidable class basis and which is a social murder. But who cares, society is the enemy, right? In the ultra-moralising Church of ITS Mexico where they issue regular sermons you don't have to think about things too much.

The Church and the sheep have already rejected anti-authoritarianism and "liberation," so such concepts do not illuminate them, by their own admission, opting for a direction where from their friendless epic-loser script they endlessly preside over their dastardly marginalisation of anarchy and the extermination of humanity in the lowly and minor acts they have recently been taking responsibility for.

Their critique of the anarchist movement is both nothing new and yet deluded with ignorance about many facts and yet they want to use the names of Severino di Giovanni and Mauricio Morales to cover their cowardice. I'm no stranger to criticising civil anarchism but the Church of ITS Mexico have remained so boringly obsessionate in their anti-anarchism discourse that it is obvious that they don't know when they are banging a dead horse. Their desperate clinging to the anarchist movement—now issuing death threats against anarchists that bother to publically criticise them—is indicative of individuals who, claiming to have shot dead a hiking couple from the bushes and choked a woman to death in a phone box at university, at heart don't appear to feel they have any power in their own lives and obviously spend too much time on the internet worrying what others think of them whilst taking their pain out on other people. Sounds like quite a few civilised people I know except some don't see the results of their actions. I mean, haven't ITS actually killed some people, why are they crying about it on the internet? As the saying goes, they *"gotta lot to learn"* as a terrorist group. Hearing that ITS apparently got *"tired of waiting for 325's critique"* is a sloppy, revealing and highly amusing admission of how much they actually do care about being the subject of dialogue and discussion amongst an (unruly and anarchic) humanity they hate!

To go back to why I haven't bothered to write anything before now about ITS recent experiments in serial killerdom, I think just simply I had better things to do and my comrades were debating whether or not it was even worth making any critiques since, we figured, we don't make critiques of any other random serial killers?! Why would we bother contributing to the fiction that ITS are actors with any validity by commenting on their wanton acts of pointless and sadly untargetted murders? And nor are they anarchists, saying for many years to the anarchist movement internationally that they were not interested, and were even hostile to concepts such as prisoner solidarity, internationalism, anarchist revolution (so leftist!) and so on and to just leave them alone. So we did... And so why are they now chasing after our views

and after the opinions of FAI/IRF cells, anarchist-insurrectionalists, blogs of counter-information, etc. when they have been rejecting them for years and years? Why is their fanclub sending us their ridiculous texts and claims? To remind us they exist in anger and frustration? And who cares? I don't care but the Church of ITS Mexico evidently does care and can't bear that somehow others have a path separate to theirs. It shows up their blatant isolationist narcissism and sociopathic psychosis.

Consequences...

Reading the nationalism, racism and homophobia evident in the recent communiques of ITS, a new pathological, repetitive, singular voice trying to lash out vainly is emerging. I'm sure they will respond with a threatening old testament sermon; or is that an earthquake coming?!

Although the Church has given many sermons where they pontificate about feeling superior, laughing in fantasy, it's striking how much they reveal their silly obsessions, psychological loops and regressive traits in public. This key weakness is certainly a sign of the regressive nature of narcissistic authoritarians, who as individuals display, collectively, unintegrated psychologies, lacking in empathic intelligence and emotional centering.

Maybe in the age of the internet the ITS Church did not know there was a far-right of maladjusted pagan eco-religious fanatics in Europe already? Join and share your savage racist rituals of purity, blood and black metal records! The Pope of ITS Mexico should issue an immediate elect order to direct the faithful sheep to send their bible of testaments to those web-crazies of the nihilist-right and failing that, "*New Scientist*" magazine or some such other shit as they seem to be obsessed with, instead of bothering those nasty sectarian anarchist nuns who have excommunicated them. Wouldn't want you to get upset and send in the inquisition after killing some women.

After banging their keyboards on anarchists for running around the world "intervening" in every topic under the sun other than killing random individuals in the name of some wacko gods, they offer out an invitation to intervene in Mexico and have it out with them! Why would anyone bother? I certainly shall stay here in my own native indigenous lands and get on with my life. If they feel that strongly, why don't they come here? We have gangs and murders here too, not just the Queen and Cricket. I think that the ITS in "Church of ITS Mexico" stands for "*Idiots Tending toward Stupidity*." Who knew that the Church was so linked to the "Mafia"? Pretty hilarious really, as it fits into their displaced wish to project a "strong" or "hard image"; "ruthless," "organised," "murderous" etc. The reality appears that they have dropped any individualist or nihilist-egoist values, any pretense of ecological struggle and are rather weak, conduct easy (basically cowardly), opportunistic, random and valueless actions and come across like a bunch of wet bananas with a hurting self-obsessed sociopath as leader, blowing their mouths off in public. So what's new?

The idiots that we know of in this “Eco-Extremist Mafia” are all wee dafties, like the pseudo-nihilist fool in Italy¹ and this Greek robot of chaos, Archie the Scot², who are exactly the same types, socially disfunctional mal-geeks, arseholes basically and losers without a sense of humour, looking to play the bigman. They definity don’t have a sense of humour, but we guess you have to have some “human” values to have a decent sense of “humour” never mind “humility.” I mean, some of the actions we just laugh at, you are a joke, Church of ITS Mexico and faithful flock! Even the killings, you are embarassing yourself! Like a shit on a corpse! And you want the names of Severino Di Giovanni and Mauricio Morales to cover your shit?! Fuck off and die! You are a joke!! Ha Ha Ha!

I shit on your pagan gods!

Love to all the friends and comrades; imprisoned, out and on the run!

L

¹ There is another trait that is also probably common to virtually all forms of leftism: the belief in the possibility of attaining some kind of utopia, i.e., a world or at least a society that is ideal, harmonious, with no conflicts or problems. Most, if not all, forms of leftism have as their goal the attainment of some kind of utopia. However, the belief in ideal and perfect worlds and societies, the desire of attaining them and embracing them as goals to pursue is not necessarily exclusive to leftism.

² Techno-industrial society must be fought, not reformed, because it inevitably undermines the autonomy and functioning of non-artificial systems, i.e., the wild Nature, both external and internal to humans. To investigate this issue, see, for example, Industrial Society and Its Future, Freedom Club.

— Essays —

History and Impact of Earth First!

For wild nature

<https://www.forwildnature.org/earth-first/history-and-impact-of-earth-first/>

John Jacobi

December 21, 2019

Genesis

Many workmen

Built a huge ball of masonry

Upon a mountaintop

Then they went to the valley below,

And turned to behold their work.

“It is grand,” they said;

They loved the thing.

Of a sudden, it moved:

It came upon them swiftly;

It crushed them all to blood.

But some had opportunity to squeal.

STEPHEN CRANE

The founding of Earth First! is steeped in myth. In the canonical story, five long-term conservationists and an old yippie drove a rickety Volkswagen into Mexico’s Pinacate Desert. Their names were Dave Foreman, Howie Wolke, John Davis, Ron Kezar, Bart Koehler, and Mike Roselle, and they were seething with righteous rage over the Forest Service’s recent RARE II legislation. They were determined to fix it.

In 1967 the Forest Service began inventorying the National Forest System to identify which roadless areas were suitable for wilderness designation, as defined by the recently-passed Wilderness Act. They called this project the Roadless Area Review and Evaluation, or RARE I. Finally, in 1972, the Forest Service concluded the review by noting that 56 million acres of land were suitable for wilderness designation, but it only recommended 12.3 million of them. Fortunately, the Sierra Club sued, and the courts ruled that the evaluation procedure did not comply with the National Environmental Protection Act’s assessment procedures. Thus, the Forest Service abandoned RARE I and began a new project, RARE II, in 1977, under the Carter administration. This time, it found 62 million acres suitable for designation and only recommended 15 million. Howie Wolke explains that this opened “most of the unprotected roadless wildlands under [the U.S. Forest Service’s] jurisdiction, except for a relatively few high altitude enclaves (wilderness on the rocks) ... to road building, logging, mining, and

other kinds of mischief incompatible with our vision of how things ought to be on the public's land." It was a devastating blow to conservationist morale, which had just been boosted 13 years prior by The Wilderness Act, then again in 1973 by the Endangered Species Act.

Worse, conservation organizations weren't fighting RARE II effectively. The extractive industrial lobby was strong. In response, Rik Scarce writes, "... the environmentalists reasoned that the only way to best the behemoths was to become one. But this entailed accepting the lowest common denominator, the weakest positions of the bunch, to keep everyone together." Conservation thus became professionalized, and the grassroots wilderness advocates who had helped spearhead previous environmental legislation weren't happy about it. Foreman writes that conservationists became "less part of a cause than members of a profession." Furthermore, public participation in the debate decreased. An article in the *Journal of Forestry* reads, "Those sought-after folks, those moms and pops who give their disinterested opinions on wilderness, are as mythical as unicorns." All this was the topic of conversation in the six-man excursion to the Pinacate. Most of the group were intimately involved in the debate. Bart Koehler and Howie Wolke were representatives for the Wyoming Wilderness Society; Foreman a conservation lobbyist and long-time grassroots conservationist; Kezar an employee for the Bureau of Land Management. They believed that a sufficient response to their situation would have to come outside the mainstream. They spoke of a vast ecological reserve system, recommended the idea of "rewilding" — restoring lost tracts of land to wilderness — and they based their ideas on the budding science of conservation biology, spearheaded by eminent scientists like E. O. Wilson. Wolke writes:

Suddenly, Dave blurted out the words Earth First! I liked it and we had a name. By then, our ranting had roused Roselle from his stupor and he, too, was getting excited. Then an idea for a logo came to mind and I said, How about a clenched green fist in a circle with the words Earth First around the perimeter? Before we could say Ayatolla Khomeni, Roselle had drawn the logo and passed it up front where it met our hearty approval (the exclamation was added later). Earth First! was born.

Formation

*There is pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society where none intrudes,
By the deep sea, and music in its roar:
I love not many the less, but nature more,
From these our interviews in which I steal
From all I may be, or have been before,
To mingle with the universe, and feel
What I can ne'er express
yet cannot all conceal*

LORD BYRON

Dave Foreman became the prophet and leader of the new movement, and it showed in the character of early Earth First! As Martha Lee writes, “The roots of Earth First! are closely linked to Dave Foreman’s political history and his experience in the environmental movement.” Early in his youth, Foreman was a conservative: he supported the Vietnam War; for a period of his life strongly opposed communism; campaigned for Barry Goldwater; and was the New Mexico state chairman of the Young Americans for Freedom. But after a brief experience at the Marine Corps Officers’ Candidate School, he abandoned Republican politics, describing himself at the time as “a Jeffersonian running head on into the military state.”

In 1969 he visited the Sierra Club office in Albuquerque and shortly after began campaigning for wilderness. Lee continues:

A poster he had produced for the Gila Primitive Area Reclassification Campaign caught the attention of the Wilderness Society, and he began working for them in January 1973, first as their Southwestern issues consultant and later as their Southwestern representative. In 1976, he was New Mexico state chairman of Conservationists for Carter, and late the next year he moved to Washington as the Wilderness Society’s chief Congressional lobbyist.

After RARE II, Foreman left his job as a lobbyist and was hired again as the Wilderness Society’s Southwestern representative, in part working with regionally-focused groups like the eco-anarchist Black Mesa Defense Fund. During this time he came face-to-face with what came to be known in U.S. environmental history as the “Sagebrush Rebellion.” Although he had previously worked with ranchers to strengthen support for wilderness, ranchers started sending him death threats, demanding that public lands go first to the states and then entirely to private owners. “For Foreman,” Lee writes, “the Sagebrush Rebellion was a personal and political betrayal. ...[It] provided clear evidence that the people who would be his true political allies were those who, like him, held wilderness to be the fundamental good and derived their morality and actions from that principle.”

Foreman was also heavily indebted to the works of Edward Abbey, a conservative desert ecoanarchist who thoroughly opposed industrial development of the West. Abbey is best-known for two works: *Desert Solitaire*, a reflection on his time as a ranger in the National Parks of Utah, and *The Monkey Wrench Gang*, a fictional account of a cantankerous group of rednecks who sabotaged the businesses and machinery destroying the wild lands of the West. The overall story of the latter book was inspired by a group active in the 1970s and known as the “ecoraiders.” The group, composed of teenage high school students, sabotaged billboards, drainpipes, smokestacks, and other industrial equipment after reading Abbey’s *Solitaire* and a widely distributed manual entitled *Ecotage*. For example, on April Fool’s day in 1972, the ecoraiders dumped hundreds of non-returnable bottles and cans at the entry of the Kalil Bottling Company office. Later, a 1973 report by the Southern Arizona Home Builders Association claimed that the group had cost them about \$180,000 in damages. It was later revealed that the cost was higher, but the report published a lower number to prevent copy-

cats. One member, 17-year-old John Walker, became known nationally as “The Fox,” and in 1973 allowed the *New York Times* to published a four-page spread of the group members in ski masks. By that time, the damage caused by the ecoraiders had reached about \$2 million, and they were arrested by the end of the year.

Although the ecoraiders were the basis of Abbey’s story, the characters within were based on conservationists he personally knew. The infamous Hayduke, for example, was Abbey’s caricature of the conservationist Doug Peacock, known primarily for his work on grizzly bear protection. And the ex-mormon Seldom Seen Smith was based on Utah native and river guide Ken Sleight. This ragtag group came to be intimately involved in the early Earth First! Movement, solidifying the Earth First! stance on “monkeywrenching,” or eco-sabotage: Don’t officially condone it, but don’t condemn it either. Wolke explains the effect:

Although in the early 80s *Outside Magazine* labeled us The Real Monkey Wrench Gang, in the beginning there wasn’t much discussion of monkey wrenching, other than our refusal to condemn it so long as it was non-violent toward life. But that was enough for the media to create a lasting association between EF! and ecological sabotage. Dave Foreman’s 1985 publication of *Ecodefense, A Field Guide to Monkey Wrenching* and my own arrest and six month incarceration in 85 and 86 for eco-sabotage did little to allay the impression.

Three weeks after the journey to the Pinacate, the group hiked into New Meixco’s Gila Wilderness — the world’s first officially designated wilderness area — to erect a plaque in honor of the Apache warrior Victorio, who had destroyed a mining camp in defense of the mountains. An early member explained to the media, “We think the Sierra Club and other groups have sold out to the system. We further believe that the enemy is not capitalism, communism, or socialism. It is corporate industrialism whether it is in the United States, the Soviet Union, China, or Mexico.”

Over sixty people attended the first official meeting of the group, held in July of 1980 and known as the “Round River Rendezvous.” Such meetings would become an annual event, where members would strengthen their ties with each other, learn monkey wrenching tactics, and otherwise coordinate their efforts for wilderness preservation.

Later that year, Foreman and a former education coordinator for the Wilderness Society, Susan Morgan, put out the first ever newsletter for the movement, originally entitled *Nature More*, later known as the *Earth First! Newsletter*, and finally as the *Earth First! Journal*. In the first few issues, Foreman and others laid the foundations for the movement. For example, as part of the movement platform, the first issue demanded about 40 wilderness reserves — including wilderness designation for the moon — and the end of nukes, mining, power plants, dams, and any roads on public lands. “Not blind opposition to progress, but wide-eyed opposition to progress!”

Among other things, the strategy was to appear so unreasonable that moderate groups, like the Sierra Club, could make stronger, more uncompromising demands. In the proto-issue of the newsletter (“volume 0, issue 0”), which was distributed only to a small cadre of founding members, Foreman listed the goals of the movement:

- Make existing environmental groups and proposals look more reasonable.
- Keep the environmental movement from straying too far from its ideal; in other words, from becoming too conservative.
- Raise the ecological conscience of the American people.
- Instigate a widespread radical environmental movement in the 1980's that is not afraid to use civil disobedience, demonstrations, etc. as tactics. Earth First will remain quasi legal. There is great potential here in tying into the infantile anti-nuke movement.

And in a membership brochure, Foreman listed the group's basic ideological principles:

- Wilderness has a right to exist for its own sake.
- All life forms, from virus to the great whales, have an inherent and equal right to existence.
- Mankind is no greater than any other form of life and has no legitimate claim to dominate Earth.
- Humankind, through overpopulation, anthropocentrism, industrialization, excessive energy consumption/resource extraction, state capitalism, father-figure hierarchies, imperialism, pollution, and natural area destruction, threatens the basic life processes of EARTH
- All human decisions should consider Earth first, humankind second
- The only true test of morality is whether an action, individual, social, or political, benefits Earth
- Humankind will be happier, healthier, more secure, and more comfortable in a society that recognizes humankind's true biological nature and which is in dynamic harmony with the total biosphere
- Political compromise has no place in the defense of Earth
- Earth is Goddess and the proper object of human worship [later omitted]

Finally, Foreman outlined the organization of the group. Predominantly, its organization was to be loose: "[W]hen you take on the structure of the corporate state, you develop the ideology and the bottom line of the corporate state. So what is the one kind of human organization that's really worked? The hunter/gatherer tribe, so we tried to model ourselves structurally after that." But the movement was showing signs of growth, and after the 1980 Round River Rendezvous, it established "two formal governing structures": the Circle of Darkness and *La Manta Mojada*.

The Circle of Darkness was to determine Earth First! policies and approve memberships and group chapters. They had to willingly identify with Earth First! and could not be employees of mainstream conservation organizations. *La Manta Mojada*, on the other hand, was to remain secret, a "group of advisors to the Circle." It was never again mentioned, although Lee claims that "in interviews ...Foreman stated that its existence was short-lived and implied that it was also ineffectual ..."

Youth

In 1981, seventy-five members of Earth First! stood near the bottom of Glen Canyon Dam. By that time the dam had become a major symbol for the environmental move-

ment. One activist, Mark DuBois, chained himself to a rock as the diverted river water flooded the beautiful Glen Canyon, vowing not to leave until the state agreed to remove the dam. Of course, it wasn't removed, but the Army Corps of Engineers spent days looking for him, eventually forced to halt the filling of the reservoir for a while. Ken Sleight — Seldom Seen Smith in *The Monkey Wrench Gang* — said of the damming, "I knew that the water was gonna come up. But when it did, I wasn't ready for it. When you actually see that water come up, inch by inch, covering all the beautiful things you ever wanted to see... It hit them runes that the Anasazi had built, came up there and tumbled them over, covered over the pictographs and the petroglyphs..." Edward Abbey had taken the issue on as his personal crusade, channelling the rage Muir felt over Hetch Hetchy. In *The Monkey Wrench Gang*, the characters' main goal was, in fact, to eventually blow the dam up.

Appropriately, then, he gave a speech before the seventy-five:

We are gathered here today to celebrate three important occasions: the rising of the full moon, the arrival of the Spring Equinox, and the imminent removal of Glen Canyon Dam.

I do not say that the third of these events will necessarily take place today—although I should warn you that some of my born-again Christian brothers and sisters have been praying, night and day, for one little pre-cision earthquake in this here immediate vicinity, and I do predict that one of these times their prayers will be answered—in fact, even now, I think I perceive an ominous-looking black fracture down the face of yonder cee-ment plug—and this earth will shake, and that dam will fall, crumble, and go. ...

... All very well, you say, but we prefer not to wait. We want immediate results.

The "ominous-looking black fracture" Abbey pointed his audience's attention to earlier in the speech was a three-hundred foot wedge of plastic, tapered at one end, and rolled down the edge of Glen Canyon to create the illusion of a crack. While the crowd had distracted dam security, five silhouettes snuck up the dam with the plastic to unfurl it.

"The FBI interpreted the event as a harbinger of domestic terrorism," Lee writes — the bureau even dusted the plastic for fingerprints — "and business interests began to express concern to the bureau's Washington office soon afterwards."

In these early years, *Earth First!* was ideologically unified and sported a "rednecks for wilderness" image. "...it was to counter the tendency for social change and environmental groups to lose focus and drift into general left wing politics," Wolke explains. So during the 1981 Rendezvous, which was held on the Fourth of July weekend, the three-hundred in attendance opened their meeting with an Independence Day celebration — flags and songs and all. Foreman and Abbey established a connection between wilderness and the American identity. "Wilderness is America. What can be more patriotic than the love of the land?"

The newsletter directly following that year's Rendezvous discussed real ecotage for the first time explicitly. Foreman noted that reports had blamed *Earth First!* on the

toppled transmission tower belonging to Utah Power and Light. He compared it to the Reichstag Fire of 1933, when ten Nazi agents committed an arson attack on the Berlin Reichstag and blamed the communists. Later, in 1985, Foreman published guidelines for monkeywrenching, writing it was “not revolutionary,” that “it must be strategic, it must be thoughtful, it must be deliberate in order to succeed.”

In October 1981, Foreman, perhaps paradoxically, published an article in *The Progressive*, outlining the ideology and purpose of Earth First! He wrote that “for a group more committed to Gila monsters and mountain lions than to people, there will not be a total alliance with other social movements,” but he nevertheless invited activists of various causes to participate so long as they agreed to the mantra that the Earth came first. He then began to tour the U.S. with the Earth First! Road Show. The movement continued to grow.

Adulthood

Over the next few years, several major battles positioned *Earth First!* as the cutting edge of the environmental movement. It helped lead the charge in RARE II suits, it popularized the challenges facing old growth forests and rainforests, and its vision of ecologically vast, connected wilderness later came to define conservation biology. Through all this, it supported itself economically by selling bumper stickers, posters, and Foreman’s 1985 manual *Ecodefense: A Field Guide to Monkeywrenching*. It also established the Earth First! Foundation, a tax-deductible organization that later became the Fund for Wild Nature.

By the end of 1981 the newsletter was converted to a newspaper to account for the influx of articles and letters. By 1982 there were about fifteen hundred official members. Foreman, who originally imagined that the Circle was to have “really solid control” to prevent “anybody selling out on us,” instead encouraged diversity in the movement and loosened his vision of the Circle’s reach. And then, in 1984, Earth First! membership was in the thousands. Foreman made management of the organization his full-time job.

At the year’s Rendezvous, Foreman stressed that Earth First!’s responsibility was to fight industry, always keeping in mind a vision of the people of the Pleistocene, who “knew [their] proper place in the world”:

In just a few generations, we and our forebears have taken the most magnificent and diverse of all the continents on Earth — in essence, the Pleistocene, with its great flowering of large animals, those thundering herds of biomass — and we have turned it into freeways and condominiums and Pac-Man and Pop Tarts. And we call that *progress*. We call that *civilization*.

In 1985, Earth First!er Mike Jakubal and Ron Huber conducted the first “tree sit” to protect Millennium Grove from deforestation. The tactic is rather self-explanatory: build a platform a few dozen feet up the tree, sit on it, and refuse to move. This prevented loggers from doing anything until they could get the protestors down, which, when it came to Huber, took over a month. It also succeeded in attracting the me-

dia, which prevented logging companies and law enforcement from dealing with the protestors too ruggedly.

Separation

As the movement grew, splits and fractures formed, even wider than the one that split Glen Canyon in 1981. Wolke explains:

... with growth and publicity, our ability to steer the ship diminished. Unintentionally, we'd created a vehicle for the counter-culture. EF! had become a vehicle for leftist, anarchist, anarchist-leftist, anti-hunting eco-feminists for gay social justice and new age woo-woo conductors of cosmic energy. To say the least, I began to feel out of place. In 1985's rendezvous in the shimmering aspens of Colorado's Uncompagre Plateau, I argued with an Oregon activist, to no avail, that it would be inappropriate for his EF! group to advocate legalizing pot. Not our issue, I insisted, exasperated.

A "Foreman faction" developed. One of its most radical adherents, Christopher Manes, explicated a radical primitivist vision in his articles for the *Earth First! Journal*. For example, in "Technology and Mortality," writing under the pseudonym "Miss Ann Thropy," he insisted that areas with natural human mortality rates should be preserved, that monkeywrenching should be extended to incubators of technical progress, like universities, that monkeywrenching should be extended to all urban areas, and that Earth First!ers should "spiritually reject" technology. In the same journal issue he proposed, non-pseudonymously this time, "technology-free zones."

Meanwhile, at the 1982 Rendezvous, Foreman gave a rousing speech on "the inevitable collapse of the industrial state... Mother nature is coming, and she is pissed!" His articles in the journal became more heavy-handed. For example, in his article "Whither Earth First!?" Foreman restated what he believed were the goals of the movement, including putting the needs of the Earth before human welfare, accepting that overpopulation is an issue, antipathy to progress and technology, rejecting humanism, and "an unwillingness to set any ethnic, class, or political group of humans on a pedestal and make them immune from questioning." He wrote:

... if I am out of the mainstream of Earth First! with these views, then please let me know and I will move on. I have no desire to embarrass good activists for Earth if the above points are not considered crucial or are detrimental to what they are trying to do. If Earth First! is no longer what I envision it to be, then I will accept that and wish the new Earth First! well. But I have no energy to continually debate the above points within my tribe and will seek my campfire elsewhere.

On the other side was the "Roselle Faction." As has been established, Mike Roselle was not as intimately involved in wilderness conservation as his five cohorts in the Pinacate. He was in many ways the opposite of Foreman, steeped in left-wing counter-culture and active in the anti-war demonstrations of the 60s. Thus, unlike Foreman, he perceived environmentalism as one of the many nexuses of social justice, along with gay liberation, women's liberation, class war, etc. He did, however, make environmentalism his main nexus, and in 1986, Roselle became the national campaign coordinator for Greenpeace USA. Although Foreman wrote that he believed this was more a case

of “Earth First! gaining Greenpeace” than “Earth First! losing Mike Roselle,” the event, as Lee put it, “emphasized [Roselle’s] distance from the other founders of Earth First!, individuals who were completely disillusioned with the character and tactics of large Washington lobbying groups”:

Greenpeace prescribed change through education, and its goal was to prevent the apocalypse by making industrial civilization more environmentally sensitive. Those tactics and goals were in direct opposition to Foreman’s vision of Earth First!. While in his more reflective moments Foreman admitted that there was a role for such groups (in their own way, they helped preserve some limited wilderness), admitting Greenpeace’s goals and tactics into Earth First! would fundamentally alter the latter movement. Ultimately, it would allow Roselle and other like-minded individuals to come together as a faction, with the tacit support of Earth First!’s leadership.

The more radical side of this faction came from left-wing eco-anarchists, who published a competitor to the Earth First! Journal entitled *Live Wild or Die!* The journal was organized by Mike Jakubal, who had spearheaded the tree-sitting tactic in 1985. It combined the utter rejection of industrialism that typified the Foreman faction with the social justice reasoning that typified the Roselle faction, and so helped give form to a left-wing primitivist tendency that had previously been developed by the radical left journal *Fifth Estate*, and that would later come to fruition with the 1999 Seattle Riots.

For historical context, the debate between the Foreman and Roselle factions, what Bron Taylor calls a conflict between the “Wilders” and the “Holies,” was a microcosm of an argument taking place within the larger environmental movement. George Sessions writes:

The schism between the Foreman ecological faction and the Roselle social justice faction that tore Earth First! apart is part of larger anthropocentric/ecocentric conflicts that have existed throughout the history of American environmentalism. During the 1960’s, as Stephen Fox has pointed out, “newer man-centred leaders” arose in the environmental ranks, such as the socialist/biologist Barry Commoner and Ralph Nader, who saw industrial pollution as the essence of the environmental problem, while viewing wildlife and wilderness protection with disdain. By Earthday 1970, the environmental movement had essentially split into an anthropocentric urban pollution wing, led by Commoner, Nader, and Murray Bookchin, and an ecocentric wing concerned primarily with human overpopulation and protection of wilderness and the Earth’s ecological integrity, centred around Brower, Paul Ehrlich, and most professional ecologists ...

In other words, environmentalism was in a crucial stage of development at the time, and the greater battle that the Foreman/Roselle conflict typified seemed like it would determine the movement’s final form. The characters involved, then, justifiably took a high-stakes approach, cashing in all their chips and fighting tooth and nail.

And although the Foreman faction later made some significant victories, and may very well win the war, they lost the battle of Earth First! Most observers attribute this to the FBI’s THERMCON operation.

Late in the 1980s, a group calling itself the Evan Mecham Eco-Terrorist International Conspiracy (EMETIC) began several high profile sabotage operations. For example, in 1986, within the span of thirty minutes, EMETIC sabotaged several 500-kilowatt power lines in three different locations, each about 10–30 miles from the Palo Verde Nuclear Generation Station. The station had just finished a decade of construction, and the sabotage delayed its tests for its reactor at Palo Verde's Unit 2 for a day. Later, in 1987, the group again struck, this time downing pylons that supported the main chair lift at the Fairfield Snowbowl ski resort. The next year, they severed five power lines leading to the Canyon Uranium Mine, fourteen miles south of the Grand Canyon, causing a blackout.

EMETIC signaled a more serious kind of ecotage group, and Earth First! would later birth several more. But at the time, EMETIC was one of the FBI's top priorities. So they infiltrated the group with undercover agent Mike Fain, who posed as an enthusiastic saboteur and later motivated members of EMETIC to conduct the monkeywrenching operation that got the group arrested. Unfortunately for him, he also forgot to turn off his wires when he said, "I don't really look for them to be doing a lot of hurting people... [Foreman] isn't really the guy we need to pop — I mean in terms of an actual perpetrator. This is the guy we need to pop to send a message. And that's all we're really doing... Uh-oh! We don't need that on tape! Hoo boy!" This later got Foreman a pretty nice plea deal — his case was separated from the greater one, deferred until 1996, and his sentence was reduced to a single misdemeanor with a \$250 fine. But the other members were not as lucky. One member got a one-month prison sentence and a \$2,000 fine; another got six months and a \$5,000 fine; another received a three-year prison sentence and was ordered to pay \$19,821 in restitution to Fairfield Snowbowl; and another was sentenced to a restitution of \$19,821 to Snowbowl and six years in prison.

This not only shook Foreman; it solidified the schism that had been tearing the group in two for years. Foreman and some of the other founding members left the group, and a member of the Roselle faction, Judi Bari, became the new prophet for Earth First!

Divorce

While under Bari's leadership, the schism took a definite form. Earth First! now belonged to the "Holies"; the "Wilders," on the other hand, went off to form an organization now known as The Wildlands Network. The organizations did not get along. In a review of Foreman's account of his time with Earth First!, *Confessions of an Eco-Warrior*, Bari wrote:

Dave Foreman concludes that we hippie anarchists have steered Earth First! away from its original principles, and it's time for him to quit. He says we have already accomplished what we set out to do 10 years ago. I certainly disagree with that. Sure, we've educated a lot of people, but they're still butchering the forest, and our country just destroyed Iraq. What I think we've been doing is putting the principles of biocen-

trism into practice in the real world. And the radical implications of the theory, as well as the repression we've encountered, have scared Dave Foreman off.

So I'll return the compliment you gave me last year, Dave. You're a hero who will be remembered 100 years from now. But the movement has passed you by, and it's time to step aside. Work elsewhere, where you feel more comfortable. But quit bashing those of us who are still on the front lines.

Deep Ecology, the philosophy the original Earth First!ers operated under, was eventually supplanted by "social ecology," a theory devised by the anarchist Murray Bookchin. Again, the relationship between the two philosophies was not amicable. Bookchin, for example, repeatedly called the Deep Ecologists "ecofascists," and regarded them as enemies of a true ecological philosophy, not simply allies who disagreed.

Perhaps Bari's biggest achievement as an Earth First! leader was her union of labor and environmental issues. Specifically, she allied Earth First! closely with the anarchist group International Workers of the World (known as the "wobblies"), allowing Earth First!ers to mount a two pronged attack in some of their campaigns: from one side, the radical hippies in the forest, from another, the radical socialists inside the heavy equipment vehicles. Because of this union, she strongly discouraged the previously ubiquitous tactic of "tree spiking" — hammering nails into trees to slow deforestation — because they might be unsafe for the deforesters. Over time this resulted in an overall decrease of monkeywrenching activity.

Nevertheless, monkeywrenching remained an important element of Earth First!'s identity, largely because, in May 1990, a vehicle used by Judi Bari and Darryl Cherney (an Earth First! musician) was blown up by a pipe bomb. Bari was severely injured, Cherney injured only in minor ways. For a while the FBI claimed that Bari and Cherney were transporting the bomb for monkeywrenching activities, but they later discovered that this couldn't have been the case: an analysis revealed that the pipe bomb, its surface wrapped in nails, was equipped with a trigger that would only activate when the car was driven. It was also revealed that an FBI chief had received the following anonymous tip:

Dear Chief Keplinger:

I joined Earth First to be able to report illegal activities of the organization. Now I want to establish a contact to provide information to the authorities.

The leader and main force of Earth First in Ukiah is Judi Bari. She is facing a trespassing charge in connection with the Earth First sabotage of a logging road in the Cahte Peak area. She did jail time in Sonoma County for blocking the federal building to support the Communist government in Nicaragua.

Bari and the Ukiah Earth First are planning vandalism directed at Congressman Doug Bosco to protest offshore oil drilling.

Earth First recently began automatic weapons training.

Bari sells marijuana to finance Earth First activities. She sometimes receives and sends marijuana by U.S. mail. On December 23 she mailed a box of marijuana at the Ukiah post office.

There is no point in pursuing local charges. But the use of the U.S. mail means serious federal charges. If you would like to receive confidential information on *short notice* to make possible an arrest on federal charges at a U.S. post office next time she mails dope, do the following:

Place an advertisement in the “Notices” section of the classified ad section of the Ukiah Daily Journal. It should be addressed to “Dear A” and give the name and telephone number(s), preferably 24-hour, of a detective who would be called to receive this information.

When a call is made, I will identify myself as “Argus.”

This created quite the frenzy in Earth First! Everywhere people were trying to figure out who this “Argus” was, and blame touched major people in the organization, including Bari’s ex-husband. Bari herself blamed the FBI, arguing that their speedy arrival at the FBI site was simply them “waiting around the corner with their fingers in their ears.” One of Earth First!’s leaders once again involved in a major FBI case, the organization weakened, even though a suit by Bari and Cherney eventually did result in prosecution of two FBI agents in charge of Bari’s case.

Meanwhile, Foreman and those who left with him, notably Reed Noss and John Davis, attempted to normalize some of the original ideas of Earth First!, particularly its ecological reserve system. They began an organization first known as The Wildlands Project, later The Wildlands Network, and by utilizing conservation science they made a strong scientific argument for the reserves. It is outlined in the project’s seminal text, *Continental Conservation*, edited by Reed Noss and the geneticist Michael Soule. The latter also wrote one of the founding documents of conservation biology, in which he modeled the new science’s “normative postulates” after Deep Ecology. Other ex-Earth First!ers worked closely on the National Forum on Biological Diversity to help popularize the concept of “biodiversity,” now a crucial concept in conservation biology. Still other ex-Earth First! ers helped establish major conservation organizations like the Center for Biological Diversity.

In recent years, Earth First!’s only notable project was a 2012 direct action campaign against the Marcellus Shale fracking site. Other than that, the organization is in disarray. In an Earth First! Rendezvous I attended in 2014, a significant portion of the event was spent addressing one shouting, crying woman’s frustration with dreadlocked white people in attendance. Foreman and co., on the other hand, have permanently changed the world. Conservation biology is now a leading science and the reason we know so much about climate change, ocean acidification, or the ongoing mass extinction. It is popularly accepted that at least some degree of wilderness conservation is desirable, and almost any scientist today accepts “biodiversity” as a legitimate scientific concept.

Family Reunion

While Bari was still leading Earth First!, the organization found itself implicated in another series of bombings by a group that called itself “F.C.” From 1978–1995, F.C. had sent at least 16 package bombs to various targets in technical fields and published communiques urging that radicals make their primary goal anti-industrial revolution. F.C., it was later revealed, was a former professor and probably genius who had gone to live off the grid in Montana: his name was Ted Kaczynski. I have already explained Kaczynski’s astounding story in *Dark Mountain’s* “Ted Kaczynski and Why He Matters.” But I didn’t quite emphasize just how closely related Kaczynski was to Earth First!.

At the time of the F.C. bombings, many Earth First!ers claimed no relation to Kaczynski’s “anarchist terror group.” Indeed, in the aforementioned 2014 rendezvous, many of the older members present still insisted that Kaczynski had absolutely nothing to do with Earth First!. This could not be more wrong. In fact, several pieces of evidence suggest that Earth First! was one of Kaczynski’s central preoccupations.

The widely-available, explicitly-stated facts are these:

- The FBI found a copy of the *Earth First! Journal* and *Live Wild or Die!* in Kaczynski’s cabin.
- Kaczynski misspelled the name of one of his targets, the same way the name was spelled when the target was listed in an “Eco-Fucker’s Hit List,” published by *Live Wild or Die!*.
- Kaczynski’s tracts against “leftism” reflected the schism that split Earth First!
- Some of Kaczynski’s ideas reflected exactly the radical environmentalist ideas made popular in the *Earth First! Journal*.
- There is some evidence that Kaczynski attended an Earth First! Rendezvous.

These, however, are all circumstantial. The definite, less well-known evidence comes from the F.C. communiques — which includes a letter to *Live Wild or Die!* and several letters to *Earth First!*. In the letter to LWOD, F.C. tries to establish secret contact with the editors by teaching them a code and giving them the following instructions:

Place an ad in the classified section of the Los Angeles Times, classification #1660, “Personal messages.” The ad should preferably appear on May 9, 1995, but in any case leave a few days between the time when the Chronicle ad appears and the time when the LA Times ad appears. This ad should begin, “Dear Stargazer, the mystic numbers that control your fate are...” and it should be signed “Numerologist.” In between there will be a sequences of numbers conveying a coded message.

And in his letters to *Earth First!*, he asks the journal to publish his manifesto, gives recommendations for monkeywrenching strategy, and, under the pseudonym “Fabius Maximus,” gives his opinions on population growth. Even today Earth First! is within Kaczynski’s view. In his most recent book, for example, he notes the possibility of radicals using entryist tactics employed by the Bolsheviks to take control of the *Earth First! Journal*, which they could then use for revolutionary ends.

Furthermore, many Earth First!ers have expressed tacit support for Kaczynski. LWOD, for example, published two writings by Kaczynski in the seventh issue, and in

2011 the *Earth First! Journal* published an article entitled “ Re-visiting Uncle Ted & A Few FC Targets,” which reappraised Kaczynski and implied support for some of his actions.

There is no denying it: Earth First! seemed to have found its “crazy uncle.”

Childbirth

The following is heavily based on an article originally written by Leslie James Pickering, former press officer for the Earth Liberation Front.

Then, Earth First! birthed a child.

In 1996, the Oakridge Ranger Station was struck by an arson attack, ironically conducted by Jacob Ferguson, who would later become the FBI’s primary source of information about the perpetrators. Graffiti left at the scene of the arson read, “Earth Liberation Front.” In the following years, the Earth Liberation Front (ELF) would grow to become the number one domestic terrorist priority of the United States.

The ELF conducted a far-reaching campaign of destructive acts of ecological sabotage against corporations and government agencies it believed were making a profit at the expense of nature. The group was especially active between 1997 and 2002, propelling itself into the national spotlight through a series of costly and high-profile arson attacks.

For example, on October 1st, 1998, the ELF set seven fires to Vail ski resort in Colorado, resulting in \$12 million in damages. In a communiqué, the ELF described its opposition to Vail’s planned expansion. “The 12 miles of roads and 885 acres of clearcuts will ruin the last, best lynx habitat in the state. Putting profits ahead of Colorado’s wildlife will not be tolerated.”

On December 31st, 1999, the ELF turned the anti-genetic engineering movement up a notch by setting fire to offices at Michigan State University conducting research sponsored by Monsanto and USAID working to “force developing nations in Asia, Latin America and Africa to switch from natural crop plants to genetically engineered sweet potatoes, corn, bananas and pineapples.”

On May 21st, 2001 the ELF struck two locations simultaneously. Devastating fires were set at offices conducting genetic engineering research at the University of Washington and Jefferson Poplar in Oregon. At the scene of the Oregon fire, graffiti was left reading, “You Cannot Control what is Wild.”

On January 26th, 2002 the construction site for the University of Minnesota’s Microbial and Plant Genomics Research Center was struck by an arson claimed by the ELF. “We are fed up,” the communiqué read, “with capitalists like Cargill and major universities like the U of M who have long sought to develop and refine technologies which seek to exploit and control nature to the fullest extent under the guise of progress.”

While the ELF rose in prominence, an aboveground faction of radical environmentalists explicitly supportive of them began conducting less radical activities against the same kind of companies the ELF targeted. Because of the influence of the animal rights movement, especially the animal rights terror group known as SHAC, these above-ground activists often borrowed tactics that had previously been confined to

right-wing groups, like publishing scientists' personal contact information or visiting the homes of corporate executives en masse.

Mainstream environmental organizations, however, did not regard the ELF highly, fearing that the group's actions would delegitimize the entire environmental movement. One Sierra Club spokesman said of the group's actions: "It's too bad — every time it happens the environmental movement gets a lot of bad press. ...Our only thought about them is hoping that law enforcement brings them justice swiftly."

For many years, the Earth Liberation Front operated entirely beyond the reach of the law. Eventually, some individuals were charged and convicted of ELF actions, but the bulk of the most significant actions went unsolved until a sweep of arrests were initiated on December 7th, 2005. The FBI's "Operation Backfire" indicted a number of individuals active in the environmental, anarchist and animal liberation movements and many were convicted largely due to information that they gave on each other.

The cooperation of Jacob Ferguson was the key to the government's case against the Operation Backfire defendants. Ferguson wore a hidden audio recording device for the FBI while initiating incriminating conversations with his former comrades. By the time of their arrests, the individuals indicted were no-longer functioning together as a unit and a number had personal resentments towards each other and/or had undergone significant political conversions. In 2011, filmmaker Michael Curry made an acclaimed documentary about the case, *If a Tree Falls*. Curry's film largely ignores the spectacle of the terrorism and focuses mostly on the failing or broken relationship of a formerly close-knit group of eco-terrorists.

Ferguson's recordings, and subsequent testimony offered by defendants turned state's witness, made up the vast majority of the evidence in the government's case. While some Operation Backfire defendants cooperated for plea deals, a handful of ELF members got somewhere between 4–20 years in prison — sentences that were mostly unprecedented in the history of radical environmentalism. Many of these members, it was revealed, were dedicated Earth First! activists. Some even worked for mainstream organizations like Greenpeace.

One member of the ELF known as "Avalon," considered by the FBI to be the mastermind of the ELF and the author of texts detailing the construction of powerful incendiary devices, committed suicide in his prison cell rather than face the government's charges. "Certain human cultures have been waging war against the Earth for millennia," Rodgers wrote in a suicide note. "I chose to fight on the side of bears, mountain lions, skunks, bats, saguaros, cliff rose and all things wild. I am just the most recent casualty in that war. But tonight I have made a jail break — I am returning home, to the Earth, to the place of my origins."

The ELF is no longer a powerful force, and almost all of its members are now out of the legal system, but occasionally a new generation of saboteurs attach the initials to their communiques. Many ELF actions, including a number of very significant actions, remain unsolved and at least some strategic evolutions have apparently taken place to better prevent a repeat of Operation Backfire. It is unclear if the group will ever

rise to its former glory, but at the very least it has left a permanent mark on radical environmentalism.

Final Thoughts

In the following decades several other groups sprouted from the radical environmentalism that Earth First! spearheaded. Notably, in 1999 during the World Trade Organization meeting, groups of green anarchists successfully turned the demonstrations into a riot that disrupted economic negotiations and shocked the American public, who before were mostly unfamiliar with that particular brand of protesting.

In the late 2000s three activists — Eric McBay, Lierre Keith, and Derrick Jensen — published a book outlining radical political tactics a militant environmentalist group might use. The book advocated a direct and immediate dismantling of industrial technological systems like dams, mines, and the electric grid, something it called “decisive ecological warfare.” The authors later founded an organization with the same name as the book, Deep Green Resistance. Although initially receiving wide support from eco-radicals, the organization, like Earth First!, was eventually beset by issues tangential to environmentalism, transgender politics in particular.

Groups continue to proliferate. Attacks on industrial infrastructure continue to be accompanied by communiqués signed by the Earth Liberation Front, and new eco-terror groups like Individualists Tending Toward Savagery have formed. Less radical groups in conservation are progressively uniting themselves under a platform advocating wilderness preservation and restoration, and are beginning to offer bold, previously unthinkable proposals like setting aside half of the earth for protection from industrial development. And a schlew of what Foreman once called “passionate amateurs” are spearheading little known but impressive projects, like the United Green Alliance.

These groups are becoming more connected, setting aside minuscule differences for the sake of the larger goal: protect the land, and rewild what has been lost. Unfortunately, many suffer from funding issues and are often beset by schisms like those suffered by Earth First! and DGR. Unsurprisingly, these kinds of schisms also haunted the activism of the 60s as part of the U.S. government’s COINTELPRO program, which hoped to use dividing lines between activists of various stripes to prevent anything approaching a “united front.” But it appears as though those kinds of tactics are losing their power as the critique of civilization is becoming the standard critique for all kinds of political action, left and right. More and more people are beginning to see wild nature as a path to freedom and meaning, and are beginning to question the dominance of invasive and controlling technologies. And eco-terrorism is still the top domestic terror threat in the United States. Earth First!, or something like it, is due for a revival.

When, however, the now scattered groups begin to join forces — and as I’ve mentioned, this process is underway already — the new movement will have to learn from the problems outlined in this history. It will, for example, have to learn how to deal with divisive issues without devolving into harmful schisms; and when necessary schisms occur, it cannot let them sap the grassroots of its energy. It will have to keep

its focus on land preservation and restoration, and avoid tricks that relate words like “wild” to mere acting out, or that transform strategic ecosabotage into an outlet for hostility and criminality. Most importantly, it will have to be diligent in breeding a new generation capable of keeping on the tradition, something that early Earth First! did well, and the reason why a revival is now a possibility.

The Meaning of Human Nature

John Jacobi, *The Wildist Institute*

“Human nature” is an ambiguous term to begin with, but when applied to politics it justifiably raises eyebrows, the historically-learned immediately recalling wildly divergent, and often heinous, uses of the idea. By itself, it is about as clarifying as “freedom.” So here I will join the term with a technical outlook specific to wildism, along with a few distinctions that should help readers grasp our theoretical literature and purge from their mind any mixed associations with less rigorous or, worse, more repugnant meanings.

I. Scientific Materialist Worldview

At the risk of becoming tedious to our regular readers, i must again emphasize that wildism begins with a scientific materialist worldview, since so often i carry on these discussions for some time before discovering that the core barrier between me and my opposite is a difference in our metaphysical and epistemological assumptions. For instance, it is difficult to have a clarifying discussion about human nature when you are unaware that the other person believes firmly in a supernatural spirit.

So before proceeding let's be clear that humans are fully material creatures, without any supernatural component whatsoever. This includes mind and consciousness, both of which spring forth from the brain. Furthermore, humans are products of evolution by natural selection, primates descended from a common ancestor with all other primates, and animals descended from an even more common ancestor with all other animals. Human culture, like animal culture, is built from a biological and material base and does not come “from above” as some autonomous, non-material force. in the same vein, human behavior stems from material realities, a combination of biological and environmental factors. Note that although it is feasible that human culture is built from a combination of complex instincts—anyone familiar with non-human animal behavior knows how complex instincts can really be—data seems to support more nuanced theories, such as gene-culture coevolution, which help explain the apparent disparity between cultural and biological evolution in the human species.

With all this established, we can dispose of any accounts of human nature that rely on the existence of a supernatural realm, including frameworks that require “culture” to be a non-material thing autonomous from biology. This of course challenges Marxist, christian, and some feminist ideologies, among others.

II. The Concept of Nature

And again i will remind the reader of the wildist meaning of “nature” generally. Recall from “The Foundations of Wildist Ethics” (pp. 15–17) that “nature” is meant in contrast to “artifice,” both of which are descriptive categories of things that exist in the entire material realm, called “the Cosmos.”

Broadly, “artifice” is “that which is made or controlled by humans or their technical systems” and “nature” is just the opposite, not made or controlled. This distinction is important in environmental ethics and conservation, as well as in other fields where the impact of humans and their civilizations is a primary concern. if anyone questions the validity of the division, let him observe the stark difference between a domesticated animal and a wild one, or a farmed landscape and the wilderness, or a dammed river and a free one.

Finally, remember always to distinguish between the two dominant notions of “nature.” The first equates it, as wildists do, with “the non-artificial.” But common in the physical sciences and sometimes in everyday speech, “Nature” is equivalent with “the Cosmos,” meant to be a contrast to the supernatural rather than the artificial.

III. The Technical Meaning of Human Nature

The meaning of “human nature” follows intuitively from the meaning of “nature”: it is the part of human beings that is not made or controlled by them. Furthermore, the “naturalness” of human beings is a spectrum as it is in nature generally, and the degree of naturalness of a human trait, quality, or behavior depends on how strongly sustained it is by artificial energy input or how fully a product it is of that input. Essentially, a measurement of naturalness is a converse measurement of domestication, *wildness* being the quality of primary concern.

IV. Human Variation

“Human nature” in this sense applies to the entire species, so the focus is on human universals rather than variation. As such, the concept of “human nature” is not relevant to the quality of naturalness as it pertains to aspects unique to individuals or human populations. Currently it is not even wholly within our ability to scientifically discern individual or population-level natures, although this is quickly changing.

V. Human Nature Versus the Essence of Being Human

Talk of human nature is not quite the same as talk of human “essence.” The latter tends to have an air of immutability about it, that is, once you’ve violated the “essence” you can no longer be considered human. However, this concept of “essence” isn’t really viable in the context of scientific materialism. We would be better off sticking to our technical concept of the spectrum from natural to artificial and to the biological concept of the species *Homo sapiens*. Of course, as the transhuman vision of cyborgs and microchipped brains becomes more of a reality, it *might* be useful to distinguish where on the spectrum from natural to artificial a human can no longer be called a human. However, that should be recognized as a separate measurement, and one not nearly as important in the wildist framework as the quality of naturalness is.

VI. Human Nature Versus Human Biology

“Human nature” is also not equivalent to “human biology.” Of course, any study of human nature is going to be rooted in biological concepts, since we are biological creatures. But a human being’s biology can be artificial, and large portions of the current species now have biologies that are at least partially artificial (or at least more artificial than natural). A classic example is lactose tolerance, which developed in human populations that relied on animal husbandry and faced evolutionary pressures, leaving those who had lactose tolerance alive and reproducing and decreasing the population of lactose intolerant individuals. This is not of special ethical note, but technically it is the product of artificial rather than natural pressures.

Furthermore, many aspects of human nature, particularly the behavioral part, can be explained in terms that are not strictly biological (although of course these findings shouldn’t contradict biological understandings). And these parts, like the more concretely biological parts, can be artificial as well.

VII. “Biological,” “Natural,” and “Innate” Do NOT MEAN “UNCHANGABLE”

some people believe that “human nature” means “unchangeable.” However, neither the wildist technical sense of the term, nor any of the concepts confused with it, are unchangeable. This should be clearest in the case of wildist technical terminology, since it explicitly acknowledges that natural things can be made artificial. However, it is also true for “biological,” as was noted in the case of lactose intolerance in humans, and this is only becoming more true with biotechnics. “Innate” behavior (versus “learned” behavior) is also changeable, usually only through biological modification, but in some

cases through severe conditioning as well. Also remember that both “biological” and “innate” behaviors can reside anywhere on the spectrum from natural to artificial. For instance, one can observe innate but artificial behaviors in domesticated animals, like dogs.

VIII. Response to Marxist and Leftist Criticisms

Marxist and leftist critics argue that Darwinian accounts of human nature justify the oppression of the ruling class. For example, the wage gap is in the eyes of many leftists a product of patriarchal oppression, but some evidence seems to support the idea that the wage gap is a product of several factors that have little to do with oppression, such as natural gender differences in job preference.

However, arguing that this is the case is not the same as arguing that you should feel a specific way about it. If Marxists wish to live in a world without a wage gap, the wage gap need not be a product of oppression. They can simply argue for mitigation of our biological behaviors in cases where they can’t be outright changed, and as technologies become more advanced they can, of course, change them outright.

Nevertheless, I think Marxists are right to say that ascribing the quality of “naturalness” has political power. Although wildists speak of the quality in a somewhat technical and exact sense, the actual normative ideas behind wildism are widespread. People tend to value naturalness in many aspects of their daily life, and they are skeptical when they hear that their behavior, beliefs, or biologies are being artificially modified. Even the Marxist concern with oppression is a politic that favors nature over artificial institutions that deprive humans of their expressions of that nature, although clearly the empirical evidence simply has not supported the Marxists’ specific account. But to this I say that if people are concerned with naturalness, they are best off with a proper understanding of it, and this is granted not through dogma, but through scientific investigation. If this yields unfavorable consequences, then so be it. When facts are subordinated for the sake of ethical values, you only end up being more ignorant and less ethical, and that’s clearly not desirable.

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Refuting the Apartheid Alternative

John Jacobi, *The Wildist Institute*

Abstract

Recently a proposed alternative to the traditional conservationist approach has popped onto the scene. It calls itself “eco-modernism,” and rather than advocating decreased economic growth, it calls for the acceleration of technical and economic innovation, saying that this will leave more land for wildlife. The eco-modernists have also borrowed concepts like “rewilding” from the wildness-centered conservationists, which has led to charges of revisionism. This paper argues against the civilization/nature apartheid scheme that the eco-modernists advocate, and it outlines the moral differences between their humanist approach and the wildist approach to conservation.

I. Introduction

Wildism seems to require the collapse of industry: we wildists state, very plainly, that we care for the autonomy of nature such that the civilized agricultural mode of production and later are morally unjustifiable. How, then, could we even entertain the notion that there is an alternative to collapse?

The answer is simple: if the overall process of technical evolution begins to decrease civilization’s footprint, especially in regards to the amount of physical land it requires, then this will result in an increase of wildness and nature’s restoration. Such a thing has not yet happened except through collapse, but that does not necessarily make it impossible. our question, then, is whether technical development is decreasing human impact or looks like it will be doing this in the near future. Note that because of the wildist critique of progress (Jacobi, 2016, pp. 22–27), we have no illusion that any group of humans, no matter how organized, can *steer* overall technical development. our concern is mainly one of analysis and prediction.

Some evidence suggests that civilization’s impact may indeed decrease in the coming years, thanks to digital technology, new energy sources, ecological necessity, and other such factors. Armed with this evidence, some have proposed various alternatives that all fall under the banner of “half-earth proposals.” These proposals are unique in that they are appealing both to progressivist environmentalists, like the so-called eco-modernists, while also maintaining appeal among wildness-centered conservationists.

The idea is that humans can continue with civilization in some parts of the earth so long as non-human nature is able to flourish in wild conditions.

Here I will outline an apartheid proposal that is as attractive as possible to wildists and then explain why no such proposal would ever be sufficient as an end goal, for both moral and empirical reasons. That said, I argue that the logic of apartheid does not necessarily carry over to “half-earth” proposals, arguing that the later could be a positive development. With some caveats, then, I conclude that conservationists should engage in active work under these campaigns.

II. The Empirical Problems

The most important advocates of human/nature apartheid tend to be associated with The Breakthrough institute, a think tank dedicated to “modernizing environmentalism.” indeed, the landmark document in support of the idea was a report put out by the institute and entitled *Nature Unbound: Decoupling for Conservation*. other important texts include *Green Delusions* by Martin Lewis, in which the idea of “decoupling” was first proposed, and most of the work of Jesse Ausubel, who is by far the most convincing and datadriven advocate of apartheid.

The empirical evidence in support of the eco-modernist program is strong, and in many instances it is modest in precisely the appropriate places. indeed, many aspects of eco-modernism are refreshing to those environmentalists who find themselves surrounded on all sides by the irrationalism and lack of pragmatism pervading the movement. This is no doubt why it has gained such strength in such short time, especially when this is combined with their beautiful marketing.

The eco-modernists’ primary assertion is that industrial production can be “decoupled” from land use and other environmental problems. This is not a new argument. The story of progressivism is the story of elites calling for more, more, more innovation. Where these newcomers catch attention, however, is their substantial evidence that this process has already taken place and could continue to. in fact, many industries began to decouple just as environmentalism became a dominant force in industrial societies, around the 1970s. This is a large part of the reason why the prophecies of doomers like Ehrlich never really materialized.

One of the most striking examples of decoupling is corn production, which has “quintupled...while using the same or even less land.” A similar thing has occurred with potatoes and chicken (ibid.). One can also see many commodities plateauing and even dropping rapidly in recent years (see Figure 2), a trend that has been observed in plastics, paper, timber, lead, aluminum, copper, chromium, iron ore, and many more. Ausubel argues that several other commodities, like nickel, electricity, and cobalt, could also be peaking as well.

The beautiful thing about most of these commodities is that their decrease means more land for wildlife, whether or not they are being offset by other environmental

trouble-makers, like digital technologies. Of course, where the new pressure is going (when it isn't simply dissipating) is an important concern, and indeed it is one of the problems with the extent to which eco-modernists take their decoupling claims, but more, bigger, and more connected wildlands are good developments. This is not least because, as The Wildlands Network and others have shown (Foreman, 2004), it mitigates and protects against ongoing environmental problems, keeps basic ecological building blocks intact even if industrial civilization does begin to collapse, and allows these building blocks to restore themselves and remain resilient against permanent problems like climate change.

But the eco-modernists are not arguing anything like this. Instead, they argue that because of the decoupling phenomenon, humans should, instead of slowing down industrial and economic development, kick it into high gear. Moreover, instead of viewing the possibility of an Anthropocene as a great moral warning, humans should embrace it, baptizing themselves fully into the role of planetary managers.

But the empirical evidence does not support this narrative. For one thing, the trends are not all good, and though the eco-modernists are open about this, their response is essentially a faith-based one, compelling only to those who are so strongly attached to the civilizing project that they are willing to take great ecological risks to save it. Notable bad trends include the fact that industrial production has not decoupled from the oceans,—one of the eco-modernists' major areas of concern—and greenhouse gas emissions are not at all on the decrease—something they don't mention much at all, but, ironically, one of the main reasons the oceans are doing so poorly.

In fact, economic trends around emissions are a particularly powerful blow to the eco-modernist vision. Since the Industrial Revolution, CO₂ emissions have almost only ever decreased in cases of economic decline and collapse, e.g., the Great Depression, the recession after the 1980 oil shock, the collapse of the Soviet Union, and the recent 2008 recession (Caradonna, et al., 2015; Schneider, Martinez-Alier, & Kallis, 2011; Peters, et al., 2012). In the 2008–2009 case, emissions rebounded so drastically with economic rebound that they “more than offset the decrease” that had been achieved (Peters, et al., 2012).

Furthermore, the extinction crisis continues to worsen. Scientists estimate that we've increased the extinction rate by at least 1,000 times since the Industrial Revolution, and it is now accepted that we are going through the sixth mass extinction event in geological history, the previous ones having been caused by asteroids or volcanoes or other natural phenomena, but this one being caused by industrial civilization (Kolbert, 2014). I have not witnessed any eco-modernists address the extinction crisis.

Even apart from specific problems and lines of evidence, the eco-modernists have not quite shown how the trend of decoupling applies or can apply to the industrial economy as a whole. For sure, the trends are observable for specific materials, but they can just as easily be offset by problems elsewhere, and problems like the ones just noted indicate that that is exactly what is happening. Because economics is complex, this failure is understandable, and only a confluence of data after some study would

be able to make a convincing case. And this may just happen. However, the data available now are not looking good for the ecomodernists. Civilizations have a history of overreaching and then collapsing due to precisely the kinds of ecological troubles the industrial one is now facing, and some experts have argued that collapse of industry is very near inevitable (Motescharrel, Rivas, & Kalnay, 2014; Tainter, 1990; Wright, 2004).

In *Nature Unbound*, I only found one brief mention of one of the problems related to a whole-economy view, but it took up less than half a page and made clear the stark difference between eco-modernist and wildist goals. The section mentions the phenomenon known as “rebound,” where improved efficiency results in more consumption rather than less. But, the piece goes on to say, “had our...technologies not improved dramatically over centuries, the human population would probably be significantly smaller and poorer.” As if our current population levels are desirable! Their counter-argument to the rebound objection is also insufficient, as they note only that material goods eventually reach a point of demand saturation. Unfortunately, they do not address whether the demands for other, newer goods create a good trade-off.

There’s much more evidence to offer, but this is sufficient for now, especially since the moral case against apartheid is much more relevant. In regards to the empirical evidence, we can conclude that while it doesn’t quite support the eco-modernist narrative, it does strongly support the main soft claim: that insofar as it is an observable and somewhat predictable economic trend, the phenomenon of “decoupling” is another strong tool in the hands of the conservationists. There is no reason to not take advantage of the phenomenon in the same way that conservationists have used wilderness areas, ecological and evolutionary science, and other tools to preserve nature and nature’s wildness.

III. The Moral Concerns

A. The Other Side

The real problem with the apartheid proposal is moral. Wilderness-centered conservation, which in the conventional account began with Muir, began with a skeptical look toward civilization, a willingness to dispose of it in pursuit of nature. The ecomodernists begin from a radically different point: they love nature, fine, but their primary focus is saving civilization, which they believe can coexist with nature. This of course means that they believe it can coexist with only some of nature, since the apartheid proposal explicitly legitimizes a non-natural side, a side for civilization.

one could say, then, that the eco-modernists “do not go far enough.” But this is not quite accurate. The problem isn’t that the eco-modernists aren’t radical enough, but that they want something fundamentally different. This is clear when we pay closer

attention to the civilization side of apartheid, see how disgusting it is, and realize that *they are arguing for it*.

Crist (2015) has written a poignant critique on the topic of nature on the civilization side. She points out that the eco-modernists advocate concentrated animal feeding operations (CAFOs), intensified agriculture, “aquaculture,” and other similar technical solutions to intensive production. But, she writes,

Industrial agriculture occupies extensive territories, after stripping them of their native life and engineering them for the production of grains, protein, oils, and fiber, most of which do not even directly serve as human food but as raw materials for industrial processing. An even larger portion of the globe allotted to livestock grazing is also roundly dominated, displacing wild animals, plants, and natural ecologies. In CAFOs farm animals are dispossessed of their natural life cycles, and treated as little more than easily subjugated objects to be rapidly turned over into commodities. Meanwhile, the vast majority of so-called fisheries are fished to capacity or overfished, nine out of ten big fish are gone, and massive habitat destruction of continental shelves and increasingly of sea mounts are the legacy of industrial fishing. On all fronts, industrial food production is a ruthless, machine-mediated subjugation of land and seas as well as of wild and domestic beings.

In other words, the civilization side of the apartheid scheme will leave humanity “still very much coupled” with nature—except, Crist writes, “‘coupled’ is hardly the right word—comprehensively dominated is a more accurate depiction.”

one might argue that this is mere tugging on the heartstrings. With a pragmatic approach, the math is simple: more intensive production here means vastly freer circumstances elsewhere. That doesn’t mean the “here” is pretty, but it’s the most promising approach we’ve got.

Indeed, the eco-modernists argue just this. Lewis, one of the originators of the decoupling idea in its eco-modernist incarnation, calls his approach “radical pragmatism.” The language of pragmatism and compromise also pervades the writings and reports of The Breakthrough Institute.

However, the ethical claims on which this equation is based are faulty. Admittedly, Crist herself remains susceptible to the eco-modernist response, and she is not alone among us wildness-centered conservationists. A common ethical scheme in our ranks speaks of the “rights” of nature or some similar concept. It speaks as though nature should be the next beneficiary of an expanded humanist philosophy, a continuation of what has occurred throughout the history of civilization in its move from band to tribe, tribe to race, race to nation, nation to humanity.

This is also the common ethical lens through which the public sees environmentalism. Animal rights ideologies are rapidly becoming more common, and oftentimes conservation projects find it easiest to mobilize people when they can put specific animals or ecosystems before the public. When nature or elements of nature are branded as victims of humanity’s technical ambitions, it is easy to invoke the dominant values of sympathy, equality, and solidarity to incite political action.

But, as I argue more extensively in “Relations and the Moral Circle,” this ethical lens is foggy and broken to begin with, and it is completely shattered under a scientific materialist approach. When we acknowledge the core materialist assertion—that matter is all that exists, and that our ethical values are therefore rooted in our biologies and evolved—one can only speak of one’s own wants and values and, in the context of collective action, an agreed upon spectrum that unifies a politically discrete population. After this, which values become dominant is a question of power and chance in the short term and fate and chance in the long term.

With this in mind, the eco-modernists can and do still say that the belief in the goodness of technical progress is their starting point. But then we see why wildism can have nothing to do with eco-modernism, since *its* central claim is that progress is a flawed mythology—including its applications to human nature. In other words, it is a delusion to think that nature, including human nature, can be improved by civilization.

A more thorough treatment of these claims can be found in “The Foundations of Wildist Ethics,” particularly pages 22–44. The critique consists of two parts, each invalidating the two remaining components of the progressive mythology: the first attacks the idea that humans can rationally implement their blueprints onto a society in a successful manner, that is, the idea that humans control the direction of progress; and the second attacks the idea that the process of progress is good, regardless of whether or not humans have directed it.

Although eco-modernist texts do not always make clear that they accept the first element of the critique, many times they do, and Ausubel in particular makes it clear that he holds views similar to wildists in this regard. This is why Ausubel’s primary emphasis is on predicting *continued* decoupling trends rather than on implementing an abstract blueprint of how the economy should run. However, eco-modernists, including Ausubel, still believe the fundamental point that progress has been good, including and especially for human beings.

This is the core difference between them and wildists. As I point out in “Foundations,” civilization is simply not desirable, and the process of domestication—which has been and is happening to humans just as much as the animals we breed—is a repugnant process, especially at industrial scales. One clear and well-understood implication of civilization, for example, is increased complexity, which leads to more regimentation and more power to large organizations at the expense of small groups. I write,

In the context of wild nature, nature provides the necessary components for survival. But when humans modify nature, they must keep up the process of perpetual modification, because the rest of the natural system has not evolved to function in that state. That is, humans must use their energy and labor to “fill in the gaps.” For example, without any human intervention, natural processes will deal with animal feces. But a toilet requires entire technical systems of human labor, waste disposal, state management, and so forth. The plumbing is convenient, this is true, but at the cost of great

overhead, necessary policing, and further modification of nature. A civilization is the same kind of problem magnified a thousandfold.

A final point to note on some of the empirical problems of eco-modernism: its “modernization for all” rhetoric is almost certainly false, and I’m quite sure that the men who espouse it are aware of this. Ausubel in particular strikes me as an exceedingly reasonable man, which ultimately means that the eco-modernist rhetoric probably only points toward an ideal rather than an actual, exactly achievable vision.

More realistically, the eco-modernist vision will leave still many excluded pockets, whether that be due to inertia from bureaucracy, politics, technical ability, negative reactions from those being modernized, or, a problem no one has addressed yet, where resources actually are, that is, geographical restrictions. There is a problem with the vision of “modernization for all” when coltan, for instance, which is vital for digital technologies, mostly exists in a few places in Africa and Australia. Of course, we might move from coltan to some other good, but the bottom line is that almost any resource will only be available in particular geographies. The geopolitical factors this entails brings quite a bit of inertia to deal with, and the problem is only magnified when we consider multiple similar problems for the complex network of goods necessary for something like modernization to even be possible.

Of course, this means that the vision of island civilizations might actually be more insidious than it sounds when packaged with nice words. That’s not to say that it isn’t worth pursuing—in fact, I sincerely doubt that any response to the great problems we are facing will be without some distasteful elements—but there are serious threats associated with it, which I will discuss further in section IV, “The Dangers of HalfEarth Rhetoric.”

B. Martyrdom

The first argument against apartheid, then, is that the civilization side is illegitimate in relation to both human and non-human nature, and wildists don’t want to live in it. Two responses to this, in favor of apartheid, are possible. The first says that even if civilization is not good for humans, it is the most promising moral option available, and humans who do not wish to live under civilized circumstances should be willing to sacrifice themselves for the good of non-human nature. The second says that any humans who do not want to live in the civilization side are free to move to the nature side.

E.O. Wilson and to a lesser extent Dave Foreman have arguments similar to the first. Wilson said in one interview that he supports the half-earth proposal because it will decrease damage to the biosphere until humans decide to “settle down” (Worrall, 2014). I am unsure, but I believe that Wilson was being intentionally vague and is aware that settling down could likely mean collapse, or, as some technophiles have argued, space travel, or any other number of options, some of which are clearly undesirable. Foreman (2015) is more open about the possibility of collapse when he says that “the system

is going to come down, one way or another way, on its own. My task is keeping all the building blocks of future evolution that we can.” The nature half, of course, would consist of these building blocks.

This leads us to a necessary point of clarification. The eco-modernist apartheid proposal is actually an outgrowth of a much older half-earth proposal that came from the wildness-centered conservationists. After leaving the radical conservationist group Earth First! in the late 1980s, some of the original founders created an organization that is now called The Wildlands Network. This new organization was built around a proposal that expanded the original Earth First! reserve system into a comprehensive and scientifically based proposal, later called “continental-scale conservation” and “rewilding.”

The conservation biologists who outlined this proposal introduced many new and exciting concepts, and one of the most important of these is *connectivity*—the fact that wild areas are better when linked. As a result, they devised a system of wildlife corridors and, in North America, four major megalinkages spanning the whole continent, which would leave about half of the land for wildlife and will be extremely important for animals who need to migrate due to climate change. They also counter the rather devastating effects of roads.

The most recent political formulation of this idea has been taken on by the WILD Foundation’s Harvey Locke, who is spearheading what is called the Nature Needs Half campaign, and Wilson has also come out in support of the idea with his book *Half-Earth*.

The wildness-centered origins of the half-earth proposal is part of the reason the revisionism of the eco-modernists is so appalling. They have taken the ideas of half-earth, rewilding, and “the positive agenda,” as well as many of the other concepts from wildness-centered conservation, and then they’ve wrapped them all up in a polemic for industry and civilization. Note that the tangible proposal itself has not entirely changed, save the new talk of economic acceleration; the revision instead takes place in the narrative, in what it legitimates.

Still, the narrative does subtly and not so subtly transform the long-term implications of the proposal. Under the eco-modernist narrative the half-earth idea literally becomes apartheid. As many have pointed out, they strongly encourage the modernization of non-modernized people and look with disdain on the environmental damage (and alleged environmental damage) of those who are not “decoupled.” In many cases this translates to a “don’t touch it” mentality, a revulsion at actually interacting with nature in any natural way. This is more than clear in works like *Nature Unbound*. Contrast this with the rhetoric around Nature Needs Half, where Locke (2014) writes repeatedly that the earth needs “*at least* half” (his emphasis) and has sparse things to say about the other side.

So if we move away from the apartheid proposal and onto the more legitimate (in wildist eyes) halfearth proposal, what is the problem with the idea that humans should be willing to sacrifice their wildness and freedom for the sake of the wildness

of so much more non-human nature? The answer is, simply, that wildists do not wish to be martyrs for something as abstract as “all of nature” any more than we would be martyrs for “all of humanity.” This is a direct outgrowth of our challenge to humanist ideology.

The explanation here will seem a little like hairsplitting, but it is vital. When we go with the prevailing paradigm in environmental ethics, we are told that we should extend our unrelenting altruism from humans to all of nature, and we should therefore be willing to fight to the death for nature’s own sake. This only makes sense if we assume that nature’s value is something legitimate outside of our own existence, something we must align ourselves with. But wildists acknowledge that “nature has intrinsic value when it is valued (verb transitive) intrinsically” (Callicott, 1995). In other words, there is no objective value in nature. We fight for it because we want it, not because something external to us demands it to be so (sometimes the implicit meaning behind the shoulds and woulds of moral imperatives). See “Relations and the Moral Circle” for more on this point.

This does not mean, of course, that we cannot sacrifice our lives for the sake of something else. But an abstraction like “all of nature,” while useful for intellectual parsing and theoretical discussions, is not that thing. Rather, wildists chant “live wild or die!” because we have analyzed the situation and have found that freedom and the freedom of our relations is impossible under the current conditions. Our willingness to risk death is the most assured way to regain it. Our slogan is therefore said in the same spirit as Patrick Henry’s passionate words: “Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take; but as for me, give me liberty or give me death!” (See also “Foundations of Wildist Ethics,” p. 17.)

To be clearer, this split in ethical foundations is not between the wildness-centered conservationists and the eco-modernists. It is instead a division within environmental ethics. However, it is a necessary division to point out because the eco-modernists are more in line with the prevailing paradigm, which is part of the reason their ideas have so much strength. When, for instance, Crist refutes the eco-modernist position on the assumption that humanist altruism should be expanded (rather than challenged) she leaves open the possibility of the martyrdom rebuttal. And in truth she may not even be totally averse to such a rebuttal, if she means what she says and is not simply unaware of some of the implications of her rhetoric.

The full reasoning behind the wildist view and why we still fight for non-human nature with it can again be found in “Relations in the Moral Circle.” Here I will simply conclude that martyrdom is not a strong response to the moral critique of apartheid.

C. Humans on the Nature Side?

The second response to the moral critique is, as stated above, the age-old argument, “if you don’t like it, leave.” A weak counter-argument would bring up the eco-modernist

aversion to non-industrial forms of human-nature interaction. If adopted widely, and especially if adopted as policy, this could make it impossible for some and hard for most to leave the civilization side of the divide (see also section IV, “The Dangers of Half-Earth Rhetoric”). Recall that eco-modernists are repelled by natural human-nature interaction and are much more in favor of a “don’t-touch-it” attitude. Indeed, the main value of wilderness espoused by various eco-modernist tracts is a spiritual or aesthetic one. We’d also be wise to heed the words of a very conservative, bearded homeless gentleman I became friends with back when I too was homeless: he told me that although he believed immigration was a problem, he didn’t support increased border security, because “walls don’t just keep people out; they also do real good at keeping people in.”

The stronger argument points out that it is actually not a solution to wildist grievances. Is escape actually an option? The reach of industry’s impacts is global, and escape is among the most impotent responses available. And given the global nature of those impacts, “escape” is far from an accurate word. A man who has left the city for the forest has reclaimed his life in only the most insignificant of ways. He may feel better, and as far as psychological health is the argument this is a somewhat reasonable justification. But on the whole he has merely fogged up his view of the world that still determines the trajectory of his life, so he is able to more easily delude himself into thinking he has freedom.

Meanwhile, the technicians continue to do their work, the emissions continue to increase, the possibility of runaway technologies remains, nuclear, biotech, and nanotech are still developed, and the escape artist remains fundamentally powerless. Interestingly, the infamous Kaczynski (2010) put it best when he said, “One does not have freedom if anyone else (especially a large organization) has power over one, no matter how benevolently, tolerantly and permissively that power may be exercised. It is important not to confuse freedom with mere permissiveness.”

Which brings us to the final point against the escape argument: it assumes that civilization will always remain benign toward the other half. The whole history of civilization up to this point is not a great record, and the economic predictions of the eco-modernists are not nearly empirically sound enough to convince us otherwise.

D. A Note on Collapse

It seems, then, that collapse is still the only option worth pursuing, since the eco-modernists’ only remaining argument with vague persuasive power is that accelerated decoupling will result in less physical environmental damage than collapse would. But this is hardly a claim worth paying attention to.

For one thing, the evidence that collapse is good for nature in the long-term is far-reaching, so much so that it will be a topic for another essay. But consider as an example the case of nuclear power, often invoked as a reason why collapse couldn’t happen without devastating repercussions. While this seems intuitive, the evidence of

astounding wildlife rebound in the Chernobyl exclusion zone suggests a more haunting possibility: nuclear meltdown does less harm to nature than civilization.

Furthermore, the eco-modernists argue that decoupling happens only after production of a given material reaches “peak impact,” which by their account was only reached by most commodities between 1940-1970. If we are to accelerate the modernization of all remaining non-modernized peoples, this would amount to an immense amount of devastation until the future vision of complete decoupling can be achieved. Unless the eco-modernists can dream up an alternative pathway to modernization, something that would betray the aversion to abstract blueprints that makes their argument so strong in the first place, they are left having to accept the fact that their plan is likely to do more physical damage to the earth than collapse, not less. And in any case, the desire to come up with an alternative pathway to modernization would only underscore their commitment to saving civilization rather than achieving a future where nature, including human nature, can be wild.

IV. The Dangers of Half-Earth Rhetoric

As has been established, the eco-modernist apartheid proposal differs from the conservationist half-earth proposal in some important respects. However, the half-earth rhetoric is clearly only a few steps from the eco-modernist perversion, and this is just one of the many threats associated with it. So while I am tentatively supportive of the Nature Needs Half campaign and would like to see it achieve its goals, before undertaking any actions in support of it we should fully understand the risks and especially the potential perversions that the campaign could produce.

To do this, we need to understand some of the economic and technical determinants that have brought environmentalist rhetoric to the forefront of many civilized conversations. Indeed, even though wildism and, in general, wildness-centered conservation are challenges to the dominant superstructure of industrial civilization, mainstream environmentalism is clearly and in contrast a part of it. This has been true at least since the 60s and 70s and became especially clear with the establishment of Earth Day.

Arne Naess pointed this out in the document that set off the Deep Ecology movement when he noted that some environmentalism has a shallow approach, some of it a deep approach. The former agrees on many of the facts: civilization will collapse if the ecological context of economics is ignored, it would be a great loss to have animals and nature gone from our lives, etc. But their normative claims are far from the same. Mainstream environmentalism, or shallow environmentalism, recognizes the very true fact that climate change, mass extinctions, and other such things influence the world, even the world of humans, because humans are, in fact, still limited by nature, even if they don’t always recognize it. Mainstreamers also note that things like pollution and other environmental problems could hurt the humanist ideal of human wellbeing, or even the whole progressive project of civilization. But they do not actually question progressivism and its various incarnations.

Eco-modernism is, to date, the purest form of this progressivist environmentalism, and just as mainstream environmentalism popped up at just around the time that ecological problems were becoming dire and impossible to ignore, so too is eco-modernism arising at an uncannily appropriate time, given the current material demands of civilization. The major threat is that half-earth rhetoric will take on some form similar to the eco-modernist version to be a new legitimizing narrative for these new conditions. The major threat, that is, is conservation as our new government.

Let's paint the picture of a likely future, ideological visions of either the wildists or eco-modernists aside. The scale of the current impacts of climate change, combined with politicians' unwillingness and inability to deal with it, combined with the speedy pace that any sufficient response would need but will not perfectly achieve, all combine to make it clear that at least some places, probably even a few major cities, will become casualties within the next fifty to one hundred years. Some places are going to lose, regardless. To be clear, this is not fearmongering, and it doesn't translate directly to the collapse of civilization. It's simply a reality and the conditions with which the civilizations of the future will have to cope. The US' Pentagon, for instance, lists climate change as a national security threat (Scarborough, 2016), and we *know* that rising sea levels will affect cities as major as Boston and Miami. One study found that over 400 American cities have already passed their lock-in date—meaning that the focus should be mitigating damage, since preventing it is out of the question (Strauss, Kulp, & Levermann, 2015).

Recall the eco-modernist vision of “island cities” connected by highly efficient transport systems and with vast expanses of wilderness everywhere else. The above evidence indicates why such a vision might be a serious contender for the dominant narrative of the new conditions. To be clear, the vision isn't going to actualize itself as a smooth transition where everyone is modernized and voluntarily migrates to wherever the islands are. Instead, we can expect the use of force in many cases, and, more likely, no human intervention at all as the wilderness spreads from natural disasters. Just a look at New Orleans after Hurricane Katrina indicates what this might look like. (The example is especially appropriate because, despite the actual horrors, life for most has gone on as normal— what could be called apocalypse certainly doesn't feel like it, and won't, especially to the decadents in the Capitol.)

More than just the eco-modernists have suggested this vision. The market has moved emphatically in that direction as well. For instance, Google is working on self-driving cars, which are by now clearly going to catch on, and soon, and on the whole allow for much more efficient travel and use of resources. Musk is working on a hyperloop— perfect for connecting island cities, and devised to do just that—Tesla motors, SolarCity, and recently OpenAI. These places will not reach the whole world, but make the vision of efficiently run islands connected by high modes of transport very feasible.

And the non-wildness-centered side of conservation has a dark history standing very much in line with these kinds of visions, although perhaps more relevant are the modern instances. In recent years, ecological problems and the rhetoric of crisis

has increasingly been used to justify global cooperation and the institution of global management schemes. This does not necessarily mean a government, especially since markets do so very well at making cooperation look nice, but a government is within the realm of possibility, especially given the low number of political actors total (fewer than 200 independent states) and the even lower number this island vision implies.

Consider, for instance, the ideas of the Club of Rome, which is well-known for producing the environmentalist tract *Limits to Growth*:

In Nature organic growth proceeds according to a Master Plan, a Blueprint. Such a 'master plan' is missing from the process of growth and development of the world system. Now is the time to draw up a master plan for sustainable growth and world development based on our global allocation of all resources and a new global economic system.

Or consider the suggestion of Ronald Wright, the author of *A Short History of Progress*, that we institute a global government in order to have “managed capitalism.” The basis for this argument, and the subject of his book, is the current intensity of environmental degradation and the increasing disparity between the rich and poor, which he points out were two common factors in the majority of collapses in history.

Wright’s argument is naive, particularly because he doesn’t pay attention to the increased energy input that any management system requires—this is part of the reason the eco-modernist vision of letting nature do a lot of the work for us is so convincing—but the fundamental drive toward global unity is there, and the primary rhetoric is of an environmentalist and “collapsist” nature.

Even E.O. Wilson, who wildness-centered conservationists have come to view as an ally (and in whom even wildists find inspiration), is at best a fickle advocate of our ethic and a mixed blessing. He should by no means be shunned for his mistakes, both because he offers a loudspeaker for the ideas and because he clearly cares about wild nature dearly. But he has always toed the line between a wildness-centered ethic and a management one, and taken together what he really advocates is a sort of chimera. One could walk away from his recent book on the half-earth proposal as either an eco-modernist or a wildist, and that’s even taking into consideration his rebuttal of the Anthropocene argument.

The threat, then, for any radical conservationists is that they may unwittingly become the vanguard for the new apartheid schemes. One can imagine an unholy union between those who have no regard for civilization and those who hope to save it when the latter acknowledges, at least in an implied sense, that civilization won’t make it unless some wildernesses are created, unless some civilized places go under. One can imagine, in other words, a tactical spectrum where the radical factions make eco-modernist proposals look good rather than being beneficial to the wildness-centered, anti-industrial conservationists.

A striking example came to me when I was working with a young conservationist on a wilderness magazine. At some point he told me that he imagined a program of “voluntary land abandonment” in order to institute the land requirements for the

half-earth idea. But of course that is unrealistic. What *is* realistic? Well, *forced* land abandonment, which is precisely the kind of thing that happens or is considered acceptable when people are swept up in revolutionary fervor, if history is any indication. Of course, the apartheid moderates would not be able to propose such a thing, and in fact would have to stick to the rhetoric of willingness and non-violence. But they could certainly be benefitted by a more radical faction.

Even more threatening is if this fervor is directed toward only the parts of the program that are beneficial for the creation of civilized islands. A true anti-industrial effort, that is, a radical faction on the wildness-centered tactical spectrum, would need to devote a good bit of its energy to making sure those islands aren't possible. This is because if the eco-modernist version is instituted, the human half legitimized, and the islands made efficient, it could mean a very long time until industry falls again. The eco-modernist vision in its realistic version is quite powerful because it simplifies the machinery of civilization. Instead of added complexity from artificial energy input, civilization is made to instead harness energy from systems that already exist, through the creation of wild spaces, through biotechnology, etc. (Indeed, one of the great arguments in favor of wild spaces is their benefit to biotechnics—see E.O. Wilson's "Encyclopedia of Life" project, for instance, and his 2016 Aeon essay.) Last time this happened without corresponding damage to infrastructure was the Bubonic plague, and it actually helped keep civilization going, jump-started markets and trade, and increased the quality of life for many of the surviving. In other words, simplification without collapse would just increase the lifespan of civilization.

Of course, perhaps even with a radical eco-modernist faction the civilized islands will not be made efficient enough to survive. But the pro-civilization environmentalists have a solution for this too: space travel. Indeed, Martin Rees in his book *Our Final Hour*, after giving an overview of the great threats to civilization we are currently facing, pointed out that it may be the only way to keep up the progressive project. And Elon

Musk, who was mentioned earlier, has another project called SpaceX, which he has explicitly said is to function as a backup plan if his other projects—for sustainable energy and efficient travel—don't have the impact he hopes they will.

Let this sink in. A common argument against the wildist proposal is that collapse could have negative repercussions for vast swaths of humanity. But the technician alternative of space travel is arguably worse. How many people do you think they'll be able to fit on those ships, and what will those on earth be left with? Talk about a civilized island.

V. Conclusion

The de-coupling trend identified by the eco-modernists is real in at least a limited way, and it offers another tool for conservationists hoping to preserve and restore

wildlands, including wildist conservationists. However, the prevailing narrative of the eco-modernist cadres, including and especially those at The Breakthrough Institute, is appalling, unsupported by the evidence, and points toward a future that no wildist wants. It is also a shameless attempt at revisionism, a perversion of concepts that originated from wildness-centered conservationists who first espoused a half-earth proposal.

Luckily, the wildness-centered conservationists are behind some of the largest organizations espousing the half-earth proposal, including The Wildlands Network and the groups behind the Nature Needs Half campaign. Wildists have a clear role to play in benefitting these campaigns, but should take care to avoid revisionist perversions that could transform half-earth from a radical proposal to protect *at least* half of the earth's wildlands to a literal, institutional apartheid policy separating humans from wild nature.

The best way to do this is to focus on the moral rather than empirical problems with the apartheid proposal. While empirical problems should be discussed and we should be open to changing our arguments in light of new data, graphs, facts, and numbers rarely fare well in the main channels of communication available to us, like the mass media or internet articles. Probably three arguments are worth focusing on with special forcefulness.

First, wildists, in public debates or in articles, should focus on the morally appalling things that will have to occur on “the human side” of the eco-modernist proposal. Refer, for instance, to the problems with CAFos and aquaculture brought up by Crist. Although the argument is more complex than just this point, it has enough emotional power that it will be a major blow to eco-modernists, especially in live debate.

Second, wildists should point out the conflict between the “modernization for all” dictum and the wants of the people who would be effected by this. While it is true that all of wildists would be good examples for logical argument, more effective figureheads would be non-industrial peoples, preferably wildists themselves, who say that they do not want to be modernized. However, if any wildists use this tactic, they should be careful not to argue that all nonmodernized peoples do not wish to be modernized, or even that most do. This is simply not true, especially amongst agricultural communities. However, on TV or in non-text-based media, the emotional force of a non-industrial wildist saying that he wishes not to be modernized and has a right to fight against it will make it difficult for eco-modernists to respond, especially since the attention of the audience of industrial humans watching will be brought to the inherently forceful nature of industrialization that they too often do not have to pay attention to.

Finally, wildists should focus *heavily* on the problem of “herding” populations into the fully modern, civilized islands that the eco-modernists envision. Here the eco-modernists will have to say that they do not advocate violence and that the entire process must be voluntary. However, the data makes it clear that this is wrong, and in this case wildists must be armed with that data and ready to use it. Remember, though, that in non-text-based media the audience will usually just hear “this person sounds like they know what they are talking about, because they are using numbers.”

This means that, although we should *under no circumstances* use false data, especially when accurate data is sufficient, the actual content matters less than the structure of the argument. Do not spit out so many numbers that the audience stops listening.

Finally, we should occasionally return to this question of apartheid and investigate whether economic trends have changed. If they have, we may recalibrate our argument. But the moral argument will of course remain, and with that we can say confidently that wildists will never support apartheid.

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Placing Our Bets

Author: John Jacobi

Date: 22 September 2014

Source: Jacobi's Github & The Anarchist Library

A revolt against technology is inevitable; the task before us¹ is turning that revolt into revolution. How we will go about doing this is not yet known, and it will not be a sure path no matter what we choose to do. One thing we can be sure of, however, is that the vehicle for change in modern society will continue to be the mass movement.

There are many things that make up a revolution, but most of them are inevitable. Revolts, terrorism, contrarian art, and so on are all elements of a revolution that will happen without any conscious force. The decisive factor in every revolution, however, is the mass movement. And while a mass *rebellion* may happen without any guiding hand, a mass *movement* must be a conscious endeavor. There must be a dedicated and stable force that connects each rebellion, that sustains its fervor, and that makes it grow.

Other frameworks toward revolution have been offered before. Some anarchists of the 1800s proposed terrorism or “propaganda by the deed.” In their visions, a dramatic act of class violence would awake the masses from their ignorant slumber and induce them with a fervor that would power the revolution. Quite obviously, their framework failed. Furthermore, the anti-tech terrorists² of today have demonstrated clearly that terrorism is a tactic of those who have given up hope. Consider this quote from a communique by *Reaccion Salvaje*:

“we do not want to form an “anti-technological movement” that encourages the “total overthrow of the system,” we do not see it as viable, we do not want victory, we do not pretend to win or lose, this is an individual fight against the mega-machine; we don’t care about getting something positive from this...”

How clear a line of demarcation from the luddite position!

Then there are some who proposed (and some still propose) an armed struggle against the powers-that-be. This is an ignorant suggestion when any armed struggle in present times would clearly be stamped out from a number of factors. No group

¹ Faarlund originally writes this as ‘Free Nature,’ which accents what to him is the most desirable quality of wildness. — ed.

² *Wild* Nature: having the seasonal, diurnal and growth rhythms unimpaired.

will be successful in an armed struggle against the United States, for example, with all its advanced technology and overwhelming military power. Such a group would only achieve long prison sentences for the actors. And what work do they suppose they can do in prison?

Not only would an armed group be unable to succeed, it would be unable to sustain its success. An armed revolution would do nothing to legitimize the values of wild living. Therefore, a successful armed struggle would lead only to the overthrow of the armed group or a reversion to the same circumstances as those that compelled them to overthrow it.

Then there are those who support a nonviolent revolution. It is true that in some areas a nonviolent revolution similar to the historical ones could take place. But the historical ones have always been supplemented by violent counterparts.³ Furthermore, nonviolent revolutions almost always occur in nations transitioning to industrial-capitalistic democracies. In other words, these “revolutions” are not a break from the general trend of history; they are a continuance of it. Because of this, non-violent movements often have considerable institutional backing, from states to NGOs and other organizations. And one cannot deny that a state’s power is based on violence.

That is not to say that luddites should discard nonviolence completely. It remains effective and desirable in many cases. But, as Arundhati Roy says:

If you’re an adivasi [tribal Indian] living in a forest village and 800 CRP [Central Reserve Police] come and surround your village and start burning it, what are you supposed to do? Are you supposed to go on hunger strike? Can the hungry go on a hunger strike? Nonviolence is a piece of theatre. You need an audience. What can you do when you have no audience? People have the right to resist annihilation.

The luddites are not terrorists, pacifists, or insurgents. We are revolutionaries, and the path to revolution is one that begins with a group that has placed its bets on a mass movement. How we might sustain a revolution is a question for another essay—or a book, more likely—but one present and clear task can be discerned now: those who wish to protect their freedom must find each other and organize around common values and a common project. Only from there can we move forward.

³ Caramelised milk sugar—an exquisite ‘up hill food’ from Norway.

The Luddite Method

Author: John Jacobi

Date: 12 Sept. 2014

Source: Jacobi's Github & The Anarchist Library

Our goals and beliefs

We believe that wild nature is something to be revered and respected. Because we believe life under wild nature is the freest and most dignified way of life, we believe all of the ecosphere should be wild, or at least have a choice to be. However, since the Industrial Revolution, a technological way of life has made great strides in destroying our ability to live wildly. The industrial system disrespects and domesticates all of nature, from humans to animals to the earth, and even the parts it has not physically touched are affected by the global problems it is creating — problems that the technocratic elite behind it all are attempting to fix with more technology. This system has become so great that it threatens to destroy wild nature and replace the ecosphere with a life created completely from a lab. Because of the nature of this system, nothing will be able to opt out.

Therefore, luddites' goal is to end the industrial system.

What we know for sure

We know that the industrial system will be going through turbulent times in the coming decades. It has created a number of ticking time-bombs for itself, from climate change to invasive species. Within the next couple of decades, the industrial system will begin to feel their effects. Because the industrial system is only 200 years old, it hasn't yet worked out all of its problems (if it ever can), so even if it is eventually able to handle the disasters, it will have a lot of trouble at first. Furthermore, the industrial system is inherently fragile compared to Mother Nature, who has caused cascading blackouts by rubbing a few tree branches on power lines. Historically, the more complex and sophisticated a civilization is, the more fragile it becomes. The only thing that

might save the industrial system from this historical trend is its unprecedented ability to dominate nature.

We know that anti-technology backlash is inevitable. At the very least people will respond loudly to problems technology has caused, even if they don't view technology as the problem. For example, when automation becomes the norm in highly industrialized countries, large portions of the work force will become unemployed. This will be a huge weakness for the industrial system, since people have an inherent need to achieve concrete goals autonomously, and the industrial system relies on work to artificially satisfy this need. Furthermore, the entertainment and propaganda industries have not quite become sophisticated enough to deal with such a high unemployment rate. When such a large amount of people become suddenly unemployed, they are likely to lash out in ways powerful enough to cause instability.

However, it is also likely that some people will attack technology directly. Technology is already the primary controlling force in our lives: automated systems run the stock market, algorithms are highly influential forces in deciding Google search results or Netflix recommendations, and sophisticated policing and surveillance techniques keep people from threatening the system without them even knowing it. However, more people are going to realize how much technology influences their lives as they begin to interact with its artificial products on an everyday basis. Consider, for example, how widespread the anti-Facebook sentiment is, or how easily people can attack a company like Google. Before this point in history, technology wasn't even a cultural topic for discussion. Now it is one of the most common.

Some of these attacks will likely be violent. Anti-technology terror groups have already sprung up all over Europe and South America, and the FBI considers ecoterrorism to be its number one domestic terrorism threat. Many defense experts also predict that anti-technology terrorism is the most likely future terroristic threat.

But historically the vehicle for revolutionary change in modern times has been the mass movement. Revolutions are the result of many things, from insurrections to rebellions to terrorism. However, insurrections alone do not cause a social revolution, as demonstrated by the recent tumult in Greece and Arab nations in the past few years. These three things are merely indicators that the time is ripe for a mass movement. Recognizing that the collapse of the industrial system will not come about except by inevitable collapse or a mass movement tells us a few other things we know for sure.

First, we know that historically, mass movements result from both the work of a dedicated minority and from events outside that minority's control. For example, the Russian Revolution would never have happened without both the Bolsheviks and the effects of World War I. However, we also know that mass movements cannot be sustained without the dedicated minority, even if the events outside of the minority's control happen anyway. Dedicated minorities are important to mass movements because large groups of people are inherently volatile, so their activity comes and goes in rigor and combativeness. The dedicated minority provides stability between the active phases.

Second, the dedicated minority, because of its stable presence, is able to win ideological dominance, which will direct people's energies to work against the industrial system consistently. Ideology is paramount to the effort of revolutionaries because ideology motivates people, provides moral justifications for revolutionary action, and clearly delineates a good and bad side in revolutionary conflict.

Third, we know that near the end of revolutions, moderates are usually the first to take power. This happened for the French, Russian, and American Revolutions. However, in most cases, moderates were unable to hold power because the instability of the conditions under which they took it delegitimized them quickly, or because the revolutionaries successfully delegitimized the moderates themselves. Most of the time revolutionaries take power directly from moderates, not the elite.

We know that the industrial system is a global system, and therefore its collapse must be global. This probably means that luddites will have to be dispersed geographically. It does not, however, mean that they need to be in all parts of the world. Luddites need only to be in parts of the world where the industrial system is most vulnerable.

Lastly, we know for sure that the left is a threat to the luddites. Previous anti-technological efforts like Earth First! show how leftists swarm where there is any mass movement, and consequently they destroy the movement's integrity and focus by loading it with issues important to various leftist groups. Furthermore, the left's critique would only accept anti-technological critiques as one among many, which means any anti-technology movement would be subsumed by the left, not helped by it. For example, ecological critiques of green anarchists in South America have been accepted by insurrectionary anarchists in the area, but as a result, green anarchists only become insurrectionary anarchists, not the other way around. The left is able to do this partly because most of its factions are old and well-established, and they have a lot more institutional support than new movements would have. Related to the oldness of leftist movements is the oldness of leftist leaders. Many of these leaders have lost a genuine hope in revolution, and they have accepted less radical ends while keeping their old rhetoric. Anyone who has studied revolutionary efforts knows that revolutions are not started by the old and disillusioned activist, but by the naive and young.

A general plan

Structur

Luddites should operate as a group of autonomous collectives organized around core values and in contact with each other. Groups have to be autonomous because: sophisticated policing and surveillance methods would easily destroy traditional organizations; the industrial system is global and must be fought globally; and traditional structures are too slow for any contemporary movement.

However, a looser structure may mean some groups have weaker confidence in the luddite values of wildness, dignity, and freedom. This can be countered in two ways. First, groups that are geographically close should regularly meet up and share stories, tactics, and beer. This will function to enforce the general feeling of camaraderie among collectives, and it will reinforce the core values in groups that are new or ideologically weaker. Second, each geographical area should have one or two main collectives who manage the area's newspaper. The newspaper should be a consistent source of news for various collectives, and it should reinforce core luddite values.

Collectives' structure should be similar in that there should be one or two people (or more, depending on the size of the collective) who run the local propaganda effort, whether that is a website, a podcast, a newspaper, or something else. These people should be some of the most focused and dedicated of luddites.

Like ideology is the way to maintain unity among collectives, friendship should maintain unity among collective members. Members of a collective should know each other well and, if they cannot be friends, they should at least be able to get along in a healthy manner. Relational unity is both strategically and ideologically sound. Ideologically, it makes sense that luddites organize themselves in a very human, non-mechanistic way. Strategically, relational unity effectively combats efforts of governments and rival organizations to stir up trouble within the collective. It is very difficult for an infiltrator to be effective if collective members expect to meet his family or visit his home.

Timeline

From the perspective of a collective, a luddite revolution is likely to go something like this:

1. One or two individuals begin a luddite collective in their area. They recruit highly dedicated people who believe in the sacredness of wild nature and the abhorrence of the technological system, and they begin working on unifying propaganda projects like puppet shows, podcasts, blogs, newspapers, or something else. During this period individuals grow increasingly attached to the collective community and beliefs.

2. At some point the collective has enough members to begin organizing in its area. They stress certain pressure points in their area and start organizing people around specific issues that will benefit the overall goal of ending the industrial system. For example, if the luddite collective was near a university well-known for its innovations in biotechnology, the luddite collective would want to instigate conflict between students and the biologists or just increase anti-biotech sentiment in general.

3. Perhaps a member of the collective moves to another area and starts another luddite group there. Eventually a few luddite groups form in general geographical proximity, and members from all of the collectives coordinate an annual meet-up. At this meetup, luddites decide on which collective is most fit to run their main newspaper. They also update each other on their progress and celebrate.

4. 1, 2, and 3 repeat. From this point on we can only guess in a very general way what will happen. It is likely that once luddites become recognized in the popular consciousness, their characters and tactics will change tremendously. As groups become more rooted in their communities, they will be able to organize more combative actions.

5. Some disaster destabilizes the industrial system. At this point luddites will hopefully have gained enough social power to act accordingly and in a coordinated manner. A revolutionary time period begins.

6. The luddites suffer wins and losses, and eventually a moderate group gains power. Luddites begin efforts to delegitimize the moderates, and, when they are successful, they finalize their revolution against the industrial system.

7. Luddite collectives will likely be involved in community building after the industrial system's collapse. Given that the circumstances after collapse will be unknown, not much can be said about this.

Tactics

Because luddism's ideology is incredibly simple, luddites have a wide range of options in the area of tactics and maneuver. The range is so wide, in fact, that it would be impossible to list them all here. Instead, the following is a list of categories of tactics, as well as suggested reading for a more in-depth analysis of each.

Internal tactics

Luddites can and will normalize a number of practices that enable the group to last. For example, in the outline above luddite groups used propaganda projects in order to maintain unity and active membership. Similarly, relational unity as a tactic builds stronger bonds between individuals and inhibits moles and infiltrators.

The Bolsheviks employed a number of internal tactics, and business literature often includes a lot of information about similar topics.

- *The Organizational Weapon* by Philip Selznick
- *What is to be Done?* by Vladimir Lenin

Networking and organizational tactics

Luddite collectives are not going to build power with numbers or guns. Their power and their revolution is going to be social. This means they will have to master the art of networking, influence, and storytelling.

- *The Advent of Netwar* and *Swarming and the Future of Conflict* by Arquila and Ronfeldt
- *Rules for Radicals* by Saul Alinsky

- *Community Organizing* by Speer and Hughey
- *How to Win Friends and Influence People* by Dale Carnegie

Combative tactics

In some cases luddites might want to engage in legal combative tactics or civil disobedience. Luddites hoping to learn more about these sorts of tactics should read about the history of Earth First!, the tactics unions used in the streets during the labor movement, and current protest tactics like the black bloc.

- *Ecodefense* by Dave Foreman
- *Hit Where It Hurts* by Ted Kaczynski

Targets

Revolutionaries must choose targets well, industries that the system can't compromise on. Older industries like the electric power industry or the telecommunications industry may be industries where the system is weakest infrastructurally, and the system surely can't back down in those areas, but newer technologies like biotech, nanotech, and artificial intelligence are industries where the system is the weakest socially. Many people are highly suspicious of those three industries, which is an advantage for luddites.

Below are a list of potential target industries for revolutionaries:

- Biotechnology
- Nanotechnology
- Computer industry (software development, metal mining, etc.)
- Electric power industry
- Energy industry (fracking, nuclear, green energy, etc.)
- Artificial intelligence and robotics
- Entertainment and propaganda industry (gaming, TV, social networks, etc.)
- Communications (especially satellite technologies)
- Financial industry (banking, stock trading, etc.)

The Future

Luddites must not wait for the answer to every question before they begin their work. The technology problem is an urgent one, and collectives are going to end up making mistakes anyway. Early Earth First! had it right when they said they would let their actions set the finer points of their philosophy.

Luddites must also constantly ask themselves how their current projects contribute to the overall goal of ending the industrial system. Any projects that do not lead to that goal should be dropped.

Lastly, luddites must not try to control what circumstances after collapse will be. It would be impossible to do so. Uncertainty is an intrinsic part of any revolutionary effort, and that is ultimately a strength for the luddites, who can fill that uncertainty with hope for a certain future.

The Technology Problem

Author: John Jacobi

Date: 31 August 2014

Source: Github & The Anarchist Library

The biggest problems of the twenty-first century are and will be technological problems. Consider the problems we have already faced in the past decade: anti-biotic resistance, quickly spreading diseases due to transportation systems, mass surveillance, climate change, mass extinctions, invasive species, and so on. It is clear that the problems will continue as scientists, governments, and corporations push for even more invasive and destabilizing technologies like nanotechnology, genetic engineering, and advanced artificial intelligence. Some scientists are even considering utterly insane ideas like geo-engineering.

Clearly, a global discussion about these technologies is looming. As the ecological destruction caused by industrial ways of life becomes too catastrophic to ignore, the technocrats will witness a harsh backlash. Those who are placed firmly on the side of wild nature in this struggle will have to organize now if they are to be major voices in this impending conversation. Indeed, they have a duty to do so.

The industrial system is counter to freedom and wildness

Wildness is the spirit of the wilderness and, indeed, of the entire ecosphere. Wild nature, like technology, is a system; but unlike technology, it arose spontaneously, and, unlike technology, it created us. It is to be respected, even regarded as sacred, if any living being wants to live within it and survive. Unfortunately, the industrial way of life is built on values that disrespect wild nature.

Consider the way technology has destroyed certain aspects of the wilderness in such a way that some areas can now only exist because of technological infrastructure. This is humiliating to the entire ecosystem of that area. Furthermore, because of the complexity of wild nature, a problem in one area often means a problem in many. When, for example, Europeans moved across America and over-hunted the beaver population, they heavily affected the cycles by which wild nature purified its streams and rivers for

drinking. Industrial technology has exacerbated this problem with such severity that many humans, once free and dignified creatures of the wild, are largely dependent on industrial water-purifying systems.

The industrial way of life is incompatible with wild nature because, although entirely dependent on wild nature for its existence, it views nature as a resource to be exploited, and it ultimately wants to be autonomous from wild nature. At the moment, nature is a super-system of the industrial system; that is, the industrial system would not exist without oil, human labor, and so forth. Increasingly, however, technological progress is enabling a completely synthetic way of life to be possible. Even now we can envision how this would look: Nanobots swarm through the city periodically to repair its infrastructure, food is printed, and human bodies are either completely gone or rendered irrelevant by intelligence technologies that can embody our consciousness.

But let's return to the present, since the present circumstances are bad enough.

Contrary to what contemporary environmentalists claim, we humans are not separate from nature, and we are not a cancer to the earth. We are a part of the system of wild nature, an integral part, and since it is the system we were adapted to for thousands of years, we still desire many things that are insufficiently provided for by the industrial system. For example, we have the biological and evolutionary need to seek out our own food. This is part of a larger desire to attain goals and power autonomously. In industrial society, however, we are dependent on large technological systems of food distribution to eat. We merely have to go to the supermarket and get food without any struggle at all.

But we are still left with the desire to attain goals autonomously. As a result, the techno-elite of our society construct artificial conflicts and even create artificial desires through advertising propaganda. If the industrial system didn't account for our unfulfilled desires, we would break it apart from psychological frustration. But are we not psychologically frustrated even with the artificial desires? At least some of us are, which indicates that the technological solution to a technological problem has, as it always does, created just another technological problem. It is likely that our increased social and psychological problems are a result of our life in an industrial world that is radically different from the world we were made to exist in. What an utterly humiliating existence.

Wildness can only be restored with a switch to non-industrial ways of life

Few doubt that the industrial way of life as it exists today is counter to wild nature. (It is not necessarily counter to domesticated nature.) But, some people may assert, the industrial way of life can be changed so that it can be compatible with wild nature. This is an incorrect assertion because it ignores the fact that technology is not a tool

like a hammer or a piece of charcoal. Technology is a system with its own values, chief among them being efficiency and artificiality.

Wild nature is neither artificial nor efficient, so, assuming it would remain a technological system if it did so, the industrial system would have to drop both of those values if it was to become compatible with wild nature. However, because technological systems are, like wild nature, incredibly complex, consisting of many interdependent parts, a change in values at the current level of advancement would necessitate the complete collapse of the system.

A related argument is that some parts of technology are really good, like industrial medicine. But one could argue that industrial medicine isn't really all that great. It does cure some forms of cancer and provide the infrastructure to find more cures, but the number one cause of cancer is the industrial system of which it is a part. Furthermore, industrial medicine is also dependent on a number of other industries that are commonly accepted as being the "bad" parts of technology. For example, the pharmaceutical industry relies on the propaganda industry to advertise its medicines. However, I cannot argue with integrity that I do not like many aspects of industrial medicine. It is something I would be reluctant to give up.

But you cannot separate the good parts of technology from the bad. As stated earlier, it is a system that is so complex that you either take all of its central aspects or you take none. The question for contemporary generations, then, is whether the bad parts of technology outweigh the good or the other way around. I argue the former. Some of the benefits of industrial medicine is nothing compared to the list of problems at the beginning of this piece. One could argue that climate change alone is enough to abandon industrial society. It has the potential to decimate our home and freedom, and as a living creature placed firmly on the side of wild nature, I have a duty to protect both of those things.

If one decides that things are bad enough to work against the day, the logical next question would be, "When did things become bad enough to necessitate radical change?" Some people along a similar line of thought trace the problem back to agricultural technology, some even earlier than that. I am unwilling to claim, however, that the bad parts of non-industrial agricultural technology outweigh the good. I only assert that technology from shortly before the Industrial Revolution offers more bad than good.

A precise way of explaining this is differentiating between small-scale and organization-dependent technology. Small-scale technology is any technology that can be created and maintained by small communities. Organization-dependent technology is technology that requires large-scale organization, specialization, and division of labor. Until about two centuries before the Industrial Revolution, most technology was small-scale technology; but technology produced since the Industrial Revolution has mostly been organization-dependent. Since I am not against specific products of technology, per se, and I am more worried about the effects of the overall system, the problem as I see it is organization-dependent technology.

Computers are an example of organization-dependent technology. More than just a simple artifact, a computer is a system in your lap or on your desk, a product of a vast network of techniques, all of them destructive of wildness. For example, at the cost of freedom, a large system of labor must exist so that people who normally wouldn't blow up the earth for metal ores will. There must necessarily be police and certain forms of governance to enforce this system of labor, again at the cost of freedom. Then the earth itself must be blown up, logged, mined, and moved around far beyond what is prudent. An enormous system of ecological destruction must exist for Internet server farms and the energy industry. And lastly, there must be a propaganda industry in place so that people will willingly accept—praise, even—their technological prison.

Ending the industrial way of life is conceivable

A collapse of the current industrial system is desirable, but I also believe that it is conceivable. Here I will outline some consequences of a collapse, as well as general strategies to get from here to there.

First it must be stated that a collapse does not necessarily have to be violent, although it would definitely be sudden (in the historical sense). “Collapse” sounds very dramatic, but in the best-case scenario there would be a major shift in attitudes toward technology and nature, life sciences (albeit in a different form from today) would replace physics as the defining science of our culture, and the world would, through the non-use of mass transportation and communication technologies, break into smaller groups again. This would mean that only industrial society itself would collapse, and while large organizations would break along with it, small communities would potentially last past the end. However, that sort of thing is unlikely to happen. It is more likely that the collapse of industrial society will entail some nasty situations.

Regardless, technology will keep going down its current path unless a group of dedicated people placed firmly on the side of wild nature decides to take action. Therefore, the current task of anyone who wants to protect their wildness and freedom is to form or join a group with the same values. This group will have to develop more fully their ideas about technology, nature, wildness, and so forth.

From there, the group, which will not be more than a minority at any point until near or after the collapse of the industrial system, must develop strategies to gain social power and encourage conflicts that destabilize society. These conflicts must involve technology, nature, and the elite and the technocrats. They must also encourage the destabilization of industrial society rather than the reformation of it. Gender issues, for example, would only lead to reform, or else they would inspire technological solutions, such as using technology to eradicate the issue of gender, as some feminists have suggested recently.

Eventually the problems industrial society is causing for itself will hurt it tremendously, causing a period of high instability. If nothing else, climate change will do this.

During this period, the dedicated minority in line with the values of wildness would have to push industrial society over the edge.

Conclusion

I see three potential futures:

1. Industrial society collapses because of climate change, nuclear disaster, or so on, without the help of a dedicated minority. The lack of a dedicated minority suggests that the collapse will almost certainly be violent and terrible for a majority of people—it would at least be worse than if some people were consciously doing it with the interests of humans and the ecosystem in mind.
2. Industrial society collapses because a dedicated minority works to push it over the edge when it is weak from some sort of disaster.
3. Industrial society develops techniques to create completely synthetic environments that can operate autonomously of wild nature. Wild nature, inefficient and unneeded, is destroyed. Natural systems, including the human body, are either completely synthesized through nanotechnology, artificial intelligence, or genetic engineering (or a combination of all of them), or else they are heavily augmented by the same technologies. Maximum efficiency is achieved, so no component of the industrial system operates autonomously of it.

The conscious collapse described in #2 would not be all peaches and cream. Awful things would likely happen. But the question is not, for example, “Why should the dedicated minority decide who lives or dies by taking away industrial medicine?” Rather, the question is, “Why should the industrial system be allowed to go on when it will either take away our life or take away our freedom?”

Why I Am Leaving Anarchism

Author: John Jacobi

Date: 31 August 2014

Source: Jacobi's Github & The Anarchist Library

I have decided to leave anarchism, not as my technical political orientation, but as my claimed one. Regardless of my technical place within the anarchist tradition, the word, especially among North American, insurrectionary, and synthesist anarchists, invokes a set of predisposed attitudes and questions that I am not interested in.

My biggest problem with anarchism is its historical baggage, which disallows anyone within it to make a clean break and establish a totally new movement. This would not be a problem if a totally new movement were not called for, of course, but I believe that it is. Furthermore, movements with long traditions tend to acquire older and more experienced individuals, which, in the history of revolutions, have usually done more against revolutionary efforts than for them. That is not to say that nothing can be learned from the older and more experienced, only that the proclivity of the young to run into a wall of sharp daggers is often what enables revolution.

This historical baggage brings with it preconceived notions of an ideology within the minds of potential recruits or sympathizers. Students at my university, for example, often scoff at the very idea of anarchy. This was not a particular problem for me until very recently, but as someone who believes a completely new effort ought to be made, I would like to start with as little baggage as possible, or at least baggage I'd be proud of and want to talk about.

Apart from the historical baggage, anarchism in its present form is a problem. I rarely ever hear a good analysis of industrial society come from the mouth of an anarchist, and if I begin a conversation on the topic, "capitalism" is eventually mentioned, as though it were the root of the problems I attribute to industrialization. But I firmly believe that communism is just as bad as capitalism, and that, should communism or mutualism or some other economic system become more efficient than capitalism, technological society will adopt it in capitalism's place. In fact, technological society tends toward socialism, and most technocratic elites include the idea of "post-scarcity" in their utopian visions. Therefore, the problem is not capitalism, but the industrial system itself.

To less focused anarchists, capitalism is only one of many problems, the others including things such as homophobia, patriarchy, racism, and so on. These issues are, like capitalism, issues that aren't issues that have to do with technological society. (Racism and slavery have some to do with technological society, but not within a victimization framework.) This indicates that most anarchists are not, in fact, against technological society. Indeed, this seems to be the case. Most anarchists seem to be against "domination," which, while it does manifest itself in the context of technological society, encapsulates a far broader program that is both unfeasible and, at times, ridiculous. For example, eradicating racism is unfeasible except in the context of a technological society; and eradicating gender or the family is ridiculous.

Anarchists also position themselves against hierarchy, a position I never regarded too seriously, except when I was an angsty high-school freshman. Of course I am against "big hierarchy" since I am against the dependence of wild life on the industrial system, but hierarchy in families or tribal relationships are fine for the most part.

Lastly and perhaps most importantly, since this is the crux of my politics, anarchists outside of the green anarchist tradition almost never talk about wild nature, and when they do it is usually only in reference to animal rights, which is, like the issue of prison abolition and police brutality, framing a technological issue within a victimization paradigm (anarchists would call it a liberation paradigm, but these are two sides of the same coin).

I want to focus on wild nature as something that should be free, something all life should be a part of. Wild nature is something to be regarded as sacred and, should industrial society fall, wild nature will again be the defining force of human life and organization. Therefore, it can without question be given as an alternative to industrial society—but anarchists don't like to talk about alternatives. Irrationally afraid of prescription, they deny the very simple and undeniable reality that nature's influence is going to be the alternative to technology's influence, whether they want it or not. I agree with the anarchists that we cannot go beyond this point; I wouldn't be able to prescribe ways of life for every small society that would exist after the technological society. But just as technological society is a general paradigm under which there is much variation, wild nature is only a general answer to the question, "What is the alternative?"

These differences are important. If an anarchist is against capitalism or "domination," then they are ultimately fighting for a different future than I am. Why on earth would I work with them? Of course, there is always some level of overlap and occasionally there are times when working together can be beneficial (for example, an anti-capitalist anarchist group could work with an anti-industrial group on some action against a biotechnology company), but as far as formal organization goes, it makes no sense for a person concerned mostly or only with gender issues to get involved with a group explicitly organized around anti-industrial ideals.

In an effort to distinguish myself from anarchism, I have adopted the label "luddite." That word has a history I am proud of or at least want to talk about, it asks questions

about industry and technology rather than hierarchy and domination, and it induces a curious rather than dismissive response from those not familiar with its politics. All this is not to say that I don't technically belong to the anarchist tradition. Insofar as anarchism means the breaking down of society into smaller groups, I am an anarchist. But because of its social connotations, I'm going to let that label go.

We Fight for Life

Author: John Jacobi

Date: 08 October 2014

Source: Jacobi's Github & The Anarchist Library

Non-industrial ways of life cannot support 7 billion people, that much is certain. But, given that there are currently 7 billion people on the planet, there seems to be a gaping hole in the Luddite argument that ending the industrial-technological system is the choice those who love wild nature ought to take. And if there is not a gaping hole, critics say, then Luddism must be misanthropic. No doubt, there have been some Luddites who were misanthropic, and proud of it.¹ But I have no interest in praising those who so easily advocate for the death of so many. What are we fighting for if not for life?

With some history and a bit of inductive logic it becomes clear the general direction humans are headed for should technological progress continue unabated. So far, industrial technology² has only augmented and modified humans and wild nature; it has not operated for nature or for humans. This is because a technological system has to regulate humans and nature in order to function.³ You can't have cars without laws governing cars and roads, without a coercive system of labor to get people to work in factories, or without a cultural climate that forces youngsters to study all day to become engineers. As the system gets more complex, this trend will only get worse. Rather than medicating human beings maladapted to life in a city, the industrial system will instead technologically augment human beings maladapted to life in space-or even just a highly technological city. The extremist vanguard of this future, the transhumanists, openly admit that this is the direction they want the human race to go.⁴

¹ Faarlund originally writes this as 'Free Nature,' which accents what to him is the most desirable quality of wildness. — ed.

² *Wild Nature*: having the seasonal, diurnal and growth rhythms unimpaired.

³ Caramelised milk sugar—an exquisite 'up hill food' from Norway.

⁴ Faarlund's original text reads: 'to elaborate on our versions of the fusion of the natural science of ecology and the philosophical keel and rudder—values orientation—for an ecophilosophy' Later in the original text, he repeats the phrase 'values orientation.' Although for clarity I had to amend the specific wording, it is important to note the importance Faarlund places on *orientation* and *values* as instrumental to the paradigm shift necessary for the respect of Wild Nature. — ed.

But as many science fiction authors have pointed out—and how odd that their futures are actually plausible now!—this could turn out to be a disaster.⁵

If industrial society does not collapse, either through some sort of disaster or some sort of revolution, humans will find themselves in one of the possible technological futures. And even if the future is a shiny transhumanist one, it will not be one filled with life. Transhumanism advocates for the destruction of life. Granted, there are no easy answers regarding the hard limits of what constitutes a human, but maybe that is not the right point of inquiry. It is clear that, human or not, there is something fundamentally unsettling about the idea of a person with an artificial brain. And beyond the philosophical questions of humanness, there is concrete reality: history has made it clear that while sometimes technological progress brings what it promises, it *always* brings unintended consequences as well. For example, if the technological system continues unabated, it will eventually make the human body incapable of defending itself from disease. This will either be through the weakening of the human immune system, the creation of superbugs or runaway laboratory viruses, or both.⁶ If this happens, then at a certain point the human race will be dependent on machines just to survive. What kind of life is that? What kind of position does this put us in? No, the transhumanists do not fight for life, they fight for the machines. This was most clearly expressed by the founder of information science, Claude Shannon, when he said, “I visualize a time when we will be to robots what dogs are to humans, and I’m rooting for the machines.”⁷

With all this in mind, we can positively say that our most rational and ethical choice is certainly *not* continuing down the road of technological progress.

Much more likely than any of our possible futures is the collapse of the industrial system. Again, we can look to history for confirmation: every advanced civilization that has existed has disintegrated relatively soon after. Granted, this is not a very strong argument that our civilization will collapse, especially since civilization is a relatively new invention, but it becomes strong once we understand *why* these civilizations have fallen.

⁵ Askeladden is the main character of many Norwegian folktales. In many stories he is rejected as eccentric and unusual compared to his two brothers, but, when a challenge presents itself to all three, he is the only one to succeed, thanks to unconventional thinking and creativity. He often represents the innovator who instigates a paradigm shift. — ed.

⁶ The phrase ‘home of culture’ is an idiosyncratic one developed by Faarlund and others in the article “Nature is the Home of Culture—*Friluftsliv* is a Way Home.” The article explained the Norwegian tradition of *Friluftsliv*, of which Faarlund is part, and its ultimate quest to ‘to bring about a change in the modern affluent societies [by working] to help re-establish cultures where nature is the home of culture.’ — ed.

⁷ A *conwayor* (‘outdoor educator’) is a mentor in the Norwegian *Friluftsliv* tradition, whose main purpose is to find wild ‘learning rooms’ for students to develop a positive and freely developing relationship with nature. — ed.

Joseph Tainter explained some of the factors that go into collapse:⁸ for one, when a complex society confronts a problem, it tends to pile on more bureaucracy and more complexity. For example, to fix the problem of the industrial pollution of waterways, technological society built a complex filtration and plumbing infrastructure. To fix the problem of waste in industrial cities, technological society introduced waste disposal departments. This trend eventually leads to diminishing returns on investments in social complexity, which is to say the energy required to run a civilization becomes impossible to acquire.

Modern technological society has already passed the point of diminishing returns. Jason Godesky offers a great synthesis of information supporting this in his collection of essays, “Thirty Theses.”⁹ The most astonishing bit explains how industrial agriculture is far, far past the point of diminishing returns because of monoculture, peak oil, and the destruction of arable land. More basically, the energy industry itself is past the point of diminishing returns, largely because it requires massive machines and infrastructure requiring oil and coal in order to get oil and coal. Eventually, one (or more) of the areas will face crisis and put all of modern civilization at risk of collapse.¹⁰

Of course, a temporary extension on the lifetime of civilizations can be achieved through innovation, which is why industrial society has come to favor capitalism as its economic model. It is also why energy companies are moving toward so-called “green energy.” Should green energy become cheap enough to produce, it will lengthen the lifetime of civilization by at least a bit. This is why the left environmentalists are so dangerous: they are fighting for innovation that could possibly lead us to the undignifying technological futures described above (that is, if the technocrats find some more efficient energy source during the extra time green energy gives civilization). Worse, still, and this is the takeaway point, they could increase the strength of the technological system (by extending the amount of time it has to perfect its control mechanisms) so that when collapse happens, industrial society takes down the entire complex biosphere with it. Of course, until the very end these same environmentalists will proclaim that they are fighting for life because “billions of people would die if we end industrial society.” Never mind that *everyone* might die if we don’t.

Now, as I wrote the sentence above, I initially put “millions” instead of “billions.” It made my heart ache to change that single letter because I can’t even conceive of what this would look like. Now, there should be no mischaracterization: an end to industrial society probably wouldn’t be abrupt, and consequently neither would the population

⁸ Translates literally into ‘spring break,’ but is similar to the phrase ‘var losning’—‘our response.’ — ed.

⁹ Foreman, along with most of the original members, left Earth First! in the late 1980s because the influx of leftists, anarchists, and counter-cultural types had taken the movement away from its original principles. You can read the prequel to his departure in the article “Whither Earth First!?” Howie Wolke, another founder, describes his version of events in the article “Earth First!: A Founder’s Story.” — Ed.

¹⁰ Foreman may be referring to the article “The Aftermath of Megafaunal Extinction,” *Science*, 2012. — Ed.

drop (after the initial drop). But these people are living beings and members of our own species. They might even be my family—or me. To be sure, we Luddites do not throw out the term “revolution” lightly.

At this point we should consider an underlying ethical question: if collapse is most likely and would cause a population drop anyway, then why would we work for that collapse, effectively assuming responsibility for it?

There are a few responses to this. For one, it is a reach to say that a revolutionary movement would be assuming responsibility for the deaths of all those people by initiating collapse when the technocrats are the ones who got us into this mess in the first place.¹¹ Secondly, the other side will be fighting for their technological future regardless of the consequences, and regardless of what the Luddites choose to do—and we’ve seen the possible outcomes if they are successful. If for no other reason, a revolutionary movement should at least exist to combat those psychopaths. Lastly, if a collapse will lead to the deaths of many people and continued technological progress will only lead to more people and more dependence on the system, then the only way to choose life is to choose collapse. The sooner the collapse, the less people die, the more likely it is that humans can live freely again.

All this is not to say that our sole concern should be to preserve as many lives as possible. The number of people living is irrelevant if they are living unsatisfactory, distressing lives. Furthermore, there are more important things than life, as any parents would attest to. But an unaided collapse would certainly be worse than if some people were consciously pushing for it with the interests of humans and the ecosphere in mind.

All things considered, it is clear that the best choice for us to make at this point—for our freedom and the survival of the ecosphere—is to instigate and solidify collapse. It is by making this choice that Luddites can truly say that they fight for life.

¹¹ V. Smil, “Global Energy: The Latest infatuations,” *American Scientist* 99, no. 3 (2011): 212–19.

The Persistent Hope

Author: John Jacobi

Date: 04 Sept 2014

Source: Jacobi's Github & The Anarchist Library

Since the advent of the technological way of life our world has lost its magic, its freedom, and much of its beauty. The coming decade looks like it will be a decade of disasters. But despite the negativity that threatens to engulf us, if we look closely we can see a glimmer of hope for a better future—and it's not the false hope of the techno-optimists.

Google has recently begun efforts to build an enormous trans-Pacific cable system to connect the US to Asia at faster speeds. Obviously there are many problems inherent in this project, particularly the impacts it has on the ecosphere. But sharks aren't having any of that. Google is having to put a protective guard around the cables because the sharks keep biting them, which could potentially cause widespread internet outages. The sharks have actually been at this for a while—at least since 1985, when shark teeth were discovered embedded in an experimental cable near the Canary Islands.

This is a clear example of nature biting back. Obviously the sharks aren't conscious agents of revenge for an all-powerful Mother Earth. But they are part of a complex and interdependent ecosystem, which will invariably cause problems for technologies that disrespect and disregard it. All around us we can see examples of this.

Squirrels have similarly caused problems with power-lines, for example. In 2013 New York Times author Jon Mooalem reported that over a four-month timespan, squirrel attacks on power lines made the news at least 50 times. Even more impressive, the Nasdaq has been shut down by squirrels twice: once in 1987 for 82 minutes and once again in 1994. In fact, much of power infrastructure seems to be particularly vulnerable to natural attacks. The primary cause of most power failures is weather, but the 2003 Northeast blackout was caused by power-lines brushing against a few Ohio tree branches. All of these cases is indicative of the way industrial society regards nature: it doesn't. As a result, natural processes end up causing a lot of problems for industrial infrastructure.

Of course, the response of the technocrats isn't to step back and let the wild processes take their course. Rather, the technocrats intend to march us forward evermore,

protecting underwater cables with mesh and kevlar and moving power-lines underground. We can see the same trend in scientific communities studying climate change. Scientists and policy-makers have shifted away from discussions about stopping climate change and are instead pushing for reinforced infrastructure to avoid some aspects of climate disaster.

Those who stand with wild nature should not lose hope in this increasingly synthetic age when such inspiring examples of nature fighting back exist. All around us we can see the squirrels and the sharks and the trees and the clouds acting with persistent hope that their wildness will win. It is true that technology may prevail in destroying wild nature completely. It may prevail in creating a completely synthetic world. But Mother Earth is strong and fierce, and she will not easily be defeated.

This is especially true if we humans decide to join the fight on behalf of wild nature. Of course not all humans can or will when they are trapped in a technological prison. But those placed firmly on the side of wild nature have a duty to fight with the sharks and the squirrels. Our advantage as a species is our consciousness, and it may be our consciousness that will determine whether nature lives or dies in the struggle against industrial society. If a conscious minority of wild humans does not work against industrial society, then industrial society will either prevail or else its collapse may be so late that it brings down the entire biosphere with it. But we must keep our hope, because there is a chance that if we do join wild nature in her fight, we might be able to protect our home, our freedom, and, most of all, our wildness.

Review: Green Delusions by Martin Lewis

John Jacobi, *The Wildist Institute*

Abstract—Martin Lewis’ *Green Delusions* is a critique of various forms of radical environmentalism. This review explores how these critiques relate to the wildist ideology.

I. Introduction

Martin Lewis is a former believer in radical environmentalism who published *Green Delusions* to refute these ideologies once he came to the realization that, according to him, the very things he once opposed actually offer the best way to institute environmentalist values. Worse, he claims, the more radical of radical environmentalisms would actually *betray* these values.

While some reviews have said that Lewis constructs a straw man, my own experience has confirmed that the grassroots of the environmental movement consists of individuals thoroughly confused about technology, primitive life, and the impotence of irrationalism as a basis for politics. Certainly some ecoradicals, thankfully the most influential, have more robust and scientifically-informed views, but they are by no means the majority, and in practice “radical environmentalism” often obscures facts for the sake of its ideology, rather than its ideology building from facts.

All that said, Lewis does only attack the low-hanging fruit, not really interacting with the more sophisticated non-marxist environmentalisms in a fair way. This review outlines those pitfalls in relation to wildism, explaining that, with the exception of some elements of his “decoupling” thesis, nearly all elements of his critique are irrelevant to the ideology.

II. A Book with Few Weaknesses

Although Lewis occasionally appears daft or overly polemical, *Delusions* is mostly a strong text, one that i wholeheartedly recommend to any eco-radical. in fact, if a radical cannot weather the storm Lewis sends his way, he ought to seriously reconsider the basis of his radicalism.

This is especially true regarding the scientific evidence presented in each chapter. Lewis points out, and he is unfortunately correct, that many, if not most, ecoradicals base their politics on unfounded, dubious, or flat-out wrong assumptions. Perhaps the strongest examples of this are those outlined in chapter two, “Primal Purity and Balance,” in which Lewis critiques both the noble savage idea and the idea that ecosystems have a “natural balance” (this, while true in some respects, is not true to the degree that many eco-radicals would need it to be to support their conclusions; see Hettinger & Throop, 1999).

Lewis also makes several powerful arguments against irrationalism. Writing with the correct assumption that most environmentalists are from the left, he writes, “Irrationalism may be inherently radical, but it can just as easily be harnessed to the radical right, as examples of the philosopher Heidegger and of the deconstructionist savant Paul de Man—onetime nazis both—so clearly show” (p. 161). Related is his critique of the environmentalist obsession with Eastern religions. on this point hse quotes an interesting passage by van Wolferen (1990, p. 241):

Actually, the historical function of Japanese Zen, which thrived among the warrior class, was to lower the resistance of the individual against the blind obedience expected of him, as can be gathered from the common Zen imagery of ‘destroying’ or ‘extinguishing’ the mind. Indeed, all of the Asian creeds so eagerly embraced by ecoradicals have been associated with notoriously anti-liberal political regimes.

Later chapters in the book critique anti-technology stances, predictably arguing for technical progress primarily on the basis of medical values, and anti-capitalist stances, arguing that capitalism is better for third world countries than collapse would be, again on the basis of humanist values. For a wildist, his arguments in favor of capitalism will likely be somewhat boring, his most interesting claim instead being that the collapse of technical and economic infrastructure would betray environmentalist values.

As a part of his proposed alternative, he notes an important point regarding the “limits to growth” hypothesis (p. 185):

Limits do exist for specific resources, but in the most important cases they are so remote as to be virtually meaningless. Using the same logic one could declare all human endeavors futile, seeing that the sun will eventually go supernova and consume everything. More importantly, environmentalists must come to understand that economic growth increasingly entails not the ever mounting consumption of energy and raw materials, but rather ever increasing value added—which as often as not is accomplished through miniaturization, partial dematerialization, and the breakdown of the very distinction between goods and services.

Lewis is probably correct. Although it is possible that miniaturization will combine with expansion to create a hyper-technical landscape, current environmental problems are more likely to ensure that economic practices will go through a rapid change in the future, resulting in less growth in exchange for more value added, and resulting, ideally, in more efficient and stable distribution of resources. Several from the technician class have predicted as much.

Some weaknesses of the book do stand out. In particular, although Lewis clearly understands radical environmentalism, having belonged to the movement once himself, he sometimes makes arguments that he should know would be unconvincing to a radical. For example, in a chapter that is otherwise quite good, he supports his argument that urbanism is better for the environment by writing that “public transport, which is almost always less polluting than travel by private automobile, is feasible only in and between cities.” As if the travel practices of primitive man, or even transportation in agricultural societies, even approached the damage done by industrial public transport! He also says that he “can only shudder” at Aldo Leopold feeling “unspeakable delight” while hunting (p. 96), which is a classic case of the pathological aversion to violence present in many modern oversocialized individuals.

Finally, Lewis shows a clear and probably undue bias for eco-marxism, calling it the “most sophisticated of eco-radical ideologies.” But he ignores two important facts. First, non-marxist radical environmentalism is much newer than marxism, so it necessarily possesses a smaller theoretical body of knowledge. Second, some circles, who Lewis only ever addresses fleetingly or indirectly, have actually developed rather strong and reasoned foundations for their radicalism. This is the same circle that produced the field of conservation biology, The Wildlands Network, the concept of rewilding, and the now-defunct publication, *Wild Earth*.

I. Rarely Challenges Wildism

Unfortunately, Lewis’ strongest arguments, his scientific ones, are so strong precisely because most ecoradicals favor irrationalism and utopianism as the basis for their resistance. However, since wildism is built within the context of scientific materialism, most of the critiques do not apply to it.

For instance, Lewis argues that radical environmentalism is built on four faulty assumptions: (1) that primitive peoples lived or live harmoniously with nature; (2) that small-scale political structures are more socially and ecologically benign; (3) that technical progress is inherently bad for the environment; (4) that capitalism is inherently bad for the environment. He further argues that eco-radicalism’s main energy is derived from the belief “that continued economic growth is absolutely impossible, given the limits of a finite planet.”

However, almost none of this applies to wildism. In addition to its scientific materialism, wildism is mostly immune from these critiques because it is a non-humanist ideology, so does not hold dear the values of large-scale solidarity, equality, non-violence, and so forth. Rather, in lieu of social progressivism, wildists argue for the conservation imperative to be extended to human nature, which is known to come with bad (or “bad”) aspects as well as good ones, just as in nature generally. For this reason, nomadic hunter/gatherer life is a useful model not because primitive peoples live (or lived) “harmoniously” with non-human nature, but because they represent, in a rough way, the

natural state of man. scientific findings based on this insight have been revealed by sociobiology and its cousins.

Furthermore, although primitive peoples do not always live in an ecologically benign manner, they are several orders less damaging to the environment than industry. Oftentimes critiques of the noble savage mythology fail to note this, instead relying on the shock value that comes with the direct character of primitive man's ecological damage. Thus, the point is not that primitive peoples necessarily live morally good lives, but that they at least live less bad ones, and this is ensured not by some naive faith in human self-restraint, but by the hard, material limits of primitive technics.

On the question of technical progress, wildists do not insist that specific instances of technical progress are inherently bad for the environment, which is significant because the rebutting evidence Lewis offers often consists only of this. Wildists also note that technical progress could, hypothetically, be good for some aspects of naturalness, such as biodiversity. However, the core contention of wildism is that conservation should always aim to restore nature's autonomy, or its *wildness*, and so far technical progress *as a whole* has necessarily amounted to a loss of this autonomy.

Thus, wildism demonstrates a reasoned way to come to eco-radical conclusions. The argument goes something like this: nature has intrinsic value, and the wildness of nature is of the utmost importance, even such that civilization at least until now has been morally unjustifiable. Since civilization arguably can't and almost assuredly won't be reformed into something sufficiently benign, the most moral way forward is probably to dispense of industry completely. Nearly none of what Lewis says is a great challenge to this, given the starting value of wildness.

The critiques most relevant to wildism are closely related to the half-earth idea, which poses, so far as we at the institute can tell, the only viable challenge to the idea that collapse is the way out of our ecological problems. This idea will be addressed on its own in a later piece. It is enough to say here that the strongest critiques relevant to wildism do not challenge the core value of wildness, but demand that wildists eco-radicals consider what other values have to be present for them to favor collapse over the alternatives. Lewis' particular alternative (he calls it "Promethean environmentalism") is inadequate, but evidence he offers strengthens the relevance of the central dilemma: if further development can mostly decouple humans from non-human nature, which is possible in some significant ways, would wildness-centered eco-radicals be willing to sacrifice the wildness of human nature in exchange for the wildness of non-human nature, or must they have both?

For instance, Lewis points out that densely packed urban industrial environments more efficiently use land and resources than rural environments, leaving more land for wildlife. Although this could be akin to the argument that public transport is desirable because it is better than cars, I find this argument to be somewhat more sensible, because collapse will not happen in all places at once, which means a potentially long period of ruralization in some areas before the period of technical regression ends. This could mean a lot of damage to wildlife. Furthermore, Lewis offers some evidence that

nonor minimally-industrial back-to-the-land living could be more harmful than cities. This is mostly anecdotal, however, and also relies on emotional capital in the same way critiques of noble savagism do, so more data is needed to support the point.

Lewis' argument is made stronger, of course, by the possibility of an even more radical decoupling for which industrial cities lay the foundation. That is, new digital technologies, nanotechnology, artificial intelligence, and so forth could decrease the ecological footprint of each human being by several orders, potentially to a level smaller than even primitive man. This may make the population decrease that has historically come with industrialization sufficient to make the late industrial mode of production less harmful to non-human nature than primitive modes of production. In the context of transhumanist ideas, like uploading human consciousness to the internet, this idea starts to look like the best of both worlds: progressivists get to continue technical progress for humans, while at the same time non-human nature will continue to be restored.

I and a few others at the institute believe that there are serious problems with this idea, reflecting many of the points brought up by McCarthy (1993), but we have outlined neither our moral rebuttal nor our empirical doubts. Because of this, Lewis currently has the upper hand, and the "decoupling" aspect of his critique is a profoundly important consideration for wildists.

IV. Conclusion

Lewis' critique of radical environmentalism is unfortunately stronger than it should be, because among the grassroots activists that form the majority of the movement, irrationalism reigns supreme, as do humanist values. This is especially true in regards to radical environmentalist accounts of small-scale societies and noble savage mythologies. However, because wildists are not bound to humanist values and insist on a scientific analysis, Lewis' critique is mostly impotent for us. Nevertheless, to the extent that it is feasible, his "decoupling" thesis offers an attractive potential alternative to collapse, and a pressing concern for wildists should be outlining the moral and empirical criticisms of this alternative, if they exist.

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— Discussions —

An Interview with John Jacobi

To start the new year, Uncivilized Animals is covering new ground with its first ever interview-style post. The subject of this first interview is John F. Jacobi, founder of UNC Freedom Club and one of the editors of the groups FC Journal. UNC Freedom Club describes itself as “an anti-industrial, ecological student group at the University of North Carolina at Chapel Hill”.

The name Freedom Club may carry a certain connotation for those who identify as green anarchists and other critics of technology. How did you decide on the name for the group?

For those who don't know, maybe I should note that “Freedom Club (FC)” was the name of the group who later turned out to be Ted Kaczynski, the Unabomber. The intent behind the bombings was to get Kaczynski / FC's manifesto, “Industrial Society and Its Future,” published in a major newspaper. He succeeded. And as far as I know, to this day Kaczynski has continued to refer to “FC” as a group.

But the name is not hinting at some kind of new armed struggle. In fact, some people who belong to the group have an overall negative impression of what Kaczynski did, even if we agree with his ideas on technology and industry (and, to the extent he talked about it, wildness).

But the compelling thing about Kaczynski wasn't his ideas or his political actions, it was his relationship with wildness and life. When I wrote Kaczynski, I got the impression that his interactions with me were, ironically, very mechanical, as though he structured them just right so they would work perfectly as part of the larger revolutionary machine. But there are more relatable aspects to Kaczynski's character. Take, for example, this excerpt from an interview first published in Green Anarchist:

“This is kind of personal,” he begins by saying, and I ask if he wants me to turn off the tape. He says “no, I can tell you about it. While I was living in the woods I sort of invented some gods for myself” and he laughs. “Not that I believed in these things intellectually, but they were ideas that sort of corresponded with some of the feelings I had. I think the first one I invented was Grandfather Rabbit. You know the snowshoe rabbits were my main source of meat during the winters. I had spent a lot of time learning what they do and following their tracks all around before I could get close enough to shoot them. Sometimes you would track a rabbit around and around and then the tracks disappear. You can't figure out where that rabbit went and lose the trail. I invented a myth for myself, that this was the Grandfather Rabbit, the grandfather who was responsible for the existence of all other rabbits. He was able to disappear, that is why you couldn't catch him and why you would never see him... Every time I shot

a snowshoe rabbit, I would always say ‘thank you Grandfather Rabbit.’ After a while I acquired an urge to draw snowshoe rabbits. I sort of got involved with them to the extent that they would occupy a great deal of my thought. I actually did have a wooden object that, among other things, I carved a snowshoe rabbit in. I planned to do a better one, just for the snowshoe rabbits, but I never did get it done. There was another one that I sometimes called the Will ‘o the Wisp, or the wings of the morning. That’s when you go out in to the hills in the morning and you just feel drawn to go on and on and on and on, then you are following the wisp. That was another god that I invented for myself.”

An essay that does quite well expounding on this aspect of Kaczynski’s character is “Freedom Club” by Julie Ault. The essay recounts some details from the lives of Kaczynski and Thoreau, pointing out the obvious parallels, and it also follows the life of James Benning, who is attempting to build a cabin based on the one Kaczynski built in Montana. The implicit message here was that all these people belonged to “Freedom Club,” and that was really where the idea to adopt that name for the club came from. It was just a beautiful narrative.

Of course, without the mail bombs, “Industrial Society and Its Future” would likely have never made it into print...or at least it would not have enjoyed the widespread distribution of being included in the Washington Post. Do you think the low-tech lifestyle alone—minus the violence and the political tracts—something to emulate? Basically is “dropping out” or, perhaps more charitably, “living by example” a good idea?

Not quite. Freedom Club was started with three basic ideas that everyone agrees on. The first one says that wildness is worth existing, and should be able to exist in a dignified manner. A healthy and free existence means wildness must pervade our lives. But, and this is the second idea, industrial technology destroys wildness, and will continue doing so unless it is ended or unless it ends itself. And the third idea is simply the logical conclusion of those two points: those on the side of wild nature must do everything they can to end industrial society.

I am not naïve enough to think that dropping out is the best effort we can make to save wildness. But we are still in the process of figuring out what that best effort looks like, or what even is possible, so there are some very specific things that need to be done right now in the area of theory, propaganda, and publications. Freedom Club is going to be doing those things.

Could you briefly trace your own intellectual or political trajectory? Basically, how did you arrive at your current worldview? Where did you start and where exactly are you now?

When I was living with my parents as a child, I read all the time, and since I was raised as a fundamentalist Christian, I spent a lot of time in the religion section of the library. By consequence, I ended up reading a lot of books about philosophy and political thought, since those sections were nearby. While I don’t remember reading those things and thinking they affected my worldview in any sort of drastic way, almost

all of the texts making that major impact now are texts I at least attempted to read as a child. So I would definitely count that as the starting point of my intellectual growth.

Then there were a few years of espousing things that the adults in my life believed, of course. But the most significant thing that happened next is that in 2011, when Occupy happened, I was thrilled. I was very unhappy with the world around me, and though I couldn't quite articulate what it was, Occupy seemed like it had potential to make that different. Besides, Occupy protesters couldn't really articulate what they were unhappy with either. Unfortunately, I could only watch Occupy happen through the Internet. At the time, I was living with my aunt and uncle in a very rural North Carolina town, and no one was willing to drive me anywhere. So I did my best to interact with the movement how I could as a 16-year-old on a computer: I got introduced to some pretty radical thought through the magazine *The New Inquiry*, which I followed from the very beginning, I wrote and messaged people about the movement, and I considered calling myself an anarchist.

But before I really settled on that label, I wanted to give conventional politics a try. So the next year, I was living with my grandmother, and I asked if I could help out with the Obama campaign. She was against it for some reasons I can't remember now, but I was adamant, so I eventually got to help out. It sucked. So much deceit and so many Machiavellian power plays. During the campaign I met someone who had worked with a group in Arizona called No More Deaths. She said it consisted of quite a few anarchists, at least when she went down there.

The project was compelling to me for quite a few reasons, and at that point I really wanted to explore the anarchist political label. Also, at that point in my life I wanted nothing less than to be free from school and my family, no matter what this meant. My father wasn't providing any financial support at the time, and I was almost positive that he wasn't going to when I left my grandmother's, so I realized that No More Deaths was my best option. If I didn't go to No More Deaths, I would be sleeping in a tent anyway, except I'd probably have the cops called on me then.

I actually never ended up going to No More Deaths. Instead I started dating my now ex-boyfriend, who was attending UNC. So, I figured, I would go with him to Chapel Hill where there was a fair amount of anarchist activity, at least as far as the news was concerned. Besides, I already had all the stuff I needed to make it through at least a few months of homelessness. Luckily, the anarchist community here in Chapel Hill helped me out a lot. They showed me where abandoned buildings were, where to get free food, and many of them let me sleep on their couches.

You'll notice that at this point my story has become more personal than political, and that's kind of what happened with my thought in general. While before I was concerned very much with abstract ideas, my life rapidly transitioned into one that cared about finding food, making friends, and reading wonderful stories.

And at some point during all this, I read an essay, "Industrial Society and Its Future," and I loved it. For the first time, there was something that expressed what I had been

feeling, and it did so in very rational way. Not that that's the best kind of argument, but it was certainly appealing to me, since the only radical political arguments that I had heard up to that point were very moralistic and steeped in identity politics. But "Industrial Society and Its Future" was written by the Unabomber, and that made me feel weird. What did it mean that I had the same ideas as a guy who tried to blow people up?

Later, I read the essay "Why the future doesn't need us," which was a personal account of Bill Joy, a well-respected scientist and programmer, experiencing the same dilemma. Again and again I read similar accounts, and this really strengthened my ability to believe these things. Because it really speaks to the power of the Unabomber's argument that scientists who could have received one of his bombs said publicly that he was right.

Since then I've been exploring more of those ideas. I don't know if I would call myself an anarchist anymore. It's not really a label that brings up questions I want to talk about. It has also been coming to my attention that the majority of U.S. anarchists outside of the group I regularly interact with have very different politics from me. So Freedom Club is kind of an exploration out of anarchism as a political label. I probably still technically fall within that category in some cases, and older anarchists are still helping me out quite a bit, but overall I'm developing into someone who could more appropriately be called a "luddite," so for now that's what I'll call myself.

So it was Kaczynski's "relationship with wildness" more than his politics or his ideas that were inspirational and your own politics have shifted over time from abstract to particular...how would you describe your own relationship with wildness?

My relationship with the wild is still developing. I'd say that in the day-to-day I experience wildness in an urban context: abandoned buildings, secret places I found when I was homeless, stuff like that. Places that are untamed but mostly hidden from sight, since they wouldn't really be allowed to be wild if they weren't on the margins.

When I can, though, I try to go out in the forests and mountains. They're my favorite places to be, and really there's no place wilder than wild nature. You can experience wildness in the city, but it's a sick kind of wildness, wheezing, barely alive. In wild nature the spirit is thriving and beautiful. It fills everything and it puts you in this state of awe sometimes. It truly defines your time there. I've been trying to learn more wilderness skills so I can get out to the forests and mountains more, experience more of the freedom I'm fighting for. I don't have a car, so I'd have to hitchhike out to these places once I have more time to, but it's worth it.

What has your experience been promoting ideas critical of civilization, progress, and technology on a college campus? Are some sectors of the campus community seemingly more receptive to such ideas than others?

The experience has been good. One of the goals of the group is to stay small, kind of like a collective, so there hasn't been a whole lot of non-personal outreach for the

ideas on campus. Mostly we're trying to figure out basic questions like how exactly to define "technology," or what we mean when we say "wild."

But I would say that the majority of the people involved have positive feelings toward these ideas. People really want to be free, you know? And, especially in the South, people love nature. Students in particular are either all for the ideas because of those reasons, or they're immediately put off by them for what seems to be class reasons (working class people are more attracted to these ideas, for the most part).

The people I've had the most trouble with come from the community of political ideologues. Anarchists, liberals, and leftists who call themselves activists. They already have an ideology they're trying to push, so they're either dismissive of these ideas or they call them flat-out wrong. Which is fine. Many group members have realized that this project has strength not because of the political aspects, but because it really speaks to a fundamental desire for freedom that we all have. The things we are talking about aren't lofty revolutions, but our every lives.

What is the UNC Freedom Club currently working on?

Well, there are a few different things.

1. Freedom Club's main project is the FC Journal, so a big goal for the group is getting that journal to as many people as possible. FC Journal is meant to be something akin to the Dark Mountain Project, but with a little more analysis. The goal is to have a quality forum for discussion about the consequences of industry and what we can do about it, but another big goal is to have it be interesting to any random person who would pick it up.

2. Some of the group members are working on an essay "Beyond Anti-Capitalism," which we're really excited about. It's going to do some scaffolding work for basic ideas we have, especially ones concerning technology, the anti-capitalist left, what wildness means after industry — stuff like that. The goal is to get feedback after this essay is published and then put out a more comprehensive book, "Technique." "Technique" would kind of be like the "Das Kapital" of the anti-industrial position — except not nearly as theoretical, and written by 19 – 22 year olds. Hopefully it will be pretty comprehensive while still being accessible.

Ultimately, we want our collective to have some influence on the direction this kind of anti-industrial, rooted-in-wildness perspective goes, since it's a pretty popular one worldwide, and, at least in my opinion, it certainly has the potential to be a big deal. Other than that, we have no lofty overarching goals, just a few concrete projects.

And in addition to that, I have seen some posters circulating that have been created by the group. One pointing out the fraud of "green" energy and another critical of body cameras as a way to end violence by the cops. Can we expect to see more stuff like that?

You'll certainly see more posters. We want the online magazine to exist more than just online, so stuff will regularly be pulled and printed for distribution. One of those real-world things will be posters for every issue, which will go everywhere and be

distributed to partner bookstores (we only have three of those, by the way, so if you own a bookstore, contact us!).

But the purely agitprop posters will definitely exist too. They'll look more like the green energy poster than the body camera poster. I made the body camera poster, and while I think my anarchist friends really liked it, other members of Freedom Club thought the whole thing was way too charged for us, a young group. Before we do stuff like that, we need to better understand what it means to attack policing as a technology—whether in the form of surveillance, law enforcement, or the media—and better express that. Otherwise, our poster will get lost in the mixed bag of half-baked ideas.

But the green energy thing is very intentional. We put the green energy poster out because UNC is kind of bougie, full of people who talk about saving the earth. But we aren't focused on the environment, per se, we are focused on wildness, and we are explicitly anti-industrial. The poster does well in making that distinction clear, scaring off the middle-class "activists" who are more concerned about the energy crisis than they are dying ecosystems.

More posters like that will focus on Google's autonomous cars, artificial intelligence, and especially biotechnology. They're great ways of getting these ideas in front of people who otherwise wouldn't pay attention, and it expands those ideas' presence into the real world. In other words, posters are one of the most effective ways of spreading wild values — which is the crux of what Freedom Club wants to do.

Are you aware of any other student group similar to UNC Freedom Club on any other campus?

Nope, but I'd love to see them pop up.

If someone were considering starting such a group on their campus and wanted to contact you, how might they do that?

I can think of two major things, and they go for any student group.

First, contact people outside of the university. Work hard to build relationships with people who do the thing you're trying to do. FC-like groups should contact bloggers, speakers, people who are influential and start a dialogue with them. Lots of people are out there willing to help, and as students we have this great opportunity to use the university name in our byline, which really draws attention.

Second, use the damn resources. Most universities are willing to throw away money for the sake of student groups. Groups here get thousands of dollars each semester. Use that to print things, to bring in speakers, or even just to have one crazy, well-attended campus event.

And, just a last thing, be sure to contact FC. We'd be happy to help you out.

To learn more about UNC Freedom Club visit uncfc.org More about the FC Journal can be found at <http://thejournal.link/>

Dialogue on Wildism and Eco-Extremism

13 July 2016
Source

1 Introduction

As was explained in the editorial for the sixth issue of *Hunter/Gatherer*, an interesting tendency is developing in Mexico that has had unsettling implications for me, other wildists, and those who have influenced us, like the *indomitistas*. Because this dialogue is utterly incomprehensible without background on this tendency and other related tendencies, I strongly recommend readers turn to the editorial *first*.

Also, one should note that the following discussion is not with an individual who has engaged in actions US citizens would usually regard as illegal. Rather, he is a propagandist who runs a website dedicated to publishing the communiques of the groups in question, as well as explaining the ideas and values that motivate them. Technically, because Mexico does not have free speech laws, this is illegal for him, which explains why he writes that eco-extremism is synonymous with criminality. However, because the US has free speech laws, among other reasons, the following is legally protected. My lawyer has confirmed that this is the case.

Finally, readers should note that after re-reading this dialogue, I did become convinced of one thing MictlanTepetli said: revolution should not be the aim of wildness-centered eco-radicals. You may read my thoughts on the matter in “Revisiting Revolution.”

2 Opening Statements

2.1 John Jacobi

For three reasons, I have decided to engage in this debate with a sympathizer of *Individualidades Tendiendo a lo Salvaje* and their positions, which they call “eco-extremism.”

First, I hope to gain a better understanding of ITS from someone who is more familiar than I am with the events as they unfold in Mexico. They also obviously have a better understanding because I cannot read ITS’ communiques and Spanish-language texts very easily.

Second, I hope to clarify my own positions in relation to ITS. This is especially important because they and their sympathizers have used much of the same language, ideas, and references as we at The Wildist Institute [now Wild Will]. In fact, one of our former collaborators, Ultimo Reducto, is now known as a major ideological influence on the group, as well as Ted Kaczynski. (Neither UR nor Kaczynski support ITS or The Wildist Institute.) It is important, then, to reveal diverging opinions, especially regarding strategy, through this discussion with MictlanTepetli. Of course, MictlanTepetli can only represent himself and what he thinks or knows ITS to believe, but given obvious legal problems that would come with communicating with an actual member of ITS, this is the best option available. Besides, MictlanTepetli’s opinions do not seem to differ very much from ITS’, according to some associates of mine who speak Spanish.

Third and finally, I hope to critique what I find to be dangerous, unhelpful, or nonsensical positions within the eco-extremist ideology. This is especially important because ITS’ groups continue to grow, and many other non-terrorists have begun advocating the tendency. This is not entirely a problem, since ITS and the eco-extremists’ beliefs are not far off the mark, at least when some of their more intelligent cells communicate them. However, I am skeptical or plainly cannot support five elements of their ideology: (1) their stance on revolution; (2) their stance on indiscriminate violence; (3) their stance on terrorism; (4) and their stance on scientific understanding and/or their “paganism.”

Regarding revolution, the term has been the source of much confusion and it would be better off for individuals to shed the ideas they have associated with the word completely. Very simply, the question is whether conditions are such that (1) an anti-industrial movement can be formed; (2) an anti-industrial movement can significantly

aid the collapse of industry. I believe that this is possible and desirable if it is possible. Therefore, I advocate “revolution,” although I tend to characterize it as a “reaction” since it is anti-progressive. I will explain more of the specifics of this position later on.

Regarding their stance on indiscriminate violence, I think it is abhorrent and unstrategic. And regarding their stance on terrorism [which, follow START, I define broadly], I mostly think it unstrategic. There is one exception to each of these: In the case of terrorism, I think that it is wise to take out the power of the word “terrorist,” which the state tries to pin on any rebellious group nowadays. Therefore, when I say I do not advocate terrorism, I mean a very specific thing, which ITS is doing, and which I will explain more later. In principle I do not mind if eco-extremists accept the “terrorist” label as a way to remove its power. Second, it seems that ITS and eco-extremists may mean something particular by “indiscriminate violence.” At least so far as I can tell from my limited understanding, it seems like they are not advocating bombing non-technicians randomly. It seems instead that they are saying once they have decided on a target, they do not care about who gets in the way—they have to execute the attack with singlemindedness, and regard for casualties in that instance would hamper their ability to do that. While I remain ambivalent about such things, it is clear that this is not outright insane, just as it is not insane for military men to execute their attacks with singlemindedness while in a warzone. If this is what eco-extremists mean, then I am mostly concerned with their inadequate means of expressing this. Of course, that is their own problem, but I will clarify the meanings in this debate so that I am not associated with their reckless means of expression.

Regarding their stance on “paganism,” I can only say that I do not quite understand it. It seems like play-acting, and clearly is not the most effective way to go about achieving a political goal.

In contrast to ITS and eco-extremists, I and the wildists have three core elements of our ideology: (1) a scientific materialist worldview, including its nihilist consequences; (2) a critique of progress; (3) the imperative to rewild. The latter comes with some ideas about an anti-industrial reaction. In short, we believe that it is possible to engage in immediate rewilding that simultaneously builds a movement capable of disrupting industry beyond repair, if such a thing becomes possible. We also believe that this is worth engaging in even if industry only collapses in a specific locality, and we do not think that a movement is useless if it fails to disrupt industry globally. I will explain the reasons for this in my discussion with MictlanTepetli about revolution.

Thanks to MictlanTepetli for engaging in this debate; thanks to Chahta-Ima for translating and facilitating communication; and thanks to the readers who suggested that it was important to clarify the differences between wildists and the eco-extremists.

2.2 MictlanTepetli

I have decided to continue this conversation with John Jacobi in order to spread and clarify some points that are unsettling to some concerning Eco-extremism. Jacobi belongs to the self-described, “Wildist” project, which is not very well-known in Spanish-speaking countries (due to most of the texts being in English without Spanish translation.) This is one of the reasons that this conversation should take place.

My first reaction to the opening Wildist text that Jacobi has submitted is the following:

Eco-extremism is to be understood as violent tendency defended by individualists who have left behind the usual hang-ups coming out of “anti-civ,” “primitivist,” or “eco-anarchist” ideologies. This tendency goes against all moral codes of modern society and advocates extreme defense of Wild Nature. We understand “Wild Nature” here to be any environment (endangered or not), but it also encompasses the most primitive roots of being, which are resisting domestication.

It energetically opposes and rejects modernity, human progress, civilization in its totality, scientific advances, etc.

Eco-extremism is a practice more than a theory. It is way more than a ton of paralytic words trapped in a discourse, or the lack of movement that stews in itself due to the immobility of “eco-modernist currents.

Eco-extremists use terrorism to spread their ideas, sabotage to put into practice their critical thoughts against civilization, the technological system, its science, its values, and progress. It utilizes organized and/or coordinated attack to make clear its complete rejection of the civilized mode of life.

The eco-extremist attacks with actions because he has his feet firmly planted on the ground, and he has realized that he still has the warrior spirit of his ancestors running through his veins. His ancestors were savages with their bows and arrows and an ancient interrelationship with the Earth. They caused significant problems to the Mesoamerican and Western civilizations. Both were not welcome in their territories where they roamed as proud nomadic hunter-gatherers.

The individualist who advocates eco-extremism wants and wills to see this civilization burn as the ancient warriors saw in their fierce victories against the invader. That is why their attacks are a continuance of those attacks and are indiscriminate. In their attacks, they don’t distinguish between blacks and whites, men or women, etc. because for the eco-extremist they are all hyper-civilized beings who tend towards progress and in one form or another contribute to the devastation of Wild Nature; to the loss of those roots and characteristics that distinguished us when we developed as just another animal in the forests, deserts, coasts, and/or jungles.

Jacobi has proposed me a conversation where we will address themes such as individualism, “revolution”, indiscriminate violence, terrorism, and paganism. We begin by breaking down these topics:

Individualism: Eco-extremists and those of us who defend this tendency are individualists since we reject the collectivist humanism that mass society defends. We understand that from an objective perspective we are owners and responsible for our own lives and actions. For we do not want other people to manipulate us according to their own will, thus domesticating us.

As individualists we understand that we are social beings, and we don't eschew unity with other individualists in order to advance our concrete objectives.

All of this is within the parameters of philosophical egoism, defended quite vigorously by the nihilists of the Russian region in the 19th century, and retrieved from the dustbin of history by Eco-extremism.

-Revolution: Eco-extremists reject the idea of revolution since this always tends to deform itself and it has always helped to maintain the idea of modern human progress.

The concept has been used for an unending series of causes or political doctrines as an end for its theoretical presuppositions. The "revolution" is a prostitute who sells herself to the highest bidder; it can be used by opposing sides of the same struggle. It is an abused ghost that enters the mouths and pens of intellectuals and militants of whichever struggle. It gives itself over to many misunderstandings and deviations. That's why the eco-extremists don't seek it, nor do they strive for it, nor does it hold their interest.

Eco-extremism has rejected the term "revolution" as an end or a means. In our view, we have stopped being utopians and dreaming of a "better tomorrow."

What eco-extremists make use of are reactions. They attack and write on controversial themes, taking the unpopular and politically incorrect side. This is to get reactions out of people, either rejection on the part of the majority who read them, or sympathy among the few who understand them.

Eco-extremism, more than wanting a quantitative leap, devotes itself to quality. It doesn't concern itself with pleasing the masses. It doesn't care to draw the sympathy of revolutionaries. It doesn't seek to bring about something that doesn't exist.

The acts and words of eco-extremist groups tend to be direct with many shades of pessimist realism that is dominant in our day.

As for the "anti-industrial movement" I would like to ask Jacobi: What are the ends that are to be sought in the forming of this movement? Are you able to ensure that those ends will work? Why do you people in the United States always talk about a "movement against X" at every opportunity? Is that the strategy you are always going to follow?

-Indiscriminate Violence: When eco-extremist groups defend indiscriminate violence, they are speaking of what *Regresión Magazine* spoke of some months back in an essay entitled, "Indiscriminate Attacks? What the Fuck's Wrong with You?!" in which the following is found:

Putting a bomb in a bum's cardboard box or lighting a street vendor's cart on fire is not what we are talking about when we mention indiscriminate

attacks'. Indiscriminate attacks are when we place a bomb in a specific place, a factory, a university, a particular house, a car, or institution where our human or inanimate target can be found, without regard as to whether an explosive can harm bystanders. Indiscriminate Attack is setting fire to a place of symbolic significance without worrying about whether "innocent people" will get hurt, in order to strike out at Human Progress.

That is basically what we understand by those types of attacks, and it seems that this is a topic that causes quite a bit of controversy and anger in "radical" circles.

For example, many "insurrectionary", "neo-nihilist," "eco-," etc. anarchists get angry when they find that eco-extremist groups don't care if "innocent bystanders" get killed in an attack. They are disturbed and scared by such attitudes, since they know eco-extremists are willing to do whatever it takes to carry out their attacks.

The double morality of anarchists is very clear here, since they know that anyone with a basic knowledge of the history of anarchism is aware of the many anarchists who have used indiscriminate violence to achieve their objectives. At that time, they targeted kings, the bourgeoisie, and the clergy. We speak here of figures such as Felice Orsini, Ravachol, Émile Henry, Mateo Morral, Paulino Scarfó, Severino Di Giovanni, Mario Buda, etc. as well as nihilist-terrorist organizations such as Narodnaya Volya.

Eco-extremists are just honest in what they do and what they will do. They issue a warning since in some of their attacks some "innocent bystanders" have been hurt.

The rejection of indiscriminate discourse has left some stumped. It causes negative reactions, and draws a line in the sand between those who support eco-extremist groups and those who adamantly reject them.

There are a myriad of examples today of armed groups (anarchists, communists, etc.) carrying out attacks or bombings in banks without the intention of hurting anyone. But in some cases this hasn't worked and some unintended people were killed or injured in their operations. Of course, they are on the side of "the people," and they say that they are concerned about "collateral damage". But when it happens, they either beg for forgiveness or they deny being the authors of the attack. Eco-extremists don't do that. Eco-extremists are honest and warn that they won't stop because of anyone or anything in attacking their target. Why carry out half-measures? Why should we appear to be "revolutionaries" with the best intentions if that's not really what we are? Why should we abide by a double morality? Better to be direct, cut to the chase, and take responsibility for our actions regardless of what happens.

Now more than ever, we live in the era of humanism, "good intentions," progress, and the rejection of violence. But Islamic terrorism has also taken an important role in our time, one characterized by violence. The public is terrified by the war waged by the "sons of Allah", which is a response to the war against their lands and beliefs. And even though speaking on this topic would fill up pages, I'll be brief and state that I think that radical Islamists have every "right" to terrorize decadent Europeans in their comfort zones. On the other hand, I can see that behind this "holy war" there

are specific economic interests at play. That which we are experiencing now is a war as in other centuries with religious connotations.

Continuing on this topic, of course this society really rejects terrorism. Eco-extremists understand this situation as a historical condition. That's why we've come to the defense of this term, for it is completely opposed to the humanist values that modern society currently defends.

This is because if we can think back to the ancient wars that our ancestors fought, before and after the invasion of the colonizers, we would realize that Terrorism has always been present, only under other names. The Spanish didn't call those natives who fiercely opposed them terrorists, they called them "savages". The Holy Inquisition didn't call those who spit on their white idols terrorists, they called them "pagans." The British didn't call the natives who joined together to expel them from their lands terrorists, they called them, "hostile Indians." In any case, in the modern era whenever there is violent resistance, armed confrontation, or defensive extremism, it's called Terrorism. That's why eco-extremists defend the use of that term.

Here it would be appropriate to say that, if our intention was to create a "movement against civilization," or "against the technological-industrial system," we would indeed be concerned that this term would "not be strategic." But since we don't aim to have hundreds of followers, to form a civil association, or to work within the legal framework, we don't give a rat's ass about being strategic when we defend the term Terrorism, that much is true.

-Paganism: The eco-extremist has solid pagan beliefs in respect to his life and interactions with Wild Nature. He firmly rejects Christianity or any other religion. He revives from the past the deities associated with the Earth, with the plants, animals, the Universe, etc.

The eco-extremist is convinced that living in the modern age where science aims to explain everything, that aspect of vital importance already lacks meaning. Because of this, certain aspects of native beliefs have been lost. Today the great religions or science have positioned themselves over this notable aspect within the human being.

Pagan beliefs do not aim to aspire to position themselves within the category of "political objectives". This is not a subject that we want to use to attract more followers. It's more a personal thing.

We want to recover the most important practices that our ancestors had such as the War against the Alien, which is closely associated with the practices of extremist defense, sabotage, terrorism, indiscriminate attacks, etc. Also, we include here the consumption of native plants, curing ourselves with traditional medicine, firmly rejecting allopathic medicine, getting closer to Nature, etc. And within all that we seek to create for ourselves our own cosmological beliefs, for even if we know that we are civilized humans, we cling to our most primitive and wildest roots which we aim to recover in the present.

3 Paganism

3.1 John Jacobi

I considered whether or not wildists could be religious, and I determined that this is possible, but it is possible only in the same way that scientists can be religious. That is, many scientists believe in God, and that does not matter so long as they do not try to justify their scientific work with some “Divine revelation” or something like that.

In fact, deeply religious people (either pagan or Christian or whatever) have good reasons for being against industrial society. Many see value in religion and disdain the secularists’ constant attempts to eradicate it, which is necessary in industrial society (as historical trends suggest). Furthermore, although there are secular reasons for opposing industrial technologies as well, religious opposition is often much more powerful because of its irrational and emotional appeal. For instance, religious opposition to biotechnology is a lot more difficult to counter than secular opposition to biotechnology.

That said, we should be realistic, so I’ll add a few caveats.

First, most religions are progressive and not in line with fundamental wildist values, so Christians, for example, are unlikely to be wildists. Still, clearly even Christianity is compatible with anti-progressivism to some extent, as is clear by the high number of Catholics in the traditionalist conservative movement.

Second, I still think that ITS and others (maybe you, Mictlan?) are just play-acting. Do you actually believe that there are sun deities and water deities, or that there are animal spirits, or whatever? I doubt it. I don’t mind this in a metaphorical sense. In fact, I write in “The Foundations of Wildist Ethics,” section III.B about some of my ideas about religious experience in the context of materialism (and it comes very close to some pagan and/or “pantheist” ideas). But I still can’t help but think that you and other eco-extremists are simply advocating “paganism” in order to fulfill a primitive aesthetic, much like anarchist punks wear patches and get goofy hairstyles in order fulfill an urban radical aesthetic. It’s fine, and in most cases it’s harmless, but it’s useless and in some cases can be harmful, so in general I discourage it.

That brings me to my third point. I personally would prefer that wildists were strict materialists and maintained views somewhere on the spectrum between atheistic and deistic, simply because that signals to me that when it comes to making decisions, we’ll probably be on a similar page. I can’t be sure of that with so-called “pagans.” What if a river spirit tells them to vote a certain way?

In conclusion, I guess “paganism” is not actually contradictory, but I’m skeptical of it, and wouldn’t encourage it. Nevertheless, I would probably work with and, through a vote, approve the membership of religious wildists into my cadre.

3.2 MictlanTepetli

I’ll begin this new point on the theme of paganism by stating the following: I, MictanTepelti, in defending paganism, am doing it from a personal perspective. The individualists who identify with eco-extremism can either worship nature apart from the sense of the great religions or not. When I talk about paganism I’m talking strictly about my personal beliefs. I’m not stating that it’s a mandatory belief among all eco-extremists. I would just like to make that clear.

I agree that religious persons may have good reasons to be against the techno-industrial system, but I think very few religious people really oppose this system and civilization in general. The vast majority of those who claim to follow a religion are hypocrites or idiots, and they are only looking for a higher power for when they have personal problems. Religion from time immemorial has been the impetus for many bloody wars and conflicts. One clear example of this was the Cristero War in Mexico (1926–1929).

I have always believed that human beings are religious by nature, and it’s necessary to believe in something. This inclination has been used by the great religions for exploitation and to brainwash people. Either way, there are a handful of groups that maintain their primordial beliefs intact. Examples of these are the uncontacted natives from different parts of the world, from the Amazon to Africa to Australia, etc.

I think it is odd that you denigrate those of us who defend paganism, saying that we do it to maintain a “primitive aesthetic”. I know it’s hard to accept that in this world of lies and falsehoods, there still exist people who are ready to cast off the most vehement vices of civilization and return to our indigenous roots, no matter what the cost. For example, I come from a family with indigenous roots: my great-grandfather when he was still alive venerated the deer before he went hunting in the mountains. My great-grandmother made great use of natural medicines that came from the Earth to cure various illnesses. She gave these wild medicines growing at various seasons of the year a touch of mysticism. The fact that you attribute my paganism simply to a desire to have a “primitive aesthetic,” like I was one of those punks with a bunch of patches, is something that I find rather insulting. You or no one else knows my personal journey, and you should know that the beliefs that I have rediscovered from history, my family history, deserve respect.

Sure, I’m a civilized person living in the modern, technological, and industrial world. It’s hard for me to separate myself from the teachings that the schools indoctrinated me with when I was young. It’s hard for me to reject the idea that rain (for example) comes from a process within the hydrological cycle. Or that a river is just water, or

that fire is a mere grouping of incandescent molecules. Or that the explosives that ITS utilizes are the product of an exothermic reaction. For before I believed in the “Spirits of the Earth” (for lack of a better term) I was also an atheistic materialist who based my beliefs more in the scientific method than animism. But that all changed when I had a very personal experience with a fox, a deer, and a pair of vultures in the semi-desert hills of northern Mexico.

So to reiterate, I am a civilized human being, but I’m over that. I prefer to recover my past as a Teochichimeca and to fight for it with tooth and claw. And even though I am well aware that I am not capable of a complete return to that worldview, it’s in this manner that my opposition to the techno-industrial system and modern civilization are fostered.

In the end, I understand that Wildist materialists like you pay more attention to the physical realm and the spiritual realm doesn’t appeal to you. We’re after all in the Scientific Age where there is an explanation for everything, an age when reason is weighted more than the teachings of our ancestors. Today a book by a “good author” is more valid than the teachings of our elders. We live in an age of severe amnesia in which progressive evolution denigrates and condemns savage behaviors and the beliefs that at one time were essential to our species.

I understand that it’s hard for you to accept, that defending paganism is swimming against the current. But this is about recovering our past in opposition to all that we have been taught since we were children, no matter what the cost.

3.3 John Jacobi

I never said definitively that eco-extremists defend paganism in order to fulfill a “primitive aesthetic.” I said I suspected this, but nothing more. As your response has demonstrated, some of you actually do take it seriously, and I rescind my speculation.

It is irrelevant whether you find my analysis insulting or disrespectful. This is a war, and I do not know you personally. You have made a prescient and touching point about your own beliefs, and I accept that as valid. But I will not hide the fact that I find paganism to be nonsense, personally. At most, I will not be intentionally inflammatory toward you and your beliefs because I do respect your bravery in fighting this war against wild nature, and because I do not think it is wise to burn bridges between two individuals who clearly hold so many threatened values in common.

Once again, I do not understand how you can “reject” physics or other such things. Clearly these things are at least mostly accurate, or else they wouldn’t work as well as they do. And I suspect that if you truly “reject” them, meaning you do not accept them as true at all, you may turn out to be like the indigenous people who believed in “Ghost Shirts.” Consider an excerpt from a letter I responded to when I was editor of *The Wildernist*:

I'm always reminded of the story of the Ghost Dance, which was a religious movement that some Native Indians adopted in the late 1800s. It stemmed from a prophecy by the messianic spiritual leader Wovoka, who preached that if the "Ghost Dance" was done just right, the spirits of the dead would fight on behalf of the Natives and make the colonists leave. Part of this was a belief that the dancers had "ghost shirts" that would protect them from bullets. I've heard a radical environmentalist actually say—actually say—that this was an example of their spiritual superiority, their "oneness with the Earth." Apparently she hadn't heard the end of the story, because in 1890 soldiers opened fire on Natives at Wounded Knee, and the ghost shirts did not, in fact, protect the two hundred plus individuals who died that day. The only "oneness with the Earth" they ended up experiencing was the oneness of their corpses with ashes and dust.

The moral of the story isn't, "Ha! Look at those ignorant Natives." To the contrary, Wovoka-ish mysticism has played out plenty enough times throughout history for us to know that humans just seem to be prone to these sorts of things. The moral of the story is, however, that radical environmentalist talk of "the inarticulable," "oneness with Nature" and other such gobbledy-gook is very likely or at least prone to becoming yet another example. So far I've seen no other tools able to combat this better than science and reason.

I have nothing more substantial to say about this topic. Your beliefs are fine, provided you accept the exceptions I gave in my previous letter. I only bring this up because I want to see eco-radicals everywhere rewild in the most effective way possible. I don't care if this means "revolution" or whatever, so long as they actually care enough for wild nature to be effective in defending it. This is only a logical outgrowth of valuing wildness anyway.

3.4 MictlanTepetli

I agree that it is not pertinent to this conversation to consider your thoughts as insulting to my pagan beliefs. However, I think that there should be a minimum of respect for what each of us believes and defends in order to have a good faith conversation. I think there should be more tact than what you demonstrated when you started speculating and assuming things, but I'll count that as water under the bridge and continue...

Your example of Natives who died thinking that the "ghost shirts" would protect them from the bullets of the whites is interesting, though in truth my rejection of modern physics or science is not as absolute as I have let on here. It is rather a partial rejection, for as I wrote in my previous response, "even though I am conscious of not

being able to commit to a TOTAL regression, it is in this manner that my opposition to the techno-industrial system and modern civilization is fostered.”

As I was saying, I cannot eliminate completely the scientism that has been taught to me from an early age. But I can reject it in fits and starts, preferring at the same time to recover my roots by being a modern human who cherishes the teachings of my ancestors.

Obviously if a shaman instructed me to risk my life by confronting a bunch of armed men confiding only in the protection of the spirit of my dead ancestors, I’m pretty sure that I wouldn’t do it. Or maybe I’d find a way to do it in a manner in which I wouldn’t be risking my life in the process.

3.5 John Jacobi

You say that if a shaman told you to do something obviously wrong, you probably wouldn’t follow it. But doesn’t this suggest that you are actually a materialist and that you regard materialism as a better way of resisting the attempts of others who use delusions to hold power over you? I am a spiritual person myself. As a materialist I regard the Cosmos with awe and through reason and unreason alike commune with it, studying the process of creation through evolutionary theory, hiking through stone skeletons of the earth, washing in the river blood of the earth, etc. But ultimately I do not posit the existence of anything other than what is material—that is beautiful enough!—and I do not regard shamans or any sort of master as an infallible source of knowledge. Instead I think empirical investigation, logic, and other scientific ways of knowing the world have shown themselves to be superior ways of knowing the world, whether they are present in primitive cultures or industrial ones. And they are present in primitive cultures.

See Jared Diamond’s “ Zoological classification system of a primitive people“, in which Diamond shows a “nearly one-to-one correspondence between Fore [taxonomy] and species as recognized by European taxonomists.”

See also Louis Liebenberg’s “ The Art of Tracking: The Origin of Science“, in which Liebenberg illustrates how scientific reasoning can be traced to the methods hunter/gatherers used to track and hunt animals.

This is, at least, my own belief. You need not reply if you do not want to. I simply wanted to make clear that by accepting scientific materialism I do not disregard spirituality or irrationality. These things are important to me because I love the WHOLE human, not just some parts. But I would much rather receive spiritual fulfillment from what I regard as true beliefs, cruel or not, traditional or not. Again, I write about these things in “ The Foundations of Wildist Ethics,” section III.B.

I end with a quote from Edward Abbey:

Belief? What do I believe in? I believe in sun. In rock. In the dogma of the sun and the doctrine of the rock. I believe in blood, fire, woman, rivers, eagles, storm, drums, flutes, banjos, and broom-tailed horses...

3.6 MictlanTepetli

I am glad to know that you don't place scientific reasoning above spirituality and irrationality. I know of few materialists who do this. Many seem to be programmed like a machine to spit out answers using an artificial rationality imposed on them by modern thought.

You know, today it is very difficult to find real shamans. In Mexico the indigenous peoples who are true "knowledgeable men," don't reveal themselves. They zealously hide their teachings, and if they share them, it's only with a certain people. These are relatively few in number. The majority of "shamans" in Mexico are charlatans, dishonest people who use pseudo-spiritualism to get money, fame, or other material goods. You have to be smart, know your way around things, and observant to sniff out the frauds. Unfortunately, many who are drawn to animist beliefs are easily fooled by these con-artists. That's how things are on this side, anyway.

I think that the spiritualist and the materialist will always be at odds since both look to reason: one to divine reason, the other to scientific reason. Some materialists ask: How can you believe in a god who you don't see? The spiritualists respond in similar fashion: How do you believe in the Higgs boson, which you don't see either?

I think that here it would be better to strike a balance and not disregard one side or the other totally, as I have written previously. I am a modern human being and I can't think like my ancestors. I can't believe anymore that water falls from the sky as a "gift from the gods". I know that the water falls from the sky as a result of the hydrological process, even if I would prefer not to know that and remain with the beliefs of my ancestors. Unfortunately I cannot do that.

Thus trying to strike a balance is the only path left for me...

4 Indiscriminate Attack

4.1 John Jacobi

I would like to give the reasons that wildists are concerned with proper terminology. Oftentimes people dismiss these discussions as mere semantic debates, and sometimes they are, but proper terminology is important in some cases, and I think that it will be a recurring issue in our discussion about eco-extremism. We wildists have three reasons we emphasize proper terminology:

1. Without proper terminology, we cannot accurately communicate our views to the public. Obviously you are concerned with this too, or else you wouldn't be having this discussion with me; and ITS and the other terrorist cells are also clearly concerned with this, since they frequently release texts and communiques.

1. If we don't use proper and consistent terminology, we do not only confuse the public; we confuse our own members too. This degrades unity of action, since individuals who think that they can work with other wildists actually believe and want very different things. Clarification, critique, and honesty is an important way to mitigate that problem.

1. When we have proper terminology, we can spend less time clarifying agitating semantic issues and more time on issues that are more important. For instance, I used to use the term "leftist," but this just confused the public and members, because they thought I was referring to the political left in conventional politics, when I was really referring to two separate tendencies: progressivism (especially humanism) and opportunism. Now that I simply say "progressivism," "humanism," or "opportunism," people understand what I am saying more easily, and members are able to avoid useless debates that plagued us for a long time.

That in mind, I have two main things to say about indiscriminate violence, but I want to address only the quote by Regresion magazine right now. Ignoring the part about innocence, I understand this quote to mean this: when a group of eco-terrorists decide on a target, they will carry out their goal even if some people get in the way. In other words, terrorist cells of eco-extremists are not going to attack schools or random crowds, but once they decide that they are going to attack a certain infrastructural target or a technocrat, they must singlemindedly pursue the target regardless of the consequences at that point.

If that is what eco-extremists understand Regresion to be saying, then I can at least understand the position. In the military, a group of men engaged in active warfare

cannot waver. They must make a decision and during an operation carry out the decision. They will of course not shoot civilians just to do so; but if a civilian attempts to stop them, they have to do something or else risk failure. Furthermore, military structure and training is designed specifically so that their men do not feel too badly about engaging in these actions. If they did feel too badly, they would not be able to achieve the goals. You wrote that this is simply the reality of armed conflict, and that is true, and you are right that people ought to be honest about that (which is a separate question of whether they should engage in it).

But the problem here is, again, terminology. If eco-extremists argue that terrorist cells should not be concerned with occasional collateral damage when pursuing a “specific place” or target, then they are not being indiscriminate—they are pursuing a *specific* target. Furthermore, if ITS is not going to bomb a school or random crowd, and instead focuses on technocrats and industrial infrastructure, then they are discriminating. It seems that ITS and other cells are actually saying that attacks must be executed singlemindedly, and that they should not have to feel intense remorse over casualties that *are to be expected*. This is at least a respectable position, and does not engage in the “politicking” that some underground cells in previous revolutionaries engage in. They say, for instance, that they care intensely for the harmed. This is rarely true, and they only say it to save face. Do you think that the military man is intensely remorseful for the drone strike he ordered? This is the character of armed conflict. But when you and other eco-extremists say you advocate “Indiscriminate Attack,” it sounds like you are *prescribing* indiscriminateness, which does little to nothing to defend wild nature.

4.2 MictlanTepetli

I understand quite well what you are talking about concerning terminology. And yes, up to a certain point some eco-extremists have wanted to try to clarify things when we issue a communiqué or analysis so that our position isn’t misunderstood. On the other hand, we have witnessed that, many times, even when we are very clear about our terminology, there are always stupid people who will never understand it. That’s why our texts and communiqués are addressed to a certain sector of the public in particular, mainly, those intelligent readers who are familiar with the themes that we discuss. Sure, the words of eco-extremists have been widely published in conventional venues, but that doesn’t mean that the discussion is meant for the majority of people. Eco-extremism doesn’t aim to change minds. It doesn’t pretend to influence the consciousness of the masses. The communiqués and texts are a shot in the dark; they are for those few who are willing to take them up.

On the other hand, some eco-extremists have found it necessary to clarify certain terms since it was an essential part of our new identity as a tendency. We have never denied that the essay, “Industrial Society and Its Future” has been an important part

of our formation into what we are now. For that reason, in the past we used such terms as “leftists,” “power process,” “feelings of inferiority,” “liberty and autonomy,” etc. that in the present we have omitted or changed for other words so that we distinguish ourselves from the “indomitistas” of Kaczynski.

Leaving behind the theme of terminology, I will clarify some questions that have to do with indiscriminate attacks by bringing up some examples:

Some centuries ago, specifically between 1550 and 1600, in the region now known as Mexico, one of the greatest conflicts of natives against European invaders was fought. This was carried out by the warlike hunter-gatherer nomads who dwelled in the region now known as the “Gran Chichimeca.” They put up a ferocious resistance to any effort at domestication and subjugation. These ethnic groups fought neighboring tribes just as much as they fought against the great Mesoamerican civilizations such as those of the Mexica and Tarascos. The recently arrived Western civilization was not an exception in that sense.

Many of the attacks that were carried out by the wild Teochichimecas were against the caravans that were going to or returning from Zacatecas, the place where the Europeans had found silver that they obtained out of the great mines there.

The Teochichimecas ambushed the caravans and killed everyone with extreme violence. So much was this the case that even the mention of these nomadic warriors made the invaders shake with fright. No one was spared in the attack; they killed women, men, slaves, mulattoes, young women, soldiers, even the horses were not spared. This is a good model of what indiscriminate attack means within the eco-extremist tendency.

In this example, the objective that the Teochichimecas had was, without a doubt, to return the blows that the Europeans had inflicted with more force, revenging themselves for the offenses committed against them. The other objective was to expel the Europeans from their lands and return the silver to the Earth. The latter cannot be merely read about in books that discuss the “Chichimeca War” but also a few of the old people on the roads of Zacatecas tell of how, “naked men attacked the wagons that carried the silver and buried it in the hostile surroundings so that the whites would never find it.”

The objective was then to strike out against the invaders, and whoever was near the whites was also attacked with the same fury. In this day and age it is the eco-extremist groups who do likewise. For example, on August 28th, 2011, ITS members entered the National Genome and Biotechnology Laboratory in the municipality of Irapuato, Guanajuato, the security of the world renowned lab of the Center of Advanced Investigations (Cinvestav) having been violated by that group. According to the press, an explosive device made of dynamite was left there which the Mexican army was able to deactivate before it exploded. In its January 28th, 2012 communiqué, ITS wrote that the attack was directed against any investigator or employee who worked in the laboratory. This was an indiscriminate attack without question, since even though the explosive was left in a place that was widely associated with biotechnology, the blast could have harmed not only scientists, but also any janitor, security guard, or any

other person not associated with research there. ITS acted like the Teochichimecas; it sought to strike without regard for bystanders.

Another example of indiscriminate attack was when a package-bomb exploded in the hands of the Vice President of the Pro-GMO Alliance (an organization headed by Monsanto Mexico), the cattleman Mari Valdés, who was gravely injured along with his secretary, on November 19th, 2015. The Eco-Extremist Circle of Attack and Sabotage claimed responsibility for this attack. In it, not only did the target Valdés come out wounded, but his defenseless secretary as well, who more than likely has little to do with the large corporations that carry out the genetic modification of plants. This is also considered by eco-extremists to be an example of indiscriminate attack, for, as is evident, one attacks a specific target without regard for collateral damage, which is different from the idea of a “random attack”.

On October 26th, 2015, the “Indiscriminate Group” (GI) abandoned an explosive in the station of the Metro Chilpancingo in Mexico City at rush hour. In their communiqué the eco-extremist group indicated that their target was the transportation system and all that it represented (environmental destruction, the urban commute of the masses, progress, etc.) The bomb was located by the police who removed it from the station and deactivated it, thus frustrating the attack. This is another example of indiscriminate attack, which caused disgust among many people, including those who claim to be against the values of the system. But GI acted without reservation, justifying the attack that sought to strike out against the public mass transit system without consideration of if they killed or wounded “innocents”. Everyone there were members of a society complicit with the destruction of Wild Nature, including human nature.

It is thus the case that, striking out in this manner, the acts of eco-extremist groups subvert the values of the techno-industrial system which teaches humanism, progress, solidarity, philanthropy, etc. Eco-extremists act out in a manner that is totally contrary to the moral rules that allow contemporary civilization to stay afloat. We defend the total rejection of humanism, for we lean towards terrorism against hyper-civilized people (modern misanthropy). We strike out against progress with Regression. We don’t express solidarity with anyone unless they form part of our circle of accomplices. And we don’t preach pious sentiment, as we encourage individualists to satisfy their darkest instincts, with criminality, indiscriminate attack, and chaos; all of this aimed against the Alien and all that seeks to domesticate us.

“What eco-extremists do is to be sincere in what they do or will do. They issue a warning since in their attacks some bystanders have been affected.”

What I wish to say here is that ITS and eco-extremist groups do not preoccupy themselves with giving warnings when they are preparing an attack. I am saying ITS and the other groups warn that, in the event of indiscriminate attack, the common person should not try to play the hero because they’ll come out hurt. They should ignore the person placing the explosive somewhere or they’ll come out hurt. Modern

Mexican society is immersed in an atmosphere of fear or indifference; we wish this to be the case as well when eco-extremists are carrying out their business...

4.3 John Jacobi

You say, “habrá siempre gente necia que nunca las comprenderán.” Amen. Wildists also write as accurately as possible but still do not expect more than an elite to understand, and an even smaller elite to sympathize.

I also agree with nearly everything else you say about eco-extremist attitudes toward terminology.

Regarding “Indiscriminate Attack.” One example was particularly clarifying to me, namely, the example of the Teochichimecas attacking caravans. You are right that this is not the “singleminded attack” that I had described earlier, although it also cannot be called “indiscriminate attack” since even the teochichimecas did not just attack anyone—they attacked specific people, specific caravans, etc. It is somewhere on the spectrum between “singleminded attack” and “indiscriminate attack.” I still do not support and will never support actions that actually are indiscriminate, and I do not and will never support the term “indiscriminate,” because it means, according to dictionaries, “done at random or without careful judgment,” and in reality I only support activism that is calculated to be effective for making the world a wilder place. Nevertheless, that is all I will say about terminology, since I now understand what you mean because of your example.

I have several responses to this, but before I outline my counter-arguments, let me outline what I understand to be the eco-extremists’ justifications:

1. ITS and other terror cells attack in this manner because the teochichimecas did it.

1. ITS and other terror cells attack in this manner because they are not humanists or even progressivists.

1. ITS and other terror cells attack in this manner because of their overall strategy, which is similar to the teochichimecas. You wrote that the strategy was basically to scare Europeans away by being more violent.

1. Finally, eco-extremists apparently believe that “innocence” is a relevant concept and do not believe anyone (or any industrial human?) to be “innocent,” which they say justifies “indiscriminate attack.” Out of all of the arguments, this one contains the most logical fallacies, so I need special confirmation that this is what you and other eco-extremists are arguing, at least as far as you know.

After you confirm that these are the four core arguments for “indiscriminate attack” I will begin responding why wildists believe differently, if you do believe these arguments.

4.4 MictlanTepetli

Continuing with the theme of indiscriminate attack: if we're going to stick to the dictionary definition in particular, as in the word, "indiscriminate," you'll encounter this definition: "That which does not distinguish between particular persons or things, nor establish differences between them," So I'm sticking with what the dictionary says. But as eco-extremism is a tendency that subverts all, it's not surprising that you're confusing "indiscriminate attack" with "random attack."

I affirm, negate, and clarify the following:

1. ITS and other eco-extremist groups attack not only because of the spirit of the Teochichimecas. The reasons behind their attacks are many, ranging from what we have indicated here, to those that seek to defend Wild Nature in an egoist manner, mere revenge, or seeking to destabilize certain institutions in the present.

1. ITS and other eco-extremists groups attack in this manner because they are neither reformists nor progressivists nor humanists nor politically correct. That is quite certain.

1. ITS and other cells utilize Teochichimeca tactics, but also urban guerilla strategies, experimentation with armed struggle, practice of criminal activities such as armed robbery, psychological terrorism, etc. in order to reach their ends. One of the primary of these is the extreme defense of wild nature through terrorism against scientists, humanists, engineers, clergy, miners, businessmen, etc.

1. Though some may be more culpable than others, ITS and eco-extremist groups assert that all who conform to this society and who contribute to it in one way or another (us included) are guilty for what it does, and no one then is INNOCENT. If you contribute to this society or conform to it, you are not innocent.

4.5 John Jacobi

Regarding the point on "indiscriminate attack," I remain solidly convinced that "indiscriminate" is not a proper term and does not properly communicate what you are trying to say. I will never condone the terminology, and I stand firm with that position. You write, "it's not surprising that you're confusing 'indiscriminate attack' with 'random attack.'" The problem is that most individuals understand "indiscriminate attack" to mean "random attack," and because of this it produces all manner of confusion and many distracting debates that could have otherwise been avoided. This is obvious from the backlash that ITS and other terror cells have received (although that is partly due to the filthy humanist philosophy many "radicals" hold); but it is also clear in many of my discussions with people who agree completely with my values and what I suspect to be your own, or at least what you claim as your own.

The problem they and I have is that if people understand "indiscriminate" to mean "random," then they will not think that you actually care about wild nature, nor do you

care about rewilding in the most effective way possible. Instead, they will think that people who advocate “random attack” merely want to kill, or have something wrong with them. Furthermore, even your definition of “indiscriminate” leaves this impression, because eco-terror cells DO discriminate between who they attack and don’t, for surely they would not intentionally harm another eco-radical, surely they would not bomb a place “just because,” surely you would not attack primitive peoples. This problem is exacerbated by the language in communiques by ITS, which sometimes speak as though everyone is a target, when at the very least I think they restrict their attacks to the civilized.

This misunderstanding is a problem precisely because it applies to the indomitable spirits who are also seeking to defend wild nature and perhaps link up with others to make their resistance more powerful. I want to work with those individuals, so I do not want to scare them away by giving them the impression that I really care about violence and attacking rather than wild nature and rewilding. All this applies regardless of what eco-extremists actually mean by “indiscriminate attack.” It is enough that the majority of people understand eco-extremists to mean “random attack,” and this is largely the fault of eco-extremists themselves. I’ll say nothing more about terminology on this point.

4.6 MictlanTepetli

I appreciate your concern that causes you to dwell on how eco-extremists should revise the term so that it is “more understandable to the public.” Nevertheless I will continue to defend this term, as I feel most of the other eco-extremists do and probably will.

In that regard, I would like to make it very clear that:

- Eco-extremism as a tendency breaks with the stereotypes of other radical armed or direct action groups in that eco-extremism is itself a provocation and a subversion of civilized humanist values that govern our present society.

- Eco-extremism gets many reactions, most of them negative. If then we continue to use the term “indiscriminate attack” it is to continue to highlight the provocative tone of our rhetoric, which is our signature.

- The intelligent reader of the texts, communiques, publications, and messages taking responsibility for an attack will note that indiscriminate attack as executed by ITS and other groups is absolutely not a random attack.

- Eco-extremism explains its actions, and even though it is backed up by words, it is a tendency that emphasizes acts over any given terminology.

- Eco-extremism does not aim to be a movement. I am informed by third parties that, even though we’re not interested, many times things that ITS and the other groups do generate lively polemic within the “primitivist”, anarchist, and wildist milieus. But in reality we’re not overly concerned with how others see us. We lose little sleep over

whether people understand our reasoning or not. Only the indiscriminate terrorist of eco-extremist inclination will understand the acts and words of another indiscriminate terrorist of eco-extremist inclination. And I'm fine with that. Eco-extremism is showing signs of expansion into other countries by what we've seen recently. This is real evidence that we are growing larger.

4.7 John Jacobi

You write that I am concerned with how the public understands the concept of indiscriminate attack. This is true to a limited degree, but my main concern is with how other eco-extremists and eco-radicals understand the concept of indiscriminate attack. You write, for instance, that intelligent readers will understand the meaning of the phrase, but intelligent readers may not be the only ones inspired to act. This is especially true when the language of the communiqués is so messy, reckless, and open to misinterpretation.

You point out that it is permitted by our non-humanist moral foundations. As an example you point out the savage character of the Teochichimeca attacks on Christian civilizers and you note the way the Amazonian tribes who have recently been threatened attack all who threaten their way of life. Indeed, your example of the Teochichimecas attacking caravans was such a good one because it illustrated that THAT is how people sometimes behave when they are allowed to live as natural humans and are not bound by humanist philosophies. It is true that if industrial society collapsed, even in only a small region, the humans who live there would slowly regain their wild spirits and would likely regard neighboring bands or tribes instrumentally. They may not attack just to attack, and they may even have a working coalition, but if need be they will enter into war and be brutal. One of the most striking examples of this is the Yanomami people.

I recognize this point as valid.

However, I have some remaining qualms with the concept of indiscriminate attack as the eco-extremists mean it.

4.7.1 Suicidal Conflict

We live in the present, and in the present the primary concern for those who love the wild is (presumably) rewilding in the most effective manner. Even if our values do not allow explicit condemnation of the eco-extremist principle, it also does not explicitly condone it nor does it make it an imperative (as you know). As such, whether to engage in such action is entirely a question of (a) individual character and decisions and (b) strategy. Since (a) is so varied between individuals, I will not speak on it except to say that I am repulsed by some of what you implicitly or explicitly condone by indiscriminate attack. But I can only determine my own behavior, of course. Regarding,

(b), I can't give any specific suggestions because it may create some legal problems for me. It is enough to say that I do not think indiscriminate attack is a very good idea. If your enemy is much stronger than you, than it makes sense to prod him with a stick to wear him out, but if you prod too hard too quickly then the enemy will stamp you out completely. This is always a risk, but "live wild or die" does not mean that I DESIRE to die; death is not my GOAL, and I will not ask for it. Death is just the price I am willing to pay.

4.7.2 A Major Discrimination

There is at least one discrimination that is important: those who fight against civilization and those who do not. Forget what I think about those who do not fight against civilization; I think I have explained enough my general stance on the issue. However, obviously I and other wildists do not support hurting those who have joined us in our war against industry. Reading some communiques, it seems that ITS and other eco-extremists make this distinction as well. For example,

In communique 5 (2016), "We consider as enemies all those who contribute to the systematic process of domestication and alienation: the scientists, the engineers, the investigators, the physicists, the executives, the humanists, and (why not?), affirming the principle of indiscriminate attack, society itself and all that it entails. Why society? Because it tends toward progress, technological and industrial. It contributes to the consolidation and advance of civilization. We can think of all who form part of society as being mere sheep who do what they are told and that's it, but for us it's not that simple. People obey because they want to. If they had a choice and, if it were up to them, they would love to live like those accursed millionaires, but they rot in their poverty as the perennially faithful servants of the system that enslaves us as domestic animals."

In communique 4 (2016), "ITS does not yield before the accepted morality, and knows that you are either with Technology, or you are at war against it. The former will die as well as those on the fence."

This in mind, indiscriminate attack poses at least two problems. First, how can anyone possibly tell who is and is not fighting, passive, or on the fence in the context of "indiscriminate attack"? If an eco-terrorist sets off a bomb in a graduate computer science class, how do they know that members of that class are not translating communiques or essays, hacking industrial companies' computers, etc.? Now, I have made no comment about the terrorist tactics themselves, and will not. But assuming that they will be practiced regardless, I recognize the limitations inherent in the tactics. I recognize that there would always be some kind of trade-off. But "indiscriminate attack" drastically increases the chances that eco-radicals would kill one of their own.

I obviously speak from personal context. I am an information science major, and I believe that hackers and cyberpunks can do a lot to aid the current destabilization of industrial society. For instance, jihadists, anarchist terrorists, eco-terrorists, African

insurgents, and many others are currently forcing governments to conduct mass surveillance, and this upsets citizens—but only if they know. The cyberpunks, who actually often have eco-radical and anarchist sympathies, are letting the citizens know through leaks, hacks, and journalism, which creates a riotous climate more favorable to eco-radicals. This is why I am myself a cyberpunk and why I am strongly supportive of the movement. This is also why I and others are confused by eco-extremist rhetoric: do eco-extremists mean that anyone who does not fight civilization with bombs, arson, and terrorism risk death? Are there not other ways to rewild?

To be clear, I do not say the above because I am afraid of death. By attending university, a research university no less, and by majoring in information science, I openly acknowledge that I am in THE warzone. Universities are, of course, one of the primary sites of struggle for eco-radicals—I’ve said this over and over, and I know that I am at risk.

However, forget terrorism for a moment, whatever the status of those tactics. Consider the possibility that there are four or five student wildists at each of a few universities. That is more than enough to conduct sophisticated, non-terroristic action that is nonetheless highly effective. For instance, students know the university much better than any outside radical ever could; they are better connected; they have more access; etc. Furthermore, when students revolt, the media is usually favorable to them and the police can’t be as harsh for fear of backlash. In these circumstances, eco-radicals can take advantage of chaos because the strategic advantages are almost entirely given to them, the students. Furthermore, even if this does not result in material demands, it trains the eco-radicals so they can better take advantage of future situations. Through action NOW we prepare for the future later, and we are better equipped to take advantage of any opportunity that may arise. There is actually no other way to properly prepare. And of course material demands will NEVER be achieved without a “tactical spectrum.”

With this tactic some groups could be (1) possibly WAY more effective than isolated terrorists; (2) better guarded against repression so they can continue to act; (3) trained for the future without relying on the future; (4) better able to avoid the risk of hurting or maiming one of their own.

I am not trying to convince you to embark on certain tactics. I am only explaining the wildist approach and some of the reasons indiscriminate attack makes no sense to me as a strategic policy.

Consider also the repercussions of indiscriminateness as practiced by salafi jihadists:

While the downplaying of its elitist, Salafi rhetoric has softened the blow of these recantations to some extent, Al-Qaeda has been put in an untenable position with respect to one issue. Al-Qaeda has been forced to defend itself against charges that its actions lead to the death of countless innocent Muslims. Whether Al-Qaeda uses allegations of apostasy to justify these deaths ideologically; whether it argues pragmatically that the ends justify

the means; or whether Al-Qaeda genuinely tries to minimize Muslim fatalities is irrelevant. Declining opinion polls in the Muslim world reflect the indisputable fact that Al-Qaeda has failed to redeem Islam, but has succeeded in killing innocent Muslims in large numbers. Despite its many adaptations, this is Al-Qaeda's major weakness, and it remains an enduring weakness of the global jihad that the West should continue to expose.

Now, I recognize that you say that you are not trying to recruit people, and for the most part I strongly agree with you. We should not make our values and goals more palatable just for larger numbers. But remember again that I am interested in the most effective attack against industry that we are capable of, assuming that at a minimum this means effective rewilding by individuals and small groups. This means, for instance, that attacking people "on the fence" does not really make any sense. At worst that sort of rhetoric could even weaken the attack against industry by unnecessarily alienating individuals who were once you and I.

Furthermore, lest you forget how provocative the eco-extremist rhetoric has been, note these quotes from the most recent ITS communiques:

From communique 5 (2016), "Nothing, absolutely nothing guarantees that bystanders will not get hurt. In fact, our attacks are designed to cause the greatest amount of harm possible. And if more lives are taken in these attacks than we anticipated beforehand, so much the better. We can say this without hesitation or guilt because we are totally convinced of what we think and the life we have chosen, and we have shown this with concrete actions. Before any obstacle we know how to act. All possible "collateral damage" is not a "calculation error" and it is not "the price of the struggle". It is a choice: a conscious and desired CHOICE."

From communique 1 (2016), "It fills us with joy when tornadoes destroy urban areas, as well as when storms flood and endanger defenseless citizens."

This does nothing to communicate a love for the wild; it does nothing to communicate the importance of radical defense; all it does is make people (including me, a fellow eco-radical!) suspect that some of the eco-extremists in ITS are sociopaths and that they are just opportunistically using eco-defense as a way to justify their violence. By now I realize that this is not the case with many eco-extremists, but the point remains.

4.7.3 Our Capacity for Empathy

Even if we aren't humanists, we are still capable of feeling empathy. Obviously, this can be rebutted by saying that we are in war, and that is true, and I recognize the necessity of a purist defense of wild nature and all that that entails. But as a person who loves the WHOLE human, I do hope to discourage the distortion of human nature that occurs within all radical movements, a distortion that makes man forget the side of his spirit that is not a warrior, but that is simple and wants simple things. To do

this, in my discussions with young wildists I frequently quote a video game I used to play called “Knights of the Old Republic II.” In it, one character says, “The jedi... the Sith... you don’t get it, do you? To the galaxy they’re the same thing: just men and women with too much power, squabbling over religion, while the rest of us burn.” Ultimately I believe in my cause; I believe in Reaction. But this quote makes me look at my commitments critically. I hope it helps you do this too.

In sum: overwhelmingly my biggest issue with indiscriminate attack and much eco-extremist rhetoric is the way it divides fellow eco-radicals who share nearly all of your values and by the way that it fails to remind that there is a difference between a civilized bystander and an eco-radical bystander.

Finally, question: In “Ataques Indiscriminados? Pero que chingados les pasa!” Regresión writes, “As we stated above, anyone can disagree with the indiscriminate eco-extremism that we advocate. For example, the so-called “Paulino Scarfó Revolutionary Cell” has done so in February of this year when it indirectly mentioned the ITS attack in Chile.” Does this mean that some eco-extremists do not necessarily support indiscriminate attack? I don’t know who the Paulino Scarfo Revolutionary Cell is. Either way, I think you can regard me as an eco-radical who questions the validity of “indiscriminate attack” and definitely dislikes the terminology.

4.8 MictlanTepetli

On the second point I would like to state the following:

I would like to reiterate and emphasize here that the contexts in which various struggles in defense of Wild Nature develop are different for each case. That’s the case in Mexico from state to state within the country, and just as much the case in the United States.

When you place special emphasis on the danger of placing bombs knowing that maybe the eco-extremists themselves would come out dead or injured, or other eco-radicals or people who share the same goal of the destabilization of civilization or the techno-industrial system, you are being too much of a catastrophist, as it’s hard for us to take such scenarios seriously. Indeed, I’ll go so far as to say that they are near impossible.

In ITS’s history (taking the oldest eco-extremist group as an example), there has never been the case of an eco-extremist, eco-radical, or similar person who has been wounded or killed in an attack. Even though this would be on the minds of eco-extremist groups who have carried out an attack at some point, I’m sure that if one day this were to happen, they would be upset by it but that wouldn’t stop them. It would be unfortunate, they’d probably be saddened by it as much as if a comrade were imprisoned for his extremist activities. But that’s the price that they are willing to pay.

You propose the example of if a bomb were left in a computer science class, perhaps there would be people present there who would be willing to translate communiqués or essays; or who are hackers. I'll tell you that this would never be the case in Mexico. That is, the vast majority of people who study that particular course in engineering don't have a clue about this stuff. Perhaps the people who could get hurt are leftist activists who don't have a compelling critique of technology and civilization. Mexican leftist activists generally are progressivists and rebellious in their youth, but when they grow up and get jobs they forget about their rebellion. So it wouldn't be a problem for eco-extremists if an explosion maims or kills these people.

Maybe in the United States computer science classrooms have a good number of eco-radicals or hackers who are working for the destabilization of civilization. If there were any eco-extremists in the United States you would have something to worry about in that regard as universities are a frequent eco-extremist target. But to date I don't know of any eco-extremists operating in the United States. It's all a matter of context. If somehow eco-extremists emerged in the United States, either as an individual or in various groups, I would imagine that they would be careful in targeting the universities to not injure people who are likeminded. They would have to be more selective in their attacks and less out in the open.

In the United States lately I've seen that "rewilding" has gone viral. There are now many television programs about survivalism or "primitivism". I understand that more people are radicalized by the day in your country, that many people are drawn to this profound critique of the techno-industrial system and this is becoming a movement. And from that I believe comes your concern that eco-extremists be more careful in their attacks. But in Mexico this isn't the case, and it doesn't seem to be the case in South America either.

The times in Mexico when universities have been attacked, eco-extremists groups have chosen their target well, focused on something specific, did their homework, and attacked with calculation. Those who come out hurt are either the intended targets or some university worker, and that's it. Thus there is no reason here to think that some eco-extremist was either killed or wounded here, let alone anyone who desired the destabilization of civilization.

ITS from 2011 to 2014 attacked nine university campuses, some even were attacked twice. The casualties from those bombings were four persons, with only one fatality. In none of these occasions were activists or anarchists or communists hurt, not to mention any eco-radicals or "passive" eco-extremists. Here I must emphasize that eco-extremism is synonymous with illegality. ALL eco-extremists end up breaking the law or thumbing their nose at authority. Some do this by detonating explosives, others by aligning with common criminality, some by transporting explosives or illegal materials, some by publishing blogs on these events, other by editing the magazines reporting them, still others by translating communiqués taking responsibility for them. That is all to say, ALL eco-extremists are part of the same Mafia, all contribute to the criminal enterprise that strikes out against the normal functioning of civilization. That's why

a “passive” eco-extremist can’t exist, since once an individualist calls himself an “eco-extremist,” he becomes an illegalist individualist.

Next I would like to clarify that when I mention that I am working and striving for rewilding I am only speaking of MY OWN rewilding and the rewilding of my group. I would give anything to see the system collapse and for the planet to be free again from all civilized bondage. But I can’t since I am an eco-extremist and for this reason I believe that the future doesn’t exist and all that is left for me is this piece of shit in which I am stranded and I’m well aware that I am not the Earth’s savior. The only thing that I can save is my own life and the way I associate with my affinity group. I am Wild Nature, as well as my group that holds on to idea of not letting our wild instincts die. They took everything away from us, even a place where we can freely dwell. They took away our wild places, our ancestral lands, and buried them under cement. Thus I and my group are the only Wild Nature, and re-wilding is what we aspire towards. Sure, there are eco-extremists who have their own place of Wild Nature that they defend and that is their work. And the truth of the matter is that it would be an error to give one absolute meaning to eco-extremism. As you may know, within eco-extremism there are many current of thought, some more radical than others, although we all unite under the same principles that I mentioned in my first interactions with you.

On this theme we have to keep in mind context. For example, eco-extremists who live a nomadic life generally have places where they can go when the climate changes, that is, they have a place to defend. In that case they are interested in the re-wilding of those places and distancing themselves from civilization. However, they do this through violent and illegal methods, and not through negotiation. Eco-extremists like myself live in disgusting cities: we don’t have such places where we can live freely, one that needs to be defended or re-wilded. We get by how we can and we act according to our abilities but always in illegality. Of course, if the opportunity presents itself and we find a sector of the city destroyed by civil war or similar catastrophe, we would be committed to re-wilding that place, that goes without saying.

Here the same cause unites us: the nomadic eco-extremist groups who defend their territory (without publicly claiming responsibility for it) and those who concern themselves with the rewilding of those places, like us. We eco-extremists of the city carry out criminal activities and we claim responsibility for them, which is our manner of fostering our own rewilding, having always before us Wild Nature.

Continuing on the second point, you mention the indiscriminate attacks of Al Qaeda in which many jihadists have fallen in combat. Let’s keep in mind that, for them, to die in an attack that they carry out or one carried out by those of the same tendency is a blessing in their religion. For if their strategy of indiscriminate attack were weak, the group would have ceased to exist a long time ago. Instead it has positioned itself to be one of the biggest terrorist threats in history. I’m sure that if the Islamic State is defeated, Al Qaeda will still be around, for it has stronger support than the Islamic State, and it is still carrying out indiscriminate attacks.

Eco-extremist rhetoric is clear and, in fact, it is part of a strategy much more profound than that of some “mere sociopaths who use the the radical ecological banner as a cover for their violence,” so some might see it.

The strategy of eco-extremist groups is classified under the so-called “war on nerves” or “psychological terrorism,” where eco-extremists demonstrate that they don’t care about anyone in the attacks that they carry out.

This is a message to the authorities, large corporations, and the other targets of these groups, since the majority of people who read these communiques are the intelligentsia of Mexico, Chile, or Argentina (countries where eco-extremism has an active presence). In this they want to put these corporations on alert in order to create an atmosphere of fear and destabilization in these circles. An example of this was in the first communique of Reacción Salvaje where they included photos of two masked men holding pistols and a machine gun [see “Some Context for Issue Six”. The content of the communique was clear, and the message of many groups joining together into one was ominous, but the photos were the “cherry on top” so to speak. What would those two people be up to showing off their guns like that? The communique was published in August 2014, and in it the group, Reacción Salvaje, warned of possible terrorist attacks. Due to this, intelligence experts augmented police patrols on two specific dates: September 16th and October 2nd.

For September 16th of that year, during the military parade in the center of the Mexican capital, there was a large security operation in place, and even the baby carriages were searched (which made all the whiny human rights activists complain). All of this was due to the threat of RS and other groups involved in organized criminal activity. Even though there wasn’t an attack on the parade, people were very nervous. Psychological terrorism worked in that case.

In October, during the turbulent demonstration that is held every year to commemorate the massacre of students in Tlatelolco in 1968, a rather large police operation was carried out to neutralize any threat that might emerge, though there were a few attempts at violent confrontations with the police. Nothing out of the ordinary took place, however. Nevertheless, the concern among authorities was obvious, as counterinsurgency experts thought that RS and its factions would take advantage of the upheaval to carry out their attacks. They were noticeably very nervous and paranoid in that regard.

Apparently the authorities came to believe that the threats from RS were false, until November 20th came along and a demonstration took place in the Mexican capital condemning the massacre of the students at Ayotzinapa. The tumult began, violence flared up, the police held their fire while rocks were thrown by various groups of protesters: anarchists, communists, and among them, two RS factions that infiltrated the demonstration. The infiltration did not have the aim to demand justice or express solidarity with the people or anything like that. RS wanted to provoke a mortal confrontation with the political order, using the rage of the people for the purpose of destabilization. The emblematic door of the National Palace was the objective. If the demonstrators

stormed the National Palace, the police would have fired on them, and the conflict would have resulted in a massacre or civil war. Two RS factions claimed responsibility for this attempt a couple of days afterward. Unfortunately they were not successful in their objective, but destabilization resulted nonetheless.

In the communique signed by “By Blood and Fire Faction” and the “War Dance Faction” of RS, it stated the following:

The disturbances in front of the emblematic National Palace were not an isolated incident. They were the result of the political, economic, and social crisis which the country is in. These actions made the federal government tremble, which has since yesterday whined through the mass media its prostituted message of a “state of tolerance.” It wants to plant in the heads of curious populace the evil of the situation, and by that, exhort it to reject these types of acts.

For us these confrontations in these conditions are useful for heightening the tensions that are derived from the weakening of the political sphere. One of our objectives is to incite violent tensions so that the police open fire on the citizenry, with the citizenry deciding to defend themselves against them, making the conflict more acute. The aim of all this is destabilization. The nefarious members of the security cabinet and the yapping press spread the rumor in September that we were going to attempt an attack on Independence Day (September 16th) or during the October 2nd march. Their mistaken prediction was only a glimpse of the paranoia caused by the publishing of our August 14th communique. This even though everyone knows that in the demonstrations around the disappearance of those aforementioned students, guerilla and anarchist organizations are always present, and they always end in riots and property damage. We state here that RS terrorists also participated, because when the crisis gets bad, it’s always better to try to make it worse...

As we have written previously, RS is not a group that ‘understands’ or ‘respects’ the masses . We don’t participate in their demonstrations to express “solidarity”, nor to demand ‘peace’ or ‘justice’. The RS factions want to work to see this civilization in flames and collapsing due to the problems of its individual members. And it that means we have to infiltrate demonstrations with sticks, explosives, fire, and even guns, let it be clear that we’ll do just that. For the destabilization of the rotten techno-industrial system!

The threat was carried out, the war on the nerves as a strategy worked and psychological terrorism was the result. This is a perhaps a good example of the strategy of eco-extremist rhetoric.

This is also the case with ITS communiques. This group is based on war on the nerves. When they issue these communiques, they want to destabilize and cause worry among those in charge of maintaining the status quo. This in spite of the fact that many reject ITS or understand the meaning of these messages differently.

For many, ITS postures like a group of psychopaths or insane people, though I am sure that this isn't the case. On very few occasions they have spoken on their reasoning behind the communiques, and few have understood them.

With regard to point 3 we recognize that some eco-extremist groups do not mention the term "indiscriminate attack", perhaps because they don't agree with it or simply because they would prefer not to use that term.

5 Teochichimecas and the Past

5.1 John Jacobi

I gather that not every eco-extremist finds the Teochichimecas to be relevant, since I assume at least some of them have nothing to do with those primitive peoples, having other ancestors. So this mostly applies only to the eco-extremist cells who do speak often of the Teochichimecas.

It often sounds as though these eco-extremists are trying to one or more of these things, all of which have problems: (i) MIMIC the past, (ii) RESTORE the past, (iii) JUSTIFY the present with the past. I make the following critique because I think that the eco-extremist argument is strong even without referring to the past in those three ways, and all those three things do is weaken their arguments. Furthermore, of a group that speaks so much about the importance of the present, it does not make a whole lot of sense to try to restore or mimic the past.

Regarding (i), I provide a quote from Gordon McCormick's " Terrorist Decision Making" in the Annual Review of Political Science:

It is also evident that terrorist organizations often inherit or adopt a pre-existing "script" or theory of victory rather than design a program that is tailored to their specific requirements or operational and strategic objectives. Many terrorists, in this respect, belong to "a tradition of historical action". The (interpreted) experiences of their predecessors not only demonstrate that action is possible but can also provide terrorists with a set of procedures, tactics, and rules of thumb for carrying out their own campaigns. Historical precedents can be attractive guides. For those who wish to replace an incumbent regime but have no prior experience overthrowing governments, which is typically the case, an historical model can provide an immediate (if prepackaged) recipe for action. The problem this poses for rational decision making is not that such precedents are used as strategic aids, per se, but that they are often adopted uncritically. To the degree this is true, a group's concept of operations is less a product of a strategic calculus than of a historical legacy, which may or may not be appropriate to the circumstances at hand.

This essay is also useful in explaining the differences between many of the ideas eco-extremists have espoused and some of my own positions. It also explains a phenomenon

I suspect some ITS cells are experiencing, where terror cells become progressively more extreme, even unreasonably so, simply because they are so isolated and forced to live in unnatural, paranoid conditions (because if they didn't the prevailing power would smash them).

Regarding (ii), I offer several quotes supporting my impression:

— You write, “I prefer to recover my past as a Teochichimeca”

— You write, “this is about recovering our past”

— The fifth communique of ITS (2015) writes, “With pagan pride we recover this spirit in the present, as well as all of the wisdom, tenacity, and commitment of those primitive and anonymous lives. We revive them in the present attack against civilization.”

And several others. But I am not seeking to restore the past in any way. I wish to restore `_wildness_`, and for that the past is only an indicator, because it is often only in the past that the level of wildness I want existed. For instance, we can know a little about natural human behavior by looking at natural humans, but this often requires some knowledge of the past. To give a scientific example, consider the practices of evolutionary psychology and its attempts to discern the ancestral, adapted environment.

Note that I do not invalidate an alternative reading of the above quotes: I understand the personal attempt to restore aspects of your own lineage. But that is personal and has little to do with most others. I'd much rather speak simply of the value of wildness and my quest to rewild.

The final point (iii) is a deduction from some of what eco-extremists have written about the past and my readings on terrorist groups. It seems as though “because the Teochichimecas” did it functions as a logical justification. But it is obviously a non sequitur. I do not discount its profound power as an emotional motivator, an important irrational element to resistance, which cannot be neglected. But, in this case at least, the two do not overlap, and it is not valid to say that what eco-extremists do is okay because the Teochichimecas did it. Because those people lived in a different time, they were less concerned about rewilding and more concerned about protecting their own people from outside attack. The latter may be an element of wildist groups' resistance, but the purpose, the reason behind our Reaction is because we value wildness and seek to restore it.

5.2 MictlanTepetli

On the Teochichimecas, the majority of Mexican eco-extremist groups base themselves in their ancestors (Guachichiles, Tepehuanes, Irristilas, Raramuris, Zacatecos, etc.), for they are historical references that inspire war and bravery as well as fill us with pride. Similarly, the eco-extremists of South America don't have Teochichimecas

as their cultural reference, but rather the Selknam, Haush, Yamana, and Alakalufs, ancestors who were just as worthy of admiration and just as warlike.

Though I think it is erroneous on your part to say that we want to be just like them by imitating the past (i).

I, MictlanTepelti, am very supportive of an idea of individual and group rewilding that can be carried out in the present, and not just as something to aspire to, or dream about, or desire in a future that we may or may not see. But for this I think we have to have some idea of who our ancestors were, and from this knowledge, begin to have experiences that back up those references. If we wanted to imitate the past, eco-extremism would have never been made public, and I wouldn't be responding to you from a computer. Instead I would be living naked and defiant in the northern regions of what was formerly known as Mesoamerica.

The eco-extremists and I don't want to "restore the past" (ii). We merely want to learn all that can be learned from it and take up the things that we can and employ them in the present. It's clear that we don't live in those times, and in many cases things of the past are no longer recoverable. But we will try to recover them little by little.

Some weeks ago on the blog, Maldicion Ecoextremista, a news article was published concerning the Ka'apor[\[Daily Mail link\]](#) tribe in the Brazilian Amazon. The tribe was being threatened by legal and illegal loggers who come into their territory and destroy their ecosystems. The war that this tribe has carried out for some time now has been extremist, which means that it escalates by the day. Humanist organizations such as Greenpeace have offered to "help" the Ka'apor by installing video surveillance and motion detectors in the trees around the tribe's territory to intervene in the conflict and pacify the natives. What happened was precisely the opposite: the Ka'apor being a warlike tribe and monitoring their territory found the loggers and escalated the conflict. Just as in this example, eco-extremist groups use the technologies that they have at hand to detonate bombs, commit arson, and assassinate various targets as a means to carry out their war. If they insisted, as you imply, at "restoring the past" perhaps their weapons would be the bow and arrow, atlatl, and lance instead.

"To justify the present with the past" (iii), doesn't sound so farfetched, even though I don't share this view entirely since the main reason for what we do is not "because the Teochichimecas did it." I reiterate what I have stated previously:

ITS and other eco-extremist groups attack not only because of the spirit of the Teochichimecas. The reasons behind their attacks are many, ranging from what we have indicated here, to those that seek to defend Wild Nature in an egoist manner, mere revenge, or seeking to destabilize certain institutions in the present.

6 Rewilding and Reaction

6.1 John Jacobi

Here is a basic wildist position [which I have changed my mind about:

I advocate rewilding because I am anti-progressivist and value wild nature. We agree on these points. I think we would also agree that rewilding is a religious act. Rewilding is the wildist jihad: we seek to burn the idols of civilization, the great edifices of Progress and technocratic arrogance.

I also seek to defend and restore wild nature in the most effective way possible. I recognize that many indomitable spirits who would be attracted to wildism would have to remain working as individuals or in very small groups simply because of their anti-social character. But then, if they really care for wild nature, they should seek to rewild in the most effective way possible as individuals or in small groups. In other words, I do not think that every wildist is going to be suited to group work.

However, where possible, group work is helpful because it is a more effective way for individuals to act. For instance, some primitive peoples formed coalitions in order to more effectively combat the civilized. Thus, the big question for wildists is how they can organize themselves in a way that does not betray their values and also enacts the maximum amount of damage.

The maximum amount of damage possible can take many forms. I do believe that wholesale industrial collapse is possible, and I think that it is possible to build a movement capable of doing this if the opportunity arises. Furthermore, I think that “building” a movement with this goal **REQUIRES** action in the present, rewilding in the present, and does not equate to mere “waiting.” Finally, even if we act with this goal in mind, our present actions can **AND SHOULD** achieve things themselves. I seek to rewild in the most effective way possible now with an eye toward greater damage should that become possible.

In one critique of the editor of Ediciones Isumatag, a former associate of mine, some eco-extremists argued that the only successful global revolution was the industrial one, and that other revolutions have been confined to restricted regions. However, this critique is not very strong. It is precisely because industrial infrastructure spans the entire globe that a collapse of industrial infrastructure could be global. Furthermore, even if collapse did only happen in a restricted region, that would be good enough! Think about the nature that will have been made wild, the places freed for wild animals everywhere! And if you actually read the history of, for example, the French Revolution,

even though it occurred in only one country, it effected many nations, including those across the ocean, and it probably changed the trajectory of world history. For instance, the revolutionary and insurgent Simon Bolivar was inspired by the ideals of the French Revolution and brought them to many places in South America. I can imagine wildist ideals spreading in a similar internationalist fashion.

Finally, you ask about a “party.” I do mean a political party, but this is a party unlike others; it is a “combat party.” It is not a bureaucracy, and it will be very small. I wish not to speak too much about it just yet, however, because it would be better for me to speak about that particular thing after I have written my essay on it. For now it should be sufficient to say that the party we wildists are forming has a very specific role and I recognize the role of other kinds of organization within the movement. The wildists who work with the party are doing very particular things in order to make our overall Reaction more effective.

Probably “party” is not a very good word, and I’ll admit I do not like it very much. However, it communicates the general character and purpose of the coalition to people who are not very familiar with our politics, and that is useful for various reasons.

6.2 MictlanTepetli

In terms of rewilding, I am in agreement that those who truly respect and love Wild Nature are those who work individually or in small groups on their own initiative. Although one of the problems that Wildists will have to confront perhaps is that of organization, or rather, getting together people who are truly concerned for the Earth and coordinate their acts (whatever they may be). If memory serves, in the United States there is an impressive number of ecologically-inclined groups that simply can’t work together on the whole.

Years ago I had a conversation with a person who was advocating the creation of an “anti-industrial movement” the aim of which was the “collapse of civilization”. My criticism of his views indicated a number of problems that have occurred in historic examples of political movements in general, the primary ones being:

1. Organization (as discussed above).

1. Splits within groups that certainly will occur in the process of organizing, which no doubt hinders the efforts of founders of movements. Indeed, the Wildists were working hand in hand at one point with the Spanish “indomistas” (Último Reducto, etc.) if I remember correctly, but that collaboration broke apart. Perhaps you can tell me what happened. Was that the first split of the future movement? Don’t you think that’s a little soon to start having divisions of this type, even before the movement even gets off the ground?

1. The threat that an above-ground movement that has the aim of driving the “collapse” of civilization (even if only in one small region, granted) could be a serious one. This isn’t a game played by idealistic kids. This can set off alarms among those

who are pledged to defend the structures of civilization at all costs. The great world powers and large industries will not sit idly by knowing that such a movement has come into existence, one which aims to topple everything that they have worked so hard to establish. In that situation, is it a good idea to have an active movement that is above-ground? Or would it be better to go underground? If it's above-ground, the members of that movement risk being arrested, and that their plans to inflict the greatest amount of destruction possible against the techno-industrial system will have all been for naught. If it's an underground movement, perhaps there would be opportunities to dodge various consequences that characterize open warfare, such as arrests, torture, disappearances, having to go into hiding, etc. Though work in such a movement might go more slowly in the underground branch? What are your thoughts on that, Jacobi?

I still agree with the idea developed by Reacción Salvaje in their criticism of “Ediciones Isumatag” that the only revolution that has really been worthy of the name has been the Industrial Revolution, the one that has triumphed until the present day. All of the other revolutions have been regime changes that have either gone either in a “liberal” or “totalitarian” direction. At the end of the day, it's the same difference.

Though I am also in agreement that a “drastic change” in one region of the planet could have global consequences, I would like to know how this would be brought about. The “indomitista” followers of Kaczynski advocate the same thing, though they have never got into details as to how they would bring it about. Is there a difference between what the Wildists advocate and what the “indomitistas” advocate?

6.3 John Jacobi

First, let me clarify the meanings of rewilding and reaction, which I botched in my earlier email. I believe that we can view conservation as a large circle, rewilding within that, and reaction within that. These terms note the progression of the struggle of indomitable spirits, men and women who cannot live without wild things. At first they sought to conserve what was left, but did not go far enough and were not able to achieve enough. Now we have begun to rewild, but this signals that we must move from a mere conservative attitude to a totally reactionary one. Thus, reaction is the most extreme, purist defense of wild nature possible; it is total, uncompromising rewilding. As I write in the upcoming document for our organization:

...But when any movement hoping to conserve some precious and sacred thing must by necessity turn its eyes toward restoration, it must also note that the time for more radical action may be near. This is the state of our world: we've moved beyond simple conservation and, seeing our efforts destroyed by industry and its effects, have begun to engage in the restorationist act of rewilding. But simple defense is not enough, and it is clear that what is needed is a full and wild reaction to the Industrial Revolution.

At the very least, wildists advocate that individuals and cadres rewild in the most effective way possible. If this is all our resistance ever amounts to, so be it. But we at The Wildist Institute believe that more effective action is possible, and I will be outlining and justifying our ideas in the next few issues of Hunter/Gatherer. This means addressing the three questions you outlined, especially the question of organization.

6.3.1 Organization

I will have more to say about this soon, after I have finished my essay, “Organization.” For now I will remind you that we start with the assumption of individuals and small groups. Everything else is built on top of that and I will spend time thoroughly justifying it. But for now, absolutely the most important thing for coordination between groups is a unified ideology. For wildists, this consists of the three elements I spoke of earlier: (1) belief in the material world and the use of Reason to understand it; (2) criticism of all forms of progressivism; (3) belief in the value of wildness and the associated imperative to rewild. Nearly everything else is extra, perhaps to add local flavor or to communicate idiosyncracies of wildist individuals (like your paganism or my materialist spirituality).

Also important is communications and propaganda. But these present some practical problems because we do not want to be too heavily dependent on the internet. As I said, I will write more on this soon.

6.3.2 Factionalism

In a soon-to-be-published interview with The Fifth Column, a journalist asked me how I think we can prevent factionalism and promote unity. I said this:

Factionalism between who? Environmentalists, anti-civvers, conservationists? I think we can agree that if differences are stark, factionalism can actually be quite helpful. The “big tent” approach might help for temporary goals or reformist movements, but for radical political movements a unified small population is arguably better than a broad but disunified one. So I don’t exactly work against factionalism. I’m fine with breaking off from a larger movement if a handful of us disagree on a few fundamental, unresolvable points.

I do not think factionalism is inherently bad. In fact, the Bolsheviks were highly factionalistic but took down a whole nation. And salafi jihadists are EXTREMELY factionalistic, yet are the dominant terroristic force today.

This is possible because I am not trying to build a movement that consists entirely of wildists. All that is required is a small group of wildists who are able to utilize mass revolt for their ends, trained in mob psychology, trained in networking, trained in

infiltration and espionage. There need not be unity between the whole environmentalist movement—that will never happen.

As for my relationship with the indomitistas, I will not get into the specifics. Suffice it to say that I broke apart mostly so that I could act autonomously, because I had some disagreements with UR in particular. Nevertheless, I consider them to be in the same category of eco-radicalism as me, because they espouse the three central tenets of wildism. Unless they exacerbate disunity between us by issuing out a critique or so forth, I have nothing bad to say about them, other than the fact that I disagree with some aspects of their strategy. See below for differences between us.

6.3.3 Illegalism

I am aboveground because what I think is most helpful and necessary to advance wildism can be done aboveground. I am not interested in bombs and terrorism, and I can do what I need to do publicly. However, if at any point the government decides to no longer follow its free speech laws or something like that, I am prepared to continue my work underground; or I am prepared to go to prison; or I am prepared to die. I am serious about the slogan, “live wild or die.” In fact, it is necessary for membership in the aforementioned party that members are prepared to go underground at any moment, if the government decides to make our work illegal (as will happen if we become strong).

I am aware that if ITS ever comes to the US, if the ELF is ever revived, if FC ever returns, if Earth First! is ever restored, if eco-radicals begin to incite the revival preached by John Muir, I will be a target. I am prepared to accept the consequences. This is war, MictlanTepetli. We do what we need to, and you can be sure that I will not easily be caged. Remember:

I am the indomitable spirit who with nature

destroys the idols of man’s hubris...

I am wild nature, which resists domination

and which will prevail in the end

But in the present I am prepared to

live wild or die [from Chiaroscuro’s “ All who fashion idols”]

That said, there are at least some historical examples of split aboveground and belowground factions. PETA funded the ALF for many years. Earth First! functioned as a face for eco-radicalism while both FC and ELF were carrying out their acts of eco-terrorism. Sinn Feinn is an aboveground face for the IRA. The list goes on and

on. Consider how you are a semi-aboveground propagandist for eco-extremists who are completely underground.

Moving on to your comments, you say that every revolution has just resulted in a totalitarian or liberal regime change. But even apart from the fact that you are forgetting wholesale collapses, the point is this: even if rewilding across a whole region leaves room for a few totalitarian leaders, they will not have the technical ability to control as much as the previous regime. Look at current examples: Egypt, Syria, Somalia, and so forth all suffered extreme disruption so that now it is (1) very difficult for autocrats to control the region; (2) very difficult to industrialize those regions; (3) very difficult for industrial mega-powers to surveil the region. (I'll also note that some of these countries now have some of the lowest carbon emissions in the world because of the turmoil war and revolution has wrought to industrial production.) And on top of all that, the instability is enough for salafi jihadists to use the areas as base for even stronger, even more effective attacks to further their jihad. And I'll note that even with jihadist factionalism, even with all the things going against the jihadists in general, they are a global movement.

Finally, you ask about differences between wildists and indomitistas. I think the differences are these:

1. Wildists are more likely to tolerate the messiness that comes with radical politics. The indomitistas are too pedantic. They do not realize that radical resistance is multifaceted and involves seedy characters, less than ideal circumstances, etc.

1. Wildists are more willing and better equipped at doing what needs to be done. Indomitistas are smothered by their culture of critique and counter-critique. This is not to say anything against critique, but it is not sufficient. We have to actively train wildists to be effective rewilders.

1. Wildists advocate a "ladder method," where each action builds up to a greater action. As I've said before, if our resistance amounts to individual and small group action, then so be it. But I think it can be more than that. I think it can be coordinated to at least a marginally greater degree, and I'm willing to do this. Indomitistas tend to think that we can make a giant step all at once, and it sometimes appears as though they'll accept nothing less than that great step. But that is simply not how effective revolt works. We start weak and we become strong in the process of rewilding; we do not silently build strength in the background and THEN rewild. Rewilding itself TEACHES and TRAINS and individual.

6.4 MictlanTepetli

In reference to the point on organization, I don't have much to say. Only that I hope to read your essay soon on this subject in order to clear up some doubts that I still have.

On factionalism, it seems interesting for me to know your position when confronted with this situation. Many people consider splits within groups to be bad, as some once large groups grow smaller and weaker due to splits, while others come out of them having advanced and found better courses of action. Something like the latter happened with ITS: the group joined forces with others to create Reacción Salvaje in 2014. After a year of activity, however, they separated and split into various eco-extremist groups, although ITS went on to become international. RS was thus a learning experience for the new groups that went through the dissolution and split.

On illegality it's good to know that you are prepared to go into hiding should the conditions require it. Few people would state that they would be obligated to do such a thing, and thus your project gives me great encouragement after clearing some initial doubts. I now consider it a sincere and serious effort for the defense of Wild Nature and rewilding.

Returning to the theme of revolution, if we take the regions of conflict that you mention as examples (Egypt, Syria, Somalia, etc.) I would agree that those regions are very difficult for their respective governments to control. They are places where industrial development has stalled and where the Big Powers really can't have control over everything. But these regions can only be considered very specific examples, as none of them are inside the United States. I state this because the contexts are quite different, and the main question then becomes for me: Are the Wildists only looking to contribute to the collapse of civilization in one small region of United States? Or are they perhaps looking to focus on another place where there are more possibilities to experiment with rewilding and reversing industrialization?

On this subject as well I also think that it's clear, for example, that the uprising against the Gaddafi dictatorship (within the Arab Spring) in Libya was considered a revolution, though it changed nothing other than one government for another. Since 2011 that country has been in a crisis, and as you indicate, there are cities that still haven't been rebuilt. Industry has also stalled completely, but all of this isn't due solely to the failed revolutions and uprisings, but also to the civil war that has wrecked that country. Other factors at play include the destabilization of the economy, the taking of cities and strategic roads by the Islamic State and the Libyan army, the rampant corruption, capital flight, etc. These are factors that one can't dismiss as inconsequential as they provide context to the whole situation. This should all be kept in mind when proposing examples for what destabilizing civilization looks like, especially when discussing the collapse of a certain region and its subsequent rewilding.

Also, I am satisfied with your description of the differences between Wildists and "indomitistas", and thus have nothing more to say on that topic.

6.5 John Jacobi

“Of course, if the opportunity presents itself and we find a sector of the city destroyed by civil war or similar catastrophe, we would be committed to re-wilding that place, that goes without saying.”

Exactly, and as you point out later on in your letter, those opportunities are given by circumstances far outside of the control of eco-radicals. The point is to be prepared for them, and I said before, you prepare through PRESENT action, through acting in accordance with your values now. Who is more prepared to take advantage of a crowd forming: the person who has merely spoken about doing it or the person who has done it before and learned some lessons?

“Are the Wildists only looking to contribute to the collapse of civilization in one small region of United States? Or are they perhaps looking to focus on another place where there are more possibilities to experiment with rewilding and reversing industrialization?”

Wildists at the moment are in various places in the US, Germany, and the UK. There was a person in China, but we lost contact. There are a handful of students who have adopted the label and many more who are paying attention. In all, we are very small and much too weak to contribute to collapse in small regions of the US. As I write in my essay, “Organization,” if we can ever do that, it is an undefinable time in the future.

For now, our goals are these:

1. globalize the wildist ideology (1. materialist worldview, including its egoistic, nihilistic, and spiritual consequences; 2. the critique of progress, including social progressivism; 3. the imperative to rewild)

1. link various groups together so that their actions benefit one another

1. contribute to destabilization and tension in the course of globalizing the ideology

To achieve 1 and 3, we are and will be focusing on places that are “sites of convergence” for many industries. Universities are an example of this. At universities there is much research and there are many important people relating to genetic engineering, artificial intelligence, computing, and other such things. They are, as one writer put it, “the core of the science and technology system” in the US.

Also to achieve 1 and 3, we will be working more directly for wilderness designation.

And while doing the above, we will also be achieving 2, because we are going to be pushing The Rewilding Program. If many groups, moderate and radical and extremist, are citing The Rewilding Program as a demand, then we can at least give the moderates “some bite” and achieve some good things regarding defense of wild nature.

Also, I think that the current Rewilding Program extends into Canada and Mexico, so the whole continent is covered by it. For wildists outside of this continent, they could decide to formulate their own program, which would provide them with a means of uniting themselves, achieving things, and benefiting their eco-radical brethren.

The hope is that by globalizing the ideology, even if governments succeed in weakening us, the ideas will be waiting in many places for other indomitable spirits to take it up. And if we can succeed in foiling the government's attempts in some places, we can look to doing even more. This is all covered in my essay, so I will wait to hear your thoughts on it before saying anything else.

6.6 MictlanTepetli

The present is all that exists. The future is uncertain and full of unknowns. Eco-extremists grasp that we are epically fucked. There's nothing left to build, hope is dead, the only thing left to do is confront the decadent present with acts and words that subvert it, and destroy the values and morality that uphold civilization, that's all.

When we began this conversation, I asked:

Why is it that everyone in the U.S. tries to advocate at every opportunity a movement against [X]? Is that always the plan: "Let's build a movement"?

I asked this because, at every opportunity, you people up north, that is to say, those who have the Anglo-American mentality, whether reformist or not, always want to build "movements". It's as if the drive to "fix everything" runs through your veins and was in your DNA. Even Wild Nature doesn't seem to escape it.

Since Kaczynski proposed that wrong-headed idea of a future "revolution against the techno-industrial system," many have followed that idea, with many nuances of course, to the point that many have already drawn out the final stages of that movement of the masses in their heads, one that is sure of itself and unwavering. Both Wildists and "indomitistas" bet on success in an uncertain future, in a movement that has been established firmly in theory but has yet to be proven by the trial by fire of practice. It's satisfying to put a touch of complexity into the conspiracy that will lead to the collapse of civilization. Sure, I can admit that, but it still seems that it has too much in common with the same old tired and worn strategies.

We eco-extremists have come to understand that we're not the "saviors of the Earth". That's there's nothing more to understand here: the War is in the here and now, and to follow a strategy only positions us as one group among many in the history of guerilla groups, subversives, rebels, etc. I assure you that we aren't just another group.

I am certain that I and my people fight for a very unique cause, a War that only a few understand. In this we don't aspire to "something greater," nor to anything that can save us from the danger that our hostile attitude to this shitty system brings.

FC said in this essay, "Industrial Society and Its Future": "A new kind of society cannot be designed on paper. That is, you cannot plan out a new form of society in advance, then set it up and expect it to function as it was designed to do."

These words also address the idea of a future "anti-industrial movement". You can't theoretically plan the collapse of civilization, and then implement it and expect it to

go according to plan. In this I am not implying that you in particular would like the plan to go off without a hitch. But I would like to reiterate that the time one devotes to making such a movement could be totally wasted or not, and that the new account is an uncertain question.

As I wrote in my past correspondence, I am pleased to know that there are people out there who are willing to die for Wild Nature. And as I have read these exchanges as a dialogue of equals, I believe you to be sincere about your beliefs. But leaving behind such praises, the eco-extremist doesn't bet on future movements, nor does he play at being "the Savior of the Earth," for reasons already given.

And I never said that not having faith in a future is a strategy...

6.7 John Jacobi

First, I suspect that a conversation about the future and the present is needed, given that this seems to be an important, though perhaps minor, point of difference between the two eco-radical tendencies. Like the other topics covered in this exchange, it seems that we begin on a similar philosophical basis: I am a pessimist and a nihilist, for instance. However, what we interpret to be the implications of those ideas seems to differ. Perhaps in the next few months I will issue out an essay on my thoughts regarding this aspect of eco-extremism.

Second, you say that you see a tendency among North Americans to always want to build a "movement" out of a grievance. This may certainly be true, but it is not distinctly North American. As you know, the indomitistas in Spain say the same thing; as do many cypherpunks in Germany, politicals in France, politicals in Russia, and so forth. Instead of being a distinctly North American thing, I suspect that it is a product of humanist collectivism, the tendency for those indoctrinated into its ideology to think that "we are all in this together."

I think we agree on this point. What I don't think you realize, reading my last letter, is that I am not a fan of "movements." I sometimes use the word simply because I know of nothing else to describe what I have in mind, but I do not wish to encourage indiscriminate solidarity like some vile technician. An individual is bound to nothing other than himself and his material condition — from there we can form coalitions, but always these things are secondary and subordinate to the individual's will. The point of my essay in "Organization" is to express a possible way forward on this basis. The problem is that nothing like that has ever done before, except perhaps the natives who formed coalitions against colonists, but that was a much different time, with very different conditions. So what I have proposed may not work, but as an individual I pursue it as something effective I can do now, especially since the present work that entails, and every probable step of the way, benefits defense of wild nature by protecting wildlands and, if individuals choose to do so, monkeywrenching.

So I do not only measure effectiveness by the immediate material harm I cause to industrial infrastructure, through fire or bombs. I do not dismiss these things in all instances, but in my own heart I find it also acceptable to do what is necessary to preserve the few wildlands we have left, to use those wildlands, and to look at the tens of hundreds of wild creatures who would not still be here without that work. This is my starting point. This is why I speak less of fire or attack and more about wilderness and the other creatures on whom I materially depend in the wild world I love.

And I am perhaps more willing than you and other eco-extremists to look toward the future. I do not find your philosophy to be coherent, actually, and doubt you follow it in the way you have expressed it; we need to consider the future, or else we would have died, evolutionarily weeded out. But what the eco-extremists are doing — and I appreciate it because it is needed — is that they are pointing out that there is a limit to what we can trade off in the present for the future. We cannot just keep saying “maybe one day.” There is a time for more immediate defense and attack, more drastic action, a more purist approach. This is, indeed, the meaning of Reaction. Of course, there is still a trade-off. But I am unwilling to embark on any “ten-year plan” that is not okay with what it is doing every moment it is doing it. There will be no three-year sacrifice of drudgery for some greater future goal — promising that has been a primary tool of the technical system in order to placate conservationists for just long enough until they disappear, burn out, or die.

Instead, wildists propose a course of action that we can be proud of every moment, that we can say, even if it doesn’t go anywhere, we know we have done good. We keep future potentials in mind, sure, but there is no expectation that they will arrive. We only acknowledge the future because if we have to choose between a present course of action that definitely won’t go anywhere and another PRESENT course of action that could go somewhere, we will choose the latter. But we will not sacrifice the present for that potential future. That is my whole point: look at what we can do now, I say, like wildlands conservation, monkeywrenching, and simply enjoying the wild ourselves and pursue these things if your nature wills it. Do not wait for some messiah. There may be no messiah — perhaps even if we achieve what we want!

You can build arcadia,

fortify it with stones and good intentions

but even there, I will be. [from Chiaroscuro’s “Even in Arcadia”]

Finally, we will not save nature. That is stupid and hubristic. If anything is saved, it will be because of nature itself. I could of course say this in a more eloquent and philosophical way, but I suspect you will understand and agree.

I am wild nature, powerful and cruel;

your work will never compare to mine. [ibid.]

And with that, I will give my final statement.

7 Final Statements

7.1 John Jacobi

While I cannot condone eco-extremism, neither can I condemn it, and my final thoughts on the tendency are these:

— I strongly disagree with some of the terminology eco-extremists use to communicate their ideas, and, related, I am also ambivalent about some aspects of its character as expressed in the terrorist communiques.

— I respect the fact that MictlanTepelti, at least, helped me understand a few aspects of eco-extremism that I was sure I would find idiotic and dismiss immediately.

— I recognize that eco-extremism is obviously relevant, touching a chord among those already sympathetic to anti-civilization politics, and posing a real challenge to techno-industrial society, as is evidenced by the way its tendency has grown from the first release of the ITS communique.

— I now understand that many moves ITS and other terrorist cells within the eco-extremist tendency have made are not the blunders or unjustified acts I perceived them to be as a native English speaker, a foreigner, and an observer with pre-conceived ideas. Instead, nearly all of these acts have been carefully thought out, which is compelling, even if I continue to disagree with the reasoning underpinning their justification.

— I must admit that eco-extremism is achieving precisely the thing that I have said should be the main concern of the currently weak anti-civilization movement. Namely, eco-extremism is globalizing an anti-civilization ideology, which is again evidenced by the tendency's growth. I am still unsure as to how aligned with wildist ideas the tendency is, and as such I cannot yet say whether I would mind being associated with it. However, a great aspect of both the eco-extremist and wildist approach is its individualism: each individual and cadre is to rewild in the most effective way they see fit, and they—and they alone—are responsible for their own actions. I cannot control what the eco-extremists do, but so long as they are acting according to the values implicit in rewilding, namely, the veneration of wildness and a disdain for the idols of civilization, rather than perverted motivations like self-aggrandizement and a fetishization of criminality, I can say that I am confident that the wild reaction against industrial society will continue in the right direction — backwards, of course.

— I do not think that the methods the eco-extremists use are applicable to all anti-civilizationists, and I think MictlanTepelti agrees. The conditions of those near the equator are in the coming years going to necessarily call for more violence and,

because of instability wrought primarily by climate change, allow for more superficially combative behavior. This is not to say that the eco-extremists are doing the correct thing (and I suspect, personally, that at least some of what they are doing is misguided), but it DOES mean that regardless of what the equatorial struggle looks like, those further north and south MUST engage in tactics suited to their own conditions. As stated already, this is up to the individuals and the cadres to decide and the combat party to coordinate.

Finally, I very much thank MictlanTepelti for both his willingness to speak to me on these matters and his continued fight against industrial society.

7.2 MictlanTepetli

I am going to conclude my part in this conversation, but first I wanted to thank Jacobi for his time and efforts in these ideological and personal exchanges. I also would like to thank Chahta-Ima for his translation efforts, as at the beginning of these conversations there were many misunderstandings due to the absence of an adept translator.

Eco-extremism has taken an important place within the ideological currents that are opposed to and critical of civilization and the techno-industrial system, although not intentionally, sure.

From the beginning, we've noted that within these schools of thought there are certain positions that are predominant. From what we can see on this side of the border anyway, important theorists such as John Zerzan, Kevin Tucker, etc. have dismissed eco-extremism or outright ignored it. They and their acolytes cast aspersions on ITS and eco-extremist groups in their publications and on their radio programs whenever their names or actions come up. They can't take the chance of anything putting into question the "hope for a future primitive" lest their donations go down and they no longer get invited to chic conferences and speaking engagements. Their primitivism is eminently marketable, it appeals to the hipsters, the business start-up mentality, the people who want to re-wild any given product because nature sells. It thus remains progressive, a greening of leftism, but it's just another fraud, another TV commercial peddling "rebellion against the system," this time as homesteading and a prolonged camping trip.

Sure, they still mouth platitudes about lighting stuff on fire and destroying things, but they never do anything about it. We know very well the circumstances of the Green Scare from last decade. Regresión wrote about it in its most current issue. But they turn around and condemn eco-extremist action and pretend to tell them how to do things from the safety from their side of the border... And then they have to gall to talk shit and censor or ignore eco-extremist articles and communiques. But never mind that, we suppose. The extreme defense of Wild Nature doesn't need them to get the

message out, least of all to deaf and dumb self-proclaimed anarchists who get frazzled when someone speaks too harshly and not according to their leftist script.

All that smacks of violence, terrorism, etc. is verboten for them. They don't come right out and just say it, of course, but their actions speak louder than words. I can imagine them stating to the FBI something along the lines of: "We're not the violent ones, we have hope for a beautiful future. The terrorists are those horrible eco-extremists, don't look at us." But eco-extremism is here to stay, regardless of what people think,

Within the predominant positions that one finds in the United States, it seems like you also find some followers of "Industrial Society and Its Future," the essay by Ted Kaczynski (also known as "Freedom Club"). There seem to be more Spaniards than people in the U.S. who follow this tendency, and they are known as "indomitistas". We've written enough about them, and Reacción Salvaje has polemicized against them in particular in their work, "Some answers concerning the present and NOT the future."

Earth First is another predominant tendency but at this point I'll withhold my criticism...

So within the context of these tendencies, here emerges "Wildism" that claims not to be progressivist but also has the same strategy: "building a movement." Jacobi, here I would like to point out that we are talking about U.S. and not European critics. When I wrote that you North Americans always want to try to fix things by constructing a movement, I include you in that statement. You stated that the Spanish "indomitistas" have the same idea, and to that I respond, Yes, that's true, but they copied their main ideas from someone in the U.S.: Kaczynski.

So if you don't want to be lumped into the same category as the indomitistas, the followers of Zerzan and the rest of that gang, you should probably reconsider using the term "movement", just as you have started using "reaction" instead of "revolution," to use one example.

In regards to the subject of the future, I continue to assert the same thing, and indeed eco-extremism is based on the loss of faith in the future. So I repeat, everything is fucked, and the present leads us to believe that the future is gray and filled with horrors. Eco-extremism doesn't seek to build a movement, nor does it await a total societal collapse, nor the arrival of a Messiah. It doesn't propose plans or methods nor do we have a favorite book on which we base all of our actions, and we aren't checking the statistics contained therein. The eco-extremist strikes according to wherever he finds himself, in the here and now, since he understands that the future doesn't exist, hope is dead, and the only thing left to do is resist according to our most primitive roots. Our ancestors did likewise, and even though they knew that they would die defending themselves from the foreigner who brought civilization and modernity, they didn't surrender. Thus, like them, eco-extremists have understood all of this loud and clear and that is how we act.

Our war is politically incorrect, extremist, and at the same time suicidal because it doesn't pretend to be a war that can be won. We're not an army, nor do we want to

be one. We know that we don't stand a chance in the face of the Monster of Progress. We know that we will die, but we'll either go down fighting or in the best case scenario use guile to prolong the war as long as possible.

Eco-extremism expands, few understand it, even fewer carry it out, others plug their ears when we come around, even try ignore us, but they know that we're there.

I end with two quotes, the first taken from Chahta-Ima's essay, "Ishi and the War Against Civilization," which I recommend, and the second taken from Nechayevshchina Editorial House in its text, "La mutilazione della parola 'inocente'":

Eco-extremism will have no end because it is the savage attack, the "natural disaster", the desire to let the fire burn and to dance around it.

and

...the era of good feelings has ended, and of shit being exchanged for gold, and what has begun is the era of individuals who confront the whole of society.

— Journals —

Freedom Club Issue #1: Who are the Luddites?

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Editor's Note

We, the editorial team for *FC Journal*, started this whole project without any obvious direction to go. We had no editorial position, no theory—nothing, really, except for our intuition, common sense, and sweat.

But we didn't need an editorial position to see that there are some real problems with the modern age. We all feel the spiritual destitution, the underlying anxiety that characterizes the city, the melancholy of our day-to-day lives. We all see the headlines threatening one of many disasters industrial technology is creating for us: climate change, anti-biotic resistance, species extinction

But when we go out into the wilderness, everything changes. That underlying anxiety disappears and our lives are reinvigorated with purpose. Our blood rushes every day with some surprising problem to solve. And Nature, with Her great trembling mountains and her rolling thunder, reminds us of our insignificance, and we can't help but feel awe. In the wilderness, we have freedom.

But where do we go from there? How do we respond to this industrial age? This issue explores the group of responses that has generally been dismissed as absurd. Even the name for these responses is supposed to be an epithet: luddism. Named after the 18th century mill workers who smashed machinery in revolt against the Industrial Revolution, contemporary luddites are also refuseniks, rejecting the industrial age and venerating, in some way or another, the wild spirit it orders and destroys.

Contained herein are all the rejects and rejectors of industrial society, from Europeans living off the grid to a graffiti artist coloring in the colorless walls of cities. We looked at each of these stories with fascination and, seeing their enormous diversity, we felt free to also reject industry and beat out a path away from it. So we'll adopt an editorial position soon enough. But for now, enjoy with us the beautiful and tragic lives of the luddites.

The Tseringma Pilgrimage, 1971: An eco-philosophic ‘anti-expedition’

Nils Faarlund

The following essay will soon be published in Canada in a book, edited by Aage Jensen and Bill Henderson, commemorating the Norwegian ecophilosopher Sigmund Kvaløey Setreng.

The idea behind an eco-philosophic ‘anti-expedition’ to Tseringma came up in the spring of 1969, when professor of philosophy Arne Naess and his assistant Sigmund Setreng camped at Nagarkot, not far from Kathmandu. They were relaxing after a car drive from Oslo, Norway, to Varanasi, India, to attend a conference on Gandhian non-violence.

From the vantage point of the former hill station, the Himalayan giants from Annapurna to Chomo Langma—also known in the Western hemisphere as Mont Everest—appear as a breathtaking panorama. Equipped with his experience in high altitude mountaineering since leading the Norwegian expedition to Tirich Mir in 1950, Arne’s attention was soon drawn towards the grand Gauri Shankar. This impressive mountain was once recognized as the highest mountain in the world, probably because it dominates the view from the vicinity of the capital. Although it has lost this status, it holds a prominent position in Hindu as well as Buddhist culture as the abode of worshiped deities.

To the Sherpas, who live in small villages at the foot of the snow-covered holy mountains of Himalaya, Gauri Shankar is the most sacred mountain. In their language it is known as Tseringma. While studying the Tibetan Buddhist philosophy behind the Sherpa’s admirable way of life, Arne and Sigmund had become acquainted with the renowned friendliness the Sherpas had towards fellow humans and Wild Nature.¹ Before leaving Nagarkot, they concluded without hesitation that they had to return to Nepal as soon as possible to get in touch with the remarkable Sherpas and enjoy the marvellous rock and ice on a mountain of such symbolic importance, as well as study a culture unparalleled in its relationship with Wild Nature.¹

Sigmund and I were college mates with a mutual fancy for jazz and mountaineering. Thus he turned up to enthusiastically share experiences from his Asian odyssey soon after returning home. It was music to my ears when he expressed his desire to revisit

¹ Faarlund originally writes this as ‘Free Nature,’ which accents what to him is the most desirable quality of wildness. — ed.

the Sherpas and the sacred summits of Tseringma. Since I had left my position as a research officer in biochemistry and microbiology in 1967 and become a full time professional in mountaineering, I was ready to leave at short notice! But severe threats towards our beloved mountain landscape at home urged Sigmund and me to give priority to a campaign to defend Mardoela, the fourth highest free falling waterfall in the world. Meanwhile, having said goodbye to his position as a philosophy professor at the University of Oslo, Arne followed an invitation to work and lecture at the University of Berkeley.

When all three of us left for Kathmandu in early September, our preparation, mental and physical, had been extensive. Sigmund had been the leading activist behind the non-violent action to defend Mardoela against damming, according to the philosophy of Gandhi and the developing ‘ecophilosophy’— a way of arguing for the inherent value of Wild Nature. The rudimentary beginning of this new field of thought was established under the Arctic Tower of Stetind in 1966 by Arne and me, drawing on an early introduction to ecology during a stay at a German technical university. Arne contributed to what we chose to call the Tseringma Pilgrimage with his thorough study of Buddhist philosophy and Sherpa culture. He also obtained support from a German research foundation in Nepal for the organization of our trek and the permission to visit a restricted area. My contribution was, among others, to care for the complete equipment, including the construction of special gear for high altitude camping and mountaineering, which was not in stock at shops those days. I had also been an active partner in the further development of ecophilosophy and the concept of an ‘anti-expedition.’

To practice the concept of an ‘anti-expedition’ was our chosen way of raising a protest against the pressure on Wild Nature and the Sherpa culture caused by the heavy, army-inspired expeditions that had been intruding on pristine regions in the Himalayas since the 1920s. Hundreds of ill-equipped porters, along with luxury kitchen services for the *sahibs*, dependent on taking firewood from exposed tree line areas, made a damaging effect. The social impact of such invasions also disrupted the cultural patterns of small Sherpa villages and at times more or less depleted the rations, which with much effort had to be harvested in steep and sometimes faraway places. The most serious consequences were—and still are—the impact on religious life, the loss of workforce due to the men in the villages taking part in expeditions, and sometimes the loss of indispensable family support in mountain accidents.

As mountaineers we were deeply critical of the Alpine Club’s gentlemen method of mountaineering—essentially, attacks on the mountains many worshipped as sacred. Our eight-day trek to a village at the foot of Tseringma had only eight porters—all of them from Rolwaling and equipped in their traditional way. Two trusted expedition helpers, Pasang and Lachpa, came with us to be our rope mates—*not* high altitude porters! They were our cooks, too, when we were all together in the same camp and

could enjoy true, vegetarian Sherpa meals. We had, of course, brought the food from our travels in Kathmandu valley, and from home we brought fish and *geitost*.²

We carefully avoided any safari equipment. We had consequently selected lightweight mountaineering gear for our small camps and for alpine style climbing. To be able to follow Arne's old concept of climbing for the joy of discovering and not for 'attacking' the summits, I ran a course in alpine climbing on rocks near the village for Pasang and Lachpa, so that they could be qualified rope mates, handling at that time nature-friendly and state of the art equipment. We brought pitons for icy conditions, but not to be used for fixing ropes. As it was our firm intention to demonstrate a new approach to mountaineering in the Himalayas, any sort of technical aids were incomprehensible.

In agreement with the Lama of Beding, Yelung Pasang, we set the limit for our climbs to an altitude of around 6,000 meters. Sigmund became our liaison with the Lama, who demonstrated his faith in him by inviting Sigmund to study and sleep in the monastery next to the cell of Yelung Pasang himself. Thus Sigmund, with the help of Pasang (the rope mate) as an interpreter, had frequent dialogues with an exceptional representative of Tibetan Buddhism.

Sigmund gave priority to making acquaintance with Sherpa families to take part in their everyday lives. He also followed the celebrations of Buddhist rituals, whereas Arne and I spent most of our time in close contact with Tseringma. When all three of us met every now and then in Sigmund's study to elaborate on our versions of ecophilosophy,³ Arne and I were pleased to learn about Sigmund's research into living Sherpa culture.

After Arne had spent a couple of weeks in physical and mental dialogue with Tseringma, he unfortunately fell ill and thus he could not follow us on a 6 day trek over the Tesi Lapcha Pass to the home village of Pasang and Lachpa in the Khumbu valley. We decided to make the best out of the new situation and use Arne as a 'post runner'—a method of communication in Himalayan expeditions before electronic equipment took over—to deliver a petition for a ban on summit climbs on Tseringma and other holy Himalayan mountains. Sigmund, in his role as a liaison, arranged for an open village consultation in front of the monastery. Following introductory remarks by the Lama, the villagers unanimously signed the petition, addressed to the King of Nepal, with whom Arne and his brother Erling had an earlier rendezvous.

After Arne left, Sigmund and I remained to continue working on patterns of thought for a nature-friendly future in a "literally breathtaking camp" in the lap of Tseringma, as Sigmund put it. But after unforgettable days and starry nights, winter was approaching

² Caramelised milk sugar—an exquisite 'up hill food' from Norway.

³ Faarlund's original text reads: 'to elaborate on our versions of the fusion of the natural science of ecology and the philosophical keel and rudder—values orientation—for an ecophilosophy' Later in the original text, he repeats the phrase 'values orientation.' Although for clarity I had to amend the specific wording, it is important to note the importance Faarlund places on *orientation* and *values* as instrumental to the paradigm shift necessary for the respect of Wild Nature. — ed.

and the time came to move on. Our trek over the Tesi Lapsha Pass to Thame added new dimensions to our pilgrimage. The trek was in itself grandiose. The most lasting impression we got from Pasang and Lachpa's village was the impact made by the construction of the hotel Mount Everest View and the impending impact of an airfield to be established in the best potato fields of the village.

Back home we were deeply moved by the once in a life time experience, eager to work it out and share it with our countrymen, as well as mountaineers and people looking for new ideas for a greening world. Sigmund's one-hour TV documentary was a vivid presentation of our pilgrimage and a powerful introduction to ecophilosophy and ecopolitics, which was strongly influenced by our encounter with the remarkable Sherpa culture. We used the film as well as my photographs for our lectures and seminars. Sigmund returned to Sherpa country over and over again, expanding his ecophilosophical and ecopolitical work in a jazz-inspired improvisation in the spirit of the Norwegian folktale hero Askeladden.⁴ He consistently followed Gandhi's lead, seeking conflict to expose and settle by non-violence unacceptable situations. Thus he ceaselessly challenged the ideology of industrial economic growth in a manifold of ways till at last heart disease slowed him down.

Arne's encounter with Sherpa life during our 1971 pilgrimage, and the opportunity to study Sherpa traditions and Sherpa/Tibetan Buddhism *in medias res*, influenced markedly his version of ecophilosophy. His enduring efforts for this new field resulted in an international discourse with participants from all continents. A talk he gave in Bucharest in 1972 at the Third World Future Research Conference, where he argued for 'deep ecology,' is considered to be the first international presentation of ecophilosophy.

Sigmund and I did not share Arne's belief in changing the culture of modernity by means of philosophical arguments alone. Having already worked for six years with Wild Nature in the Norwegian and Alpine tradition, all the time moving towards a change of social values, I brought back learning practices in the home of culture⁵—Wild Nature—with a lasting effect. This has been the backbone of the learning processes I have been conveying⁶ to professionals of most branches in modern society, as well as for individuals in search of deep acquaintance with Wild Nature, to enable a nature-friendly career or simply for the joy of the encounter.

⁴ Askeladden is the main character of many Norwegian folktales. In many stories he is rejected as eccentric and unusual compared to his two brothers, but, when a challenge presents itself to all three, he is the only one to succeed, thanks to unconventional thinking and creativity. He often represents the innovator who instigates a paradigm shift. — ed.

⁵ The phrase 'home of culture' is an idiosyncratic one developed by Faarlund and others in the article "Nature is the Home of Culture—*Friluftsliv* is a Way Home." The article explained the Norwegian tradition of *Friluftsliv*, of which Faarlund is part, and its ultimate quest to 'to bring about a change in the modern affluent societies [by working] to help re-establish cultures where nature is the home of culture.' — ed.

⁶ A *conwayor* ('outdoor educator') is a mentor in the Norwegian *Friluftsliv* tradition, whose main purpose is to find wild 'learning rooms' for students to develop a positive and freely developing relationship with nature. — ed.

The Tseringma Pilgrimage of 1971, along with the Mardoela non-violent action, did make a difference in the greening of Norway in the 1970s, changing patterns of thought, political practice, learning processes, and social organization. Then the oil-era happened and a blossoming 'spring' changed into an early 'autumn.' But the seeds are slumbering and the grassroots show signs of a paradigm shift. A change for a nature-friendly future is forthcoming as soon as the signs of spring we create are so abundant that they coalesce in a varl0sning.⁸

There is no way to nature-friendliness—nature-friendliness is the way!

No More Monkey Mind

Jake Yarwood

Jake Yarwood is a freelance photographer based in Perth, Australia. The following is a project statement for his photo essay, "No More Monkey Mind." To see more photos from the project, visit jakeyarwood.com.

A life that matters, this is something we all strive for.

Does it occur to you as it does to me that many of the things that truly matter in life are hidden away from us? It is only with true clarity that these facets of reality unveil themselves.

Once you begin to see the true nature of this modern existence for what it is, a bitter taste begins to form in your mouth.

Nearly all aspects of civilisation leave us in a perpetual and seemingly inescapable stranglehold, whilst power structures aptly ensure we cling onto notions of democracy' and freedom'. We are pawns of contemporary society; we are cogs in the Machine. For every new innovation' the techno-industrial complex brings about, we are fed yet another new need', and we devour these new needs relentlessly and without question.

Civilisation is fundamentally a failure, it is dysfunctional to its core, yet civilised downfalls are vastly unspoken of. Look at us now, passive like never before, witnesses and servants to cultural genocide, all of us guilty perpetrators of ecocide.

We have become so far removed from the things that actually matter. It seems unimaginable that in truth the majority of human history suggests we once held a harmonious place in the natural world. But now, alas, the divine

entity that represents greed and violence, suffering and exploitation, our god; almighty Progress, says we can inconsequentially do as we please. Progress has actually proved itself to be the death of our divinity.

We live in times where the glorification of superficiality and materialism take prevalence over all, where the prioritization and absolute proliferation of the mundane comes before that of preserving richness and diversity of all kinds.

We have to reclaim ourselves, reclaim spirituality, reclaim community, reclaim culture and art, reclaim our kinship for flora and fauna alike. Only once we start on this path will we know what it means to truly be. As the influx of societal, psychological and ecological crises persists, we must instil in ourselves irrefutable respect for the web of life.

This series of photographs is an ongoing attempt in seeking out and recognising all the qualities in life that make a mindful and universally meaningful existence attainable.

For oneness, for the wild.

In Defense of Plants

Matt Candeias

In Defense of Plants is a blog and podcast dedicated to the botanical world, hoping to foster a sense of awe for earth's photosynthetic wonders. Check out indefenseofplants.com for more.

Towards the end of my undergraduate career I took a job restoring abandoned quarries throughout western New York. The goal was to take possibly the most destructive form of land use and attempt to coax something resembling a habitat out of it.

My favorite project took place in an old sand pit way out in the country. Spending time there was rewarding enough, as the surrounding wilderness was already beginning to reclaim what humans had taken from it. We were attempting to reintroduce an endangered butterfly to part of its former range, and to do so, we needed to establish a robust population of its host plant. The butterfly in question is the Karner blue (*Lycaeides melissa samuelis*) and its host plant the blue lupine (*Lupinus perennis*). Karner blue caterpillars feed on nothing else.

Following the end of the Pleistocene, *L. perennis* took advantage of the well-drained soils left in the wake of the retreating glacial ice sheets and spread from coastal New England all the way to Minnesota. It specializes on nutrient poor, sandy soils. In fact, these plants were once thought to be bad for the land, robbing it of life and vitality. As such, they were maligned. The generic name “Lupinus” has its roots in another Latin word and was given to these plants because early botanists associated them with another creature that haunted their nightmares and left the land impoverished—the wolf (*Canis*

lupis). As with the misappropriated hatred towards the wolf, the idea that Lupine was bad for the land was far from true. Being a legume, it is able to fix atmospheric nitrogen, thus bringing life to barren soils. But, as is human nature, facts never seem to trump emotions, and *L. perennis* has seen a 90

This story affected me deeply. The more I dug into the literature, the more I realized how important plants are. I haven't looked back since. That initial interest has grown into a full-blown obsession with the botanical kingdom.

Early on, if someone had told me that I would end up devoting my life to studying plants, I probably would have laughed at them and walked away. Growing up I thought plants were utterly boring, a sentiment probably shared by more people than I can count. I was an animal person. Needless to say, much has changed over the last decade.

I try my best to communicate my love of the plant kingdom, but all too often it falls on deaf ears. Any time I present to a group I inevitably hear the same responses: “What

medicinal properties does it have?” or “Are the flowers pretty?” Most people only seem to care about plants when there is some sort of anthropocentric use for them. This, my friends, is a travesty. Plants are everything. They are the reason our planet is not a closed system. They are the reason I am here writing this and you are there reading it. Plants are what paved the way for terrestrial life way back in the Devonian.

You see, plants have this amazing ability to absorb energy from our sun and turn it into food, a fact that with the exception of deep sea thermal vents, every organism on this planet relies on in one form or another. They have been at it for a long time too. The botanical world is full of survivors. Far from being boring and nonreactive, plants are living, breathing organisms capable of some amazing biological feats, which include chemical warfare that the UN would seriously frown upon. They have been at this whole survival game for much longer than any of our ancestors have. Each species has its own story, its own ecology, and its own way of interacting with the world around it. Plants aren't here for us. We are here because of them. Everything is. We define entire ecosystems by the types of plants that grow there. We simply cannot understand the living world without first considering the flora that shaped it.

Despite all of their importance, plants still receive considerably less attention than animals. Shoot a bald eagle and you risk being put in jail. At the same time, some careless herbalist can clear an entire forest of goldenseal (*Hydrastis canadensis*) or American ginseng (*Panax quinquefolius*) without anyone batting an eye. Poachers are taking to what little old growth forests remain and robbing them of orchid species already threatened with extinction and all so that some careless hobbyist can have a rare plant in their collection. We are heading into an uncertain future wrought with climate change and habitat destruction. At the base of it all is the plant kingdom. Until we begin appreciating our botanical neighbors for all they are worth, I fear things are not going to get any better.

Life, a continuation

Iris Graaf

It started as a seed doesn't everything? it burrowed under my skin taking me over the roots fill every one of my veins and arteries stealing my blood now I have flowers in my mouth tree rings in my brain branches exploding from my chest what am I holding in my hands? my eyes hold leaves

I can't find myself anymore buried in the earth Does this belong to me? Or am I nature's possession?

Technological Vertigo: A Review of Black Mirror

Ziqian

Ziqian is a primitivist and Daoist who regularly blogs at 'wilderness before the dawn.'
Read more at sixpersimmons.blogspot.com.

The British science fiction television series *Black Mirror* draws from a tradition defined by genre paragons like *The Twilight Zone* and *The Outer Limits*, shows that attempt to articulate and explore what Freud termed the uncanny—that which is at once familiar and yet strange, a paradox that defines the modern condition. However, whereas past tales of the uncanny resort to invoking extraterrestrial forces or elements of the supernatural, *Black Mirror* represents an important realization: when you've got advanced technology, the notion of the supernatural becomes redundant. Through three seasons of blisteringly clever hour-long episodes, series creator and main writer Charlie Brooker delivers a trenchant satire of modern technology. While each episode tells a different and unrelated story with a different cast, the theme of the technological uncanny looms large throughout. The technology depicted in the series, much like the technology of our own world, estranges people from their own reality, generating uncanny situations like reliving the same day again and again or encountering the doppleganger of a deceased loved one. Sharp, original, often harrowing, and unexpectedly haunting, *Black Mirror* excels at revealing the implacable foreignness that dwells at the heart of even our most pedestrian technological contrivances.

In contrast to what one might expect from typical science fiction, each episode of *Black Mirror* portrays hypothetical technology that, far from being a revelation, is largely just a modest extrapolation of our own current epidemic of smart phones, social networking services, and wearable gadgets into the very near future. It's science fiction, but only just barely. A service that generates the textual and vocal likeness of a deceased loved one based on his internet activity during life (S2:E1 "Be Right Back") is science fiction only in the technical details. The ability of technology to produce a reasonably accurate psychological profile of a person with decades' worth of hourly status updates, tweets, and Google searches is already upon us. A machine that induces memory loss (S2:E2 "White Bear"), a surgically-implanted and neurologically-wired device that records everything you see and hear via your eyes and ears (S1:E3 "The Entire History of You"), a society that operates as a social network incarnate (S1:E2 "Fifteen Million Merits")—the hypothetical scenarios featured in each episode directly reference tech that either already exists or else would probably not be surprising to

see in a few years' time, and this helps to make some of the episodes seem remarkably realistic and believable.

The narratives are facilitated by able and affecting performances from a high profile roster of British and American actors, including Toby Kebbell (*Dawn of the Planet of the Apes*), Rory Kinnear (*The Imitation Game*), Hayley Atwell (*Captain America: The First Avenger*), Rafe Spall (*Life of Pi*), Jessica Brown Findley (*Downton Abbey*), and Jon Hamm (*Mad Men*). However, some of the finest moments on the show come from actors that may be less familiar to American audiences, including Jodie Whittaker as Ffion, who struggles to convince her husband that not all truth can be found in the apparent objectivity of a recorded past, and Daniel Kaluuya as Bing, a young man trapped in a screen-based society that interacts chiefly through social network avatars and crass advertisements. As each episode consists of mostly different casts, it's not possible here to do full justice to each and every superlative performance, so suffice it to say that the performances throughout the series are consistently convincing, robust, and deliberate in a way that makes the characters and stories feel thoroughly real even in the midst of the most absurd or fantastical scenarios, which speaks to the competence of the episodes' directors as much as to the talent of the actors. The series' cinematography and visual effects succeed in framing and accentuating the performances and help color each scene with an additional layer of emotional resonance—the bleary morning following a sleepless night of obsessing over a video clip, the garish glow of a cartoon celebrity advertisement lighting up a urine-soaked underpass, the creeping claustrophobia of a snowed-in house—resulting in an atmosphere of near pitch-perfect malaise. Each story often instills a sense of ethical or even existential disquiet that will linger for hours, days, or, if one isn't too distracted, even weeks. This was the case for this reviewer, who found it difficult to watch several episodes in a row, needing a day or two in between viewings to digest and recover. A sort of cognitive vertigo takes hold as the mind struggles to reconcile the many moral conundrums left open at the end of each episode. The tech that defines the lives of the characters in these episodes, much like the tech that surrounds us in the real world, mitigates even the most intimate aspects of life—sex, death, memory—and, in facilitating their experiences, reduces their humanity to spectacle and entertainment. It is impossible not to feel this degradation as a palpable weight on the soul after each viewing.

As such, the series is decidedly bleak, offering virtually no suggestions for solving the problems it raises, and this might count as its chief deficiency. Perhaps it has no answers, or perhaps it is implying that there can be no answer to the problem of technology, only resignation. Thus we watch as characters resign themselves to their defeat and humiliation, endure perpetual torment or even acquiesce and convert. *Black Mirror* doesn't seem interested in asking how we got to where we are or where we seem to be headed, and so doesn't seem to quite count as cautionary tale or allegory. Rather, the show seems content to simply reflect back at us the true bleakness of the technological world that entraps us without speculating on what we could or should do, a wake-up call as opposed to a battle plan. Part of what makes *Black Mirror* an

exceptional series is its insistence on approaching the subject matter unequivocally, without the apologism that is typical even of dystopian science fiction that may level some half-hearted critique at technology. Thus it avoids the usual pitfalls that cause lesser sci-fi tales to end up undermining their own themes when they inevitably try to salvage technology, rehabilitated or otherwise somehow pardoned, from where it really belongs—oblivion. *Black Mirror* combines compelling narrative, incisive wit, and cerebral cinematography to articulate technology's inherent duplicity in a laudable and sorely needed effort to reawaken us to the progress that encroaches upon all facets of our lives. In this, the series hopefully represents the beginning of a shift in industrial society's attitude toward technology as embodied in our fiction—a move away from the glorification and worship of machines that characterizes the majority of science fiction and a much needed step toward a skepticism and apprehension of the techno-industrial enterprise. *Black Mirror* provides us a reflection more faithful than most, unadulterated by your typical propaganda and contrived happy endings, so that we might manage to pull out the wiring in our brains for a moment and take a clear look at ourselves for the first time in a long time.

Interview with IRL, anti-tech graffiti artist

Renzo

I'd been seeing anti-tech graffiti around my town for the better part of a decade. Over the course of months it would appear in bursts, then slowly fade as the authorities cleaned it. Some places, images, or slogans only seemed to appear once, while others were clearly contested territories where cleaning and painting happened regularly. For years I wondered who the vigilantes that made my walks and bike rides so much more exciting could be. In a funny synchronicity, I finally met "IRL" through a mutual friend the same week another friend of mine started an anti-technology journal. We wandered for an hour all over town, behind warehouses, down train tracks, and beneath bridges discussing this very particular subset of graffiti. Some edits have been made for clarity.

— Renzo

Renzo: So, you're an anti-technology graffiti writer. What's that mean?

IRL: I'm a graffiti writer who believes that technological society is the greatest threat to human freedom and that's reflected in my art or vandalism or whatever you wanna call it.

Renzo: What kind of graffiti do you do?

IRL: I play with everything I can. Tagging, scrawling, stenciling, stickers, billboard defacement, wheatpaste posters. It really depends on the image or message and the surface or neighborhood.

Renzo: Why graffiti and not flyering or literature or a webpage?

IRL: Well first off I'm a graffiti writer, not an author or web designer or whatever. But also I think there's an information glut these days and you need to be aggressive to break through the clutter and get people's attention. Companies use billboards and outdoor advertising because it works. They're constantly trying to figure out how to put their messaging on every flat surface. So am I.

Renzo: Why are you "IRL?"

IRL: Ok, so I guess it's not just that outdoor advertising is effective, it's also outdoors. When you find graffiti you find it in the real world; a person's hands put it there and you can touch it with your own. My graffiti is a reward to those who leave the house and implores them to do it again. My best stuff you'll find while traveling on foot. The photos for this article are the first I've submitted for online display, although I'm aware of photos of my work being posted by other people and becoming popular.

When I found out that there was a cyber world abbreviation for the real world I lived in, it felt so gross I just couldn't let it go.

I also have a weird fantasy that once the government/corporations have nearly every aspect of people's lives tracked in real time through smart phones, social media, bank accounts, gps, and so on that they will then have a list of people who don't appear in most or any of these places (that's not the fantasy, that's a prediction from the CEO of Google¹), those people will derisively be called "Irls." Although, probably they'll just be called potential terrorists and painted as anti-social.

Renzo: Can you talk a little more about graffiti being in the real world and maybe about how it relates to wildness?

IRL: I think the ways I interact with the city are fundamentally different from the ways that a lot of people do. I climb, I explore not just for places to shop or work, but for places to paint, hide, watch from I am hunted by police and similarly I observe them to achieve what I want. When something changes like a parking garage, housing development, or store front, I think about how it changes this process. I'd like to think it's a less domesticated way of interacting with my world.

Also, a lot of graffiti happens in abandoned spaces, which, because nature is aggressive, quickly become wild spaces. I wind up hanging out and exploring rotting houses, crumbling factories, tunnel systems, empty warehouses, underneath bridges, old foundations in the forest, shut-down medical facilities. And these are the same places that kudzu, poison ivy, and virginia creeper crawl over and crack. Lamb's quarter and mullein push up through the floors. Raccoons, rats, opossums, and all sorts of birds build their nests. Homeless humans as well.

Renzo: Why not find these things in wilderness spaces? Why stay in the city if what you want is the wild?

IRL: Well, I'm also a product of my environment. I had to accept a few years ago that I actually get more excited by ruins than wilderness. I grew up in a place with no redeeming value, where the few undeveloped spaces were paved in my early and mid-teen years. My perception of wilderness seems to be, correctly or not, a place that industry hasn't destroyed yet. It gives me no hope. But a place that is regenerating from industry gives me hope for the future. That's not a thing I was excited to realize about myself, but it is what it is. I feel more comfortable in fight than flight.

Renzo: Let's talk a bit about some particular projects. Tell me about "Facebook is Boring."

IRL: That was impulsive. I was walking and there was a long blank wall that needed something and I had just had a conversation with a friend about all the pressure to get a Facebook and all the reasons I hadn't. I wrote "Facebook is fucking boring." It seemed like the meanest thing one could say in 2013. Everybody knows that shit destroys your privacy, reduces your friendships to shallow gestures and makes people narcissists, and

¹ Translates literally into 'spring break,' but is similar to the phrase 'var losning'—'our response.' — ed.

nobody cares. But the accusation that it simply fails to entertain That's harsh. A friend of mine who uses social media showed me a couple days later that it was going around on facebook, instagram, etc. It felt good, like somebody had finally said it. So, I wrote it a dozen more times in our town and then in cities all over the US. One of my favorite things about graffiti is it can break silent consensus like that. I dropped the "Fucking" cuz you shouldn't curse in public; it's rude.

Renzo: So you're not on Facebook?

IRL: No online profiles. I do have an email address. But I'm only represented IRL.

Renzo: "Industry is a death culture?"

IRL: That was a sticker campaign. Using the method where you write on the sticky side of a sticker and then put it on the inside of something transparent. I put them in every free newspaper box in my town (about 70) where the headline appears on the newspaper so that no matter what pointless headline is on the actual paper it just says "Industry is a death culture." Industry makes living things into dead things, redwoods into timber, animals into packaged meat, fields into parking lots and so on. During occupy I met somebody who, later when we had become good friends and I mentioned the stickers, said "I'd been having a rough time and had left town, coming back and seeing those was one of the first things I saw that made me think there were people here that could make this place livable for me." That's pretty much the best case scenario for my workmessages to people secretly thinking things they think nobody else believes.

Renzo: Stencils?

IRL: I have one with the FBI sketch of the Unabomber that says "Ted was right." That is pretty prominent around town, and a "Food Riot" stencil that uses the logo from the southeastern grocery store chain "Food Lion" with the lion masked up in black bloc. It's by far the most common stencil in town, I also made like 75 Food Riot tote bags and gave them away at local events anonymously. I see random people carrying them around town and it makes me smile. The cops in this town have a hard-on for graffiti writers and I like to think seeing the bags around town is frustrating for them, but I don't really know.

Renzo: Other stuff ?

IRL: I try out random anti-tech slogans like "Blow up the internet" or "Desert the digital utopia" and I like defacing billboards for green tech and other false solutions.

Renzo: Do you address other subjects in your graffiti?

IRL: Yeah.

Renzo: Like?

IRL: Let's not connect too many dots in case the local law reads it, but yeah.

Renzo: Do you have any future plans?

IRL: Yeah, I'm working on a series of Stencil Facebook logo modifications like "[F]BIbook" and "[F]ucking Creepy." I wanna do some really big roller paint billboard

style stuff along the highways against video games and virtual reality. Those are like the heroin of my generation. Well, that and heroin.

Scrublands: What Living Off-the-Grid in Europe Looks Like

Antoine Bruy

The following is a project statement for photographer Antoine Bruy's photo essay, Scrublands, which has been featured in Slate, WIRED, and The New Yorker. See more of Bruy's work at antoinebruy.com.

From 2010 to 2013, I hitchhiked throughout Europe with the aim of meeting men and women who had made the radical choice to live away from cities, willing to abandon a lifestyle based on efficiency and consumption.

Without any fixed route, driven by encounters and chance, this trip eventually became for me a kind of quest similar to the ones these families embarked on. Eight of these experiments are shown here, and display various fates that should not only be seen at a political level, but more importantly as daily and immediate experiences.

The heterogeneity of places and situations shows us the beautiful paradox of pursuing utopia through permanent empirical attempts and sometimes errors. Unstable structures, recovered materials, or multiple applications of agricultural theories allow us to see the variety of potential trajectories—all of which aim for more economic or social autonomy. In their worlds, time has fallen from its tight linearity to a slow and deliberate pace. No more ticking clocks, just the ballet of days and nights, seasons and lunar cycles. No more clock ticking but the ballet of days and nights, seasons and lunar

The Wildernist Issue #1: For the Wild

July 2015

Cover art: Erk the Weasel, by Paige Carter All articles from www.thewildernist.org

Submit to The Wildernist

The Wildernist would love to receive your submissions! We accept writing, photography, video, audio, and almost any other format by new and established authors alike. While our official editorial position is the end of industry (no more dams, no more mines, no more roads) because of the havoc it is wreaking on our wild earth, we consider every article that hopes to spread the message that wild nature matters and is worth fighting for.

If you have a piece you would like to submit to The Wildernist, or if you have any questions, email us atthewildernist@gmail.com and we'll respond as soon as we can.

Editor's Note

This issue is the product of rapid growth. During these past six months, The Wildernist's team has met many great people, added three, and received so many submissions that we're putting this issue out a month early! We really hope you enjoy it.

The main subject of this issue is the ideology of Wildism. Our opening piece, "A Statement of Principles," is the product of diligent work by several Spanish Wildists who wanted to outline the fundamentals of the ideology, including a love for wild nature and a rejection of industrial progress and humanism. Another Spanish Wildist, E=m.c², explores the need for struggle and purpose in "The Myth of Erk." And other authors outline the dangers of leftism, the importance of Ted Kaczynski, and the need for science in a revolutionary struggle against industry. It's an issue packed with thinking material, for sure.

Interspersed among all this are articles that remind us what we're fighting for. Highschool senior James Lee describes to us the plight of the tapir, which once roamed North America, and hints at a solution that takes Pleistocene rewilding seriously. Dave Foreman goes more into Pleistocene rewilding and his experience with Earth First! in an interview between him, Professor David Skrbina, and some friends in Spain. And the Glen Canyon Institute lets us know that the draining of Lake Foul — er, Powell — might now be a "politically realistic" option, giving us hope that the removal of the wretched Glen Canyon Dam itself might one day occur.

There's lots more in this issue, and we encourage you all to take a look, think about the material, and send us feedback so that the next issue can be even better than this one.

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Chapter 1 . Wildism: A Statement of Principles

This statement of principles was originally released at Wildism.org and translated from the Spanish version at Naturaleza Indomita. For a more in-depth explanation of these ideas, see “Industrial Society and Its Future” from the book Technological Slavery.

The individuals who signed this declaration want to place on record for the future the principles that drive us to actively lay the groundwork for the establishment of a truly strong and effective movement against the technoindustrial system.

Our Principles

The principles that guide our activity are:

1. Autonomy of the Wild. We understand “the Wild” (also “wild Nature”) to be everything that is not artificial and whose operation is autonomous. The Wild is the part of Nature that is untamed, that is not subject to the control and management of human beings (or of the technological systems built by them), even if human beings can be part of it. Therefore, we also consider as part of the Wild, human nature itself, i.e., the part of the mind and of human behavior that is innate and the biological consequence of evolution by natural selection. The autonomy of the wild part of human beings is what we call “freedom.” Our position is that the autonomy of the Wild is the most important value to which all other values are subordinate. We consider bad (worthy of our rejection) everything that violates the autonomy of wild Nature. In consequence, this value is the fundamental principle from which we derive the rest of our ideology and which inspires our objectives and activities.

2. Rejection of techno-industrial society and of civilization. Our fundamental principle being respect toward wild Nature, we consider bad all social systems that inevitably work against the above-mentioned autonomy. We consider that, at least, all forms of civilized society (i.e., with cities) are unavoidably contrary to this principle and therefore bad. And, out of all the forms of civilized society, we consider technoindustrial society (the social system whose technology is based on the combustion engine and electric power) especially harmful for the autonomy of the Wild, due to the fact that the enormous development of its technologies affects many aspects of the functioning of wild Nature that before this society remained untamed, in addition to interfering

to a greater degree with those aspects of the Wild whose dynamics were subjected to a lesser extent in other previous forms of society.

Our Ideal

We also believe that a positive social ideal is necessary and useful to inspire our fight. The majority of people prefer to fight for a positive ideal in order to combat only a few negative facts. Our ideal is the nomadic hunter/gatherer way of life, since it is the form of human society that is least harmful to wild Nature and that best suits our nature.

Our Objective

However, we do not believe that the conscious and planned implementation of a model social ideal can be achieved without the model being perverted and/or having serious and unforeseen negative consequences, and this would be especially true in the case of the nomadic hunter/gatherer way of life.

Therefore, although we consider desirable the disappearance of all forms of civilized society and even all forms of society apart from the nomadic hunter/gatherer way of life, we do not see any practical way by which this can be achieved.

However, these outlined principles suggest a clear goal: the complete destruction of the techno-industrial system. If the techno-industrial form of society is the form of society that most threatens the autonomy of the Wild, then this society must be eliminated. Therefore, a movement that is based on the above principles must have as its fundamental objective the end of techno-industrial society.

Unlike the end of civilization or of any other form of pre-industrial society different from the nomadic hunter/gatherer one, we believe that the objective of the definitive disappearance of techno-industrial society can be achieved if in the future there are certain material conditions (a great crisis, that is to say, a severe weakening of the techno-industrial system). In fact, we believe that it is likely that these material conditions will happen by themselves.

Our Work

The work of the movement must be:

1. The development and diffusion of an ideology based on the identified principles and goals.
2. The gathering and organizing of all appropriate individuals (see point 5) so that the movement can be strengthened and it can prepare to try to bring the techno-industrial system down permanently when it is in crisis.

3. The facilitation and arrival of the crisis of the techno-industrial system, to the extent possible.

Dangers to Avoid

So that the movement turns out to be truly effective and stays loyal to its principles and purpose, it is crucial to keep in mind that all social systems generate an ideology (a more or less coherent set of ideas and values) that justifies and promotes their maintenance and material development. On the other hand, it is also necessary to take into account that techno-industrial society cannot be effectively combated based on the values and ends of the same social system, which is to be destroyed. To this end, it is very important to reject progressivism, humanism and leftism. Here is a brief explanation of each of them:

1. Of the various ideas that form the fundamentals of the ideology of industrial society, progress (the idea that the development of society is unquestionably good) is one of the most important. Progress implies the assumption that any shift to greater social complexity and size is a fundamental improvement for human beings, society and even the world. Progress means that the gradual development of human societies towards ever-increasing destruction and subjugation of wild Nature is a good thing. This is just the opposite of how we interpret this process. Progressivism is the attitude of assuming and defending progress.

2. Humanism is a set of ideas that exalts “the human,” considering it superior and alien to Nature. Humanism distorts or even despises the notion of human nature (besides wild Nature in general), generating a distorted image of our species that considers “human” (i.e., worthy of respect, good) only those traits, actions, and products of human beings that, not coincidentally, are fundamentally suitable to the requirements of civilized life. Humanism considers “non-human” (bad and despicable) traits, actions and products of human beings that do not comply with the requirements of civilized life. Humanism is, therefore, contrary to any ideology that takes the Wild as its fundamental value.

3. Leftism is a current, derived from humanism, that adjusts humanism to the demands of modern industrial society. The basic features of leftism are the defense of equality, of solidarity beyond the natural group of friends or family, and an ideally harmonious society (without conflict, without problems). Leftism is, if anything, the most dangerous of the three trends identified here, since, in addition to justifying the techno-industrial system by defending its fundamental ideas and values, it serves as the system’s self-defense mechanism due to its pseudorebellious character. The rebel image of leftist struggles attracts many people unsatisfied with techno-industrial society, channeling their discontent to offer them a way to vent it in a manner innocuous to or even useful to the techno-industrial system. And, vice versa, the people aligned with leftism often feel attracted to currents and movements that seem rebellious to them,

absorbing, invading and ruining the movements by replacing, modifying or perverting principles and goals to fit their leftist beliefs.

It is for this reason that a movement against techno-industrial society that wants to be truly effective must pay special attention to maintaining a distance from all forms of leftism, expressing clearly and unequivocally its disdain for them, and keeping away from other leftists and similar undesirable people (the impractical, the inefficient, the irrational, the unbalanced, etc.).

The rejection of all forms of progressivism, humanism and leftism, the attack on the values of the techno-industrial system and the dissemination of our ideas are requirements to ensure that the activity of our movement is truly effective, but it is important to always remember that these things are not the goal of our activity. The goal is, and must always be, to put an end to the techno-industrial system, which is neither only nor mainly an ideological system, but fundamentally a material one. It is not a question of substituting the ideology of the system with ours, but of ending its physical existence.

Chapter 2 . The Myth of Erk

The story goes that in the beginning, when the Great Force that gave form to the world caused the first animals to arise, one of them, called Erk, after observing the things that were happening around him, turned in anguish to the Great Force and put these questions to her: “Why does everything have to be so hard, so difficult, so painful... ? Why must some suffer and die so that others may live? Why must we struggle against one another? Why is it necessary to expend so much effort in order to get what we need to stay alive? Why didn’t you make a simpler, an easier world in which everything would be more accessible, comfortable, and agreeable? What is the sense of so much suffering, so much discomfort, so much death?”

The Great Force knew the answer, but she also knew that Erk would understand it only through direct experience. Therefore, after listening to Erk’s complaints and even though the Great Force knew that she had made no mistake in designing the world, she changed it so that Erk and his companions should discover the sense of things for themselves.

At first the Great Force thought that a few little changes would be enough to make them recognize the truth. So she softened the conditions of life for living things: She moderated the climate so that it would be more kindly to life, made access to food easier for the animals, prevented the deaths of the youngest individuals, reduced the number of accidents, diseases, and catastrophes as well as the suffering the victims had to endure. But Erk and his companions, after a brief period of euphoria, began again to complain that in this new version of the world there was still pain, that death still existed, that it was still a hostile world, a place that was too hard and too difficult for life.

Upon seeing this the Great Force decided to take drastic action in order to open the eyes of Erk and his companions. From that moment, everything was easy, comfortable, simple, and agreeable. No one suffered or died, or had to make any effort to procure the necessities of life. What was needed was obtained instantly and without effort. Nor was it necessary to be alert, since there were no dangers from which to protect oneself and no harm to fear. There were no conflicts, no aggression, and no confrontations of any kind among the animals or between them and their surroundings. The world was at peace. It seemed marvelous.

But after the initial rejoicing, a new and very disagreeable sensation began to arise, a symptom of a great problem where there were no problems, a profound malaise in the midst of that well-being: Boredom. Due to the lack of motivation, of initiative, of goals, of incentives, of challenges, of activities... because of the prevailing indolence in those

idyllic conditions the animals were bored. Since they didn't need to make an effort for anything, worry about anything... they had nothing to do, nothing that was worth the trouble, nothing to motivate them, nothing that would push them to get up out of their lethargy and act. All the same, they were still animals and therefore felt within themselves an imperious need to act. And for this reason it happened that after a little while the animals grew so bored and so nauseated with this state of inactivity that, just in order to be able to do something and find an outlet for their instinctive need of action, they began to develop absurd behaviors that had nothing to do with those they had developed in the beginning before Erk had spoken to the Great Force. Because they had everything they needed, they began to desire other things that they did not need, just in order to be able to act and to exert themselves in getting those things. Thus they began to build, to destroy, to dig, to eat, to copulate, to run, to attack one another... compulsively and frenetically, and as a result many found their capacity for action seriously impaired, they suffered grave injuries, and they profoundly altered their habitat; but they did not stop acting that way, because they simply preferred to suffer all those consequences rather than endure the boredom of having nothing to do; at least these negative effects provided them with stimulation and sensations that kept their bodies and minds in working order and served in turn as a spur to act again under the pretext of palliating the same effects.

Upon seeing all of that, Erk finally understood. He turned to the Great Force again and said to her: "I have come to understand what was the sense of the world just as you created it in the beginning. I have come to understand that it should be that way and not the way that seemed to me more pleasant, because that is really the best way it can be. I have come to understand that when I saw no sense in the world it was because of my own weakness and ignorance, and because I didn't look at it in the right way or thinking properly. I allowed myself to be carried away by a mirage, and I disowned by real nature and the world to which I really belong. Now I know it, now I am stronger and I will never again fall into that error. Thank you, I have learned the lesson, but now please return the world to what it was originally."

Seeing that she had now achieved her objective, the Great Force made everything return to what it had been in the beginning.

So it was that Erk came to understand what was his place in the world and in life, as well as the sense of the world and of life. Since then we wild animals, generation after generation, have kept the memory of those events alive so that, like Erk, we will remember what is our place and what is our function, and so that we will not fall into the same error.

And even so, in spite of everything, many human beings have completely forgotten the story of Erk and live blinded by the same error, trying to create Paradise and immersing themselves and the world ever deeper in Hell.

"El Mito de Erk," Copyright 2004 by E=m.c2. "The Myth of Erk" (English transl.), Copyright 2005 by Theodore John Kaczynski.

Chapter 3 . Interview with Dave Foreman

Dave Foreman is a leading figure in the conservation movement and the founder of both The Wildlands Network, a project at the forefront of continental-scale conservation, and Earth First!, a radical environmentalist group known in the 80s for its no-compromise approach to the defense of wild Nature.¹

The following is a transcript of questions posed to Dave Foreman by David Skrbina, contributor to the book *Technological Slavery: The Collected Writings of Theodore J. Kaczynski*, and *Naturaleza Indomita, a Wildist group in Spain*. Skrbina conducted the interview over telephone.

Skrbina: In regard to values, unlike in the USA, Australia, or Scandinavia in which there is a widely accepted, say, “wilderness culture,” in countries like Spain they face the problem that the concept of valuable “wild Nature” practically doesn’t exist. They have been living many centuries in a highly complex civilization, and large wilderness areas haven’t existed for such a long time, that most people seem to be unable of understanding—and thus of defending—the importance of wilderness, and of the reality and natural laws that maintain it. In fact, practically all Spanish environmentalist groups are more interested in achieving social justice than in protecting wilderness. What do you think are the reasons for this huge difference between, for example, Spain and the USA? And, more important, do you conceive any way of overcoming this problem?

Foreman: Ok, well, that is a very good question, a very deep question. It has a lot of layers to it. The key is that they need to start talking about wilderness and development. You know, one of the things that we’ve really failed on is natural history. People getting outside and bird watching, and identifying plants, and that sort of thing. That is an absolute key to building a wilderness movement. That is where I think they can start. That would be a good thing to do; make an inventory like in my book, *The Big Outside* (1998). Where are the wilderness areas in Spain; where are the mostly wild places? Make a list of that-map it. Who owns them? What can we do with them? How wild are they? What wildlife do they have? Is there any mature or uncut woods—old growth forest? Find that stuff.

¹ Foreman, along with most of the original members, left Earth First! in the late 1980s because the influx of leftists, anarchists, and counter-cultural types had taken the movement away from its original principles. You can read the prequel to his departure in the article “Whither Earth First!?” Howie Wolke, another founder, describes his version of events in the article “Earth First!: A Founder’s Story.” — Ed.

My friends in the eastern United States started looking for old growth forest remnants, and the more they looked, the more they found. My closest collaborator, John Davis, and his mother, Mary Davis really started this and wrote a book about old growth in the east [Eastern Old-Growth Forests, 1996]. And she was in touch with all kinds of people, and they identified a couple of million acres, by bits and pieces, including one 50,000 acre chunk in the Adirondacks. Some of these trees are 700 years old; they were somehow just missed being cut down. To me that is fascinating. So you know, what is there in Spain? [A] national wildlife park in Southern Spain, I guess, it has a lot of waterfowl, and I think it also has got a main refuge for the Iberian lynx, but what else is there? What is in the Pyrenees? The Pyrenees were the last refuge for the Neanderthal!

Skrbina: You have shown public tolerance and even sympathy for some theories and struggles related with “social justice,” like feminism, for example. But don’t you think that many environmentalist organizations have eventually become ruined and perverted because of, among other reasons, the influence of “social justice” currents? We would like to know what you think today about this. Do you still think that leftist or humanistic—i.e., “social justice”—struggles are compatible with the defense of wild Nature?

Foreman: I think you exaggerate my sympathetic ideas. And in the book I’m finishing now, *Take Back Conservation* (2012), one of the things I criticize is how conservation in the US has been taken over by ‘progressives’ of the left of the Democratic party, something called the ‘environmentalist stereotype’—which is your liberal democrats, your vegetarians, your anti-guns and hunting, and so on. They link all these other things to conservation, but they don’t need to be linked. I also look at political correctness as one of the worst things tied to the environmentalist stereotype, and I’ve argued that what we need to do is try to not be beholden to the Democrats. Of course the Republicans are virtually crazy today. But there are people, if we could reach them, that talk about some traditional conservative values, such as piety, posterity, prudence, responsibility—all those kinds of things that won’t make us sound like leftists.

Skrbina: Also, related to population: As long as local populations can go on surpassing the carrying capacity of their environment using modern technology and the global trade system—which also depends on modern technology—could human population be reduced without large organizations controlling people, and without complex medical technology—and all the impact on wild ecosystems that they both imply?

Foreman: Well, I think that in the 1970s, in the US, we sort of did that [i.e. had that discussion on population], but then we got thrown off by the increase in immigration. You know, a lot of people of my generation decided not to have kids. I sat down and I came up with 100 people I knew, very easily, just off the top of my head, people of my generation who did not have children. In many cases it was a very conscious decision. And one of the things we need to do, and there are some folks in New England that are working on this and have a website, is to make the case for the quality of life you

can have as a childless couple. I've got nephews and nieces, I don't have any kids. But, I take my nephews and nieces out on the wild rivers and stuff like that. So there are a lot of ways you can do it.

Right now, I think society and technology push women in both the developed and the third worlds into generally having more children than they want. And we look at a place like Japan where the population is decreasing because the young women have been freed from a lesser place in society and they have decided there is something they want that is more important than having a bunch of babies.

Skrbina: So, the point is, in principal, you can do it without a large bureaucracy in place to control people.

Foreman: And besides, I think it is going to happen anyway whether we do it or not. You know, you get 7 billion large mammals who are, just about everyone of us, is in touch with every other one, within 48 hours, with modern air travel. We are setting ourselves up for a very deadly pandemic. And I think it is inevitable that that will happen. I don't know when, I don't know what. But, that is just the way ecology works. We are a big, fat, sitting duck for a predator; and that predator is going to be very, very tiny.

Skrbina: Right—we have these debates about which catastrophe is going to strike first: pandemic, global climate change, collapse of food supplies, water problems...

Foreman: I think in many ways they will come as one. But who knows. One thing that I would tell the folks from Spain about wilderness is that they need to come up with a word like 'wilderness,' and to do that they need to know the etymology of the word 'wilderness' in old English—in that it means 'self-willed land'; the home of self-willed animals. How do you say that in Spanish? Don't say 'wilderness,' say 'self-willed land' in Spanish.

Skrbina: As far as we know, you advocate 'Pleistocene Rewilding.' It's obvious that 'Pleistocene Rewilding' is proposed on the basis of the Pleistocene overkill hypothesis, but isn't it reckless to propose such an ecologically impactful thing only on the basis of a hypothesis which isn't proven?...

Foreman: The last issue of *Science* just had a really solid piece, with the Pleistocene extinction in Australia that was entirely human-caused.² And that we are finding here in the US and Canada, with some studies of pond pollen and that kind of thing, is that the vegetation change came after people had gotten here and after the mega-herbivores were killed off. And so it is actually beginning to look like vegetation changes were caused by the loss of the mega-herbivores, and not that the vegetation changes caused the loss of the mega-herbivores. The opposite way.

But, from another standpoint, we can look at when Spanish horses escaped [in the US, just a few of them, and within something like 50 years, there were 2 million horses on the Great Plains running wild. And there were still 60 million bison, 40 million

² Foreman may be referring to the article "The Aftermath of Megafaunal Extinction," *Science*, 2012. — Ed.

pronghorn sheep, 10 million elk out there. Now that says that the ecological niche was still there for those horses.

And there's other research that has been done on some plants like Osage apple, and others from Central America, and avocados, and on how large herbivores are the ones who spread their seeds around and planted them in a nice big pile of shit as potting soil. And with the demise of the megaherbivores, suddenly the range of these kinds of plants have shrunk. Actually the only wild animal that spreads avocados around in Central America now is the Jaguar. Horses and cattle have been doing it too now; but nonetheless, just from the impacts on vegetation we can see what the loss of the megaherbivores has done.

And so there are those who say, well, let's have an experiment with a few elephants—help deal with the invasion of mesquite into desert grasslands. Or a few camels. You know, let's just do a nice, on-the-ground experiment. See what the impact of bringing some substitute mega-herbivores in would be.

There's a place in northeastern New Mexico that has the largest herd of Przewalski horses in the world—over 300 of them. And I've been up to see them. And on the high step, with Rocky Mountains driving up behind, they look just like the horses in cave paintings in Europe, and it is just phenomenal. Another friend of mine has been running bison on a restored cattle ranch, and is discovering the ecological impact of bison and how different they are from cattle. Today the cattle have just about cleaned out all of the native cactus, and they have opened up a juniper woodland. They actually even go into a larger streams and horn-up the beginning of the erosion of the head wall and smooth it out. All this incredible stuff that the bison do to make things better, whereas cattle do everything to make it worse.

With all of this research, it would be really nice to take it another step further. Let's get all the animals here and watch what happens. Because when I was in South Africa, which looks so much like the American southwest,

I saw 24 ungulate species, out of 42. How many do we have here? Seven! Because they're all eating at different places in the ecosystem. And there is actually more room that way for more species. If we did that kind of experiment, we'd have more biomass on the ground, with more species, than with just a few. Until we do the experiments, we just don't know.

Skrbina: So to complete the question: Even letting alone this aspect, and taking for granted that Pleistocene overkill hypothesis refers to a well-proven fact, isn't it still too hazardous? Civilized solutions to problems—especially in the case of modern solutions—usually are worse than the problems themselves, that is, instead of really solving the problems, they usually create new and bigger problems, or worsen some other old ones.

Foreman: I generally agree with that. You must do it in certain spots, as a controlled experiment. The media reported that we just wanted to turn lions loose—no. You find a million acres in Texas where a guy wants to experiment, and you have some really top ecologists checking it out, and measuring, and seeing how things go. You need some

predators to move everybody around. What we learned with wolves in Yellowstone is that it wasn't wolves eating elk, but moving them around. Instead of the elk being fat and lazy and laying around in the river bottoms, and browsing away all the willows, they had to hide in the lodge pole pine. And it allowed the willows to come back on the streams. There is wonderful research done on this by some guys in Oregon State University.

Skrbina: Many people who advocate conservation and/or rewilding usually do it because they love wild Nature, wildlife, wilderness, wildlands, wild things, and wildness. And usually, conservation implies and needs managing of at least some parts and aspects of ecosystems which are being protected. Isn't there an intrinsic contradiction between "wildness" and "wilderness protection management"? If one needs to manage an ecosystem to make or maintain it as "wild," is it really wild then?

Foreman: That's right. The next book I'm writing will go into that. It's the divide between John Muir and Gifford Pinchot, and following Pinchot, I call it 'resourcism.' Basically it is the ability to manage resources for the maximum value to man without degrading them. Whereas the idea of nature conservation is to protect wild things. And so there's a fundamental difference between the two "conservations."³

Grassroots groups are trying to protect wildness, whereas the US Forest Service and other agencies that manage wilderness areas are doing it to impose human will. To me the fundamental question is, "Who's will"? Do we let the will of the land go, or do we impose human will?

But actually these questions are very good, and I could use them in my new books. Very thoughtful stuff. The questions are much different than what I was expecting—much deeper.

Skrbina: In this context, some other names come up—people like Derrick Jensen. What are your thoughts on him?

Foreman: I haven't read any of Jensen's stuff for a long time. He got really pissed at me over the breakup of Earth First! [See note 1] Maybe he thought I treated Mike Roselle rudely, I don't know. I know he has really carved out a position as a critic of technology and modernism.

Skrbina: You know, I saw him speak in person not long ago—he was in Michigan. It was a bit disappointing: kind of rambling, incoherent talk, lots of jokes, and not much serious talk. But he did bring up the important question of revolution versus reform. And his answer was that he supports both! Now to me, this seems like a contradiction—one is trying to fix the system, and the other is trying to tear it down. What are your thoughts?

Foreman: My fear is that revolutionaries nearly always become that which they revolt against. It doesn't turn out that good. I have a low opinion of human beings. I don't think they are capable of revolution. I think the most successful revolution that

³ V. Smil, "Global Energy: The Latest infatuations," *American Scientist* 99, no. 3 (2011): 212–19.

was really limited in scope was the American revolution, but even it has been fairly subverted by corporations and that type of thing.

Skrbina: Ok, but the technological system is different. You're not trying to take power, you simply want to bring it crashing down. And then whoever survives will continue again as hunter-gatherers.

Foreman: The thing I see is that nobody "revolted" against the Soviet system, but it collapsed because of its own internal contradictions. In many ways, the Soviet and western systems are based on industrialism and exploitation, and so it is just that the Soviets were more inefficient and incompetent, so they crashed first.

Skrbina: Is it fair to say you would support industrial collapse? Would you see that as a possible outcome?

Foreman: I think industrial collapse is going to happen. In the long term it is a positive thing. And then since it is inevitable, it is probably better for it to happen sooner rather than later.

Skrbina: So shouldn't you take some proactive action, to help it happen sooner rather than later?

Foreman: If you try to do that, might you not mess things up? I just don't trust us to be able to adequately do it. My misanthropy—my atheistic Calvinism—prevents me from thinking that any group of people, no matter how well meaning, how intelligent, how ethical, are capable of solving these overwhelming institutional problems of mass civilization.

Skrbina: So you're saying that the task is simply beyond our ability, and therefore we should not focus on it because we have no practical possibility of being an effective contributor to that—is that basically it? Instead we should focus on... what?

Foreman: My point is the system is going to come down, one way or another way, on its own. My task is keeping all the building blocks of future evolution that we can. I think evolution is the very heart and essence of wild things and of wildness.

4. On the Question of Technological Slavery: A Reply to Lippman and Campbell

In October 2013 The American Reader published a piece by Thomas Campbell and Michael Lipkin on the Unabomber, Ted Kaczynski. David Skrbina, a philosopher professor who wrote the introduction to Kaczynski's book *Technological Slavery*, was asked to write a reply, but it was never published. Below is Skrbina's response.

The editorial team of The Wildernist finds this piece worthwhile because, whatever one might think of Kaczynski's actions, his ideas have been validated time and time again. And we agree. Kaczynski was right about industrial technology and its consequences on wild Nature (both in and around us). It's about time we paid attention.

Let's do a quick study in comparative morality. Late in the evening on October 4, 2013, an American military helicopter flew over the countryside near Jalalabad, Afghanistan. In one village, according to reports by CNN and other sources, five people were sitting outside "enjoying some relief from the heat." The helicopter flew overhead and fired on them, killing all five[<http://dunyanews.tv/index.php/en/World/195121-NATO-airstrike-kills-five-Afghans-including-three->][instantly]]. A NATO spokesman called the attack "a coordinated precision strike," and added that initial reports indicated "no civilian casualties." Local officials said all five were civilians, three of whom were children. "We are still assessing the situation," said American Lt Col. Will Griffin.

In an instant, some anonymous, highly-skilled American soldier, a professional killer, using one of the most technologically-advanced machines on the planet, caused more death than Ted Kaczynski did in 17 years of his so-called terror campaign.

Clearly we do not yet know all the circumstances, and likely we never will. But what does it say about our collective sense of ethics when the murder of five people in Afghanistan elicits little or no response, but the killing of three men—the last nearly 20 years ago—calls for continual expressions of condemnation and outrage? Why is it acceptable when an institution does the killing, but not an individual? The pilot pulled the trigger, but most likely the decision to kill was authorized by a single, anonymous, unelected, self-styled defender of the American homeland. But a man like Kaczynski—another anonymous, unelected, self-styled defender, who rationally perceives a grave

threat to himself, to nature, and to all humanity—must be portrayed as a psychotic murderer.

If nothing else, ethics demands consistency. Life is precious. Most would say: All killing is wrong, but it may, under extreme circumstances, be justified. The killing of five Afghans is pointless, arbitrary, and utterly indefensible; there is absolutely nothing to be gained by their deaths. Kaczynski's actions, deplorable though they may have been, led directly to the release of his infamous Manifesto, and to forcing the problem of technology into the public eye. In the end, we are appalled by Kaczynski—because he won.

It has now been two decades since Kaczynski forced the publication of "Industrial Society and Its Future." He was apprehended six months later, ultimately convicted of the Unabomber crimes and sentenced to life in prison. I know something about the man, having exchanged over 100 letters with <http://www.wildism.org/lib/item/b31dd381/> [him since 2003]. Extended excerpts of these letters appear in his 2010 book, *Technological Slavery*; I wrote the introduction. One might have hoped that, by now, Kaczynski's story would get a fair hearing in the court of public opinion. Evidently this is not the case.

Among recent commentators are two young Web journalists, Thomas Campbell and Michael Lipkin. In their essay on Kaczynski, they begin by trotting out many of the usual banalities: he is a paranoid schizophrenic, a man who "fears technological oppression," someone "who wants nothing to do with society," has sexual insecurities and problems with social awkwardness.

True or not, such things are of interest only to those obsessed with this man's personal life. Apparently Campbell and Lipkin are inclined to such an obsession.

But we need to think about this situation rationally. Kaczynski is in prison for life; he personally presents no threat. Yet his ideas remain efficacious. They threaten to undermine the power structure of our technological order. And since the system's defenders are unable to defeat the ideas, they choose to attack the man who wrote them.

For my part, I couldn't care less about his personal life. There are far too many important issues in the world to waste time worrying about such mundane matters. One of those issues—the chief issue—is the problem of modern technology. And this deserves our full attention.

But this does not trouble our reporters. Indeed, they spend little time even describing the problem, let alone addressing it. It is consistent, I suppose, with their generally poor academic treatment of the subject matter. Granted, they are writing for a literary periodical, and this fact justifies a foregoing of the usual details of academic writing. Even so, the writers should strive to maintain a high standard of intellectual integrity. On many counts, unfortunately, they fall short.

Some problems are perhaps minor. For example, Ellul's book, *The Technological Society*, was written originally in 1954, and only translated in 1964. But what is the point of describing Rousseau—one of the most brilliant writers, philosophers, and social

critics in history—as a “hater of civilization” and a “paranoid letter writer”? Rousseau was in fact the first critic of the technological society, and his first major work, “A Discourse on the Arts and

Sciences” (1750), provides an insightful critique. To state otherwise is an obvious ad hominem attack, one designed to slander the man himself rather than address the substance of his work. But this is consistent with the related assault on Kaczynski. What, for example, justifies the claim that “torturous motivated his attacks?

On what basis can the authors

claim that “technological optimism” has grown since the mid-1990s? Is there any research that backs this up? I am unaware of any. Certainly technology itself has “grown,” but this has no bearing on public optimism. In fact, a Forrester Research[<http://www.businesswire.com/news/home/20050802005446/en/Forrester-Research-State-Consumer-Technology-Adoption-Survey>][survey of 2005]] showed that a majority of North Americans (51%) qualify as “technological pessimists.” If this figure was even higher in the 1990s, then I suppose, by some contorted and misleading logic, that one could claim a “growth in optimism.” But this is unlikely, and in any case unsupported by data. And we are furthermore confronted by such phenomena as “Facebook depression” and Internet addiction, nifty little technology side effects that were unknown in previous decades. All this suggests the opposite of their claim.

Other problems appear. In stating that “Kaczynski disagreed with Ellul about the effectiveness of violent means,” the authors ignore the fact that Ellul justified violence in

several situations, including those accompanied by various forms of idealism. They ignore that Ellul himself supported violence during the Spanish Civil War of 1936–1939. And they overlook his statement, in the Foreword to *Technological Society*, that one route to avoiding technological determinism is “if an increasing number of people become fully aware” of the threat, and decide to “assert their freedom by upsetting the course of [technological] evolution”—a veiled reference to a violent mass uprising.

Or again: Kaczynski’s *Manifesto*, they imply, is merely “a repetition of points already made by Ellul and Lewis Mumford.” On what basis do they make this claim? Have they read Ellul’s three books—*Technological Society*, *Technological System* (1980), and *Technological Bluff* (1990)—and his many articles on technology? Have they read Mumford’s *Technics and Civilization* (1934) and his two-volume opus, *The Myth of the Machine* (1967–70)? Certainly there is overlap, as there would be in any such analysis. But Kaczynski’s treatment of the issues is vastly different, and, obviously, much more up-to-date.

Most inexcusably, the writers nowhere mention *the title* of Kaczynski’s collected writings: *Technological Slavery* (Feral House, 2010). Even now I find this hard to believe; surely it was a gross oversight, a typographical error of first magnitude. This book—which by all rights should have garnered substantial media coverage when it came out, the first published by the most famous American “terrorist” of the 20th century, a work that includes the only fully correct version of the infamous *Manifesto*,

a book that has five previously unpublished essays along with detailed responses to my letters challenging his ideas—merits no citation and only passing, indirect reference. Are the writers so afraid of the name? “Technological Slavery”—is it like some medieval incantation, certain to hex all those who utter the very words? Or does it indicate something else: the well-known media tendency to “talk about something by not talking about it,” of circling around and obfuscating reality precisely in order to bury it. “See, we’re willing to talk about the Unabomber”; “See, we aren’t afraid of controversial topics.”

In fact there is a story behind its publication. Beginning in 2006, we spent two years looking for an American publisher, to no avail. Eventually we found a small Swiss firm, Xenia, that agreed to produce simultaneous English and French editions. The English version, titled *Road to Revolution*, was released in 2008.¹ It contains much of the same content as *Technological Slavery*. But production was limited, and there was no distribution in the United States. (Those who own a copy—count yourself fortunate!) Shortly after it came out, Feral House agreed to work in conjunction with Xenia to publish a revised edition with a new title and new cover artwork. Of the¹ infamous “bomb” photo, incidentally, we received explicit approval from the FBI to use it. And for what it’s worth, neither Kaczynski nor I make any money from the proceeds.

The central question, above all, is the problem of technology—not technology per se, but rather specific manifestations and applications of it. For centuries, philosophers and social critics have recognized that it poses severe problems, threatens to disrupt social order, and carries with it morally corrosive qualities that cannot be effaced. Rousseau was the first to offer a detailed critique, but other notables soon followed, including Thomas Carlyle (“Signs of the Times”) and Henry Thoreau (Walden). By the 1860s, the technological society had developed to such an extent that a young British essayist and critic, Samuel Butler, issued the first call for revolution. In his short piece “Darwin among the machines,” he foresaw an evolutionary takeover in the making. “Day by day, the machines are gaining ground upon us; day by day we are becoming more subservient to them,” he wrote. His solution was to attack now, while we still had the upper hand: “Our opinion is that war to the death should be instantly proclaimed against them. Every machine of every sort should be destroyed by the well-wisher of his species.” So much for the gentile Brits.

Butler closes his essay with one of the finest, most prescient sentences in the history of technology criticism. He writes:

If it be urged that this [revolution] is impossible under the present condition of human affairs... this at once proves that the mischief is already done, that our servitude has commenced in good earnest, that we have raised a race of beings whom it is beyond our power to destroy, and that we are not only enslaved but are absolutely acquiescent in our bondage.

¹ See “Note Concerning the Road to Revolution” to read Kaczynski’s thoughts on this edition. — Ed.

Should Campbell and Lipkin wish to sharpen both their writing and critical thinking skills, they ought to read more Butler.

Butler was the first but not the only major critic to call for radical action against technology. In their own ways, Ellul, Herbert Marcuse, Ivan Illich, and even Mumford argued for as much. Kaczynski was only the latest in a line of radical, rational thinkers. Whether they were right or not remains to be seen; the signs are not good.

Clearly there is much to be said, and I can only give here the barest outline of the case against technology. Kaczynski's core argument is based on four simple points:

1. Humans evolved under primitive, low-tech conditions. This constitutes our natural state of existence.

2. Modern society is radically different than this, and imposes unprecedented stress upon us.

3. The situation is bad now, and will get much worse. We will either be humiliated into conforming to technology's demands, or be crushed by the system.

4. There is no way to reform the system to avoid the negative outcomes.

His conclusion, then, is straightforward and rational: bring the system to an end, as soon as possible. Granted, the odds of success are slim, but the longer we wait the lower they become and the worse the outcome will be—for both humanity and nature. We have essentially two choices: big, but survivable, pain now, or catastrophic pain later.

The fact that we live under increasingly abnormal conditions is starting to sink in to the popular mindset. Jonathan Crary's recent book, *24/7*, is a case in point. He demonstrates the striking contrast between a technology-driven society that never rests, and the basic biological need to sleep. We humans need time to relax, unwind, and decompress, but the system does not, and it applies both subtle and overt pressure to stay continuously engaged. In the clash between human needs and those of the system, the system wins. This is only one small example; humanity makes continuous, repeated compromises with technology, and we always come out on the short end. Hence the progressive decline in our physical and mental well-being.

Again, this is but a hint at the larger picture that Kaczynski paints for us. A full reading of *Technological Slavery* is necessary to get the complete view, and we can expect further elaboration from him in the future.

I trust that this gives a definitive close to my reply—unlike the ending of Campbell's and Lipkin's essay, which is oddly inconclusive. They are rightly struck by "just how total technology's grip on our world has become in the seventeen years since Kaczynski's arrest." But they draw no inferences from this fact. Instead we get trite references to Kaczynski's "crossing over into the principality of evil," and a denial of the claim that we all harbor a bit of technology skepticism—in fact, "the opposite is true," they state, without explanation.

Yes, we do need cooperation and imagination to get out of this bind, and yes, technology does drive such things into short supply. To put a sharp point on it: Technology

acts like a mental AIDS; it destroys the very sort of thinking that we need to overcome it. The seriousness of this situation cannot be overestimated.

5. Our Primal Future: Some

Thoughts in a Time of Droughts, Fires and Storms

The great nature writer Henry Beston spoke of elemental things, of wind, fire, water, earth. He did so longingly and in the utopian tradition of nature writing, as one who, having chosen a simpler life in nature, sought greater contact with the elements.

Lately, I have been thinking of elemental things too, but with a decidedly dystopian, not utopian, slant. Summer marks the coming of fire season in the American West and hurricane season on the Atlantic Coast where I live. Over the last few years we have seen our share of flooded streets and subway steps turned waterfalls, as well as millions of western acres set aflame, mountain homes providing the kindling. In both cases the word “Rebuild!” is trumpeted and there is talk of resilience and hope. This is the meaning they find in disaster, but some of us hear a different message.

Perhaps it may be time to come to grips with what I’ll call our elemental, or primal, future. When I was growing up in the 1960s the future was clear, staring up from the pages of our textbooks: flying cars and phones where we saw each other’s faces. It was a Jetsons future, a clean, antiseptic, sleek future. No trees or bugs mucked up this vision, let alone flooding cities or whole states on fire. Everyone, for one thing, had electricity.

A different future is here. The world is warming. The waters are rising. The storms are worsening. The fields are withering. These are not political statements, though typing them even I, living in these strange times, can’t help but feel they are. But no, they aren’t. Climate and weather have no interest in rhetoric, and are in no way influenced by it. These are simply the facts. Elemental facts. And they remain facts no matter what your political affiliation.

Anyone who has lived through weeks without power in the wake of hurricanes knows about elemental facts, as does anyone who has seen the black charred husk that once was their home on a Colorado hillside. The question is: what do we do in the wake of these disasters? What is the lesson, if there is one? We hear that we should re-build, get stronger, have hope, be patriotic. That is one take. And sure, we will rebuild after the fires, after the floods, since we are, after all, human, stubbornly resilient, and that is what we do. But maybe we can possibly re-think along with our re-building. This re-thinking must start with an acceptance of what we can’t control. That we accept accident and nature’s randomness as a part of our lives. This does not mean that we

have to be passive, that we should all become Zen monks and put away our tools and plans. It means introducing humility into our grand visions.

Let me get specific. I was in rural bar in Utah this summer, and a young fracker, a real gung-ho boomer, was going on about what a great thing it was to fracture the earth in search of fuels, and how many jobs it was bringing to the town we were in (no matter that he was from another state), and how anyone who didn't agree with him didn't live in "the real world." He scoffed at the notion that the chemicals used to flush the petroleum, or the petroleum itself, might contaminate the water table. His argument was simple and to him foolproof: the water and the petroleum were both underground, sure, but they were on entirely different levels below the earth, not even close to each other.

Later, in the same bar, I talked to a geologist. He was there to inspect the fracking sites and his take was decidedly less upbeat.

"I won't even get into any of the back-and-forth arguments," he said. "But the next time you talk to your young friend just ask him one question: What if there's an earthquake?"

And there it is. Elemental things. Nature. Accident. The real real world: the world of fire and water, shaking earth and wild wind, beyond the control of homo sapiens.

I do not believe that I could ever convince that young man, high on testosterone and oil money, that we should approach the world with some humility, with an awareness that accidents are a part of how the world works.

Perhaps it would be easier today, with his booming city turning to bust. But shouldn't those leading our country, and making decisions that turn out to affect our climate and weather (ah ha, maybe rhetoric can affect climate), have a slightly more sophisticated philosophy than that of an amped-up twenty-something fracker?

Under normal circumstances, I wouldn't give human beings much of a chance of re-thinking in any large way. But these are not normal circumstances, or normal times. In fact the world seems to be insisting that we alter our view of it.

It may seem Pollyanna-ish to some to believe that hurricanes or fires or droughts can really change our thinking. But the fact is that there are plenty of historical precedents of elemental things coming to the table and reminding everyone, politicians included, just which world is the real one. To take just one concrete example, consider the year 1886. A brutal blizzard-filled winter almost wiped out the cattle industry in the American West, followed by three years of drought so severe that even congressmen in Washington took notice. This led to the Desert Land Act and Timber Culture Act, and set off a basic rethinking of the way we were using and settling land in the West. So it can happen: natural disaster can directly lead to changed laws.

"But the fact is that there are plenty of historical precedents of elemental things coming to the table and reminding everyone, politicians included, just which world is the real one."

This is my hope in the wake of the current drought, of the floods and fires: that the world will force us to see what we are doing to it. That perhaps, at last, we will

acknowledge the primal future that we have found ourselves in, a future where we can only control so much. And finally I hope for this: that when we mention “the real world” we know of which world we speak.

Though it is a personal, not political, point, I have found that spending time in the places where these disasters have struck is another way to understand their primal realities, in a way you can’t from reading an editorial. Whenever I visit, I try to get out on the land, to explore the places, to compare them with other places I have been, to feel them not think them. And when I do I remember the lines of Henry Beston’s *The Outermost House*:

The world to-day is sick to its thin blood for lack of elemental things, for fire before the hands, for water welling from the earth, for air, for the dear earth itself underfoot.

Some might argue that the world today is sick from elemental things. But at the risk of seeming insensitive to the victims of disasters, I will stick with Beston’s assertion. At times it may seem that the elements are conspiring against us, and there is nothing good about lives lost and homes destroyed. But they do make us face facts. We need to acknowledge the elemental nature of the earth we live on. Either that, or not be too surprised when our illusionary and virtual worlds are torn apart.

David Gessner is the author of 9 books, including the newly-released *All the Wild That Remains*: Edward Abbey, Wallace Stegner and the American West. He is also the founder of the literary magazine, *Ecotone*.

6. Leftism: The function of pseudo-critique and pseudo-revolution in techno-industrial society¹

This essay was originally published in English on Wildism.org. Written by a Wildist in Spain, it explains how leftist movements and individuals have posed a threat to revolutionary movements in the past, and why they should be avoided by those who wish to truly see an end to industrial society. Links to the essay should follow the original English-language version.

Definition

Ultimo Reducto regards as “leftism” any current or social tendency that is based on the following values: equality, indiscriminate solidarity, compassion toward alleged groups of alleged victims (with these or other names as “social justice,” “cooperation,” “brotherhood,” “universal love,” “peace,” etc.).²

¹ Perhaps “leftism” is not the most appropriate term to express what Ultimo Reducto refers to here. Everyone has some intuitive notion of what “leftism” is, but often these notions vary considerably from one individual to another and few are able to correctly and consistently explain their idea of “leftism.” Furthermore, like a loony bin (and not by coincidence), *ni estan todos los que son, ni son todos los que estan* [Translator’s note: This is a difficult-to-translate Spanish proverb that references populations of people in insane asylums. It is used to mean that a given set of elements is wrong, because in some cases some elements that are included aren’t correct and some other elements that are correct are left out.] (certain incomplete notions or definitions, at least, do not cover all the forms of leftism really existing -for example, they consider leftism to be only MarxismLeninism, or only anarcho-syndicalism, or only the “antagonist” subculture, etc. and certain overreaching and vague notions and definitions might include currents that are not, in reality, really leftists -for example, certain kinds of Islamism-). All this complicates the definition and interpretation of the concept to which “Ultimo Reducto is referring to with the term “leftism.” However, the point here is trying to express, clarify and grasp the concept without getting lost in discussions about what to call it. Let each denominate the term as he is best willing and able.

² There is another trait that is also probably common to virtually all forms of leftism: the belief in the possibility of attaining some kind of utopia, i.e., a world or at least a society that is ideal, harmonious, with no conflicts or problems. Most, if not all, forms of leftism have as their goal the attainment of some

In general, the concept of leftism includes almost any ostensibly critical current that in reality doesn't try to combat modern society, but to "improve it."³ Leftism, usually, does not try to end techno-industrial society, but only tries to make it meet the above values. That is, (more) "justice," (more) "equality," (more) "solidarity," etc. However, there are also radical leftisms that say they try to combat the system (normally adding the adjective "capitalistic" and/or "patriarchal"), always doing so on the basis of those values.

Leftism includes, in general, that which is usually understood as the left, but not only this. The concept of "the left" is usually almost synonymous with socialism (in almost all its versions -including libertarian or anarchist ones-), but there are also non-socialist "leftisms" (for example, all the currents and humanitarian initiatives derived exclusively from philosophical liberalism or from Christian philanthropy -certain foundations, certain charitable organizations, some missions, etc.-). In fact, at least some of the fundamental values and ideals of the greater part of what is today called "the right" are basically the same as those of what is called "the left."

Leftism, in particular, includes all the struggles and initiatives, governmental or otherwise, for the equality and the rights of alleged groups of the so-called "oppressed" ("anti-patriarchalism" in general and feminism in particular, gay "liberation," anti-racism, solidarity with immigrants, helping the poor, initiatives for the social integration of the marginalized and excluded, defense of the working-class, of the unemployed, of the disabled, of the animals, etc.), in favor of development ("sustainable," they tend to add), of justice, of peace, of "freedoms" and "rights" and of democracy in general (struggles for the redistribution of wealth, currents favorable to the "normalization" of drugs or "sexual liberation," anti-militarism, pacifism, social "ecology" -that current of so-called environmentalists who focus primarily on purely social matters, prioritizing them over real ecological problems and environmentalism -those currents whose real function is to maintain an environment habitable enough so the human population can continue successfully fulfilling the demands of techno-industrial society-, anti-capitalism, etc.). It includes, then, all the practices of those things described as "social movements," "anti-establishment," "adversarial," "counter-cultural," etc. as well as the vast majority of NGOs, and any initiative, official or not, based on promoting equality, (indiscriminate) solidarity and the defense of alleged victims and helpless people (which today includes a good part of the activities of governments and institutions).

It is usually believed that "progressivism" and "leftism" are synonymous, and certainly this is usually the case, but not always. If the idea of progress⁴ that progressivism

kind of utopia. However, the belief in ideal and perfect worlds and societies, the desire of attaining them and embracing them as goals to pursue is not necessarily exclusive to leftism.

³ Techno-industrial society must be fought, not reformed, because it inevitably undermines the autonomy and functioning of non-artificial systems, i.e., the wild Nature, both external and internal to humans. To investigate this issue, see, for example, *Industrial Society and Its Future*, Freedom Club.

⁴ Progress: The belief in the absolute goodness of some process of development.

defends is based on the increase of equality, solidarity (beyond the natural social reference group constituted by close friends or relatives) and defense of supposed victims and helpless people, which is usually precisely the notion of progress in almost all of contemporary progressivism, then this progressivism is leftism. But not all progressivism has this humanitarian idea of progress: nineteenth-century colonialism, for example, used for the justification of its atrocities another, less “delicate” idea of progress, not compatible with leftist progressivism.

On the other hand, although leftism is usually openly progressivist, there are also minority leftist currents ostensibly contrary to progress, i.e., ostensibly not progressives.⁵

Nowadays, and for at least a decade,[18] the dominant ideology in technoindustrial society is leftist. Institutions and the mass media are based on the fundamental leftist values of equality, (indiscriminate) solidarity and victimism, and they transmit and put into practice these values, supporting and encouraging proposals that were formerly defended exclusively by minority sectors (the left wing of a few years ago). It is enough to observe institutional propaganda, the news, mass forms of entertainment and art, etc., to notice it. As a result, the general population has more or less assumed the leftist values of this propaganda.

Nevertheless, many people are sure that these leftist values are, not only a minority view, but also contrary to those of modern society, which they consider unsupportive or a promoter of inequality. This belief is itself a fundamental part of leftism, justifying and promoting it.

Evaluation

All who really want to aspire to effectively combat the techno-industrial system should reject leftism, because:

1. Equality and solidarity with individuals and groups who are not close friends or family, and helping alleged victims and helpless people, is essential to avoid conflicts, tensions and anti-social behaviors contrary to the efficient functioning of the social machinery. These values are necessary for the maintenance of the cohesion of techno-industrial society and to avoid its disintegration and disorganization. By assuming them as their own and promoting them, leftists help the system.

2. Leftism is based, therefore, on values that are essential for technoindustrial society. As a result, what leftism questions is not the system itself, but only the instances during which, according to leftists, the system does not sufficiently live up to its values and therefore pursue the ends they imply. So, the effect of leftism is not the end of the system, but the “perfection of it,” so that it will run more efficiently. Consequently, leftism is inevitably reformist and never really revolutionary. When leftism

⁵ Although, in reality, all defend, in one way or another, some form of progress, if only a progress that is immaterial, moral, “spiritual.”

does not recognize itself as reformist and presents itself as “revolutionary,” it is pseudo-revolutionary (which is common in the more radical forms of leftism).

3. Leftism is a mechanism of alarm, auto-repair, auto-maintenance, and auto-catalysis for the functioning and development of the techno-industrial system. With its pseudo-critique, leftism acts as an alarm mechanism that points out the weak points, the contradictions, the limits, the failures, etc., of the system. And with its proposals favors its repair and readjustment, promoting “improvements” or, at least, palliatives, actions that serve to reduce the social, psychological and ecological tensions that can hinder the maintenance, functioning and development of techno-industrial society. Leftism lubricates the social machinery instead of destroying it.

4. With its proposals, activism, groups, environments, aesthetic, paraphernalia, ideology, etc., seemingly critical, combative, rebellious and radical, it offers artificial substitutes, innocuous to techno-industrial society, for certain tendencies and natural human psychological needs incompatible with the maintenance and development of the system (for example, it replaces the natural human sociability that demands, in order to be fully satisfied, that groups social groups are small-scale -groups in which all members are able to meet and interact directly with each other-, with the feeling of belonging to large organizations and/or to leftist environments and subgroups). It also redirects and makes harmless for the system certain impulses and reactions which, if expressed spontaneously, may be harmful or even destructive for the structure and functioning of techno-industrial society (for example, leftist activism serves to relieve the hostility caused by chronic frustration generated by the techno-industrial way of life, so that it will not really and seriously damage the functioning and structure of the system). Thus, leftism, with its proposals, offers to individuals a false illusion that embracing it will lead to acting naturally and freely within techno-industrial society, and with its practices it offers them the impression, no less false, of being rebels. It functions, therefore, also as a psychological escape valve for the system.

5. Moreover, because of its role as a psychological escape valve and its appearance, often, of being pseudo-critical and pseudo-revolutionary, leftism acts as a trap that attracts truly critical and potentially revolutionary people and groups, incapacitating them and transforming them into leftists in turn. Leftist environments and currents make use of politically-correct oversocialization (taboos and dogmas) to imprison within its leftist ideological and psychological frames the natural, original, and potentially revolutionary ideas, values, motivations, ends, etc., of many of those that contact them. This way, those who independently come to feel unhappy with what techno-industrial society is doing with the non-artificial world and with human nature, in their attempt to contact others with similar concerns, often approach leftist currents, environments, and groups, since these appear to be critical. Many become unconsciously and psychologically trapped by these environments, having established affinities and social-emotional ties with them, negating the people’s capacity for response and criticism, and, just so, to a greater or lesser extent, tacitly or explicitly, and willingly or reluctantly, having them abandon and sideline their own values and

original attitudes and adopt leftist values, dogmas, taboos, discourses, theories, and (sub)culture. And it also works in the opposite sense: when there are struggles, environments, currents, theories or initiatives critical of techno-industrial society, foreign to or little related to leftism in principle, many leftists (especially the more pseudo-radical type) usually feel attracted to them, invade the critical environments and struggles, originally outside of leftism, and/or adopt their discourses as their own, distorting them to ensure that they conform to the theories and basic values of leftists, resulting in the conversion to leftism of these struggles or initiatives that were originally not leftist initiatives, and thus their deactivation as potentially revolutionary struggles. Leftism, therefore, also acts as a self-defense mechanism to cancel out rebellious, dysfunctional and potentially dangerous to the system impulses, initiatives and attitudes, and to utilize them (by way of psychological and ideological “jijitsu”) in favor of industrial society, integrating them into leftist environments and currents.

6. Leftism is a result of alienation, of psychological weakness and illness, often caused by the conditions of life inherent to techno-industrial society. Modern technology denies individuals the possibility of developing and satisfying fully and autonomously their natural behavioral tendencies, abilities, and needs, i.e., their liberty, inhibiting and perverting the expression of their nature. It totally deprives them of the ability to exercise control over the conditions that affect their own lives and it violates their dignity by turning them into beings that are helpless and completely dependent on the system. It forces them to live in unnatural conditions for which they are not biologically prepared (noise, high population density, fast pace of life, rapid change in the environment, hyper-artificial environments, etc.). It regulates and restricts their natural behavior in many respects. All of this creates psychological distress in many individuals (low self-esteem and feelings of inferiority, boredom, frustration, depression, anxiety, anger, emptiness, etc.). And that discomfort is expressed in the form of victimism, hedonism, hostility, etc. These feelings and attitudes are common in techno-industrial society and give rise to various unnatural behaviors. Leftism is one of these behaviors. Their core values are inspired by feelings of inferiority, and many of its theories, discourses and activities are motivated by a lack of self-confidence, hostility, and boredom. And since leftism in reality favors the development of techno-industrial society, it acts as a feedback mechanism for alienation and, with it, for itself.[19]

7. Leftist values are contrary to reality, to reason, to truth and to Nature (human or otherwise). In many cases this is the effect of the alienation inherent in techno-industrial society in general, and in leftism in particular, and at the same time acts as a feedback mechanism for them. The majority of leftist theories are logically, empirically and philosophically absurd. And basic leftist theory and values, as well as some others that tend to be associated with leftism, are, at best, perversions of natural and correct values (for example, indiscriminate solidarity is a collectivist adulteration of natural solidarity between friends and family), and, at worst, mere nonsense (relativism, for example). Leftism necessitates, therefore, that facts be distorted to fit its theories and its values.

8. Leftism is a threat to the autonomy of wild Nature, including true human freedom. By placing equality, indiscriminate solidarity or the defense of victims above all other values, it neglects, or even despises the autonomy of the non-artificial -because, in fact, it is incompatible with these basic leftist values.

Conclusion: [This point is especially aimed at all those who would like to do something to try to really end the techno-industrial system but, because they feel a genuine and justified rejection of leftism, they prove to correctly be very suspicious of the majority of currents ostensibly critical of the current techno-industrial society].

How must one act with respect to leftism?

Criticize it, revealing what it really is: a deception, a trap, a mechanism to perpetuate and grow more easily and efficiently the system itself, a poor substitute for real rebellion and the crazy result of unnatural conditions inherent to modern life.

But without said criticism becoming a goal in itself. It must only be a means, a practical requirement, essential nowadays, to try to achieve a much more important goal: to eliminate the techno-industrial system and to put an end to the subjugation of wild Nature -internal and external to human beings that this inevitably entails.

Avoid falling into the trap. Try to maintain a strict separation from leftism, its influences, its environments, its values, theories and speech. And, vice versa, keep leftism away from us; try so that our values, theories and speeches are not absorbed, perverted or disabled by leftism.⁶

Do not be ashamed to have values and ideas that are not leftist. Do not allow the oversocializing[21] reactions, the dogmas and the taboos of the politically correct leftists influence us. This in turn will help keep leftist away from our theories, speech, and environments, of our struggle, avoiding their harmful influence.

Create and spread an ideology truly critical, non-leftist, truly revolutionary and contrary to the techno-industrial system, to civilization, and to all forms of social systems that unavoidably undermine the autonomy of the functioning of non-artificial systems.

⁶ In this respect, we must fall into naivety and superficiality by believing that anyone who appears to reject leftism is really not leftist. It is not enough simply to use the term “leftism” in a derogatory manner. Many leftists who paradigmatically meet the definition of leftism given in this text (for example, many anarcho-socialists, autonomists, anticapitalists, insurrectionalists, situationists, anarcho-primitivists, Marxists, etc.) often tend to criticize something they call “leftism,” implying that they do not recognize themselves as what they actually are: leftists in turn. To identify leftists one has to look at their core values, their ideals, their goals, their ideological references and ascent, etc., and not only if they express explicitly and ostensibly rejection of “leftism” in their speech.

Chapter 7 . Tapirs: North America's Forgotten Megafauna

When one thinks of North America's big, wild animals, one most likely thinks of the large animals of the American Wild West, such as bison and pronghorn, and the large predators such as cougars (*Puma concolor*), grizzly bears, and wolves. However, this thought process often leaves out the megafauna not ingrained into our culture. Jaguars are a prime example. While today they are often thought to be an exclusively tropical and subtropical animal restricted to dense rainforests, they are also a temperate species that in historical times inhabited much of the southern United States and southern South America, ranging as far north as Pennsylvania during the Pleistocene.¹ However, as humans have caused the range of jaguars to decrease, most people have forgotten that they are a native species, despite the fact that they are an integral and necessary component of nature.

A taxon that faces a similar issue is the tapir (*Tapirus*). While it may have a body resembling a pig and a snout resembling an elephant's trunk, tapirs are members of the mammalian order Perissodactyla, and are most closely related to rhinoceroses and equines.¹ referred to as living fossils, tapirs are the most basal of living perissodactylids, having changed very little from their Eocene predecessors over fifty million years ago. Modern tapirs appeared in North America during the Oligocene,² and would later spread to Eurasia via the Bering land bridge, and to South America during the Great American Interchange[25] three million years ago.[27] Seven species of tapir inhabited North America during the Pleistocene, alongside a much more diverse variety of megafauna than are present today, including multiple species of proboscideans (elephants and their kin), giant ground sloths, saber toothed cats, and many more. At the end of the Pleistocene, however, most of these species disappeared. Some species, such as lions, horses, dholes (*Cuon alpinus*), and saiga antelope (*Saiga tatarica*) survived on other landmasses, while others, such as the mastodons or the glyptodons, became completely extinct. The cause for this large loss of megafauna has been debated, with some scientists claiming that a rapidly changing climate made it impossible for many species to survive. Other scientists support what is known as the Pleistocene overkill hypothesis, which suggests that newly arrived humans overhunted megafauna lacking

¹ Smil, "Global Energy: The Latest infatuations," *American Scientist* 99, no. 3 (2011): 212–19.

² The Oligocene was the third epoch of the Paleogene period, extending from 33.9 to 23

adaptations against human hunting methods.³ Support for the overkill hypothesis is seen with similar patterns in Australia and other isolated landmasses, including Madagascar and New Zealand, where megafaunal diversity collapsed shortly after the arrival of human. All species of North American tapirs became extinct during this extinction event except one, the Baird's tapir (*Tapirus bairdii*).

Weighing up to 400 kilograms, the Baird's tapir is the largest extant native animal in Central and South America, and the fourth largest animal in North America. The national animal of Belize, Baird's tapirs are found primarily in the tropical rainforests of Central America, northern South America, and southern Mexico.⁴ Tapirs are one of the few remaining large frugivores (fruit specializing herbivores) left in the Americas[30] and for this reason are considered keystone species, dispersing seeds for a wide variety of plants and consequently allowing the species that depend on those plants to flourish.⁵ It is very likely that the ranges of many plant species shrank in response to the loss of tapirs in North America. Despite being such large animals, tapirs are solitary, elusive creatures that are rarely seen, even by the people who share their habitat. Despite this, tapirs have suffered from humans hunting for their prized meat and from rampant habitat loss as a

Baird's tapirs are classified as endangered by the International Union for the Conservation of Nature, and among the North American megafauna, they are arguably the most threatened. There are only an estimated 5,000 to 6,000 individuals left in the wild.[32] A significant population of approximately 1,500 animals is believed to be living in Mexico, comprising the last population of tapirs in North America. The part of Mexico where they inhabit is part of the Neotropical ecozone that also comprises most of Central and South America. Northern Mexico and the rest of North America is part of the Nearctic ecozone, where many of the extinct American tapirs once inhabited. If Pleistocene rewilding were to ever take place in North America,¹¹ the extant tropical Baird's tapir would likely prove a dismal candidate for resuming the ecological role of its extinct relatives, as a result of being poorly adapted to temperate climates. Instead, the mountain tapir (*Tapirus pinchaque*) would be better suited for this function as it is a temperate species.⁶

The plight of North American tapirs is representative of a larger issue of a shifting baseline in relation to wildlife, and what is considered to be natural or normal in

³ Pilkey and Pilkey-Jarvis, *Useless Arithmetic: Why Environmental Scientists Can't Predict the Future*, 101.

⁴ Pilkey and Pilkey-Jarvis, *Useless Arithmetic: Why Environmental Scientists Can't Predict the Future*, 107.

⁵ C. Perrow, *Normal Accidents: Living With High-Risk Technologies* (Princeton, NJ: Princeton University Press, 1999), p. 28.

⁶ c. Sullivan and climateWire, "Human Population Growth creeps Back Up," *Scientific American* (June 14, 2013). <http://www.scientificamerican.com/article.cfm?id=human-population-growth-creeps-back-up&print=true>.

a modern setting. Animals like bison, elk, sheep, wolves, and grizzly bears are all geologically (and evolutionary) recent arrivals to North

America, while animals like tapirs, horses, pronghorn antelope,[35] llamas and camels are the original North American megafauna, along with several taxa that are now extinct (such as the gomphotheres, relatives to the elephant family). And yet, in a mere 10,000 years compared to millions of years of evolution on this continent, the feral horses now extant in North America are now believed by many people to be exotic, despite evidence supporting that some of the extinct equines of late-Pleistocene North America are synonymous with the Eurasian horse.^{7,8} That isn't to say that species that are fairly recent in the fossil record are not native, but it does point out a certain stubbornness in people that believe that nature can only exist in the way that people remember it. For if a species can be persecuted or wiped out by humans, nature will bear the scars of its loss, but to humans, it is simply forgotten.

James Lee is a graduating high school senior. In the fall he will be attending SUNY College of Environmental Science and Forestry and majoring in wildlife science.

⁷ E. M. Forster, "The Machine Stops" (1909) in *The Collected Tales of E. M. Forster* (New York: Modern Library, 1968), 14497.

⁸ W. Berry, *The Unsettling of America* (San Francisco: Sierra Club Books, 1977), 56.

Chapter 8 . #OutsideEveryDay

Visit thewildernist.org/2015/05/outside-every-day/ to see more photography by Adrienne Adams.

I first saw the hashtag on a friend's Instagram feed. "Outside Every Day" became a mantra, a reminder, a nudge. A daily walk. Unlike other daily goals I might have made—#writeeveryday, #exerciseeveryday, and the like—this one requires only that I be physically present. My walk might be fast and distracted, where I stick a problem in my head and work on it. Other days I find myself looking at everything, empty-minded.

Taking notice and being aware, without an agenda, can be challenge. Moving helps to stay the impulse to overthink, overprocess. Every day is different, but after a few months the walks blend into a stream of days, of seasons, of budding, blooming, falling.

My walk is the same every day. The same mile, the same direction. Within this constant palette emerge shapes, colors, movement. These images usually come out of nowhere, literally stopping me in my tracks. They are composed already and waiting for me to notice them.

Outside, every day.

Photographs were taken with an iPod Touch 5G. See more by following Adrienne on Instagram at @adrienneadams.

Chapter 9 . The Death and Rebirth of Glen Canyon

The following essay is by Henrik Burns of the Glen Canyon Institute. In it Henrik outlines how climate change, drought, and rising population levels (and therefore rising water demand) are converging to drain Lake Powell, which was filled by Glen Canyon Dam in the 1960s. The Glen Canyon Institute is taking advantage of this opportunity to redirect the water flow into Lake Mead instead. While *The Wildernist* editorial board insists on no dams—period—there’s a lot to learn from Burn’s essay, such as the consequences dams have on wildlife and the beautiful and surprisingly fast pace of restoration when they’re gone. And it’s important to note, of course, that the Insitute’s proposal was once called “politically unrealistic” too.

Before passing away in 2000, visionary conservationist David Brower conceded that the greatest regret of his life was allowing the construction of Glen Canyon Dam. Serving as the Sierra Club’s first Executive Director, he was credited for halting the construction of the Echo Park Dam in Dinosaur National Monument—a first for any environmental group. But the win came at a great price. In negotiations with the Bureau of Reclamation, Brower and the Sierra Club agreed not to oppose a dam slated for Glen Canyon in exchange for Echo Park’s protection. Due to its remote location on the Utah-Arizona border, few environmentalists had ever visited Glen Canyon. They didn’t know what would be lost when engineers from the Bureau set their sights on Glen Canyon during the dam-building heyday of the 1950s and 60s.

Glen Canyon has been described as “an eden in the desert” and “the lost Grand Canyon.” Early explorers like John Wesley Powell considered Glen Canyon to be one of the most beautiful stretches of the entire Colorado River system—even more spectacular than the Grand Canyon. To flood it today would not only be politically unfeasible, it would be illegal. The National Environmental Policy Act of 1969 and The Endangered Species Act of 1973 compel all federal agencies to assess impacts of projects on species threatened with extinction, and perform thorough environmental reviews with public oversight. Had these laws existed before Glen Canyon Dam was commissioned in 1956, it would have never seen the light of day. The Glen Canyon-Grand Canyon region hosts a unique desert ecosystem, with a riparian corridor along the river that supports four now-endangered fish species.

Construction of the dam flooded 183 miles of the main canyon and hundreds more of little-known, but spectacular side canyons. The reservoir destroyed vibrant wildlife streamside and river terrace habitats. Before the dam, Glen Canyon was the biological

heart of the Colorado River—home to 143 species of plants, 193 species of birds, and 34 species of mammals. Flooding inundated the fragile habitat, displacing wildlife and wreaking havoc on the entire ecosystem.

Not only did the dam destroy wildlife habitats in Glen Canyon, it's put a stranglehold on the ecosystem downstream in the Grand Canyon. The Colorado is one of the most sediment-rich rivers in the world. As it cuts through a diverse range of geologic formations on its way through the Upper Colorado Basin, it collects nutrient-rich sediment that's crucial to sustaining healthy fish populations. Once this sediment reaches Lake Powell, it sinks to the bottom of the reservoir, never to reach the Grand Canyon. This has devastated the Grand Canyon riparian corridor, as critical habitats are robbed of beach-building sediments and the nutrients they carry.

Compounding the effects of a nutrient-starved river, the water flowing through the penstocks near the bottom of the dam is unnaturally cold. At a frigid 40 degrees Fahrenheit, water entering the Grand Canyon puts several species of indigenous fish at risk. The pikeminnow (formerly the Colorado squawfish), the bonytail chub, the humpback chub, and the razorback sucker all thrive at 60–78 degrees Fahrenheit, or what used to be the normal river temperature through the Grand Canyon. Because the warm, silty water in which these fish species evolved no longer flows through the Grand Canyon, they are now endangered.

In 1994 the U.S. Fish and Wildlife Service designated the Colorado River in the Glen Canyon-Grand Canyon area as critical habitat for the survival of species like the humpback chub. In response to pressure from environmentalists, and under the power of the Endangered Species Act and the Grand Canyon Protection Act, the Bureau of Reclamation was forced to modify its water releases from Glen Canyon Dam to mitigate the negative impact on endangered species in the Grand Canyon. The modified flows prevent drastic daily fluctuations, and call for seasonal “high flow releases” to stir up sediment from tributaries in the canyon. While the reformed flows produce some relief in the form of nutrient-bearing and beach-forming sediment in the Grand Canyon, the relief is only temporary. When hydropower-maximizing flows resume, the cold, clear jets of water quickly cut through the wildlifefourishing sediment beaches in the Grand Canyon.

While little can be done to restore the fragile ecosystem in the Grand Canyon with the dam blocking the river's natural flow, the situation for the canyons upstream of the dam is actually a happier story. As a persistent water shortage has overcome the U.S. Southwest and lowered reservoir levels in Lake Powell and Lake Mead, a spectacular metamorphosis is taking place in Glen Canyon. Believed to have been lost to Lake Powell forever, many side canyons have been resurrected back to life. Once under 30 or 50 feet of sediment, canyons like Fiftymile Creek, Lewellen Gulch, and Willow Gulch have emerged from the waters of Lake Powell, and have been restored back to their natural state.

Glen Canyon Institute recently visited one of Glen's many side canyons with an author working on Patagonia's *DamNation* book to document restored sections of the

river. We camped out at Coyote Gulch and hiked down the Escalante River—one of the Colorado River’s tributaries that drains into Glen Canyon. Our hike began in a stretch of side-canyon that had previously been under water only several years ago. Marks of the reservoir could hardly be seen. The riverbed was clear and rocky, willows, cottonwoods, and grasses had reclaimed the streamside, and birdsong could be heard as we ventured further down the canyon.

Visit thewildernist.org/2015/05/death-rebirth-glen-canyon/ to see more photography by Nick Woolley.

For anyone who has visited restored sections of Glen Canyon, it’s clear that an unprecedented transformation is taking place. Canyons that had once been under 50 feet of water are now fully restored back to life, native flora and fauna have taken back their former habitats, and the sounds of trickling water from springs in the walls can be heard again. With numerous studies on Colorado River flows emerging every year, it’s becoming clear that neither Lakes Powell nor Mead will ever fill again. In addition, a study published in the *Journal of the American Water Resources Association* shows that prioritizing water storage in downstream Mead could save upwards of 300,000 acre-feet of water now lost to seepage in Powell—the same amount of water Nevada pulls from the river every year. Regardless of the mistakes society made in the past, it’s time to free the Colorado River through Glen Canyon and Grand Canyon. It’s time to Fill Lake Mead First.

Henrik grew up in Salt Lake City and is a proud supporter of Utah wilderness. He enjoys running, hiking, and backpacking in the Wasatch Mountains and Salt Lake Valley.

Photos and photo captions by Nick Woolley, founder of Backcountry Post and webmaster of Glen Canyon Rising.

Chapter 10 . The Revolutionary Importance of Science: A Response to Alex Gorrion

Note: This essay was written by one of our magazine editors, John Jacobi.

1

The Anvil recently published an article by Alex Gorrion that critiques “science.” While I am usually inclined to dismiss these critiques, most of all because the authors rarely ever display familiarity with the history and philosophy of science (Gorrion is no exception), I have been engaged in a number of month-long discussions with people who I respect and who say the article has synthesized many of their problems, even if naively. It is for this reason that I am responding to Gorrion’s article in particular.

The first issue at hand is what we mean by “science.” The word is sufficiently broad to be meaningless or close to meaningless as a topic of discussion. And the difficulty is compounded by the fact that the word “science” refers in different contexts to radically different things, which often means critiques will target more than one of the meanings and not make any clear distinction between them. Gorrion’s article suffers from a lack of a working definition of science and so predictably falls into this trap.

One can, however, discern at least three targets in his piece. The first is scientific thought: the epistemology of science, the notion of objectivity, etc. The second target is the technocratic organization of modern communities of scientists. And the third is the notion of scientific progress.

Gorrion’s primary problem with scientific thought is its idea of “objectivity.” (As with “science,” Gorrion fails to distinguish between several different meanings of “objectivity.”) He has a special problem with the idea that scientific knowledge is an accurate representation of objective reality. Knowledge, he says, does not exist without a knower, which means the knower is intimately involved in constructing knowledge. He also points out the many problems in certain scientific practices that make any claims to “objectivity” laughable. Medical studies are a prime example of this. Later on, Gorrion singles out scientific materialism in particular, saying first that the dichotomy between the material and ideal is arbitrary (but unfortunately not explaining why) and then pointing out its failure to produce “ultimate explanations of conscious-

ness, life, or creation.” Gorrión says that science pretends to be “an absolute system of knowledge,” and in this overextends itself; that science claims “that a zebra in a zoo is the same thing as a zebra in its herd in the Serengeti”; that science fears death; and that notions of progress and anthropocentrism are intrinsic parts of scientific thought.

Mixed in with all this, Gorrión simultaneously critiques the structures of academia and scientific communities. He says that even theories that are validated by the scientific method (which he rightly differentiates from scientific thought as a whole) are “marginalized, or obscured by the acting priests of Science,” citing as examples Gaia theory, Kropotkin’s ideas on evolution, and Recluse’s ideas on geography. Although earlier in the article Gorrión weakly argues against science based on the media’s use of the word, he later presents a stronger argument that modern scientific thought is so large and complex that flattened and distilled versions of it are necessary for the expert, skilled only in a small portion of the whole scientific body of thought, to operate. In other words, these distilled, flattened, “pop” representations of science, including those presented by the media, are inherent aspects of scientific knowledge.

Lastly, Gorrión makes a strong critique of the notion of scientific “progress.” Viewing the acquisition of knowledge as inherently good, something that “should never be forsworn” is, he says, intimately tied up with the continued destruction of the wild world. He reminds us that modern scientific progress relies on industrial development that tears up forests for laboratories, ab-

stract mathematics that are used mostly for bombs and warfare, and so on. Gorrión also points out that the unilinear development of scientific thought, even apart from value judgements, is a dubious idea. Many scientific discoveries were made centuries before their place in the conventional narrative.

I largely agree with the article’s critiques of technocratic structures and scientific progress, and I even recognize many of the limitations of the scientific worldview. But a misunderstanding of contemporary scientific thought coupled with a failure to differentiate between various meanings of the word “science,” compels Gorrión to throw the baby out with the bathwater.

2

Gorrión might be surprised to learn that a good deal of scientists and philosophers of science strongly agree with many of his critiques of scientific thought. In fact, all the limitations he writes about have been pointed out with much more convincing argumentation by widely recognized philosophers of science. Gorrión not only fails to say anything new, he presents weaker arguments for what has already been said, largely by the “believers in Science” who he targets in his critique.

For example, in 1748 philosopher David Hume published *An Enquiry Concerning Human Understanding*, in which he proposed two ideas relevant to this discussion. The first was the idea of radical skepticism. Hume believed that all human knowledge

originated from sense-experience, a position known as “empiricism” and a cornerstone of the scientific method. However, he pointed out that even though our knowledge stems from sense-experience, there is no rational reason to trust our senses. In other words, while we can draw conclusions from the knowledge gained from our senses, all that knowledge would be invalid if it could somehow be proved that our sense-experience is a faulty basis for our reasoning (think *The Matrix*). Furthermore, there is “the problem of induction.” Reasoning from sense-experience relies on induction, which is reasoning that starts from small premises and moves to larger generalizations. For example:

1. Some black balls from the urn have been observed.
2. All observed black balls have tasted like licorice.
3. Therefore, all black balls in the urn taste like licorice.

Hume argued that we use inductive reasoning every day. It is, for example, how we conclude that we won’t be able to jump up and stay in the air tomorrow any more than we could yesterday. It is also how scientists have derived laws of nature. However, induction relies on an unjustified assumption that the world tomorrow will be like the world yesterday, called the principle of the uniformity of nature; or it relies on a sort of “jump” to a conclusion, called an inductive inference. Still, Hume supported the use of induction. Although his skeptical argument cannot be refuted, even professed skeptics have to use induction and sense-experience in their day-to-day lives.

Karl Popper later challenged some of Hume’s ideas on the problem of induction. For Popper, there is no such thing as an inductive inference, and science does not rely on it—the idea that science does is an illusion. The actual process is one of trial and error where the basic units of analysis are not facts but theories. That is, we propose a conjecture to explain many different facts and then test the facts against the conjecture in order to falsify it. Since Popper agrees that inductive reasoning is faulty, he states that no number of failed attempts to falsify a theory will allow us to conclude that the theory is true; scientific knowledge can only be falsified, not confirmed. Popper believed that a theory was unscientific when it was unfalsifiable or when it required ad hoc additions in order to protect it from falsifying evidence.

However, other philosophers challenged the idea that science did not rely on ad hoc modifications of theories. In the philosophy of science, the Duhem-Quine thesis states that it is impossible to test a theory in isolation, because each test requires several background assumptions, sometimes known as “auxiliary hypotheses.” This means that evidence that falsifies a given theory won’t necessarily falsify it if one or more of the auxiliary hypotheses change. For example, if we suddenly observed a particle moving faster than the speed of light, we would not necessarily be justified in believing that relativity is then false. Rather, we would (in an ad hoc manner) check the conditions of the experiment, see if all the wires and machines were working correctly, and so on. In other words, we can never be sure that the exact theory we are testing is responsible for the empirical discrepancy or if the many auxiliary hypotheses are responsible. This means that no theory can be falsified. The unit of analysis is larger than that.

One proposed unit of analysis was suggested by Thomas Kuhn in his book *The Structure of Scientific Revolutions*. Kuhn described two periods of science: the normal period and the revolutionary period. In normal periods, scientific achievements are made against a background of basic assumptions, theories, laws, instrumentation, etc. The findings of scientists during this time are promoted because they provide solutions to various “puzzles” produced by the basic assumptions, and oftentimes challenges to the basic assumptions are ignored or dealt with through ad hoc modifications. As these anomalies accumulate and the paradigm is weakened, new paradigms might become dominant and provide the basis for a renewed period of normal science. This suggests, for example, that scientists might have been justified in initially rejecting Galileo’s theory of heliocentrism, since one empirical discrepancy (or even a handful) has never been enough to discredit a theory or whole group of theories.

There are many other issues in the philosophy of science that are relevant to this conversation. However, it would probably be fruitless to go over the history of the philosophy of science in this essay, and I am not interested in restating all the problems anyway. Still, the above examples illustrate some central points that refute or complexify Gorrión’s analysis. For example, even though each of the above-mentioned issues present profound problems to scientific reasoning, every one of the thinkers who articulated the problems continued to espouse the scientific worldview. Furthermore, the endeavor of science is nowadays recognized by a substantial number of scientists as much more complex than Gorrión suggests. For instance, he criticizes “Science” for not accepting “Gaia theory, the Kropotkin view of evolution, [and] the Reclusion theorizations in geography,” even though the ideas have been “validated by the empirical method.” Apart from the fact that at least two of those examples have very real issues in the matters of empirical evidence and theoretical ambiguity,¹ the concepts of paradigms and underdetermination help explain why the theories have not been widely accepted in the scientific community. These concepts also directly refute Gorrión’s statement that “believers in Science will generally assert that Science itself is nothing more than empiricism.”

3

By now it should be clear that Gorrión fails to critique scientific thinking as a whole. Instead, he only critiques, at worst, various stereotypes about science and, at best, some ideas within science. Either way, his critique is insufficient for his wildly audacious conclusion that we should dispose of science wholesale.

¹ Kropotkin’s general idea from his book *Mutual Aid* —that cooperation is a factor in evolution— has long been accepted by evolutionary biologists. The concept in evolution is even called “mutualism”! However, Kropotkin’s book is justifiably rejected. His anarchist ideology clearly biased his work, his evidence and examples were not very good, and his understanding of Darwin’s ideas was lacking.

But Gorrión was correct in saying that science is not only the empirical method. What more is there, then? One philosopher, Imre Lakatos, proposed a characterization of science that blended the ideas of Kuhn and Popper. Lakatos agreed with Kuhn that no single predictive discrepancy has ever justified disposing of a theory. Rather than theories being units of analysis, whole sets of theories which formed “research programs” (similar to Kuhn’s “paradigms”) are the basic unit of analysis in science. Research programs have a “hard core” of theoretical assumptions that, if changed, would require the dismissal of the entire program. Conceptually, we might imagine that around the hard core is a “protective belt” of less important theories—auxiliary hypotheses. These might be altered or disposed of, and they may even be ad hoc. The way to analyze two research programs is to compare their predictive power and their explanatory power. If a research program gains explanatory power from the addition of ad hoc hypotheses, it is what Lakatos calls “progressive.” However, if the protective belt grows without increasing the research program’s predictive and explanatory power, the program is “degenerative,” and susceptible to disposal for another program.

There is one other caveat: even if a research program is “degenerative,” we are not justified in disposing it without a better program (one with more explanatory power) to replace it. Otherwise, disposing of the degenerative research program leaves us with a weakened ability to demystify the world around us.

One example of a research program is Marvin Harris’ cultural materialism. In his book, *Cultural Materialism: The Quest for a Science of Culture* (which provides a very good overview of the main problems in the philosophy of science, much better than one I have given), Harris outlines some of the “first principles” of the cultural materialist research program, including positivism, materialism, and an epistemological distinction between the observer and observed. Under the cultural materialist program (Harris calls it a “research strategy”), all societies have three components: the infrastructure, which includes technological, geographic, demographic, and some economic factors; the structure, which includes the division of labor, organizations, and the state; and the superstructure, which includes religion, science, superstitions, and so on. There is also a notion of “infrastructural determinism,” which states that the infrastructure probabilistically shapes the structure, which shapes the superstructure. Under Lakatos’ and Harris’ logic, one is justified in looking at a society and assuming, before getting any empirical evidence, that the infrastructure is the primary reason the society is the way it is. And this sort of willful recognition of “theory-ladenness,” or the idea that theory affects evidence, has not hampered the predictive and explanatory power of cultural materialism at all. On the contrary, it is one of the anthropological theories that has done the best to explain, for example, the transition from hunter-gatherer life to agricultural life.

Such an approach includes far more than the empirical method, and there is no name for it other than “science.” I am not convinced that we can dispose of it.

For one thing, even if this approach has some real problems, the alternatives are even worse. Mysticism, religion, and various forms of obscurantism have been the primary

tools of the powerful seeking to justify their power. Science—logic, reason, empirical evidence—has been the tool that has cut off the legs of those beasts. Science is what allows us to demystify power relations and the world around us so that we can properly respond. Otherwise, we are left making decisions that do not, for example, acknowledge evolutionary processes, economic trends, sociological tendencies, and human nature. This is as absurd as making decisions without acknowledging the laws of gravity. Worse, we are left not believing in the laws of gravity because a monarch or tradition or “divine revelation” has told us so.

Some have argued that science only justifies the prevailing order. Gorrión, for example, might cite the medical industry’s tendency to influence “scientific” studies in order to boost their profits. But the problem here is a lack of science, not too much of it. Furthermore, scientific findings on ecological devastation and climate change have presented a profound challenge to the prevailing industrial order. It is the religionists and their obscurantism who are promoting the greatness of industry and glossing over its negative consequences with climate change denial.

In the face of growing ecological devastation, I am not ready to dispose of science for some unclear or worse alternative. What is needed now is a group of people who are dedicated to cutting through bullshit with the strongest tools they have and responding appropriately. Falling into mysticism or relativism, as some “radicals” have proposed, might feel good, but it makes our analysis impotent—a dangerous thing when the situation we are facing is so dire.

4

Gorrión was right to be critical of technocratic structures and of scientific progress, but, as with most of his other points, his argument could have been much stronger, which I hope to illustrate.

First, though, a point of clarification. Previously I mentioned the tendency of critiques of science to mix up the multiple meanings of the word and, as a result, to end up disposing of one meaning in the name of arguments against another. Gorrión does this. He rightly criticizes the structures of academic and scientific communities but, in calling it “science,” counts his argument as strengthening his justification for rejecting scientific thinking. Probably a more careful writer could use the term “science” to refer to both things while retaining a nuanced differentiation. But given the complexity of the issue, the need to communicate it in simple terms to many people, and its vital importance for a revolutionary ecological analysis, I prefer the phrase “technocratic structures,” which calls attention to the real problem: the industrial-technological base and economics. For is it really scientific thought that necessitates the vastness of contemporary scientific practice—scientific thought that could be practiced equally well by any pre-industrial community? Probably not.

In fact, several thinkers believe that even hunter-gatherers practiced scientific thought. The best account of this hypothesis in English has been presented by Louis Liebenberg in his book *The Origin of Science*. Liebenberg began his exploration with the question, “How did the human mind evolve the ability to do scientific reasoning if scientific reasoning was not required for hunter-gather[er] survival?” He ultimately posited that the evolutionary origin of scientific thought could have stemmed from the hunter-gatherer practice of tracking animals. See “Tracking Science: The Origin of Scientific[<http://cybertrackerblog.org/2014/06/11/tracking-science-the-origin-of-scientific-thinking-in-our-paleolithic-ancestors/>][Thinking in Our Paleolithic Ancestors”]] by Louis Liebenberg and “El rastreo[<http://www.investigacionyciencia.es/revistas/mente-y-cerebro/numero/7/el-rastreo-de-huellas-4411>][de huellas”]] by Rolf Degen.

In other words, a much more likely culprit for the problems Gorrion writes about—and many he didn’t—is the industrial-technological and economic infrastructure that expands everything, including scientific exploration, into a mass that our Stone Age world doesn’t quite jive with.

Some examples. Gorrion notes that the scientific body of knowledge is so vast that no one individual could understand a tenth of it. This, by consequence, necessitates both the need for experts and, in fields the experts do not specialize in, a flattened, “pop” form of science. All of this is not an inevitable consequence of thinking scientifically. Rather, if our society is larger and more complex, by necessity we will have to know more things in order to operate its various components; we will have to know more specific and technical things, since small errors have huge repercussions when magnified; and we will have to universalize the knowledge in some way so that there can be communication across different groups of people. In *To Our Friends, The Invisible Committee* explains this issue well:

... [Man] continues relating in the same disastrous manner to the disaster produced by his own disastrous relationship with the world. He calculates the rate at which the ice pack is disappearing. He measures the extermination of non-human forms of life. As to climate change, he doesn’t talk about it based on his sensible experience—a bird that doesn’t return in the same period of the year, an insect whose sounds aren’t heard anymore, a plant that no longer flowers at the same time as some other one. He talks about it scientifically, with numbers and averages. He thinks he’s saying something when he establishes that the temperature will rise so many degrees and the precipitation will decrease by so many inches or millimeters. He even speaks of “biodiversity.” He observes the rarification of life on earth from space. (*To Our Friends, Invisible Committee*, chapter 1.)

I have not read *To Our Friends*—this quote was given to me by a colleague—so I don’t know where the committee took their argument. But regardless, it stood out to me as a perfect example of what I am trying to communicate here. The “sensible experience” mentioned in the quote—such as “an insect whose sounds aren’t heard anymore”—are all perfectly valid as scientific evidence. Indeed, it was that kind of

evidence that Darwin used to devise his elegant theory of evolution. But the problems of the modern world to which scientific thought must be applied require more precise and massive knowledge. For example, applying scientific reasoning to contemporary economic systems—for conventional or revolutionary purposes—requires the use of higher order mathematics and abstract numerical evidence. The sounds of grasshoppers aren't going to be helpful for that at all.

Granted, a good deal of the “required” knowledge is required by industry, not individuals or small groups. The preciseness of the IPCC report on climate change was not only to accent the gravity of the situation; many of the precise calculations were intended for industrial organizations, economic structures, and governments to have tools to deal with this complex problem and the effects it might have on them and their interests. But again, what does this have to do with rejecting scientific thought? The culprit here is economics and technology.

Some scientists and left-wing critics have expressed support for this view. Specifically, they say that capitalist economics have structured research funding and grants in such a way that severely undermines the integrity of scientific findings.[39] The medical industry is a particularly egregious example.[40] Given that the leftist Gorrion is such a strong enemy of capitalism, it is rather unfortunate that he gave up a nuanced argument against the intrusion of capitalism on scientific exploration for the flat, hollow one that denounces science wholesale.

While I appreciate Gorrion's argument about pop science being an intrinsic part of contemporary scientific knowledge, he overstates his point. It is true that no one person can know even a tenth of contemporary science. But, firstly, this is not a problem to a certain extent, or it is at least an unavoidable one. In most societies there exists a body of knowledge that no one person can properly understand in full. Secondly, technologies very often offset this weakness. Granted, the critiques of technocratic structures apply here. However, the presence of these technologies and structures do enable scientists to overcome the pitfalls of specialization. Computers, libraries, and so on store large amounts of knowledge and allow for coordination at a massive scale. And obviously one expert deficient in a field can always defer to another expert. The point here is not that this is a desirable state of things, but that Gorrion needs to at least tone down his claim that scientists are unjustified in being miffed about “pop science,” or that it is a problem that scientists only know a small part of what there is to know.

We would also do well here to examine how absurd Gorrion's actual critique is. His exact words are:

Just as Cartesian dualism remains embedded in Enlightenment rationalism, the Cartesian geometry of flat planes and right angles remains integral to the scientific worldview, even though it has been invalidated by the principle of relativity (whereas the determinism of classical science up to and including general relativity has been contradicted by the uncertainty of quantum mechanics).

If space itself is not a neutral, static phenomenon, something as stable and happy as a square or a triangle can be nothing but an illusion or a convenient lie. (This is

a part of Science’s mythical simplification, elements of the worldview that it cannot actually defend, but that it nonetheless perpetuates, through mechanisms that will be dishonestly chalked up to “pop science” if ever called to account.)

This is absurd. No scientist would call Newtonian notions of space and time “pop science.” They might clarify in reference to certain problems or if the discussion called for it, but for the most part Newtonian conceptions are an extremely accurate approximation of how the world actually works. Calling them a “convenient lie” is like saying “the earth is a sphere” is a lie because it has mountains—although, judging from the above quote, Gorrior might commit himself to that claim as well.

5

I’ve up until now responded to Gorrior’s article by giving him the benefit of the doubt. I’ve glossed over some of his more absurd claims, I’ve mostly ignored asking for evidence where it was sorely lacking, and I’ve carefully avoided the charge of “postmodern relativism,” which even the postmodern relativists have learned to reject. However, there are good reasons to believe that Gorrior deserves no such treatment. Let’s investigate a few.

First, Gorrior espouses the Gaia hypothesis as being a valid scientific hypothesis that has been rejected by the conspiratorial “priests of Science” as heresy. In reality, Gaia hypothesis is really, really bad science. It proposes a complete redefinition of the concept of “life” and, at best, functions as a teleological metaphor for things the theory of evolution already explains well and better. As a result Gaia is generally only accepted by woo woo hippies— but it seems like Gorrior has no problem with this. Several things indicate he is firmly in the woo woo camp. For example, he states:

In our own lifetimes, acupuncture has gone from a treatment that was ignored or ridiculed in the West, to one that has been confirmed as effective by scientific studies. This reaction belies the hypocrisy and also the implicit racism of empiricist mythology, as acupuncture is based on thousands of years of observation and testing, only it wasn’t bearded white men who were in charge, so it clearly doesn’t count. And despite its proven effectiveness, acupuncture is still belittled or dismissed, providing more evidence of the cultural supremacy (an important component of any religion) implicit in Science.

Given we’re taking Gorrior seriously here, I must demand to see these “scientific studies” that support acupuncture as a valid form of treatment, especially since the vast majority of studies conclude that acupuncture is a placebo.[41] But probably we shouldn’t take Gorrior seriously. For one thing, he says that there is “implicit racism” in the “empiricist mythology,” even though he stated earlier that he does not reject empiricism, only science. Furthermore, isn’t it incoherent to argue for acupuncture because it is scientifically valid when your larger argument is a polemic against science?

Perhaps the most egregious example of eyeroll inducing woo woo is Gorrion's invocation of "quantum mechanics"—a favorite of New Agers everywhere.[42] Honestly, they must find it irresistible. Somehow it proves every mystical assertion ever made and disproves the modern science that discovered it. Well—maybe science discovered it. According to Gorrion, Buddhists invented quantum mechanics "well over a thousand years" before modern science. I just wonder where they got the lasers for the double-slit experiment.

6

I haven't responded to everything in Gorrion's critique for practical reasons, but I will explain why I didn't address three of them here.

First, I haven't acknowledged Gorrion's idea that modern scientific and academic structures stem from Christianity. This is because I don't have enough historical knowledge to challenge or verify this claim and, more to the point, because he uses the comparison mostly rhetorically. Unless Gorrion is relying on the fallacy of origins (X is bad because it came from bad thing Y), his comparison only grants strength to his argument insofar as it reveals negative impacts of technocratic structure that would otherwise be unclear without a more vulgar manifestation.

Secondly, I didn't address Gorrion's problems with objectivity. This is partially because section II covers much of the territory, but also because Gorrion clearly does not have a coherent definition of the term, and it would take another full essay to complexify and respond to his analysis. Generally, he has two ideas of what objectivity means: a value that scientists strive for and a metaphysical assertion about reality (i.e., that there is an objective reality). The former is properly explored—and to an extent argued for—in the Stanford Encyclopedia of Philosophy's section on "Scientific Objectivity." The latter is investigated by Alan Sokal in his "Defense of a Modest Scientific[http://www.physics.nyu.edu/sokal/bielefeld_final_rev.pdf][Realism]." (I also recommend reading Sokal's other writings, including the[<http://www.physics.nyu.edu/sokal/weinberg.html>][hoax] paper he sent to a cultural studies journal in response to the rise of relativism in academia.)

Finally, I have not addressed Gorrion's criticisms of the myth of progress. This is because I mostly agree with Gorrion and because the topic is important enough to deserve something more dignified than a few paragraphs within a response essay.

7

I have spent this whole essay defending scientific thought and pointing out the absurdity of many aspects of Gorrion's critique. But Gorrion's views are not particularly far off from the anti-science populism that is likely to become more common in

the future. Scientists and engineers are going to become discernibly more influential on the world around us. Already there are hundreds of scientists on Wall Street and many working behind the scenes at Facebook and Google. Just as the twentieth century's populism targeted politicians, so the twenty-first century's populism will target scientists and technologies, and science along with them. Despite this, clearly the revolutionary should not dispose of scientific thought. After all, his role is to demystify a situation and find the proper target. What better tool for this than science?

Chapter 11. Prehistoric Art, Imagined and Real

For those of us who work on prehistoric symbolic expressions, writing about Ice Age art is often an exercise in taming popular imagination. Archaeologists are well aware how much interest the topic generates, but also how much misinformation floats around it (Venus figurines were not the most common or popular form of art 20,000 years ago). This essay offers a simple roadmap, so as to provide a brief guide to anthropological attempts to understand the diverse and impressively long-lasting forms of symbolic expression generally labeled as “prehistoric art.” Here I will direct attention to three central issues that archaeologists discuss: 1) the emergence of artistic expression; 2) the geographic locations of materials; and 3) the various material forms of expression. I hope to leave the reader with a sense of awe, curiosity, and continuing questions, but questions rooted in factual information that we currently have.

Art and its origins

Art is a form of cultural communication. It is a type of language that helps people express ideas, mull over pressing issues and social values—to think through what matters to them the most. It is also a way to express sentiment: humor, anger, frustration, or express desire, sadness and longing. However, in order to communicate, we have to understand the vocabulary. No artists, whether current or one who lived ten thousand years ago, spend their days in isolation. Hence the vocabulary used to express ideas can only have an effect in a community that shares values, grasps the ideas, and is familiar with the ways of being. Words, thoughts and symbols are learned in interactions with others. One has to try them out and figure out when and how they convey a meaning, when they fall flat, generating either no response, or misunderstanding. Therefore one of the central issues in our conversations about the emergence of art has to involve social context. When we wish to talk about “the origins of art,” we have to ask, “When did people feel the need to communicate with others in symbolically enduring, material ways?” Be it painting, carving, or music, the importance of social, collective life is essential. Our earliest ancestors may have had the “capacity” to make all kinds of objects but what we imagine as art would only emerge alongside the need to say something socially meaningful and enduring in a shared material form.

One of the ongoing but also contentious scholarly debates about prehistoric art is the timing of the emergence of symbolic abilities. At the risk of oversimplification, we can divide this argument between those who suggest that artistic abilities developed gradually, over a long period of time (100,000 years or more), and those who argue for a “revolution,” a sudden change that occurred around 40–50,000 years ago. The central issue in this conversation is whether “art” is unique to our immediate species, *Homo sapiens sapiens*, or whether we shared this capacity with our close cousins, particularly the Neanderthals, who overlapped in time with early modern humans. If art developed gradually and slowly, then we need to entertain the possibility that it is not completely the domain of modern humans—that we might not be[<http://www.thewildernist.org/2015/04/gessner-primal-future/>][so special]] after all.

Beyond species level chronology we have questions about the geography of human creativity. For the past few decades the issue of authorship dominated the debate about the “origins of art.” Who were the first artists? The conversation became more complicated last year (2014) with the publication of the discovery of painted Maros Pangkep caves in Sulawesi, Indonesia with dates ranging between 17,000 to 40,000 years ago. The dating of hand stencils (39,900) or the whimsical looking, flying or dancing pig-deer (35,400) suggests that humans have been communicating through images for quite some time. Moreover these Sulawesi cave paintings give credence to those who argue that we need to look beyond Europe and the Mediterranean for origins of symbolic behavior, taking account of the rest of the world. Art may not only have emerged earlier than we thought, but also in many places independently, whether or not at the same time, or as a lasting tradition.

Even the apparently simple geographic question of “where did art first appear?” grows complex when combining evidence and definitions. If we continue to insist that “art” emerged full blown as a sudden revolution, it would likely place such birth in Europe and the Mediterranean, outside Africa or Asia. Yet if we accept a more gradualist perspective, then the recent finds of perforated beads, abalone shell with traces of paint, and engraved pieces of ochre at Blombos cave in South Africa—at the very tip of that continent and about as far away from Europe as one can get—push not only the boundary of time but also of geographic location. Dated to about 77,000 years ago, the portable ornaments and the large shell, which might have served as a painter’s palette for mixing colors, suggest that by the time modern humans migrated out of Africa and settled other regions of the world, they had welldeveloped symbolic capacities and, more importantly, used those abilities with enthusiasm. Where did some of those migrants go, and when did they start to express their thoughts, joys and fears in material symbols? These remain big questions for archaeologists in the 21st century. The Sulawesi caves fall into the range of European Paleolithic art—the Spanish cave El[<http://www.visual-arts-cork.com/prehistoric/castillo-cave-paintings.htm>][Castillo being currently the oldest at about 40,800 years]]. Yet these images are located in a very different direction from Europe, if heading out of Africa. Assuming that these ancestral people did not run to get to Indonesia as quickly as possible to paint the walls of Maros

Pangkep, we are facing the exciting possibility of finding other older examples of prehistoric art in many other places in Asia. As a consequence, it looks increasingly likely that we have to rethink the idea of the “birth of art” being a singular event, located in one region

Ice Age art forms

Whether or not one is inclined to accept the possibility of greater antiquity and geographic distribution of symbolic expressions, the fact remains that around 45,000 years ago the amount and diversity of symbolic expressions appears to have dramatically increased. Were there many more people who had something to say to their companions? Did social life get more complex and some topics needed to be engraved, painted, made durable or made exclusive in hidden corners of caves? Was it an expression of commonality and shared values, or was it an expression of difference and standing apart from neighbors? Either way, this sudden upsurge of symbolic activity leads archaeologists to focus on the rich and sophisticated materials from the past forty thousand years, thus far mainly found in Central and Western Europe. Archaeological materials generally labeled as “prehistoric art” divides into two basic categories: portable objects and “parietal” art painted or carved on rock walls. This division enables us to talk about not only the objects themselves but also who might have made them and who might have had access to them once they were completed.

The most obvious characteristic of a cave or rock shelter wall is its immobility. Cave walls are locations that had to be visited; they were permanent markers on a landscape. Furthermore most of the sites we know are hidden landmarks. Whether one wishes to see the caves in France or Spain, or rock shelters in Italy or Portugal, the prehistoric paintings are not easily accessible or immediately visible. Rather, the images on cave walls only appear after at least a twenty minutes walk inside, through corridors and internal caverns that would have been light only with torches or small oil lamps. These contextual facts raise their own questions about production and reception for archaeologists. Were the drawings completed in one “sitting,” or through repeated visits? Were the results visible only in bits and pieces, images flickering, or did a large gathering with many torches allow a general viewing? The remote and relatively inaccessible location also meant that those who made the paintings could have kept it a secret, choosing a few select visitors who would come along for the experience. These are all possible scenarios, but we do know that since none of the images were removable, only stories about them could have travelled.

Portable carved objects present the perfect counterexample to cave wall paintings. Their central characteristic is that they are much smaller and literally portable, as most would easily slip into pouches or pockets, or attach to clothing. Nevertheless, despite these general features we do not know if they were personal or communal property, shared across either a small or large group. When taken together, fixed and portable

art suggest different senses of authorship, audience, viewers, and possible practices associated with each. Having to walk into a dark space, through corridors and enclosed spaces, carrying paint, brushes and tools was most likely a different experience than carving a figurine or making a musical instrument, an activity that could have taken place anywhere, with a product would fit into the palm of a hand.

We have little to go on when trying to picture the first artists. There is little archaeological evidence for a claim that the art was made predominantly by either men or by women. Some of the hand stencils in painted caves are the size of a child's hand, so we know that children were present. However, the skill and stylistic consistency displayed in most cave paintings or carvings suggests that a long learning period or an apprenticeship would likely have had to take place before one would have achieved the desired outcome. The images of horses or rhinos show not only a skilled painter but also a person greatly familiar with minute details of animal behavior—the flicker of a tail, the lowering of a head, or the movement of legs when galloping. Many portable objects were carved out of hard materials like ivory or stone, and their manufacture would require physical strength and hours of dedicated detailed work. Thus it seems probable that not all these artifacts resulted from child's play, or indeed, from any one group or activity.

Painting in the dark for thousands of years

We should never forget that cave paintings and carvings were made over the span of many thousands of years. That fact alone makes it harder to explain them with a single story, no matter how convincing or enticing. In the 1990s David Lewis-Williams, a South African rock art specialist, suggested “shamanic rituals” as the explanation for painted rock shelters in South Africa and later also painted caves in Europe. While this hypothesis generated a lot of discussion and may have some validity in some locations, the ultimate disagreement rested on the question whether “an explanation” can capture thousands of years of creativity. Each one of the objects deserves our full attention and educated guesses based on facts gathered through a range of scientific methods. Even the most famous and majestic painted caves display considerable variation. While the spectacular Lascaux cave in France remains the best-known site with prehistoric art, a few other fascinating locations illustrate the diversity and richness of these prehistoric sites. El Castillo, a cave in the Cantabria region of northern Spain, is currently the very oldest known painted cave with a distinct sequence of large red dots and hand stencils painted some 40,800 years ago. Chauvet cave (the subject of Werner Herzog's 2010 film *Cave of Forgotten Dreams*) lies in the Ardche region of Southwestern France, and dates to approximately 32,000 years ago. It is a cavern full of horses, bison, and bear, most exquisitely depicted in charcoal. Currently these are the two oldest examples of cave art that we know. Hundreds of miles apart, they are distinct and unique in a number of ways. They differ in stylistic terms, the dots and hands in El Castillo contrasting with

the animals in Chauvet cave, and each featuring colors made out of different pigments of red and black. Yet should this really surprise us, given that well over 8,000 years separate the two? By way of comparison going back the same amount of time from our present would put us in the Neolithic, well before the ancient civilizations we see as leading to our own. Even if the rate of cultural change may have accelerated, it is hard for anthropologists to imagine hundreds of generations living in timeless uniformity.

over 11 different species represented (nine ap-

pear in Lascaux and 14 in Chauvet cave). We also know that visits to the

Another find that demands attention is the recently discovered Cosquer cave on the Mediterranean coast of France, not far from the modern French city of Marseille. Since the coast shifted quite dramatically since the Ice Age with rising sea levels, the cave is now only accessible to divers. Yet we know that throughout prehistory it occupied prime waterfront, as marine animals are uniquely represented among the paintings, including a now extinct form of penguin known as the Great Auk. Cosquer cave also features rare adult hand stencils with missing fingers, carvings as well as paintings decorating the walls and a large animal vocabulary with cave stretched over a long period of time, with paintings added for well over five thousand years. At the same time the site illustrates how much we have literally lost to the tides of time: due to the rising seawater the majority of the paintings in Cosquer cave have likely been destroyed by natural erosion. For a more accessible cave experience, I would direct any interested traveller to Niaux in the French Pyrenees, just south of the medieval town of Foix. Located high up above the valley with a spectacular view from the cave entrance, Niaux offers ample evidence of the range and complexity of ancient symbols. The walls at the entrance are decorated with hundreds of black and red geometric symbols, lines, dots, and dashes all placed in a pattern that remains an enigma to us. Deep inside one finds bison, ibex, horses with thick manes, as well as a rare image of a fish. Niaux is one of the more recent decorated caves, dated to some 12,000 to 15,000 years ago. Shortly afterward, for unknown reasons, the great Ice Age art wave ended.

The research to date and decipher cave paintings continues. We have made major strides in understanding the chemical composition of the paint used in the different caves, and this chemical analysis of the pigment has enabled us to date some of paintings. We consequently have a much better sense of the long duration of this particular genre of symbolic activity, which lasted some 30,000 years. We likewise recognize its complexity, as each cave had unique “recipes” to make the colors, with hematite, iron ores and charcoal as the starting base. We also have a better sense of the geographic distribution of the caves, which all appear to concentrate in southwestern Europe. Archaeologists continue to puzzle over why caves, present throughout Europe, were painted only in certain regions and remained blank in others. Do they represent a cultural region? Or might they be the legacy of series of successive, overlapping or competing traditions? Spectacular and shrouded in mystery, such caves should compel archaeologists to think about more than our own modern notions of “art galleries” or

“temples.” At the same time, they also remind us of our own limits when it comes to understanding people who lived in the deep past.

A pocketful of symbols

Like decorated caves, the portable objects we have inherited from prehistory display remarkable variety and endurance over thousands of years. However, unlike the geographically restricted cave paintings, carved, perforated or otherwise shaped objects appear to have been widespread in the deep past, as they have been found all across Europe and in Africa and Asia as well. They are older than the painted caves, dating to at least 70,000 years ago, and relatively more abundant. A few female figurines, labeled with the unfortunate moniker “Venus figurines,” have dominated popular imagination, particularly those found at Willendorf in Austria (24,000 years old), Doln Vstonice in the Czech Republic (27,000 years), Hohle Fels in Germany (40,000 years), Lespugue (24,000 years) or Brassempouy (22,000 years) in France or Kostenki in Russia (24,000 years). However, they only represent a small fraction of the much larger array of portable prehistoric art.

The carved items suggest that prehistoric symbolic communication was sophisticated and complex for thousands of years, while displaying distinct and changing aesthetic conventions. Early on, we find drilled animal teeth and seashells in large quantities, either connected to form necklaces or bracelets, or attached to clothing and headdresses. Tooth size and type of animal appear to be carefully selected and matched; these were not random remnants of someone’s dinner, recycled or repurposed. Ivory (valued by many cultures to this day) was another popular material, used for buttons, small plaques and figurines. Strikingly, seashells also appear with great frequency, often at inland sites, far from any coast. Was this a memory of the visit to the shore hundreds of miles away, or the result of exchange with a traveler telling tales about those distant places? We find fossil shells incorporated into decorative ensembles, and even replicas of seashells were made out of bone. The longing for an ocean view may have deeper roots than we can fathom. Or perhaps some feature of the material itself beguiled ancient peoples; beyond their visual appeal seashells and bone ornaments are all smooth and warm to touch, especially when rubbed. Archaeologists are increasingly paying attention to other human senses besides vision when thinking about the experience of prehistoric art. The acoustics of caves, the sounds some objects make when suspended, the touch of materials, and the smells associated with certain locales are finding their way into scholarly discussion, enlarging the scope of our collective imagination.

Carved figurines, displaying a clear representational aesthetic, appear in greater quantities after 40,000 years ago. The German sites of Vogelherd[<http://www.visual-arts-cork.com/prehistoric/ivory-carvings-swabian-jura.htm>][and Geisenklosterle] offer some of the best-known early examples of this early symbolic expressions, with

exquisitely shaped and perfectly proportioned, horse, mammoth, rhino or lion figurines, none more than two inches tall. The “Lwenmensch” (a lion person) figurine from another German site, Hohlenstein Stadel, has fascinated scholars since the 1930s. After decades of painstaking work to piece together its many fragments, the item has been reassembled into a 30 cm tall half human, half lion, standing figurine carved out of ivory. This figurine would have taken months to make, and required notable skills and strength, as demonstrated by the carving of a replica. The meaning of the human animal hybrid remains speculative, but many argue it reflects some form of animist belief in a human animal connected world. In any case a tie to animal forms is appropriate when considering the wider array of prehistoric symbolic expression. Fascinated as we may be by depictions of the human form, animals and geometric designs dominate the overall collection.

Conclusion

A tiny soapstone replica of a human animal hybrid sits in a seashell on my desk. I may never know what this object meant to the person who made it. Yet every day when I look at the warm reddish brown figurine, less than two inches high, it reminds me the degree of skill and imagination that already existed some 20 or 30, 000 years ago. Like its more famous cousins, the painted caves and the female figurines, it both invites interpretation and ultimately resists it. These ancient artifacts still humble us, suggesting that despite all the expanding array of modern technology, all the advances of science, some things may forever lie just beyond our grasp. Yet they also push the boundaries of our imagination, offering glimpses of different ways of being in the distant past. This elusive legacy, perhaps, is the most enduring legacy of prehistoric art.

Read more

For readers interested in more detailed studies of the mentioned sites or archeological materials I recommend:

Bahn, Paul G. 2010. *Prehistoric Rock Art: Polemics and Progress*. New York: Cambridge University Press.

Bahn, Paul G., and Jean Vertut 1997. *Journey through the Ice Age*. Berkeley: University of California Press.

Bradley, Richard 2009. *Image and Audience: Rethinking Prehistoric Art*. Oxford: Oxford University Press.

Clottes, Jean and J. David Lewis-Williams 1998. *The Shamans of Prehistory: Trance and Magic in the Painted Caves*. New York: Abrams.

Conkey, Margaret W., Olga Soffer, Debora Stratman, and Nina Jablonski (eds.) 1997. *Beyond Art: Pleistocene Image and Symbol*. San Francisco, Calif. Berkeley: California Academy of Sciences. Distributed by University of California Press.

Lewis-Williams, David J. 2002. *A Cosmos in Stone: Interpreting Religion and Society Through Rock Art*. Walnut Creek, CA: AltaMira Press.

Nowell, April 2006. From a Paleolithic Art to Pleistocene Visual Cultures, *Journal of Archaeological Method and Theory*, 13 (4): 239–249

Tomkov, Silvia 2013. *Wayward Shamans: The Prehistory of an Idea*. Berkeley: University of California Press.

White, Randall 2003. *Prehistoric Art: The Symbolic Journey of Humankind*. New York: Harry N. Abrams.

Chapter 12. The Story Behind Our Name

In 1968 John Hendee and some others set out to evaluate the attitudes and values toward wilderness held by people who used national parks and forests. To do this, they devised a questionnaire that they administered to some users of wilderness areas in Washington and Oregon, and they placed the users somewhere on a scale from “wilderness purists” to “urban or convenience oriented” users. They named it the “Wildernist-Urbanist scale,” and thus the name “wildernist” was born.

Since then several studies have used the Wildernist-Urbanist scale, but in the 90s the word acquired a negative connotation. In 1996 James H. Patric and Raymond L. Harbin issued a report for The Heartland Institute, a freemarket think tank. Their report argues against a faction in environmentalism that they say only costs the taxpayers money in the name of a dogmatic, quasi-religious belief in the ill-defined concept of “wilderness.” Patric and Harbin call the members of this faction — you guessed it — “wildernists,” and they cite organizations and people such as John Muir, Dave Foreman, and Earth First! as the advocates of this “wilderness purism.”

This usage has held up among free-market ideologues for more than a decade at least. In 2010 Ron Arnold published his book *Ecology Wars*, in which he argues against the same “wildernism” as Patric and Harbin. Like those two, Arnold is against continued wilderness designation, arguing that this would stunt the economy. Instead, he advocates “wise use” of resources for economic purposes that supposedly still respect the environment — but only so that it can keep producing natural resources.

This magazine is by and for the “wilderness purists” detested by the free-market ideologues and polemicists for industry. We agree with Arnold, Patric, Harbin and others that the great tragedy of our situation is precisely that the health of our biosphere is inherently at odds with the health of our economy, and now we have to make a choice. We argue that the choice is clear: while the fruits of economic and technological growth certainly increase our comfort and our knowledge of the world, and while they are even sometimes inspiring, none of this matters if our earth is being destroyed. For this reason, we have decided to place the earth first, even at the expense of industry and the economy. We are, proudly, the wildernists.

The Wildernist

Freedom in wild Nature.

The Wildernist Issue #2: First Steps

The Wildernist is a is conservation magazine dedicated to spreading the value of the wild in and around us. Cover art by Paige Carter.

About The Wildernist

The History Behind Our Name

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This magazine is by and for the “wilderness purists” detested by the free-market ideologues and polemicists for industry—and even the social justice advocates who argue for “sustainable development.” We agree with Arnold, Patric, Harbin and others that the great tragedy of our situation is precisely that the health of our biosphere is inherently at odds with the health of our economy, and now we have to make a choice. We argue that the choice is clear: while the fruits of economic and technological growth certainly increase our comfort and our knowledge of the world, and while they are even sometimes inspiring, none of this matters if our earth is being destroyed. For this reason, we have decided to place the earth first, even at the expense of industry and the economy. We are, proudly, the wildernists.

Our Editorial Position

This magazine is for anyone who loves and fights for wilderness. Real wilderness, too—no roads, no mines, no dams, but a huge, wild landscape of desert, tundra, jungles or forests full of wolves or eagles or elephants. It's for those who take the wild as it is, death, struggle and all.

But, like all magazines, we have an agenda to push. We think it's time people—especially conservationists—get honest about the compatibility of industry and wilderness. And the simple reality is that they aren't compatible.

That fact is a hard one to cope with, but The Wildernist's editorial team has decided to dedicate a good deal of their time figuring out the consequences of it. Many of our thoughts on the matter will be published regularly on our editorial blog, Hunter/Gatherer.

You don't have to accept our editorial position to read, enjoy, or even contribute to the magazine. But we do strongly encourage you lovers of the wild to engage with our musings, push back where you think we're wrong, and maybe help us do something about this industry thing.

Editor's Note on Issue #2

This is an issue full of clarifications. For a long time now, the environmentalist movement has hosted a faction known to some as "wilderness purists" or "wildernists." Whereas other environmentalists accented clean urban areas, biodiversity, or ecological integrity, the ethic of the wilderness purists has been bound by the value of wildness. Individuals in the wildernist current have been some of the most important defenders of the natural world, and we survey a few of them here. Doug Peacock, the inspiration for Edward Abbey's Hayduke! in *The Monkey Wrench Gang*, tells us what he's been up to since his spiritual renewal in the wilderness and the founding of Round River Conservation Studies. Dr. Reed Noss, the former editor of the scientific journal *Conservation Biology* and a former editor of *Wild Earth*, explains the ecological effects of roads, writing "the bottom line is that no new roads should be built, and most existing roads... should be closed and obliterated." And don't forget the interview with Dave Foreman in our last issue.

But even as the wilderness ethic achieves great things for our Earth, industry continues to tear it apart at an alarming rate. Jamie Pang from the Center of <http://www.biologicaldiversity.org/> [Biological Diversity] writes that even though the ESA has been 99% effective, we remain in the midst of a suffering from industrial practices—and that humans seem to be creating the conditions for our own demise because of it. So if we had the opportunity to cut at the root of the problem—industry—shouldn't we?

This is the idea behind Wildism, an ideology introduced in Issue #1. Inspired by the ethic of the wilderness purists, the editors of this magazine have joined up with other groups so that we can outline a coherent value system that truly puts the wild first. One of our editors, John Jacobi, outlines our first step toward this end in “A Sketch of Wildism in Contrast to Leftism,” and he clarifies the difference between Wildism and wildernism in a reply to a letter from a reader in Colorado. Finally, the whole editorial team worked out a 2015 reading list for those who want to join the conversation, but don’t know where to start.

If you like this issue of The Wildernist, let us know! We love feedback and are looking forward to many more reader responses in the future.

For the wild,

The Wildernist Editorial Team

Chapter 1 . Wildernism or Wildism?

(Letter to the Editor)

Dear Editor,

Hi, I just learned about your magazine, but I'm a little confused. You named your magazine *The Wildernist*, but you're a part of the wildism [sic.] network? Are the two things the same?

—Joyce from Colorado

Hi, Joyce.

The name of the magazine, as we explain on our about page, is a reference to a general tendency amongst wilderness-lovers. The tendency is sometimes called “wilderness purism,” and it is simply a no-compromise stance on what wilderness is—no roads, no techno-gadgets, no strong and invasive influence of culture. This idea has existed for a while, but our readers are most familiar with the attitude as it is expressed in the modern conservationist movement by the likes of Dave Foreman, David Brower, and others. This magazine is for that faction of the conservationist movement and any peripheral audiences that might be interested. It's important to remember, though, that saying someone is a “wildernist” is not like saying they are a “communist.” There is no developed ideology called “Wildernism”; the wildernists are just conservationists who take the wilderness seriously. Again, “wilderness purists.”

“Wildism,” on the other hand, is a developing ideology, and it's the official editorial position of the magazine, as outlined in our editorial blog, *Hunter/Gatherer*. For our first issue, we published a Statement of Principles written by some friends in Spain, and we formed a network of groups who have accepted the principles and are willing to act on them. The basic idea behind Wildism is

that wild Nature ought to be valued and those things that work against it ought to be discarded. In particular, industry has caused a lot of trouble: once the Industrial Revolution began, population, species extinctions, and carbon emissions have skyrocketed; depression and suicide rates are much higher in cities than in rural areas; and there is, generally, a widespread feeling of purposelessness in the world, a purposelessness that is again a lot more present in the city. Wildists, in other words, recognize our love of wild Nature is incompatible with the continued intrusions of industrial society, and we would like to see industrial society go.

You don't have to agree with the editorial position to submit to, read, enjoy or even work (as staff) for *The Wildernist*. The magazine is for and by “wilderness purists,” and

no matter what, we see a lot of value in conservation stemming from that ethic. But is conservation enough? If we had the opportunity to cut at the root of the problem—industry —shouldn't we? We think so, and Hunter/Gatherer, our editorial blog, exists precisely for those of us purists who are willing and able to openly advocate this. For everyone else not quite ready to advocate a world without industry and a movement to make that happen, we have published and will continue to publish articles on wilderness protection campaigns, environmental legislation, and so on. We all agree that that work is important and shouldn't be forsworn. Besides, as I said to my co-editor when we were discussing the potential and very serious consequences of our Wildist ideas: "If there's one thing I know for sure, it's that the wild matters. At the very least we should spread the value of it."

—John F. Jacobi

Chapter 2 . A World Without Bees

For nearly a decade, the declining health of bee colonies has been a growing concern for entomologists and conservationists around the world. Beginning in 2006, beekeepers started to report unusually heavy losses in their honey bee populations. Since then, the rate of bee deaths has shown little sign of improvement, with average winter losses in the U.S. at 28.7 percent.

The magnitude of the current trend is still difficult to determine. Since winter losses are normal and because colony deaths vary widely from year to year, it is difficult to say how rapidly bees are dying or even whether imminent extinction is inevitable at the current rate. In the U.S., however, the rate of winter and yearly losses has remained significantly higher than normal for the past eight years, and some sources estimate that as many as one-third of honey bee colonies in the U.S. have already been wiped out. Therefore, it would be difficult to argue that there is not some cause for alarm.

Bees are important primarily because of their role as pollinators. They are responsible for pollinating one-sixth of flowering plants in the world, and approximately 75 percent of the fruits, nuts, and vegetables grown in the United States. We have bees to thank for an estimated one-third of food and beverages. And, most importantly, many of the plants that they help to pollinate are critical links in the food chain of present-day society, making up a large portion of livestock feed. Certainly with an exponentially increasing population of more than seven billion humans, humanity as we know it would struggle to survive in a world without bees.

Through their role as pollinators, they also contribute to ecosystem stability by maintaining genetic variation in the plant community. Cross-pollination is the only way to constantly mix genes for a plant, creating genetically varied offspring. Not only does this contribute to biodiversity, it also helps plants evolve and adapt to environmental changes. The more genetic diversity in a species, the greater the chance of some offspring surviving any new environmental conditions they may face.

The Causes

Quite a few factors play into bee deaths. A particularly severe problem that has worsened in the last decade is Colony Collapse Disorder (CCD) in honey bee hives. CCD results in a colony in which most of the adult bees either die or abandon their hive, usually leaving behind a live queen and immature bees. It is not the only cause of losses, but it is certainly one of the major contributing factors of the increased rate of

commercial losses beginning in 2006. Because of CCD, the number of honey bee hives in the U.S. is at its lowest point in 50 years.

Climate Change

Some scientists speculate that climate change may also contribute to losses. Honey bees, like many pollinators, hibernate during the winter. The rise in global temperatures over the past two centuries can alter the time frame during which some species of flowering plants bloom. This can be problematic if the flowers that provide food for bees have already bloomed by the time they wake from hibernation.

Similarly, when flowers bloom before bees come out of hibernation, it is much more difficult for them to reproduce because the bees are not helping them to cross-pollinate. And with earlier blooming often comes earlier declining of flowers, which hurts those species that need a supply of pollen and nectar throughout the year.

Habitat Loss

In recent years, flower rich meadows and wildflower populations have been destroyed to make way for commercial farmland or development projects, causing the bees to suffer tremendous losses because they no longer have the food to sustain their populations.

Destruction of grasslands due to farming, urban development, and changes in climate is a growing trend across the globe. The U.K. has lost an estimated 97 percent of its flower rich grasslands in the last 70 years, largely to make way for farmland. It is no surprise that a number of bumblebee species in the U.K. have gone extinct in the past few decades.

The current drought in California has also contributed to habitat loss, since less rain means fewer flowers. California's almond orchards and other cash crops rely heavily on bees for cross-pollination. With the drought, these bees may only have access to these almond plants because many of these farms do not provide a variety of plants for them pollinate. The pollen and nectar from almond plants is not as nutritious as that of other plants, and relying on these crops alone is not healthy for the bees.

Stress from Commercial Beekeeping

There are several ways in which certain commercial beekeeping practices are thought to cause CCD. Continuing with the almond example, there is a high demand for bees to pollinate California's almond crop in the late winter. This is before bees normally repopulate, so this kind of stress on smaller populations of bees that are already struggling to make it through the winter can be problematic.

The agri-industry's drive to maximize profits has also hurt bees by focusing on money-making crops like corn and soybeans, which are not as healthy for bees as plants that they are drawn to in nature, such as alfalfa and clover fields. Bees need high-quality pollen in the fall to produce offspring that can survive through winter, and without access to pollen and flowers that are healthy for bees, winter losses will inevitably be higher.

Another problem is when beekeepers lease their colonies for pollination. Many of the crops that bees are leased out to pollinate, almonds included, cause nutritional stress for them. The transportation and new environments also cause stress on the colonies.

And finally, the chemicals that beekeepers use to treat for pests and parasites in bee colonies can sometimes negatively affect the bees. Some of these chemicals, such as fluvalinate, which targets varroa mites in honey bee colonies, can accumulate in comb wax and harms worker bees over time.

Pesticides

Pesticides are a major cause of colony loss. One study found 35 different pesticides as well as high levels of fungicides in the pollen collected by bees in five U.S. states. Some of these samples contained lethal levels of these chemicals. Another study found that certain fungicides made bees up to three times more susceptible to infection by the parasite *Nosema ceranae*, which may also contribute to CCD.

One potentially lethal class of pesticides is known as neonicotinoids. These were first registered for use in the mid-1990s, and are now used on farm crops, ornamental landscape plants and trees. Neonicotinoids are systemic chemicals, meaning that they are absorbed by plants and transferred through the vascular system, making the plants themselves toxic to insects.

Neonicotinoids are long-lasting, both in the plants themselves and in the soil. Even when neonicotinoids are applied outside of a plant's bloom period, the harmful effects will remain present in the pollen and nectar of the plant for long periods of time.

Neonicotinoids are known to poison entire colonies, not just individual bees. Bees not only feed on the contaminated nectar, but they bring pollen full of neonicotinoids back to the hive. These pesticides affect the central nervous system of the bees. At their lethal dosage, neonicotinoids are thought to block nerve endings, causing paralysis and eventual starvation.

Lack of Genetic Diversity

Like the plants they pollinate, bees rely on genetic variation in order to adapt to environmental changes. Honey bee colonies contain large numbers of related bees

that live in high densities and exchange food by mouth—all perfect conditions for the development and spread of disease. They do have behavioral and immune system defenses against disease, but those are only effective if there is a high level of genetic variation within colonies. If all worker bees are the same, they may be more vulnerable to certain pathogens because they all lack the immune system and behavioral responses capable of fighting those pathogens.

There are several causes behind the lack of genetic variation in bees. Because the varroa mite has wiped out many of the feral bees, some scientists suggest that it is even more likely that bees will mate with close relatives in the colony. Additionally, the falling population of bees means that there are fewer drones overall for queens to mate with. Finally, the frequent transport of bees to new locations may play a role, as those bees do not have a chance to adapt to local pathogens and conditions in their new environments.

What's Next?

So what would happen if bees went extinct? The most obvious answer is that there would be a lot less food in terms of variety and quantity. Since an estimated one-third of all food eaten by humans is dependent on bee pollination, an ever-growing human population of more than seven billion would certainly struggle to survive. Fruits, vegetables, and nuts would be scarce, and humans would have to find a new source of livestock feed in order to keep up our addiction to meat and dairy products.

Not only would flowering plants be at risk, but ecosystems dependent on bees for maintaining biodiversity would suffer, making some organisms more susceptible to disease and, eventually, extinction.

It does not look as though honey bees will be going completely extinct in the near future, but with the current rate of colony death, we may soon see a devastating impact on the genetic diversity and sustainability of ecosystems on a global scale.

Stephanie Zimmerman is a former beekeeper and general bee enthusiast.

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Chapter 3 . The History of Bison in Southeastern North America

When most people think of bison, they imagine great herds of “buffalo” roaming the wide open prairies of western states. Many don’t realize bison ranged as far east as the Atlantic coast until 1800. The fossil record shows bison were a common species in southeastern North America since about 240,000 years ago. (Bison fossils were found at two sites in Florida thought to be 1.9 million years old, but the age of these specimens is in doubt, because they can’t be radiometrically dated, and there are no known American bison fossils dating between 1.9 million BP[0] and 240,000 BP.) The oldest known American bison fossil, aside from the doubtful Florida specimens, is an ankle bone found at the Ten Mile Hill Beds in South Carolina, dating to ‘240,000 BP. This is remarkable because bison originated in Asia and crossed the Bering Land Bridge to reach North America, yet left no known fossil evidence in the rest of North America older than this South Carolina specimen. However, bison fossils consistently show up in the American fossil record shortly after this date. The presence of bison marks the beginning of the Rancholabrean Land Mammal Age, named for the famous La Brea Tar Pits in Los Angeles, California. The Rancholabrean Land Mammal Age lasted from ‘240,000 BP to ‘11,000 BP.

The earliest species of bison to occupy southeastern North America was the longhorned bison (*Bison latifrons*). This enormous species weighed as much as 3,000 pounds, and the span of its horns could be more than 6 feet long. Long-horned bison evolved into their great size to deter predators such as saber-toothed cats (*Smilodon fatalis*), giant lions (*Panthera atrox*), and dire wolves (*Canis dirus*). It likely favored an open woodland habitat, common in the region then. A complete skull with intact horns was found at Clark Quarry near Brunswick, Georgia in 2006. This specimen dates to 24,000 BP. (A previous date on this specimen of 14,000 BP is considered in error.) Shortly after 24,000 BP, *Bison latifrons* evolved into *Bison antiquus*.

B. antiquus was a smaller species than *B. latifrons* but still considerably larger than modern bison (*B. bison*). *B. antiquus* weighed up to 2500 pounds and had horns intermediate in size between *B. latifrons* and modern bison. It evolved during the Last Glacial Maximum¹ when the ice sheets expanded to their greatest extent. So much of earth’s atmospheric moisture was locked in glacial ice that the climate became arid. *B.*

¹ Faarlund originally writes this as ‘Free Nature,’ which accents what to him is the most desirable quality of wildness. — ed.

antiquus was better adapted to living in arid climates than *B. latifrons*. They probably could endure longer time periods without water, and they migrated longer distances to find suitable pasture.

Genetic studies show that *B. antiquus* was much more genetically diverse than modern bison. All modern bison evolved from just a single population of *B. antiquus* that lived on the Great Plains. Man overhunted all other lineages of *B. antiquus* into extinction, including those that lived in southeastern North America, shaping the evolution of the surviving population of bison about 11,000 years ago. This surviving population of bison grew to a smaller size, reaching sexual maturity at an earlier age than *B. antiquus*. By reaching sexual maturity at an earlier age, modern bison increased their reproductive rate and were better able to withstand human hunting pressure. *B. antiquus* already had a tendency to migrate, but this migratory instinct was enhanced in modern bison. The newer species was more likely to travel far away from hunting humans²

Following the extinction of *B. antiquus* about 11,000 years ago, there is no certain fossil evidence of bison in southeastern North America until 1600 AD. However, bison were able to recolonize southeastern North America during the late 1500's because infectious diseases brought by Europeans decimated Indian populations. Much of Indian farmland reverted to wilderness.

Bison populations expanded east where they found favorable habitat on abandoned Indian fields, and natural grassy environments. The surviving Indians continued setting fire to the woods every year, a management practice that improved habitat for wildlife by creating open woodlands with grassy understories. Bison could feed upon grass year round along with bountiful crops of acorns produced by widely spaced oaks in the fall. Mature oak and pine trees are fire resistant, but fire destroys the saplings and brush—a process of “thermal pruning.” Extensive canebrakes that stretched for miles occurred on most river and creek bottomlands in the piedmont region. Bamboo cane was another source of fodder for expanding bison populations.

Grasslands in the south were not dependent upon man-made fires. Studies show lightning strikes in the south are frequent enough to spark wildfires that can maintain grassy environments. Lightning-induced fires created the longleaf pine savannahs that formerly predominated on the coastal plain for millions of years. This was ideal habitat for bison and other grazers as were serpentine barrens— areas of soil with high concentrations of heavy metals that allow grass to outcompete trees. Other types of natural grasslands in the south that supported bison included alkaline cedar glades, Kentucky bluegrass savanna/woodland, Louisiana coastal prairies, and The Black Belt Prairies in Alabama and Mississippi.

By 1600 bison had recolonized the south as far east as St. Simon's Island, Georgia where bison bones were found in an Indian mound located in Chatham County. Bison bones dating to 1700 were found in Clay County, Florida at the former site of a Spanish

² *Wild Nature*: having the seasonal, diurnal and growth rhythms unimpaired.

settlement known as Fort Pupo. General Oglethorpe, who founded the state of Georgia, went hunting for bison in 1733. Edward Kingo saw 100 bison on one acre of ground near Abbeville, Georgia about this same time period. Buffalo licks consisting of minerals or clays attracted huge herds of bison. The Great Buffalo Lick in east central Georgia was covered in white clay-colored dung, and great pits were licked from the soil by large herds of bison. Bison congregated around Big Bone Lick and Blue Licks in Kentucky for the mineral salts.

European settlers over-hunted bison to extirpation in the south during the 18th century. William Bartram, a famous naturalist, never saw a live bison when he traveled through the region in 1775 and 1776, though he did see the skulls of bison mixed with bones of deer, elk, and humans on a serpentine barren hill top.³ James Couper shot the last known bison in Georgia circa 1800, near the Turtle River, a coastal waterway. This was also the last bison known from the Atlantic Coast. The last bison in Pennsylvania was shot in 1801. The last Louisiana bison was killed in 1803. Bison were extirpated from Kentucky in 1820, from Tennessee in 1823, and from West Virginia in 1825. Bison trails (or traces) remained visible for decades after their disappearance from the region. The bison herds caused these trails to have a sunken denuded structure, and settlers used these hard-packed eroded trails as roads. Many became state highways.

The extirpation of bison in the south caused a profound loss of ecological diversity. Bison maintained open areas by trampling, grazing, and eating acorns, thus reducing tree germination. Ground squirrels, prairie chickens, bobwhite quail, upland sandpipers, meadowlarks, and burrowing owls are just a few of the animals that benefitted from the presence of bison. Bison increased the fertility of the soil and enhanced seed dispersal by consuming plants and defecating all over the landscape. Their dusty wallows served as refuges for toads and countless species of insects. Once common species of plants became rare: short's goldenrod (*Solidago shortii*) and running buffalo clover (*Trifolium stoloniferum*) depended upon heavy grazing and trampling to reduce competition. Now both of these species are nearly extinct.

Today, there are only two populations of wild bison in the south: Payne's Prairie in Florida and Land Between the Lakes in Kentucky. Both are fenced-in and heavily managed. It's impractical to reintroduce bison on a large scale.[multiblock footnote omitted] Any reintroduction would be limited to small-scale, heavily managed preserves. Bison roam great distances, and there just isn't enough wild space left to support traveling herds of bison. Moreover, the habitat they require is simply gone. Open mature woodlands with grassy understories dependent upon frequent fires no longer exist in the piedmont. People suppress fires. There are no Kentucky bluegrass savannah/woodlands left, though remnants are used as fenced-in horse pastures. Canebrakes are almost completely gone due to flood control and agriculture. Longleaf pine savannahs have been reduced by 97%. Instead, southern landscapes are now covered by suburban development, intensive agriculture, and young dense forests unsuitable for wild bison.

³ Caramelised milk sugar—an exquisite 'up hill food' from Norway.

Bison could potentially be reintroduced in two areas. Roan Mountain Bald in North Carolina is a grassy high-elevation mountain top. Scientists hypothesize frigid weather during the Ice Age killed trees there, and herds of megafauna later maintained the grassy environment. Europeans introduced livestock that took the ecological role of megafauna, but since farmers abandoned the Bald, trees and bushes have been taking over. Right now the park service uses goats rather than bison to maintain the open grassy space. Another potential reintroduction site is the Greenwood Plantation in south Georgia, which quail hunters saved from development, although bison would likely need to be fenced-in there to prevent roaming. It's sad to realize we can no longer enjoy seeing free-roaming herds of bison in the south, where they do belong, because people have so drastically altered the environment.

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Chapter 4 . The Skinny on the Endangered Species Act: Why This Law Matters

Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed.

It is a many faceted treasure, of value to scholars, scientists, and nature lovers alike, and it forms a vital part of the heritage we all share as Americans.

— President Richard Nixon upon signing the Endangered Species Act

The Endangered Species Act's Critical Importance

From the Kemp's ridley sea turtle to the black rhinoceros, the number of species threatened with extinction has dramatically increased. We are experiencing the worst spate of species die-offs since the loss of the dinosaurs 65 million years ago—except instead of a giant asteroid, this time the cause of mass species extinctions is us. Although species have always gone extinct, scientists now estimate that they are disappearing at a rate a thousand times greater than occurred for millions of years prior to the expansion of human civilization.¹ Our growing human footprint, climate change and the spread of non-native species are all contributing to the loss of wildlife.

We should be concerned about species extinctions because our own health and survival are intricately linked to the natural biodiversity of the planet. Simply put, the more biodiversity there is, the more benefits humans derive. Species are the building blocks of the ecosystems that purify our air and water, moderate the climate and provide a myriad of other services that have nourished our society for eons. As such, there is a practical, moral, and even selfish reason for Americans to preserve species biodiversity. Fortunately, we have one of the strongest laws of any nation for doing just that: the Endangered Species Act.

¹ Faarlund's original text reads: 'to elaborate on our versions of the fusion of the natural science of ecology and the philosophical keel and rudder—values orientation—for an ecophilosophy' Later in the original text, he repeats the phrase 'values orientation.' Although for clarity I had to amend the specific wording, it is important to note the importance Faarlund places on *orientation* and *values* as instrumental to the paradigm shift necessary for the respect of Wild Nature. — ed.

Recognizing the inherent value in preserving species, the Endangered Species Act was borne out of cries for stronger wildlife protections amongst lawmakers and the public at large.² Originally penned as the Endangered Species Preservation Act of 1966, this precursor to the law we have today gave native wildlife only limited protections. It, for example, did not provide any protections for species' habitat. Inspired by the decline of the bald eagle and an oil spill off his coastal home in Santa Barbara, CA, President Richard Nixon called on Congress to pass comprehensive legislation that provided stronger protections for species. Passed on December 28, 1973 with nearly unanimous bipartisan support, the Endangered Species Act that we know today included protections for species' habitat for the first time, and allowed for protections of plants in addition to animals. The result was a law that prioritizes saving imperiled wildlife threatened with extinction above economic interests and development.³ Congress made clear that endangered species should be afforded the "highest of priorities" at "whatever the cost," because the cost of losing a species to extinction is incalculable.⁴

The Endangered Species Act has been incredibly successful at saving and recovering species particularly given that the population of the U.S. has grown from 212 million people in 1973 to 319 million people today with concurrent loss of wildlife habitat. The Act has been hundreds of species on the road to recovery.

One example of the Act's success is the black-footed ferret. Once thought extinct by scientists, a single remaining population was discovered in Wyoming in 1981.⁵ The species was then listed under the Act, bred in captivity, and reintroduced into the wild. Today there are over 1,400 black-footed ferrets at eighteen different sites.⁶ Humpback whales are yet another example. Once critically endangered due to commercial whaling,

² Askeladden is the main character of many Norwegian folktales. In many stories he is rejected as eccentric and unusual compared to his two brothers, but, when a challenge presents itself to all three, he is the only one to succeed, thanks to unconventional thinking and creativity. He often represents the innovator who instigates a paradigm shift. — ed.

³ The phrase 'home of culture' is an idiosyncratic one developed by Faarlund and others in the article "Nature is the Home of Culture—*Friluftsliv* is a Way Home." The article explained the Norwegian tradition of *Friluftsliv*, of which Faarlund is part, and its ultimate quest to 'to bring about a change in the modern affluent societies [by working] to help re-establish cultures where nature is the home of culture.' — ed.

⁴ A *conwayor* ('outdoor educator') is a mentor in the Norwegian *Friluftsliv* tradition, whose main purpose is to find wild 'learning rooms' for students to develop a positive and freely developing relationship with nature. — ed.

⁵ Translates literally into 'spring break,' but is similar to the phrase 'var losning'—'our response.' — ed.

⁶ Foreman, along with most of the original members, left Earth First! in the late 1980s because the influx of leftists, anarchists, and counter-cultural types had taken the movement away from its original principles. You can read the prequel to his departure in the article "Whither Earth First!?" Howie Wolke, another founder, describes his version of events in the article "Earth First!: A Founder's Story." — Ed.

they were listed as endangered in 1970 with only 1,200 remaining.⁷ As of 2013, their population reached over 20,000⁸

After more than 40 years, the Endangered Species Act is still the best and possibly the last chance Americans have of securing a future for diverse native wildlife and the natural environments that they depend on. The Act does not just rescue species from the brink of extinction, but rather holds the very fabric of our relationship with nature together. It is imperative that future generations, and in particular young Americans, understand the importance of this law and continue to care about endangered species.

How the Endangered Species Act Works

The Endangered Species Act is implemented by two federal agencies. The U.S. Fish and Wildlife Service (FWS) within the Department of Interior is responsible for protecting terrestrial and freshwater plants and animals, and the National Marine Fisheries Service (NMFS) within the Department of Commerce is responsible for protecting marine species. The two agencies currently oversee protection of 2,244 threatened or endangered species, including 1,618 species found within the U.S.⁹

The Act's central purpose is to recover species to the point where protections of the Act are no longer necessary¹⁰. For species to receive protection and begin to recover, they must first be listed as threatened or endangered. The Act defines an endangered species as one that is at risk of extinction and a threatened species as one that is at risk of becoming endangered in the foreseeable future. A key difference in the Endangered Species Act compared to precursor laws is that species need not be endangered

⁷ Foreman may be referring to the article "The Aftermath of Megafaunal Extinction," Science, 2012. — Ed.

⁸ V. Smil, "Global Energy: The Latest infatuations," *American Scientist* 99, no. 3 (2011): 212–19.

⁹ See "Note Concerning the Road to Revolution" to read Kaczynski's thoughts on this edition. — Ed.

¹⁰ Perhaps "leftism" is not the most appropriate term to express what Ultimo Reducto refers to here. Everyone has some intuitive notion of what "leftism" is, but often these notions vary considerably from one individual to another and few are able to correctly and consistently explain their idea of "leftism." Furthermore, like a loony bin (and not by coincidence), *ni estan todos los que son, ni son todos los que estan* [Translator's note: This is a difficult-to-translate Spanish proverb that references populations of people in insane asylums. It is used to mean that a given set of elements is wrong, because in some cases some elements that are included aren't correct and some other elements that are correct are left out.] (certain incomplete notions or definitions, at least, do not cover all the forms of leftism really existing -for example, they consider leftism to be only MarxismLeninism, or only anarcho-syndicalism, or only the "antagonist" subculture, etc. and certain overreaching and vague notions and definitions might include currents that are not, in reality, really leftists -for example, certain kinds of Islamism-). All this complicates the definition and interpretation of the concept to which "Ultimo Reducto is referring to with the term "leftism." However, the point here is trying to express, clarify and grasp the concept without getting lost in discussions about what to call it. Let each denominate the term as he is best willing and able.

everywhere to receive protection, but rather in any “significant portion” of their range. Species are considered endangered when they are at risk from any of five factors:

1. the present or threatened destruction, modification or curtailment of habitat or range,
2. overutilization for commercial, recreational, scientific, or educational purposes,
3. disease or predation,
4. inadequacy of regulatory mechanisms, or
5. other natural or manmade factors affecting its continued existence.¹¹

A cornerstone of the Act is that it requires decisions about whether to list species as threatened or endangered to be based solely on the “best commercial and scientific data available.”¹² Other factors, such as economic or political ones, may not be considered.

The Endangered Species Act provides strong protections for listed threatened and endangered species, including a prohibition on all persons from harming, harassing, or killing a species or its habitat¹³. In the Pacific Northwest for instance, courts have barred private companies from logging to protect the Northern Spotted Owl¹⁴. The Act does provide an exception to this prohibition. If a landowner develops a “habitat conservation plan,” they can be granted a permit to “take” endangered species provided the plan minimizes and mitigates any take that is expected to occur. In recent years, landowners across the country have developed such plans, and although not always perfect, this has resulted in tens of thousands of acres being set aside for species.

Concurrent with listing of species, the Act requires identification and protection of critical habitat, which is defined as areas essential to the conservation of species. Critical habitat provides the only means to protect places where species have been eliminated but that are important to their recovery. This is important because many if not most endangered species have been driven from all but tiny fractions of their historic ranges. It also alerts land owners and managers to the fact that they have important habitat for endangered species. Accordingly, at least one study has found that species with critical habitat are more than twice as likely to improve as those without critical habitat.

The Act also prohibits federal agencies from jeopardizing the continued existence of species or modifying their critical habitat in actions that they fund, permit, or carry out.^[18] In addition to covering federal projects like large dams, these prohibitions often extend to developments on private lands because developments that modify waters of the United States must obtain a permit from the Army Corps of Engineers. Federal agencies ensure they are not jeopardizing species or destroying their habitat

¹¹ V. Smil, “Global Energy: The Latest infatuations,” *American Scientist* 99, no. 3 (2011): 212–19.

¹² Techno-industrial society must be fought, not reformed, because it inevitably undermines the autonomy and functioning of non-artificial systems, i.e., the wild Nature, both external and internal to humans. To investigate this issue, see, for example, *Industrial Society and Its Future*, Freedom Club.

¹³ Progress: The belief in the absolute goodness of some process of development.

¹⁴ Although, in reality, all defend, in one way or another, some form of progress, if only a progress that is immaterial, moral, “spiritual.”

by consulting with FWS and NMFS. The consultation process results in a tremendous amount of conservation for species resulting in both federal agencies and large developers setting aside land or otherwise putting resources into mitigating the impacts of their actions on endangered species.

Finally, the Endangered Species Act requires development of a recovery plan and also allows individual states to receive federal grants to carry out recovery actions. Species recovery plans are typically developed by expert scientists from Universities and state and federal agencies, and provide a roadmap for recovery, including describing the species' habitat needs, identifying actions needed to recover species, and setting recovery goals.

Citizen Involvement is Key

One of the most ingenious provisions of the Act is that it allows citizens to directly enforce its provisions. The Act's underlying policy of welcoming citizen involvement is truly its backbone. For instance, any interested citizen including a scientist, watchdog group, or college student may petition the Secretary of Interior to list or delist a species under the Act. Thanks to this provision, hundreds of plants and animals have gained protections by way of petitions submitted by the Center for Biological Diversity and others.

The Act's citizen suit provision also allows citizens, including watchdog groups, to file a lawsuit against a federal agency in Federal court for its failure to fulfill one of the Act's mandates[19]. For example, one may litigate against the government when it fails to abide by statutory deadlines or ignores the best available science in deciding not to list a species. Because a majority of lawsuits have sought to place a species on the endangered species list and designate critical habitat for those already on the list, citizen enforcement has been one of the major factors aiding in the recovery of species.¹⁵

Keeping the Endangered Species Act Strong

Thanks to the comprehensive protections the Endangered Species Act provides to imperiled species and the opportunities it provides for concerned citizens to get in-

¹⁵ In this respect, we must fall into naivety and superficiality by believing that anyone who appears to reject leftism is really not leftist. It is not enough simply to use the term "leftism" in a derogatory manner. Many leftists who paradigmatically meet the definition of leftism given in this text (for example, many anarcho-socialists, autonomists, anticapitalists, insurrectionalists, situationists, anarcho-primitivists, Marxists, etc.) often tend to criticize something they call "leftism," implying that they do not recognize themselves as what they actually are: leftists in turn. To identify leftists one has to look at their core values, their ideals, their goals, their ideological references and ascent, etc., and not only if they express explicitly and ostensibly rejection of "leftism" in their speech.

volved in its enforcement and implementation, the Act has been nothing short of a tremendous success. It is no wonder why a recent poll indicated that 90 percent of American voters overwhelmingly support the ESA[21]. Unfortunately, political interference and industry interests have increased, seeking to weaken the Act in the name of their own economic profits.

It is now imperative for young Americans, including college students, to continue the enthusiasm and support for this critical law. College-aged conservationists can employ the Act in various ways. Those who are scientifically-inclined may undergo a literature review on a species they desire to see protected and submit their own listing petition. Additionally, one may simply read the federal register for proposed listings, delistings, or draft recovery plans to submit public comments in support of the conservation of a species, or submit an “op-ed” to a local or national newspaper highlighting a particular species. Alternatively, those who thrive on human interaction will be pleased to discover that calling one’s Congressional representative or meeting with the office in their capacity as a constituent to express their support for the Act goes a surprisingly long way.

Ultimately, wildlife is inextricably tied to our nation’s heritage and human spirit. By helping to preserve the Endangered Species Act, we also preserve ourselves.

Jamie Pang is a staff member of the Center for Biological Diversity.

Chapter 5 . A Special Place and How It Was Lost

I know a place that I have kept a secret for a dozen years. I think of this place as Bonsai Pond, though it has no official name and appears on the wilderness map only as an elevation (nearly 7000 feet) and a blue circle at the center of brown circles. These are topographic lines, close together, suggesting steepness. In fact, Bonsai Pond sits atop a pillar of rock, and the only way to get there (short of helicopter) is to scale it. In this way, Bonsai Pond is sort of an island in the sky, isolated by difficulty of access. And the pond at the center of this “island,” small though it is, has an island of its own. It was this island that so beguilingly suggested the name Bonsai Pond, for growing on the island are dwarfed and contorted whitebark pine trees, shaped by the elements to look like a bonsai garden.

The top of the basalt pillar that is home to this pond may encompass as much as a couple acres of rock and soil and green growing things—shrubs and wildflowers, but also some good-sized mountain hemlocks, which happen to cluster around the one flat, open area that suggests itself as a natural campsite. And then there is the view. As it happens, this rocky pillar among mountains provides an unimpeded vista of three spectacular peaks. And they are close enough to contemplate in great craggy detail. It is partly because of its proximity to these major mountaintops that I first experienced this spot as a power place. And I couldn’t but wonder if the Indians hadn’t used this particular upthrust of basalt as an especially powerful vision quest site.

When I think about it, it was for just some such purpose that I was saving Bonsai Pond for myself, which is why I never sought to use it as an ordinary campsite, and why I never mentioned it to anyone else. A time would come when I would need to reestablish my connection to the cosmos, or to my own deeper self, and when I felt that need for connection or special knowledge, this would be the place I would come for it. Here I could take the large view of nature, the mountain peaks and meadows and vast stretches of rolling forest, then refocus and see these same shaping powers as expressed in the pleasing miniature landscape of the bonsai garden on the island at the center of this powerfully placed pond.

It is rare to find such a contrast in perspectives available at a single site, rarer still for those perspectives to embrace such complementary natural beauty. I know this with a fair degree of certainty because I have explored this spectacular wilderness, camping and hiking week after week for seventeen summers, as a wilderness ranger for the U.S. Forest Service. I can think of a dozen places that share the essential qualities

of Bonsai Pond, all very beautiful places, all excellent (even inspiring) places to camp, but all, one way or another, lacking that special something that makes Bonsai Pond truly unique.

Last summer, for some reason, I thought a lot about Bonsai Pond. It was time, I figured, to pay the place a visit. Not to camp there, not to seek a vision, or connection, or wholeness, but just to renew my sense of the place. When I got there the place had been utterly changed for me—not by some natural disaster, not even by the devastation that careless campers can sometimes leave behind. What had ruined it was the addition of an alien technology.

Of the four foreign “apparatuses,” I could positively identify only one, a wooden box maybe two feet by three. What was inside the box I could not guess. The other three things were made mostly of metal. One was a silvery half globe, flat on the bottom, mounted on a tripod. On another tripod with staff was mounted a small metallic box, possibly a camera. And on a much taller staff was attached something that looked to be from outer space: a series of iridescent blue panels, on the order of Venetian blinds, which may have been a sensing device, or antenna, or possibly a solar panel to power the other gadgets. Whatever it was, it glittered and had something like little stars winking brightly out of its metallic blue whatchamacallits.

I might not know the individual functions of all this paraphernalia, but, once past the shock of first seeing it, I thought I knew its purpose. All the mountains around Bonsai Pond had once been active volcanoes, and the prominent peak to the southwest had been noted recently, thanks to satellite imagery, to be bulging slightly on the western flank of its upper base. No doubt all the equipment had been marshaled up there to monitor any changes to the bulge, which was growing at the rate of an inch per year.

I knew perfectly well what the arguments would be for “keeping an eye on the bulge.” In the case of a blowout volcanic event, people living near any of the creeks and rivers that drain the area, as I myself do, could be caught in a major debris flow and not survive the event. That would be a worstcase scenario, but the memory of the Mount St. Helen’s eruption, then more than two decades past, still lurked in the Northwest mind. We knew that an “inactive” volcano was not necessarily a “dead” one, and a very slightly active volcano might be building up to something bigger. To monitor Mother Nature with doo-dads might well provide important scientific information, and might also save lives.

I can see this point of view, but it is one that leaves out matters of some importance. Naturally, I am not happy about the particular place that was chosen to construct this monument to advanced technology. Little as I know about the technical parameters, it seems highly unlikely to me that this monitoring station could not have been effectively sited somewhere else. And so I have to question the judgment, the sensitivity, and indeed the wilderness ethic of those whose decision it was to put this gaudy hardware precisely here.

The actions of the Forest Service are guided by protocols, rules, guidelines, and laws, many of which were probably violated in the course of installing this monitoring station. Let us consider the most important of these, the Wilderness Act itself.

Does this monitoring station—according to the letter as well as the spirit of the law—belong in designated wilderness? Two key sentences from the Wilderness Act itself should give us a pretty good idea. “A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.” This sentence, written, critiqued, rethought, and carefully rewritten by Howard Zahnizer, is considered by many to be the heart and essence of what legally designated wilderness means. And at the core of this sentence is an archaic and not well understood word: untrammelled. In Old French usage, dating back to the eleventh century, a trammel was a kind of net used to catch fish or birds. Modern dictionary equivalents for the word untrammelled include: “unimpeded,” “unrestrained,” “unencumbered,” “unlimited,” “unconfined.” By using the word untrammelled, Zahnizer gave to the Wilderness Act its overarching concept of wilderness in its essence.

In the sentence that follows this key word and concept, Zahnizer offers the wilderness manager more detailed, specific direction:

An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land without permanent improvements or human habitation which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; (2) has outstanding opportunities for solitude or a rugged, primitive, and unconfined type of outdoor recreation; (3) is of sufficient size to make practicable its preservation and use in an unimpaired condition, and (4) may also contain ecological, geological, archeological, or other features of scientific, educational, scenic, or historical value.

By this legal definition of federally managed wilderness lands, the high-tech gewgaws I encountered at Bonsai Pond clearly do not belong there. I knew that to be true the moment I saw them, feeling, as I did, their presence as a wrench in my gut—laws, regulation, and policy aside. Yes, there can be little doubt that this four-part monitoring station is against the law, as written. But laws can be circumvented, regulations bent, policy suspended or waived. Which, I am sure, is how this monitoring station got here in the first place.

A decision was made and was signed off on at the various levels of Forest Service bureaucracy: District level, Forest level, even, perhaps, at the Regional level. Administrators all along the line have said it was okay to break the law in this very special case. It is futile, therefore, to argue against this affront to wilderness on purely legalistic grounds. The law is clear. Wilderness is to be “managed so as to preserve its natural conditions... with the imprint of man’s work substantially unnoticeable.” But the law can be got around, has been got around. Instead of looking at legalities, then, and trying to split the hairs of definition, it might be more profitable to look at what is

behind the law, what it is in the human spirit or the human condition that prompted the writing of such a law in the first place.

Over the years, in my job as Wilderness Ranger, I have been called upon to talk to a number of wilderness groups about what wilderness means. I have never said exactly the same thing twice, but I notice that certain elements recur, including a three-part historical perspective. Usually I begin with the year 1964, when the Wilderness Act became law, and note how there was something in the culture then which made possible the setting aside of hundreds of square miles of land, protecting it as designated wilderness. Part of that something was the certainty that soon there would be no wildlands left.

From here I like to shift the historical perspective back to the time of Lewis and Clark and describe what the Wild West looked like then, with its diverse intact ecosystems, its pristine free-flowing rivers—the whole vast landscape vital and teeming with wildlife.

Then I shift the perspective again, going back not just forty years, or two hundred, but to the time before agriculture and settled communities, to when we were hunters and gatherers, living in small nomadic bands, living in nature every day of our lives. This was the natural condition of the human being, all human beings, for tens of thousands of years. Living in nature's landscapes, in tune with nature's rhythms, open to (but also vulnerable to) nature's very substantial powers. This was the human condition, the human life-way, for a good deal longer than the urban, high-tech, alienated way we live now. It is in our genes, our collective unconscious, in the very marrow and sinew of our bodies. That is why so many of us feel the call to connect with raw, wild nature, because, in the process, we connect to our truer, deeper selves. The wilderness experience can re-create for us the condition man was born to, can reawaken dormant senses and responses, and give us the profound sensation of being more fully alive.

It was for just such a heightened experience that I was saving Bonsai Pond. With the changes made to the rim-rock landscape overlooking this Zen-like setting, something critical changed in my own inner landscape. I could never feel at ease here, never open up to my deeper sensitivities under the gaze of this alien presence. And even if I could ignore the high-tech clutter, there would always be the threat from the sky. I could not but wonder if this was to be the day of the helicopter, the day when a crew was ferried in to check on the station and steal, utterly, the spirit of this place.

The betrayal of that special place was for me a great personal loss; but, in its implications, it was much more. Wilderness has standing in the collective American mind, something like what Wallace Stegner has called "the geography of hope." The loss of a place like Bonsai Pond goes beyond the diminishment of physical wilderness; it diminishes, and does damage to, the idea of wilderness. While the planet has lost one more special place, the human psyche has lost even more: a last best place of refuge. In this process, a diminished interior landscape is the legacy for us all.

Gary Gripp was a wilderness ranger in Oregon's High Cascades for 17 years, giving him many winters off to read and think and write. He blogs now at www.wildearthman.com.

Chapter 6 . A World of Lions

Lions (*Panthera leo*) are arguably the most iconic species alive today. A staple among African megafauna, lions are loved around the world for their grace and prowess, often featured as a symbol of power and leadership in many human cultures, and are prominent in countless stories and works of art. As apex predators and keystone species, they are also crucial in maintaining populations of large herbivores such as zebras, buffalo, and different antelope species.¹ However, a major misconception today is that lions are an exclusively African species. While lions originally evolved in Africa and are most common on that continent today, they once inhabited every continent except for Australia and Antarctica as recently as 11,000 BC, making them the most widespread terrestrial mammal at the time². And while lions may no longer inhabit these regions, they still endure within the human cultures that they inspired, and are missed in the ecosystems they left behind.

The genus *Panthera* originated in Asia during the late Pliocene epoch, which resulted in the divergence of the big cats, with the ancestors of tigers and snow leopards remaining in Asia while the ancestors of leopards, jaguars, and lions migrated west towards Europe and Africa.³ In Africa, lions and leopards began to take their current forms. While leopards were similar to other cats in their morphology and behavior, lions were unique not only for their larger size, but also for their social behavior, a rare phenomenon among wild cats. Their lifestyle of living in groups enabled them to take on larger prey, live in larger territories, and raise their young with higher survival rates, allowing them to dominate most environments that they encountered^[25] (lions are usually absent from tropical rainforests, making the expression “king of the jungle” a bit of a misnomer.^[26] These cats eventually made their way out of Africa and entered Europe and Asia, where they evolved into larger forms (possibly in response to colder climates), and where they preyed upon a new assortment of species, including reindeer, horses, and aurochs (the wild predecessor to most domestic cattle breeds). Lions were not the only large predators to thrive in prehistoric Europe. In addition to contemporary carnivores such as wolves, brown bears, and lynx and wolverines, other large carnivores also prowled the ancient European landscapes, including cave hyenas (an extinct subspecies of the extant African spotted hyena), leopards, as well

¹ Faarlund originally writes this as ‘Free Nature,’ which accents what to him is the most desirable quality of wildness. — ed.

² J. Major, “1981 climate change Predictions Were Eerily Accurate,” io9 (16 Aug. 2012). <http://io9.com/5899907/1981-climate-change-predictions-were-eerily-accurate>.

³ The Oligocene was the third epoch of the Paleogene period, extending from 33.9 to 23

as extinct taxa such as *Homotherium* and the Eurasian cave bear (*Ursus spelaeus*). As the glacial cycles of the Pleistocene progressed, these species became a part of the mammoth steppe, a massive grassland ecosystem that stretched from Britain, across Eurasia and Beringia[27], all the way into the Yukon. This massive biome, which has since been replaced by boreal forests and tundra, supported large populations of big herbivores, including woolly mammoths, woolly rhinoceroses, bison, musk ox, Irish elk (*Megaloceros giganteus*), and many other species both living and extinct.

During glacial maximums when sea levels were low, lions traversed their way into North America, where they evolved into their largest form, the American lion (*Panthera leo atrox*). Weighing up to 351 kilograms, 2.5 meters in length (not including the tail), and up to 1.2 meters tall at the shoulder, the American lion was one of the largest felines to ever exist, and was approximately the same size as *Smilodon populator*, the contemporary South American saber tooth cat.⁴ While people view lions as a tropical species today, it is evident that in prehistoric times they, like brown rats or ospreys, had a cosmopolitan distribution, meaning that they were present in almost all of the earth's terrestrial environments, and were not restricted to any one ecosystem or biome. However, another African species, us modern humans, were quick to eliminate lions in much of their territory. It's unlikely that humans directly preyed upon lions (other than for possible ceremonial reasons, as the Massai people of east Africa used to do,⁵ but modern humans, with their newly developed hunting technologies, were able to decimate populations of many large herbivores, especially in the Americas where most megaherbivores became extinct following the arrival of humans. Without suitable prey populations to sustain them, lions soon became extinct in the Americas, northern Europe, and Siberia.[30] However, in regions where species had already adapted to other hominids, such as the neanderthals or *homo erectus*, and where local species of megafauna had gone extinct more gradually, humans reflected their view of lions in their art. Eurasian cave lions (*Panthera leo spelaea*) are depicted on the walls of Chauvet[<http://www.thewildernist.org/2015/06/prehistoric-art-imagined-and-real/>][cave in southern France,] in a scene where some researchers believe they are hunting⁶. Another example of the adoration that humans held for lions is seen in the lion man of the Hohlenstein stadel, a sculpture carved from mammoth ivory from approximately 40,000 years ago, depicting a lion-human hybrid, and is the oldest known animal carving in the world.⁷

Despite their disappearances from the Americas and much of Eurasia during the Pleistocene epoch, lions were still widespread inside and outside of Africa during much

⁴ Pilkey and Pilkey-Jarvis, *Useless Arithmetic: Why Environmental Scientists Can't Predict the Future*, 101.

⁵ Pilkey and Pilkey-Jarvis, *Useless Arithmetic: Why Environmental Scientists Can't Predict the Future*, 107.

⁶ C. Perrow, *Normal Accidents: Living With High-Risk Technologies* (Princeton, NJ: Princeton University Press, 1999), p. 28.

⁷ V. Smil, "Global Energy: The Latest infatuations," *American Scientist* 99, no. 3 (2011): 212–19.

of the Holocene and in historical times. Lions were still present in Spain during the early Holocene, and were present in Ukraine as recently as 3,000 BC. Lions were especially common in Greece for thousands of years, and became a cultural icon in antiquity, featured prominently in the folklore and mythology in the region. However, as a result of a growing human population and increasingly complex society, lions were persecuted both for sport and for the protection of livestock. Lions disappeared from Europe by 100 ad, and with them a once-integral part of European nature[33]. Over the following centuries, lions disappeared from more and more areas. Lions were no longer present in the Caucasus until the 10th century, and had vanished from Turkey and Syria by the mid-19th century. The last lions of North Africa disappeared by the 1940s, and lions had been eradicated from Iran by the 1940s.⁸ In India, where lions were once widespread, heavy hunting pressure following British colonization led to the depletion of lions around the country until just a single population remained in the Gir national forest. This population represents the last population of wild lions outside of Africa, although their numbers are on the increase[35]. The species hasn't fared well in Africa either. Lions are now critically endangered in west Africa⁹, and remain at risk and in decline in much of eastern Africa where they are persecuted for their attacks on livestock, either through direct killings, or through the poisoning of animal carcasses that they feed on, which also damages populations of many other carnivorous animals.¹⁰ They are also overhunted by wealthy foreigners and poached for traditional medicines in certain African and Asian markets.

Possibly as few as 20,000 lions are left in the wild, down from the estimated 450,000 individuals in the 1940s.¹¹ However, lions as a species are still listed as vulnerable by the international union for the conservation of nature (IUCN), and there is reason to be optimistic for the future of lions. Conservation successes[<http://www.thewildernist.org/2015/07/interview-with-doug-peacock/>][in southern African countries] like Namibia, Botswana, and South Africa have allowed lion populations to increase[39], and as more people begin to realize the ecological and cultural importance of the animals, some societies have begun to change their ways to accommodate them, such as the recent decision to reintroduce lions to Rwanda[40], or the changes made by the Massai people of Kenya and Tanzania, who once hunted lions as a way to prove masculinity, but now have devoted much of their time to protecting lions[41].

⁸ c. Sullivan and climateWire, "Human Population Growth creeps Back Up," *Scientific American* (June 14, 2013). <http://www.scientificamerican.com/article.cfm?id=human-population-growth-creeps-back-up&print=true>.

⁹ Kropotkin's general idea from his book *Mutual Aid* —that cooperation is a factor in evolution— has long been accepted by evolutionary biologists. The concept in evolution is even called "mutualism"! However, Kropotkin's book is justifiably rejected. His anarchist ideology clearly biased his work, his evidence and examples were not very good, and his understanding of Darwin's ideas was lacking.

¹⁰ E. M. Forster, "The Machine Stops" (1909) in *The Collected Tales of E. M. Forster* (New York: Modern Library, 1968), 14497.

¹¹ W. Berry, *The Unsettling of America* (San Francisco: Sierra Club Books, 1977), 56.

While it is undoubtedly important to conserve lions in their current ranges, is it right for us humans to only allow them to inhabit a fraction of the range that they lived in during the Pleistocene? Those who advocate for Pleistocene rewilding believe that species such as lions should be reintroduced to their prehistoric ranges, not only as a conservation strategy for that species, but also to help restore ecological processes that went missing after that species disappeared. A compelling case for restoring lions in North America would be to control populations of feral horses. Horses, which were reintroduced approximately 500 years ago after being extinct in North America for thousands of years, are known to aid grass seed dispersal and to increase the diversity of native grass species, but when their populations are too robust, they can cause soil compaction, which can lead to erosion[42]. Lions, which naturally prey upon equids such as zebras and wild asses in Africa, would play an important role in regulating the populations of horses and other large ungulates[43]. However, given public attitudes toward the reintroductions of large native predators, such as wolves or grizzly bears, it is unlikely that this will happen in the near future.

Despite the dismal outlook in North America, the situation in Europe may be more suitable. Despite being a smaller continent with a larger population than North America, the natural setting in Europe has rebounded in recent years due to a mass migration of people from rural areas to urban areas, allowing many species to reclaim their prior territories. Populations of moose, red deer, and other large ungulates have expanded. Multiple organizations have reintroduced wild horses, European bison, and wild cattle to national parks and wild areas throughout Europe, and strict protections for carnivorous animals have allowed animals such as brown bears, wolves, and lynx and wolverines to reclaim their old territories¹². In some areas, species that have not inhabited Europe since prehistoric times have been reintroduced, including fallow deer, musk oxen, and water buffalo, and are now considered part of the natural setting. As it stands, there are even tentative (albeit controversial) plans to restore lions to the Far North of Siberia[45]. Given that lions disappeared from Europe much later than some other taxa currently being restored, and that many of its old prey species are extant in Europe, there is a compelling argument for its return.

While there are potential ecological benefits to restoring lions outside of their current and historical ranges, there is also a feeling of wonder that comes with the prospect of doing so. Lions, with all of their grandeur, are an irreplaceable part of nature, and embody the spirit of wilderness itself. So while us humans may have forgotten about them, we still very much live in a world of lions.

James Lee is conservation biology major at SUNY ESF and staff member for The Wildernist.

¹² The Last Glacial Maximum is a geological time-period when glaciers were thickest and the sea level at its lowest. Deglaciation at the end of this time period caused profound changes on the earth's geography and climate. See Clark, Peter U., et al. "The last glacial maximum." *Science* 325.5941 (2009): 710-714.

Chapter 7 . The Ecological Effects of Roads

Editor's note: This essay by Dr. Reed Noss was originally written in the 90s. As such, some information is outdated, but much of it is still accurate, and the general principles still stand. Just a few months ago, a study reported that 70% of the world's forests are within a kilometer of a road edge—the place where roads cause some of their worst destruction. Roads are, in other words, just another example of some of the great consequences of industry. Are they worth it?

destroy both the rainforest and the indigenous cultures. Public land-managing agencies build thousands of miles of roads each year to support their resource extraction activities, at a net cost to the taxpayer. The US Forest Service alone plans to build or reconstruct almost 600,000 miles of roads in the next 50 years. Most public agencies disregard the ecological impacts of roads and attempt to justify timber roads as benefiting recreation and wildlife management. Even when a land manager recognizes the desirability of closing roads, he or she usually contends that such closures would be unacceptable to the public.

This article will review some ecological effects of roads, with emphasis on impacts to wildlife (broadly defined). My concern is with all roads, from primitive logging roads to four-lane highways. Although the effects of different types of roads vary, virtually all are bad, and the net effect of all roads is nothing short of catastrophic. The technical literature that pertains to this topic is vast, and an entire book would be needed to summarize it adequately. Consider this only an introduction, or an “executive summary” of a massive tragedy.

Direct effects, such as flattened fauna, are easy to see. In contrast, many indirect effects of roads are cumulative and involve changes in community structure and ecological processes that are not well understood. Yet, these long-term effects signal a deterioration in ecosystems that far surpasses in importance the visual and olfactory insult to us of a bloated deer by the roadside.

Direct Effects

Roadkills

The above statement notwithstanding, roadkill can have a significant impact on wildlife populations. The Humane Society of the US and the Urban Wildlife Research

Center have arrived at a conservative figure of one million animals killed each day on highways in the United States. When I-75 was completed through a major deer wintering area in northern Michigan, deer road mortality increased by 500%. In Pennsylvania, 26,180 deer and 90 bears were killed by vehicles in 1985. These statistics do not account for animals that crawl off the road to die after being hit. Also, roadkill statistics are invariably biased toward mammals, against reptiles, amphibians, and probably birds, and do not include invertebrates at all (who wants to count the insects smashed on windshields and grills?).

Vehicles on high-speed highways pose the greatest threat to wildlife. Unpaved roads, particularly when “unimproved,” are less dangerous. Roadkill usually increases with volume of traffic. In one Texas study, however, mortality was greatest on roads with intermediate volumes, presumably because higher-volume roads had wider rights-of-way that allowed better visibility for animals and drivers alike. Increases in traffic volume do result in more collisions on any given road, and in our profligate society more people means more cars on virtually every road.

Florida is a rapidly-developing state with more than 1000 new human residents each day and over 50 million tourists annually. Primary and interstate highway mileage has increased by 4.6 miles per day for the last 50 years. Hence it is no surprise that roadkills are the leading known cause of death for all large mammals except white-tailed deer. Roadkills of Florida black bear, a subspecies listed as threatened by the state, have been rising sharply in recent years, from 2–3 per year in the 1970s to 44 in 1989. Many of the bears are killed on roads through public lands, in particular the Ocala National Forest. Seventeen Florida panthers, one of the most endangered subspecies of mammals in the world, are known to have been killed on roads since 1972. Since 1981, 65% of documented Florida panther deaths have been roadkills, and the population of only about 20 individuals is unlikely to be able to sustain this pressure. An average of 41 Key Deer, a species listed as Endangered by the U.S. Fish and Wildlife Service, were killed on roads yearly from 1980 through 1986, and 57 were killed in 1987. Roadkill is also the leading cause of mortality for the American crocodile, also an endangered species, in south Florida. The Florida scrub jay, a threatened species, has been found to suffer considerable mortality from collision with vehicles, and researchers have concluded that these birds cannot maintain stable populations along roads with considerable high-speed traffic.

Snakes are particularly vulnerable to roadkill, as the warm asphalt attracts them; yet their carcasses are seldom tallied. Herpetologists have noted dramatic declines of snakes in Paynes Prairie State Preserve near Gainesville, Florida, which is crossed by two four-lane highways. This preserve was once legendary for its diversity and density of snakes, but no more. Similarly, a study of south Florida herpetofauna by Wilson and Porras attributed declines in many snakes to the increasing road traffic in that region.

Roadkill is a classic death-trap phenomenon. Animals are attracted to roads for a variety of reasons, often to their demise. Snakes and other ectotherms go there to bask,

some birds use roadside gravel to aid their digestion of seeds, mammals go to eat de-icing salts, deer and other browsing herbivores are attracted to the dense vegetation of roadside edge, rodents proliferate in the artificial grasslands of road verges, and many large mammals find roads to be efficient travelways. Songbirds come to dust bathe on dirt roads, where they are vulnerable to vehicles as well as predators. Vultures, crows, coyotes, raccoons, and other scavengers seek out roadkills, often to become roadkills themselves.

Road Aversion and Other Behavioral Modifications

Not all animals are attracted to roads. Some have learned that roads bring unpleasant things, such as people with guns. Species that show road aversion exhibit decreasing densities toward roads. Various studies report that turkey, white-tailed deer, mule deer, elk, mountain lions, grizzly bears, and black bears avoid roads. When these animals are disturbed by vehicles, they waste valuable energy in flight. Other studies show conflicting results, which usually can be explained by differences in road use. Certain bird species also have been found to avoid roads, or the forest edges associated with roads. In the Netherlands, researchers found some bird species to be displaced up to 2000 meters from busy highways.

The American elk is one of the best-studied species with respect to road aversion. Elk avoidance of roads is clearly a learned response (they do not avoid natural edges), and is related to traffic volume and hunting pressure. In western Montana, Jack Lyon found that elk avoid areas within 1/4-1/2 mile of roads, depending on traffic, road quality, and the density of cover near the road. According to work by Jack Thomas in Oregon, a road density of one mile per square mile of land results in a 25% reduction in habitat use by elk; two miles of road per square mile can cut elk habitat use by half. As road density increases to six miles of road per square mile, elk and mule deer habitat use falls to zero. Elk in some areas have learned that roads are dangerous only in the hunting season, and do not show road aversion in other seasons. Other studies suggest that elk avoid open roads, but not closed roads. Where hunting pressure is high, however, even closed roads may be avoided because so many hunters walk them.

Grizzly bears also may be displaced by roads. In British Columbia, grizzlies were found to avoid areas within 1/2 mile of roads. A study in the Cabinet Mountains of northwestern Montana determined that the mean distance of grizzly radiotelemetry signals from open roads (2467 m) was significantly greater than the mean distance from closed roads (740 m). Other studies have found that grizzlies avoid areas near roads, especially by day, even when preferred habitat and forage are located there. This is particularly alarming, because in Yellowstone National Park, which has the second largest grizzly population in the lower 48, roads and developments are situated in the most productive grizzly bear habitat. Natural movements of grizzly bears may also be deflected by roads, as Chuck Jonkel has documented in Montana. In other cases, however, grizzlies may use roads as travelways, particularly when they find off-road travel difficult due to dense brush or logging slash. Grizzlies have also learned to exploit the hastened growth of forage plants near roads in spring. Similarly, the abundance

of soft mast such as pokeberry and blackberry along road edges attracts Appalachian black bears in summer. Any advantages associated with roads for either bear species are outweighed by the increase in sometimes fatal (usually for the bear, unfortunately) encounters with humans.

Wild animals can become habituated to roads. Thirty years ago, for example, bears in Yellowstone, the Great Smokies, and other parks often sat along the roadsides and picnic areas waiting for handouts from tourists. When parks disallowed handouts and relocated habituated bears, the attraction subsided. In any area where animals are exposed to frequent human activity, habituation can

be expected. This is not necessarily a desirable response, however. Although animals that are acclimated to roads and vehicles do not waste energy reserves in flight response, some of them become aggressive toward people. Aggressive behavior of habituated animals has been noted in bears, mule deer, elk, bighorn sheep, bison, and other species. Conflicts occur most often when humans approach animals closely in order to feed or photograph them. A few years ago in the Smoky Mountains, a bear reportedly chomped on a baby's face when a parent held it close for a kissing photo—the baby's cheek had been smeared with honey. Such encounters usually result in relocation or killing of the “problem” animals, though the real problem is human stupidity. Studies of grizzly bears in Montana and British Columbia have found that bears habituated to human activity, especially moving vehicles, are more vulnerable to legal and illegal shooting.

Fragmentation and Isolation of Populations

Some species of animals simply refuse to cross barriers as wide as a road. For these species, a road effectively cuts the population in half. A network of roads fragments the population further. The remaining, small populations are then vulnerable to all the problems associated with rarity: genetic deterioration from inbreeding and random drift in gene frequencies, environmental catastrophes, fluctuations in habitat conditions, and demographic stochasticity (i.e., chance variation in age and sex ratios). Thus, roads contribute to what many conservation biologists consider the major threat to biological diversity: habitat fragmentation. Such fragmentation may be especially ominous in the face of rapid climate change. If organisms are prevented from migrating to track shifting climatic conditions, and cannot adapt quickly enough because of limited genetic variation, then extinction is inevitable.

Related Articles Our Primal Future: Some Thoughts in a Time of Droughts, Fires and Storms, David Gessner A Special Place and How It was Lost, Gary Gripp Interview with Doug Peacock, John Jacobi and Doug Peacock Interview with Dave Foreman, David Skrbina et al. In one of the first studies on habitat isolation by roads, D.J. Oxley and co-workers in southeastern Ontario and Quebec found that small forest mammals such as the eastern chipmunk, gray squirrel, and white-footed mouse rarely ventured onto road surfaces when the distance between forest margins (road clearance) exceeded 20 meters. The authors suggested that divided highways with a clearance of 90 meters or more may be as effective barriers to the dispersal of small mammals as water bodies twice as wide. Earlier work in Africa had shown that tortoises, and young

ostrich, warthogs, and African elephants, had difficulty crossing roads with steep embankments. In Germany, Mader found that several species of woodland carabid beetles and two species of forest-dwelling mice rarely or never crossed two-lane roads. Even a small, unpaved forest road closed to public traffic constituted a barrier. All of these animals were physically capable of crossing roads, but appeared to be psychologically constrained from venturing into such openings. In Ontario, Merriam and co-workers found that narrow gravel roads were "quantitative barriers" to white-footed mice in forest fragments; many fewer mice crossed roads than moved an equal distance in the forest alongside roads.

In forests, a road clearance constitutes an obviously contrasting habitat. One might expect that the barrier effect of roads would be less severe in more open habitats, where the contrast between the road and adjoining habitat is less. Yet, a study by Garland and Bradley of the effects of a four-lane highway on rodents in the Mojave Desert found that rodents almost never crossed the road. Of eight species captured, marked, and recaptured, only an adult male antelope ground squirrel crossed the entire highway. No roadkills were observed, suggesting that few rodents ever ventured onto the highway.

Animals far more mobile than rodents and beetles may hesitate to cross roads. In the southern Appalachians, Brody and Pelton found that radio-collared black bears almost never crossed an interstate highway. In general, the frequency at which bears crossed roads varied inversely with traffic volume. Bears appeared to react to increasing road densities by shifting their home ranges to areas of lower road density. The power of flight may not override the barrier effect of roads for some bird species. Many tropical forest birds are known to be averse to crossing water gaps no wider than a highway. Further research is needed to determine if these species react to road clearings as they do to water gaps.

Thus, populations of many animal species divided by a heavily traveled road may be just as isolated from one another as if they were separated by many miles of barren urban or agricultural land. Larry Harris and Peter Gallagher, writing in a recent *Defenders of Wildlife* publication on habitat corridors ("Preserving Communities & Corridors" available from Defenders, 1244 19th St. NW, Washington, DC 20036; \$10 each), put the road fragmentation problem into proper perspective: "Consider this triple jeopardy: At the same time that development reduces the total amount of habitat, squeezing remaining wildlife into smaller and more isolated patches, the high-speed traffic of larger and wider highways eliminates more and more of the remaining populations." To the extent that various plant species depend on road-averse animals for dispersal, roads fragment plant populations as well.

Pollution

Pollution from roads begins with construction. An immediate impact is noise from construction equipment, and noise remains a problem along highways with heavy traffic. Animals respond to noise pollution by altering activity patterns, and with an increase in heart rate and production of stress hormones. Sometimes animals become habituated

to increased noise levels, and apparently resume normal activity. But birds and other wildlife that communicate by auditory signals may be at a disadvantage near roads. Highway noise can also disrupt territory establishment and defense. A study by Andrew Barrass found that toads and treefrogs showed abnormal reproductive behavior in response to highway noise.

Vehicles emit a variety of pollutants, including heavy metals, carbon dioxide, and carbon monoxide, all of which may have serious cumulative effects. Combustion of gasoline containing tetraethyl lead, and wear of tires containing lead oxide, result in lead contamination of roadsides. Although unleaded gasoline now accounts for more than half of all gasoline used in the US, lead persists in soils and the food web for long periods. In Kansas, lead levels in roadside soils and vegetation in the early 1980s were two to three times greater than from near roads with similar traffic volumes in 1973 and 1974, when the use of unleaded gasoline was 42% lower.

Many studies have documented increasing levels of lead in plants with proximity to roads, and with increases in traffic volume. Plant roots take up lead from the soil, and leaves take it from contaminated air or from particulate matter on the leaf surface. This lead moves up the food chain, with sometimes severe toxic effects on animals, including reproductive impairment, renal abnormalities, and increased mortality rates. Food chain effects can switch between aquatic and terrestrial pathways. Lead concentrations in tadpoles living near highways can be high enough to cause physiological and reproductive impairment in birds and mammals that prey on tadpoles.

Less is known about the effects of other heavy metals, such as zinc, cadmium, and nickel. Motor oil and tires contain zinc and cadmium: motor oil and gasoline contain nickel. These metals, like lead, have been found to increase with proximity to roads, and with increasing traffic volume and decreasing soil depth. Earthworms have been found to accumulate all these metals, in concentrations high enough to kill earthworm-eating animals. These roadside contaminants can be carried far from roads by wind and water. Lead contamination has been noted up to 100 miles from the nearest metropolitan area.

The maintenance of roads and roadsides also introduces a variety of pollutants into roadside ecosystems. Americans like their roads free of ice and dust, and their roadsides free of weeds. The effects of herbicides on wildlife and ecosystems have been poorly studied, but anyone who has witnessed the destruction of wildflowers and other plants along roadsides (even through parks) for the sake of tidiness has cause to complain.

Highway de-icing programs are notorious sources of saline pollution. In the early 1970s, it was estimated that 9–10 million tons of sodium chloride, 11 million tons of abrasives, and 30,000 tons of calcium chloride were used in the US each year for highway de-icing. As noted above, many animals are attracted to this salt and end up as roadkills or at least get a dose of the salt's toxic additives, including cyanide compounds. Drainage of salt-laden water from roads into aquatic ecosystems may stimulate growth of blue-green algae; the chloride concentration of major water bodies near urban areas has been found to increase by as much as 500%. Furthermore, sodium

and calcium ion exchange with mercury releases toxic mercury into these systems. The cyanide ions from rust-inhibiting additives are extremely toxic to fish.

In many rural areas, waste oil from crankcases is sprayed onto unpaved roads for dust control. A 1974 study estimated that some 100 million gallons of waste oil are sprayed on dirt roads in the US each year. Only about 19% of this oil remains in the top inch of a road surface. Much of it reaches water bodies, where it coats the surface, limiting oxygen exchange and sunlight penetration and having toxic effects on aquatic organisms.

Impacts on Terrestrial Habitats

The impacts of roads on terrestrial ecosystems include direct habitat loss; facilitated invasion of weeds, pests, and pathogens, many of which are exotic (alien); and a variety of edge effects. Roads themselves essentially preempt wildlife habitat. A 1976 report by the Council on Environmental Quality estimated that one mile of interstate highway consumes up to 48 acres of habitat. Logging roads result in the clearing of about 50 acres for each square mile of commercial forest (i.e., 10 acres are deforested for every mile of road, and each square mile of forest averages 5 miles of road). Road construction also kills animals and plants directly, and may limit long-term site productivity of roadsides by exposing low nutrient subsoils, reducing soil water holding capacity, and compacting surface materials. It also makes slopes more vulnerable to landslides and erosion, which in turn remove additional terrestrial wildlife habitat and degrade aquatic habitats.

Some species thrive on roadsides, but most of these are weedy species. In the Great Basin, rabbitbrush is usually more abundant and vigorous along hardsurfaced roads than anywhere else, because it takes advantage of the runoff water channeled to the shoulders. Although certainly attractive, the common rabbitbrush species are in no danger of decline, as they invade disturbed areas such as abandoned farmsteads and fence rows, and are considered an indicator of overgrazing. In the Mojave Desert, creosote bush is another abundant species that opportunistically exploits the increased moisture levels along roadsides.

Many of the weedy plants that dominate and disperse along roadsides are exotics. In some cases, these species spread from roadsides into adjacent native communities. In much of the west, spotted knapweed has become a serious agricultural pest. This Eurasian weed invades native communities from roadsides, as does the noxious tansy ragwort. In Florida, a state plagued by exotic plants, one of the biggest offenders is Brazilian pepper. This tall, fast-growing shrub readily colonizes roadside habitats. When soil in adjacent native habitats is disturbed by off-road vehicles, Brazilian pepper invades. Invasion by Brazilian pepper and other roadside exotics is becoming a serious problem in the Atlantic coastal scrubs of south Florida, communities endemic to Florida and containing many rare species. Another invasive exotic, *Melaleuca*, is expanding from roadsides and dominating south Florida wetlands. In southwest Oregon and northwest California, an apparently introduced root-rot fungus is spreading from logging roads and eliminating populations of the endemic Port Orford cedar.

Opportunistic animal species also may benefit from roads. Grassland rodents, for example, sometimes extend their ranges by dispersing along highway verges. In 1941, L.M. Huey documented a range extension of pocket gophers along a new road in the arid Southwest. Meadow voles have been found to colonize new areas by dispersing along the grassy rights-of-way (ROWs) of interstate highways. Roads also facilitate dispersal of prairie dogs. In 1983, Adams and Geis reported that more species of rodents may be found in highway ROWs than in adjacent habitats, though several species avoid ROW habitat. Birds associated with grassland or edge habitat, such as the European starling, brewer's and red-winged blackbirds, brown-headed cowbird, indigo bunting, white-throated sparrow, song sparrow, and killdeer, all have been found to increase in abundance near roads. Cliff and barn swallows, starlings, house sparrows, and rock doves (the latter three are exotic species in North America) often nest and roost in highway bridges. Many species of birds and mammals feed on roadkill carrion.

Some people claim that increases in grassland, edge, and other opportunistic species near roads constitute a benefit of roads. But increased density near roads may not be favorable for the animals involved, if the road exposes them to higher mortality from heavy metal poisoning or collision with vehicles. In this sense, a road can be an "ecological trap" and a "mortality sink" for animal populations. Furthermore, the species that may benefit from roads are primarily those that tolerate or even thrive on human disturbance of natural landscapes, and therefore do not need attention from conservationists (except occasional control). Many of these weedy species are exotic, and have detrimental effects on native species.

Edge effects, once considered favorable for wildlife because many game species (e.g., white-tailed deer, eastern cottontail, northern bobwhite) are edge-adapted, are now seen as one of the most harmful consequences of habitat fragmentation. Especially when it cuts through an intact forest, a road introduces a long swath of edge habitat. Forest edge is not a line, but rather a zone of influence that varies in width depending on what is measured. Changes in microclimate, increased blowdowns, and other impacts on vegetation may extend 2–3 tree-heights into a closed-canopy forest. Shade-intolerant plants, many of them exotic weeds, colonize the edge and gradually invade openings in the forest interior. Dan Janzen found weedy plant species invading treefall gaps in a Costa Rican forest up to 5 kilometers from the forest edge. Changes in vegetation structure and composition from edge effects can be more persistent than effects of clearcutting, from which at least some forest types will eventually recover, if left alone.

The brown-headed cowbird, originally abundant in the Great Plains but now throughout most of North America because of forest fragmentation, is known to penetrate forests at least 200 meters from edge. The cowbird is a brood parasite that lays its eggs in the nests of other bird species and can significantly reduce the reproductive success of its hosts. Forest birds, most of which did not evolve with the cowbird and are now well adapted to its parasitism, may show serious declines in areas where cowbirds have become common. In addition, many opportunistic nest predators, such as jays, crows, raccoons, and opossums, are common in roadside

environments (partially because of supplemental food in the form of carrion) and often concentrate their predatory activities near edges. Increases in nest predation from these opportunities can extend up to 600 meters from an edge, as shown by David Wilcove using artificial nest experiments.

A narrow logging road with no maintained verge would not be expected to generate substantial edge effects, particularly if surrounded by a tall forest canopy. In this sense, the road would not differ much from a hiking trail (even trails create some edge effects, however, such as invasion of weedy plants caused by pant-legs dispersal). As forest roads are "improved," road clearance increases and allows more penetration of sunlight and wind. Edge species are then attracted to these openings. Two-lane roads with maintained rights-of-way and all interstate highways are lined by edge habitat. A forest criss-crossed by improved roads may be largely edge habitat, and its value for conservation of native flora and fauna diminished accordingly.

Impacts on Hydrology and Aquatic Habitats

Road construction alters the hydrology of watersheds through changes in water quantity and quality, stream channel morphology, and ground water levels. Paved roads increase the amount of impervious surface in a watershed, resulting in substantial increases in peak runoff and storm discharges. That usually means flooding downstream. Reduced evapotranspiration within road rightsof-way may also result in increased runoff and streamflows. However, increases in streamflows in forested watersheds are not usually significant unless 15% or more of the forest cover is removed by road construction and associated activities such as logging.

When a road bed is raised above the surrounding land surface, as is normally the case, it will act as a dam and alter surface sheet flow patterns, restricting the amount of water reaching downstream areas. Mike Duever and co-workers found this to be a significant problem in the Big Cypress-Everglades ecosystem of south Florida. Ditches dug for road drainage often drain adjacent wetlands as well. The US Fish and Wildlife Service, in 1962, estimated that 99,292 acres of wetlands in western Minnesota had been drained as a result of highway construction. This drainage occurred at a rate of 2.33, 2.62, and 4.10 acres of wetland per mile of road for state and federal, county, and township highways, respectively.

Roads concentrate surface water flows, which in turn increases erosion. Megahan and Kidd, in 1972, found that erosion from logging roads in Idaho was 220 times greater than erosion from undisturbed sites. Logging roads used by more than 16 trucks per day may produce 130 times more sediment than do roads used only by passenger cars. Incision of a slope by roadcuts in mountainous areas may intercept subsurface flow zones, converting subsurface flow to surface flow and increasing streamflow rates. Water tables are almost always lowered in the vicinity of a road.

Where a road crosses a stream, engineers usually divert, channelize, or otherwise alter the stream channel. Culverts and bridges alter flow patterns and can restrict passage of fish. Channelization removes natural diverse substrate materials, increases sediment loads, creates a shifting bed load inimical to bottomdwelling organisms, simplifies cur-

rent patterns, lowers the stream channel and drains adjacent wetlands, reduces the stability of banks, and exacerbates downstream flooding.

The impacts of roads on fish and fisheries have long concerned biologists. Increased erosion of terrestrial surfaces almost inevitably results in increased sedimentation of streams and other water bodies. Even the best designed roads produce sediment, and unpaved roads continue to produce sediment for as long as they remain unvegetated. A divided highway requiring exposure of 10 to 35 acres per mile during construction produces as much as 3000 tons of sediment per mile. In a study of the Scott Run Basin in Virginia, Guy and Ferguson found that highway construction contributed 85% of the sediment within the basin. The yield was 10 times that normally expected from cultivated land, 200 times that from grasslands, and 2000 times that from forest land. Studies in northwestern California show that 40% of total sediment is derived from roads and 60% from logged areas. Much of the sedimentation associated with roads occurs during mass movements (i.e., landslides) rather than chronic surface erosion. Roads dramatically increase the frequency of landslides and debris flows. Studies in Oregon have found that roads trigger up to 130 times more debris torrents than intact forest.

Increased sediment loads in streams have been implicated in fish declines in many areas. A 1959 study on a Montana stream, reported by Leedy in 1975, found a 94% reduction in numbers and weight in large game fish due to sedimentation from roads. Salmonids are especially vulnerable to sedimentation because they lay their eggs in gravel and small rubble with water flow sufficient to maintain oxygen supply. Fine sediments may cement spawning gravels, impeding the construction of redds. Increases in fine sediments also reduce the availability of oxygen to eggs and increase embryo mortality. Stowell and coworkers reported that deposition of 25% fine sediments in spawning rubble or gravel reduces fry emergence by 50%. Sedimentation also has negative effects on the invertebrate food supply of many fish. Furthermore, destruction of riparian vegetation by road construction results in higher water temperatures, which reduces dissolved oxygen concentrations and increases fish oxygen demands (a “double whammy”). If the fishing public was adequately informed of the negative effects of roads on fisheries, perhaps all but the laziest would demand that most roads on public lands be closed and revegetated!

Indirect Effects

Access

The most insidious of all effects of roads is the access they provide to humans and their tools of destruction. Let’s face it, the vast majority of humans do not know how to behave in natural environments. Fearful of experiencing nature on its own terms, they bring along their chainsaws, ATVs, guns, dogs and ghettoblasters. They harass virtually every creature they meet, and leave their mark on every place they visit. The

more inaccessible we can keep our remaining wild areas to these cretins, the safer and healthier these areas will be. Those humans who respect the land are willing to walk long distances. If this is an “elitist” attitude, so be it; the health of the land demands restrictions on human access and behavior.

Many animal species decline with increasing road density precisely because roads bring humans with guns. For many large mammals, road aversion is not related to any intrinsic qualities of the road, but rather to their learned association of roads with danger. In other cases, mammals may continue to use roads because they provide convenient travelways or food supply, but are unable to maintain populations where road densities are high because of the mortality they suffer from legal or illegal hunting, or roadkill.

An historical study by Richard Thiel in northern Wisconsin, supplemented by modern radio-telemetry, showed that road density was the best predictor of gray wolf habitat suitability. As road density increased in the study area, the wolf population declined. Wolves failed to survive when road densities exceeded .93 mile per square mile (.58 km per square km). Similar studies in Michigan and Ontario by Jensen and co-workers, and in Minnesota by Mech and co-workers, found a virtually identical threshold level for the occurrence of wolves. Roads themselves do not deter wolves. In fact, wolves often use roads for easy travel or to prey on the edge-adapted white-tailed deer. But roads provide access to people who shoot, trap, or otherwise harass wolves. David Mech found that over half of all known wolf mortality was caused by humans, despite the “protection” of the Endangered Species Act.

Many other large mammal species have been found to decline with increasing road access. The Florida panther once ranged throughout the Southeast, from South Carolina through southern Tennessee into Arkansas, Louisiana and extreme eastern Texas. It is now restricted to south Florida, an area of poor deer and panther habitat, but the last large roadless area available in its range. Problems associated with roads—roadkill, development, and illegal shooting—are now driving it to extinction. A population viability analysis has determined an 85% probability of extinction in 25 years, and a mean time to extinction of 20 years. Proposed management interventions still yield 75% to 99% probabilities of extinction within 100 years.

Recently, Seminole Chief James Billie shot a panther with a shotgun from his pickup truck in the Big Cypress Swamp, ate it, and claimed this murder was a native religious ritual. Billie eventually won his case, not on religious grounds, but because taxonomists could not prove beyond all reasonable doubt that the skull found in Billie’s possession was that of a Florida panther, *Felis concolor* subspecies *coryi* (the various subspecies of cougar differ little from one another in morphology).

Biologists agree that the only hope for the panther is reestablishment of populations elsewhere within its historic range. But is there anywhere with low enough road density to be safe? The best opportunity seems to be the 1.2 million acres in and around Okefenokee National Wildlife Refuge in southern Georgia and Osceola National Forest in north Florida, recently connected by purchase of Pinhook Swamp and its transfer to

the Forest Service. Experimenters testing the feasibility of panther reintroduction in this area released five neutered and radio-collared Texas cougars, a subspecies closely related to *F.c. coryi*, into this habitat. Within a month, one cat died of unknown causes. Two more cats were killed by hunts soon thereafter. The final two cats discovered livestock (a goat pasture and an exotic game reserve), and were removed from the wild. This setback in the panther reintroduction program demonstrates that even one of the wildest areas in the southeast is still far too human-accessible for panthers to survive. Except for the wettest part of the Okefenokee Swamp, the poorest panther habitat, the area is riddled with roads and swarming with gun-toting "Crackers" and their hounds.

Other large mammals that suffer from road access include cougars (western version of *F.c.*) and grizzly bears. A radio-telemetry study in Arizona and Utah, by Van Dyke and co-workers, found that cougars avoided roads (especially paved and improved dirt roads) whenever possible, and established home ranges in areas with the lowest road densities. In southeastern British Columbia, McLellan and Mace found that a disproportionate amount of grizzly bear mortality occurred near roads. Of 11 known deaths, 7 bears were definitely shot and another 3 were probably shot from roads. Dood and co-workers found that 32% of all hunting mortality and 48% of all non-hunting mortality of grizzlies in Montana occurred within one mile of a road. Knick and Kasworm recently found that illegal shooting was the primary cause of death for grizzlies in the Selkirk and Cabinet-Yaak ecosystems, and concluded that the ability of regions to maintain viable populations of grizzly bears is related to road density and human access.

Road access imperils black bears, too. In the Southern Appalachians, Mike Pelton has estimated that bears cannot maintain viable populations when road density exceeds .8 miles of road per square mile. Later studies found that the situation is more complicated, and is related to traffic volume and other road use factors. The primary effect of roads on bears in the southern Appalachians is to expose them to increased hunting. Hunting with the aid of trained hounds is the major source of mortality for bears in this region, including within national parks and other sanctuaries, and is encouraged by the trade in bear gall bladders to the Oriental market.

The problem of road access and overhunting is often attributed to inadequacies of human ethics and law enforcement, rather than to any effect of the road themselves. But as Richard Thiel pointed out, in discussing the gray wolf in northern Wisconsin, "Ultimately, the survival of wolves will depend on a change in human attitudes. Until then road densities are important in determining whether an area can sustain a viable population of wolves." We may have to wait a long time before attitudes toward nature improve, but roads can be closed today.

Other consequences of road access include overcollecting of rare plants (e.g., cacti, orchids, and ginseng) and animals (e.g., snakes for the pet trade), the removal of snags near roadsides by firewood cutters, and increased frequency of fire ignitions. Removal of snags eliminates habitat for the many cavity-nesting and roosting birds and mammals.

In the Blue Mountains of eastern Oregon and Washington, for example, 39 bird and 23 mammal species use snags for nesting or shelter. Woodpeckers are among the cavity-nesting birds known to be critically important in dampening forest insect outbreak. Thus, snag removal along roadsides is an anthropogenic edge effect that may have far-reaching effects on entire ecosystems.

Humans are suspected to cause at least 90% of wildfires in the US, over half of which begin along roads. In 1941, Shaw and co-workers reported 78% of all anthropogenic fires occurred within 265 feet of a road. In New Jersey, the origins of 75% of all forest fires were traced to roadsides.

Although fire is a natural process with beneficial effects on many ecosystems, natural fires and anthropogenic fires differ in many ways. One important difference is frequency; anthropogenic fires may occur more frequently than the natural fire return interval for a given ecosystem type. Another important difference is seasonality. In Florida, for example, most anthropogenic fires occur in winter, whereas natural lightning fires occur in late spring and summer. Research in longleaf pine-wiregrass communities, which under natural conditions experience low-intensity ground fires at 2 to 5 year intervals, has determined that summer fires promote higher herbaceous plant diversity and flowering. Winter fires caused by humans tend to promote monotonous, shrub-dominated (e.g., saw palmetto) communities. It is a curious contradiction that the US Forest Service often justifies high road densities as necessary to provide fire control, when in fact most fires begin along roads.

Of the disturbances promoted by road access, perhaps the most devastating is development. Highways introduce pressures for commercial development of nearby land. Highway interchanges inevitably become nodes of ugly commercialism. Arterial streets encourage commercial strip development, and new rural and suburban roads bring in commercial, industrial, and residential development. Internationally funded road-building in third world countries introduces hordes of immigrants, who quickly cut and burn the native forest. In Brazilian Amazonia, Philip Fearnside reported that road development funded by the World Bank facilitates the entry of settlers whose land claims (established by clearing the forest) justify building more roads. Thus, roads and deforestation interact in a positive feedback relationship. Roads bring settlement and development which in turn call for more roads.

Cumulative Effects

So far, this article has discussed effects of roads mostly in isolation from one another. Indeed, almost all research on road problems has looked at one factor at a time, be it lead pollution, roadkill, edge effects, or access. In real ecosystems, however, these factors interact in complex ways, with long-term effects at several levels of biological organization.

To illustrate the complexity of possible impacts, consider this scenario: A network of roads is built into prime gray wolf habitat in northern hardwoods forest. Hunters flock into the area, depressing the wolf population. Some wolves are killed by vehicles. Eventually, the wolf becomes extinct in this region. In the absence of wolf predation, and with the abundance of brushy roadside edge habitat, the white-tailed deer population explodes. Fires started by humans along roadsides create even more deer habitat. Hunters and vehicles take some deer, but they cannot keep up. The burgeoning deer population overbrowses the forest, eliminating regeneration of favored eastern hemlock, arbor vitae, Canada yew, and a number of rare herbaceous plants. As a result, the floristic composition and vegetation structure of the forest gradually change. With reduced understory density due to heavy browsing, many warblers and other forest songbirds undergo serious declines. With wolves gone, opportunistic medium-sized mammals (“mesopredators”) such as opossums and raccoons increase in abundance and feed on the eggs and nestlings of songbirds, many of which nest on or near the ground, further depressing their numbers. Brown-headed cowbirds parasitize these beleaguered songbirds within 200 meters or so of road edges. Cutting of snags for firewood along the roadsides decimates cavity-nesting bird populations. Populations of insect pests now cycle with greater amplitude, resulting in massive defoliation. The roads also bring in developers, who create new residential complexes, and still more roads. Roadside pollutants from increased traffic levels poison the food chain. The original forest ecosystem has been irretrievably destroyed.

This scenario is fictitious, but every part of it has been documented somewhere.

Because many of the animal species most sensitive to roads are large predators, we can expect a cascade of secondary extinctions when these species are eliminated or greatly reduced. Recent research confirms that top predators are often “keystone species,” upon which the diversity of a large part of the community depends. When top predators are eliminated, such as through roadkill or because of increased access to hunters, opportunistic mesopredators increase in abundance, leading to declines of many songbirds and ground-dwelling reptiles and amphibians. In the tropics, predator removal can lead to an increased abundance of mammals that eat large-seeded plants, which in turn may result in changes in plant community composition and diversity (see John Terborgh’s article, “The Big Things that Run the World,” reprinted in *Earth First!*, 889).

Other keystone species may be similarly vulnerable to roads. The gopher tortoise of the southeastern US, for example, digs burrows up to 30 feet long and 15 feet deep. By a recent count, 362 species of commensal invertebrates and vertebrates have been found in its burrows, and many of them can live nowhere else. Yet, the slow-moving gopher tortoise is extremely vulnerable to roadkill on the busy highways of this high growth region. Roads also provide access to developers and poachers, the tortoise’s biggest enemies. But the effects of roads on gopher tortoises can be more subtle. Good gopher tortoise habitat is longleaf pine-wiregrass, which requires frequent summer fires to maintain its open structure. Although, as discussed above, many fires are ignited

along roadsides, the net effect of roads on this habitat has been to stop the spread of fires that once covered areas the size of several counties. Those roadside fires that do ignite are mostly winter burns, which are less effective in controlling shrub invasion. As shrubs, oaks, and other hardwoods overtake this ecosystem, they shade out the herbaceous plants upon which the herbivorous gopher tortoise depends.

The net, cumulative effect of roads is to diminish the native diversity of ecosystems everywhere. Habitats in many different places around the world are invaded by virtually the same set of cosmopolitan weeds. Regions gradually are homogenized—they lose their “character.” Every place of similar climate begins to look the same, and most ecosystems are incomplete and missing the apex of the food chain. The end result is an impoverishment of global biodiversity.

What Can Be Done

Mitigation

The traditional response of public agencies to road-wildlife conflicts, in those rare instances when they do respond, is “mitigation,” i.e., build the road but design it so as to minimize its impacts. For example, barren roadsides can be planted and stabilized by wire netting in order to reduce erosion, landslides, and sedimentation of streams. Stream culverts can be designed to minimize disruption of flow and bed morphology. New roads can be located, and existing roads relocated, outside of critical wildlife habitats (such as moist meadows, shrub fields, riparian zones, and other grizzly bear feeding areas). Speed bumps and warning signs can be installed to slow down motorists and reduce roadkill. Reflective mirrors along roadsides and hood-mounted ultrasonic whistles are devices intended to warn animals of approaching death-machines, but are still of unproven benefit.

Road rights-of-way can be managed to maximize their potential as native wildlife habitat and dispersal corridors. If wide swaths of old-growth longleaf pines are maintained along highway ROWs in the Southeast, for example, they may serve to connect isolated red-cockaded woodpecker populations. Such corridors were recommended by a committee of the American Ornithologists’ Union. Some evidence suggests that red-cockaded woodpeckers may indeed disperse along such corridors, but not across long expanses of unsuitable habitat. The management of “roadside verges” for fauna and flora has a long history in Britain, as reviewed by J.M. Way in 1977.

Undoubtedly, mitigation measures, if implemented intelligently, can reduce the harmful effects of roads on wildlife. A 1982 report by Leedy and Adams, for the US Department of Transportation and Fish and Wildlife Service, summarizes a variety of design and construction options to mitigate the effects of roads. For reducing roadkills, a combination of fencing and underpasses has proven effective in many instances. Tunnels under roads were used as early as 1958 in the United Kingdom to reduce roadkill of badgers, and have been used in several countries to reduce roadkill of amphibians

(many frogs, toads, and salamanders migrate to their breeding ponds on wet spring nights). Toad tunnels were constructed as early as 1969 in Switzerland, and have been built throughout much of the United Kingdom, West Germany, the Netherlands, and other countries under the auspices of the Fauna and Flora Preservation Society and Herpetofauna Consultants International. A private firm, ACO Polymer Products Limited, even specializes in the design and production of amphibian tunnel and fencing systems (see Defenders 10–89).

In Colorado, underpasses and deer-proof fencing were constructed on I-70, to channel movement of mule deer along a major migratory route, and have proved fairly successful. D.F. Reed and co-workers, however, found that many individual deer were reluctant to use a narrow underpass (3 meters wide and high, and 30 meters long), and recommended that underpasses be significantly wider. Biologists in various western states are experimenting with one-way gates that keep most deer off the highway but allow deer that get into the highway ROW to escape. In southeastern Australia, Mansergh and Scotts constructed a funnelshaped rocky corridor and two tunnels of .9 X 1.2 meters each beneath a road that bisected the breeding area of the rare mountain pygmy-possum (the only marsupial hibernator known). The design proved very successful in restoring natural movement and breeding behavior of the pygmy-possums. One of the more controversial applications of the underpass strategy has been in south Florida, for the sake of the Florida panther. As noted above, roadkill is the leading known cause of death for this subspecies. Thus, when an extension of I-75 through the Everglades-Big Cypress Swamp was proposed, conservationists reacted with alarm. When assured by highway and wildlife officials that the new interstate would include fences and underpasses for panthers, making it much less dangerous than the infamous panther-smashing Alligator Alley which it would replace, many conservationists (including the Florida Audubon Society and the Sierra Club) came out in support of the new road.

How effective will these underpasses be in allowing for movement of panthers and other wildlife? Eighty-four bridges are being constructed on the 49 miles of new I-75 in Collier county, 46 of them designed solely for wildlife movement. Each of these “wildlife crossings” consists of three 40-foot spans, for a total length of 120 feet with 8 feet of vertical clearance. Much of the 120 feet will be under water, however, at least in the wet season. There is no guarantee that these crossings will be functional for panthers and other large mammals. Even Thomas Barry, the project manager for the Florida Department of Transportation, admits that the ideal solution would have been to build a viaduct (elevated highway) across the entire stretch, but that this solution was deemed too expensive. As advocated by Florida Earth First!, the “ideal solution” would be to close Alligator Alley and all other roads in the Everglades-Big Cypress bioregion, and to allow no new roads. The desirability of this solution became more evident when we learned that the new I-75 will include recreational access sites for ORVs, as recommended by the Florida Game and Fresh Water Fish Commission.

The Preferred Alternative

In evaluating various mitigation options for road-wildlife problems, it must be remembered that each is a compromise, addresses only a subset of the multiple ecological impacts of roads, and is far less satisfactory than outright road closure and obliteration. The serious conservationist recognizes that mitigation options should be applied only to roads already constructed, and which will be difficult to close in the near future (i.e., major highways). In such cases, construction of viaducts over important wildlife movement corridors (as documented by roadkills) and other critical natural areas should be vigorously pursued. Amphibian tunnels and other smaller underpasses also should be constructed where needed. But the bottom line is that no new roads should be built, and most existing roads—especially on public lands—should be closed and obliterated. This is the preferred alternative!

A priority system for determining which roads should be closed first is necessary to guide conservation actions toward the most deserving targets. The Grizzly Bear Compendium (Lefranc et. al. 1987, pp. 145–46) specifies which kinds of roads should be closed on public lands to protect grizzlies: Access roads should be closed after harvesting and re-stocking, temporary roads and landings should be obliterated, collector roads and loop roads should be closed in most instances, local roads should be closed within one season after use, and seismic trails and roads should be closed after operations have ceased. Bear biologist Chuck Jonkel has long recommended an aggressive road closure program on public lands. Public education on the rationale for closures, and strong law enforcement, must accompany road closure programs if they are to be effective. The Grizzly Bear Compendium recommends that road use restrictions, such as seasonal closures of roads in areas used only seasonally by bears, be placed on roads that cannot be permanently closed.

In a series of publications, I have recommended that large core areas of public lands be managed as roadless “wilderness recovery areas” (a concept attributable to Dave Foreman). Buffer zones surrounding these core areas would have limited access for recreation and other “multiple-use” activities consistent with preservation of the core preserves. Buffer zones also would insulate the core areas from the intensive uses of the humanized landscape. These large preserve complexes would be connected by broad corridors of natural habitat to form a regional network.

As Keith Hammer has documented, however, road closures that appear on paper may not function as such on the ground. Keith found that 38% of the putative road closures on the Flathead National Forest in Montana would not bar passenger vehicles. The road miles behind the ineffective barriers represented 44% of the roads reported by the Forest Service as being closed to all motorized vehicles year-round. Gates, earthen berms, and other structures are not usually effective in restricting road use. This is especially true in more open-structured habitats, such as longleaf pine and ponderosa pine forests, where motorists can easily drive around barriers. It may be that the only effective road closures are those where the road is “ripped” and revegetated.

The Forest Service and other public agencies will claim that road closures, revegetation, and other restorative measures are too expensive to be implemented on a broad

scale. But much of the approximately \$400 million of taxpayers' money squandered annually by the Forest Service on below-cost timber sales goes to road-building. Road maintenance is also expensive. Virtually all of this money could be channeled into road closures and associated habitat restoration. This work would be labor-intensive, and providing income to the many laid off loggers, timber sale planners, and road engineers—for noble jobs, rather than jobs of destruction! Likewise, the huge budgets of federal, state, and county highway departments could be directed to road closures and revegetation, as well as viaducts and underpasses to minimize roadkill on roads kept open.

We cannot expect our public agencies to shift to a more enlightened roads policy without a fight. A lot of people make a lot of money designing and building roads, and exploiting the resources to which roads lead. Nor can we expect the slothful, ignorant populace to give up what they see as the benefits of roads (fast transportation, easy access to recreational areas, scenery without a sweat, etc.) for the sake of bears and toads. Education of the public, the politicians, and our fellow environmentalists about the multiple and far-reaching impacts of roads is critical. As Aldo Leopold noted, "recreational development is a job not of building roads into lovely country, but of building receptivity into the still unlovely human mind." The greatest near-term need is direct action in defense of existing roadless areas, and to close roads where they are causing the most problems for native biodiversity.

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Chapter 8. Interview with Doug Peacock

Like many others who care about the wilderness, I find a lot of inspiration from Ed Abbey and the gang of folks he worked with. One of those folks is Doug Peacock—the man who has such a passionate, go-get-em attitude toward wilderness that he’s actually the inspiration for Ed Abbey’s character George Hayduke in *The Monkeywrench Gang*.

I recently got a chance to talk to Peacock about his projects and his thoughts on conservation, climate change, industry and many other issues. He brought up several topics that by the end of the discussion I really wished we had had more time to explore. (For example, does wilderness really mean “no people”? And what are the benefits and drawbacks of working with natives to build big wilderness areas?) But, also by the end of the discussion, I left inspired by Peacock’s strong affirmation, repeated several times: “Wilderness,” he says, “is still our best bet.” I don’t, of course, agree with Peacock about everything, but goddamn do I agree with him on that.

—John Jacobi

So the reason why I contacted you was because of your story about[<http://www.dougpeacock.net/peacocks-war-documentary.html>][the grizzly bears,]] and as far as I understand, whenever you got back from Vietnam, the grizzly bears kind of renewed you spiritually and provided a sort of therapy. Could you explain the story?

Well it’s a long story and I wrote a whole book to tell it. The short version is when I came back from war, like many other veterans, I was really out of sorts. I couldn’t talk to anybody. Even the closest friends and family, I just was no good around people. And one place I’ve always been comfortable in my life since I was a little boy is in wild places and the wilderness. And so when I got back from Vietnam, I bought a jeep and I disappeared into the American West and into wild places. I camped out for a couple years. I scarcely had a conversation during those times. One late spring I waited for the snows to melt and then headed up to the Wind River Range to camp and explore and, after a malaria attack, which hit me on the east side of the Winds where the weather sucks, I eventually ended up in Yellowstone park.

Anyway, I wasn’t looking for grizzly bears. But in Yellowstone the bears were there, they were all around me, and within days they begin to dominate my attention. By the time the snow came, grizzlies had become the center of my psychic universe. And I kept coming back. I’d migrate down to the great desert wilderness of the southwest and then, in spring, the bears would come out of hibernation again, and I’d head north to the Northern Rockies.

To summarize the decade, as I wrote in *Grizzly Years*, “These bears saved my life.” And I think that was literally true. And in Vietnam, and other wars, there’s a notion of payback. It’s grunt language; it means when you receive a gift you find a way to pay it back, sooner or later. And in my case these bears had given me exactly what I needed, which was a way to get out of myself, a real enforced humility. When you’re living with great big grizzly bears, selfindulgence is literally impossible, and that’s a good thing.

So, I was hanging out with grizzlies both in Yellowstone and Glacier ecosystems, and I noticed that the grizzlies in Yellowstone were having a really hard time. The park service had just abruptly closed the garbage dumps, at which virtually all Yellowstone grizzlies fed, and as many as 270 grizzly bears were killed in the Yellowstone ecosystem in a five year period from 68 to 73. All that time, hidden back in the lodgepole, like the war-wounded animal that I was, I was there to watch it.

The grizzlies were having trouble and I went to war fighting for their welfare. I still am. It’s the least I could do. So today I’m fighting the delisting of the Yellowstone grizzlies by the federal government, by the Fish and Wildlife Service. And that’s one of the most important things that I’m doing right now. That effort by the feds to remove ESA protection from those grizzlies has been going on for over twenty years now. The bears certainly helped me out of a jam and this is what I had to do for them.

I really like that story. You know, my dad was in the military and he was deployed to Iraq a few times, along with some other places, Afghanistan and some other places. And my family, especially his mom, my grandmother, is worried that, even if he doesn’t say it, he’s been profoundly affected by the war. And I was wondering if you thought there was any potential for those soldiers to have a similar experience as you did with the wilderness and grizzlies.

Yes. The last two years I’ve spent about half my time working with vet groups, and in the current *Sierra* magazine there’s an article about part of that endeavor.

I’m also getting Afghani vets to go over to Namibia and work with the local guards who are trying to protect rhinos from poachers. The black rhinos are being pushed into extinction. We’ll probably lose that battle, but we’re going to fight it. And all this started with meeting up with a bunch of vets at an event that was organized by Round River Conservation Studies and the Sierra Club, which has a veteran’s outreach program. We met up down in southern Utah. The Lakota and Navajo provided healing ceremonies and sweat lodges; the veterans—and they are both men and women—most of them have some kind of disability, and perhaps not physical. Physically, they’re tough, can climb the most challenging peak you ever saw, but we’re all wounded. They’re wounded warriors and in fact, that’s what war does to everyone. And it’s not just soldiers. It’s the families of the soldiers and most of all it’s the civilians that live in those countries.

But that whole formula of going back into the wilderness to heal your wounds, it works. It’s amazing. Hemingway in his Nick Adams stories... after the war, Nick fishes his way towards the swamps of the Big Two Hearted River to save his sanity—it’s the

same story. The wilderness is a great place to go to do your healing. And there are a lot of groups that do this. There's a bunch of them that take veterans, according to their abilities, and they go backpacking, camp out and stuff like that. And, particularly down in Utah, the vets I met wanted to go beyond fly fishing. They don't want to just to go in to climb and fly fish and then hope the wounds are healed. They actually want to help to save that same wilderness that was so great to them, a place for them to sort out what was happening to them. So we do a lot of conservation. The Namibia rhino poaching project is a good example.

I didn't know the Sierra Club had a veteran's program.

Yeah, and I'll tell you what, this veteran's outreach is one of the best thing they ever did. I mean I've really got some faith in the Sierra Club again. A guy that started it, a guy named Stacey, he's about seven feet tall and he goes at about one hundred and twenty mph all the time, up and down mountains. He and a veteran named Joshua ran that program. I met them and their buddies and they're some of the most talented warriors I've ever met. Over in Namibia the locals need help with the massive poaching problem, and the vets are going to go over and assess the situation, assist the native guards as best they can and find out what's really needed. Like I said, I think it's probably a battle we will lose. I don't think we can stop the poaching, but we're going to try, and it's better to try and fail than to sit back and have done nothing.

That is true. The Wildernist works as part of a network of groups called The Wildist Network and we talk a lot about a no-compromise approach for wilderness and against industry. And we are often faced with the criticism that we might lose, but there's kind of a—almost a moral imperative to do something even if there's only a small probability of winning.

You bet your ass. That's all you can do and it's battle to the death now. The beast of our time is global warming and that affects all species everywhere. And everything that survives must change radically. Humans have never seen this kind of change, a demand for a rate of evolution of which we are not capable. Some authorities think the earth has never seen such climate change before, because we are dumping more carbon into the atmosphere than the time of the Great Dying about 250 million years ago, when nearly all earthly life was driven to extinction. But the most important thing I think any conservation group can do is save wilderness. Save the habitat. Because everything is going to have to move, species have to move North, move up the mountain. It's at least the 6th great extinction and survivors need wild habitats.

And we should expect *Homo sapiens*, ourselves, to hit a bottleneck, because global warming is already baking agriculture out of Africa, along with all the attendant problems of displacement of people, wars and atrocities. And the droughts, sea-rise and warming will happen to Asia too. Billions starving to death: The Chinese will try to go to Siberia, where food still grows, competition and conflict will breed war and maybe they'll nuke it out with the Russians. Meanwhile, and probably soon, one of the gigantic Antarctic ice sheets—the Ross, the Larsens, and or the Western ice sheets—will fall into the ocean, that's 12, 15 feet of sea rise in a week, and then you've

got a billion people in Bangladesh looking for a place to live. So, we should look at this from a standpoint of also saving ourselves, and we're not going to succeed in saving many of our own kind by doing what we've been doing, and the notion of endless progress, economic or otherwise, in a world of finite resources is utter madness. Ed Abbey pointed out that particular insanity back in 1968 in *Desert Solitaire*. We're killing ourselves and our children and our grandchildren. I bring the issue of climate change to any battle I take on now, in a way that thinks about saving and fighting for wilderness. I think wilderness is still the most important thing.

You asked about Earth First! and other groups. The most important thing Earth First! did was identify wilderness as the prime issue. Preserving, saving, defending wilderness was its most important mission. And it's still true today, though our old vision has been shaded and sometimes eclipsed by global warming. Talking about putting elephants on the Great Plains, when it looks like we're not going to have any elephants left in Africa, seems like a misplaced, idle conversation. We might note that the Vietnamese and Chinese megabucks with their appetite for ivory, horn and bush-meat, have likely doomed rhinos and elephants, on top of the very real threats of African climate change.

What about The Wildlands Network, @@@Yellowstone to Yukon, and these other organizations that are working hard to build big, connected wilderness? You think the organizations could be more effective?

I'm concerned with the modern conservation movement, especially the big ones that you're talking about. Twenty-five years ago I cofounded Round River [<http://www.roundriver.info/>][Conservation Studies]. Round River works with Native people around the world to create homelands that are wilderness, total wilderness, no roads, no mines, no logging. And, working together, they're up to 25 million acres, with eight million more in progress: About 6 million up on the north slope of the Yukon working with the Inuvialuit to expand Iuvaiik National Park eastward and about two million more down in southern Utah where the Navajo, Hopi and Zuni could end up with a National Monument. Now this is the kind of work that I am really proud of having been a part of.

And my criticism of the older movement is simply that it appears to have gotten a bit esoteric; let's not just have another meeting to talk about the Anthropocene, for Christ's sake! Talk is cheap, and all of this has gotten a little too academic. A guy I love is Michael Soul, so I'm not separate from this at all. And Michael knows how I feel. It's just that I think we've had enough talk, enough meetings, and it's great to talk about "Does wilderness exist?" but you'll never create a large area like Yellowstone to Yukon if you can't first hook up Yellowstone to northern Montana ecosystems. Yellowstone is an ecological island, it's stranded, it's mired out there in the middle of no place with no connectivity or linkages to the Bitterroot, the Bob or the Crazy Mountains. And it's time to really do something about linkages. Those chunks of wilderness need to be connected, and we have the biology and the engineering to get under and over freeways.

That's important stuff, fighting that hideous Mexican border wall that's such a barrier to all wildlife, for example. We need these linkages.

I am sympathetic to what you're saying, but you also brought up climate change a while earlier and it seems like wilderness will cease to be a thing that even exists if climate change continues to get worse and worse.

It's definitely going to get worse and worse, but I think you're wrong. If your definition of wilderness has something to do with a lack of human beings, we're going to end up with a lot of wilderness and not very many human beings. *Homo sapiens* are going to go through a population bottleneck, the timetable is arguable, but I tend to prefer to think in decades, not centuries. People like Guy McPherson or James Lovelock think we're going to lose probably 90% of the population—that the bottleneck is going to get at least that narrow. A study of combat units in World War II found that when combat units suffered 75% plus casualties, there was a collective, paralytic psychosis that descended upon the survivors. And we might think about that in terms of our species. We are not in charge anymore. We are not in control of our own fates. We would love to save the earth, the wilderness and animals, but that's counterbalanced by the madness of endless growth and economic progress, and it's clear we are not going to cut down on greenhouse gases in time to curtail global warming, and there's going to be catastrophic consequences. We are not exempt. Humans are not exempt, and all our clever technology—geoengineering or bioengineering—will not bail us out at this point. We've brought it upon ourselves. We may end up with a planet—who knows what it'll look like—with not many people on it. And I don't know what you want to call that, but that'll be some kind of wilderness.

This question of greenhouse gasses and climate change and wilderness has led me and some others to the conclusion that one of the only ways that, uh, one of the best ways that wilderness can continue surviving and thriving is for industry itself to end. With the very high likelihood of industry becoming unstable in years to come—in decades to come—there's some potential for an organized movement to make a dent or aid that end to industry. What are your thoughts on this?

Well I think it's late in the game, mostly. If we can shut down industry tomorrow, we should do everything we can towards that end. But it's really late in the game, and what we've already put out there is already too much, and we're going to hit a tipping point, you know, it's going to be four or five degrees Fahrenheit and then you'll really see consequences. Also, if you shut down that industry abruptly, the sulfate particles from coal, which reflect sunlight and artificially cool the planet, will fall out. James Hanson believed this would rapidly warm the earth another 2.5 degrees F. I know this is bumper information and it makes me wish it were otherwise.

One of the reasons working in the Yukon is important is that it's a great window on global warming. Things are happening fast up there; we may see the disappearance of arctic summer sea ice for the first time in human history this year, polar bears fleeing southward, eating snow geese, competing and breeding with grizzly bears who are moving north. That's another feedback loop, and there are many of them. The

disappearing sea ice means less solar radiation is reflected, which melts the permafrost, releasing methane (a greenhouse gas 100 times more potent than carbon dioxide in the short run), melting more sea ice, etc. Maybe the best good news from the Yukon Beaufort coast is that the Inuit may prohibit the construction of the hundreds of seaports and oil station industry has planned for the fragile arctic.

But I think that what you're proposing to do is the right thing to do. The sooner we can slow things down, the more species have a chance to survive— still a bad show. Human beings, with all their resources, will probably find a way to survive, at least a pocket of them. The evil is that we will drag down most all of our large mammals with us, along with countless other species, millions and millions other species. The sixth greatest extinction, as some call it. But that's just the tip of the iceberg. The potential is just terrifying.

One of the editors of this magazine, Atticus Grey, she loves large creatures like gorillas and elephants. And I'm sure that she would be sad like I am to hear that you think most of them will die off, regardless.

I love them too. Watching gorillas or elephants or grizzlies is an ecology of thinking. These large mammals are at great risk even if you exclude climate change—here I am ranting about it—because of simple human greed. They are killed by humans for the ivory, for aphrodisiacs and for art items, trinkets. The rhinos are really going fast. I don't think anybody can stop that. I've been helping to raise money to send veterans over there for the last three or four months and now the vets are on their way. Round River has student programs in Namibia and Botswana. The game counts in places like Botswana and Namibia are down about 80%. And where are the animals going? Well, they're being killed off for bush meat to feed Chinese gold mine workers. That is atrocious and unforgivable. It's going to take all the work, every one of us, to set it straight or at least try to give them a chance.

I know that you're the inspiration for Edward Abbey's Hayduke. When you were talking with Ed Abbey in these early days, maybe even before the monkeywrench gang, did you two know at the time that things would get this bad or could get this bad, and did you have any hopes on stopping it? And what do you think Abbey would say now, if he saw the situation?

I'm kind of glad he's dead [for his sake], because he'd be rolling over in his grave, that's for damn sure. Abbey and I had a cranky friendship—he could be a cantankerous son of a bitch and I was a complete asshole at times—but the reason that friendship survived was our mutual belief in wilderness and the need to defend it. Ed and I did see an apocalypse coming[46]. And, at that time, we really weren't talking about greenhouse gases and shit like that. We were just looking at our own culture and its rapacious drive to domesticate the earth, a premise that still lives on today. Progress is insanity. It's impossible on a finite earth. Ed compared it to the ideology of the cancer cell.

So, Abbey's still quite relevant. There really isn't a need for another Ed to come along and fill his big, toothy, lecherous boots, because, quite frankly, his books still hold up really well.

Yeah, I agree. I just gave a presentation not too long ago to some other really young people who were involved in a clean water action organization, and they were all familiar with Abbey. They loved him, too.

Besides it being a hoot to read, the message of The Monkey Wrench Gang is do what you can. People ask me, "What can I do?" and I usually say "Start in your own backyard." Start small, and in the old days if you needed to literally or figuratively monkeywrench a bulldozer, you did it, but also have this larger vision. We always knew that we were going to lose a lot of battles and the ones that we did win are going to be transient. That doesn't matter. It's still worth doing, it's the only thing we can do. It's a fight to save the earth, but also a fight to save ourselves. And wilderness is still our best bet.

I agree, and on that note of what we can do, starting in your backyard is easier for some people in the US, especially because here there's a concept of wilderness. But a lot of cultures, like Spain, where a lot of my friends are, don't even have a concept of wilderness. Do you have any ideas on how that idea can be brought internationally and fought for?

I think we need not to be so pedantic and academic and strict about what we consider wilderness. It's whatever in undisturbed nature that can stir the innate wild in men and women. Wilderness lives in all of us; wilderness is whatever it takes to wake it up. And some people can get it watching birds and squirrels in their backyard, and other people are like me, they need endless hunks of tundra with big bears and jaguars, tigers, polar bears.

I went out to Rockford, Illinois to give a talk. They have a 369 acre —not very big by Western standards—nature preserve along a river, called Severson Dells. Man, does that magical place transform not just the character of that country, but it's an inspiration to countless people who go there, canoe, walk around and connect with nature. That kind of experience can be had in Europe where civilization has been marching along with whatever Pleistocene remnants, even if the areas are not very big, and animals like wolves and brown bears that live there are few, people draw inspiration from their survival. That's a source of hope.

There's one last topic I'd like to talk a little bit about and it's, we've already mentioned it, it's Earth First!. Could you tell me a little bit about what you did with Earth First!, if anything.

I didn't do anything significant with Earth First!. Other than give talks at a Rendezvous or EF! fundraisers, I did little. Ed Abbey, our small children and myself would go over to the Earth First! mailing-parties and put the stickers on the newsletters and little things like that. EF! was the direct descendant of the MWG [The Monkey Wrench Gang, by Edward Abbey], but I was a decade or two older than the boys who

started Earth First!¹ When the FBI busted Dave[<http://www.thewildernist.org/2015/03/interview-dave-foreman/>]Foreman and the Prescott folk, they also showed up at my place in Tucson. However, I was lost in Wyoming and once they believed Gerry Spence would be my lawyer, the FBI never bothered me again about that. But I was of no importance to them.

Do you think that there's any organization that exists now that broadens a dialogue in the way that Earth First! did? And if not do you think that the environmentalist and conservation movements would benefit from one?

You can't be too radical these days about the importance and value of wild things, because they're so under threat, because things are changing so fast. I think there really is a great need for action, for working outside the corrupt system and I don't see anybody really doing it. Round River has saved a lot of big wilderness. That means working with native peoples because if you look at the globe for a blank spot on the map, you usually find traditional people live there.

That's a good track record, more so because Round River doesn't blow its horn loudly. Since EF!, [evolutionary] biology, big funders, abstract modeling and academic squabbling—arguably—have influenced the conservation movement, both positively and negatively. There remains a real need for broadening that dialogue, just like you put it. A flaw, I believe, is that people are left with the impression that big, powerful, rich organizations are going to go out there and save the world for us instead of asking, "What can you do?" This is sidetracking people when it should be empowering them. There is a sniff of privilege and elitism. We need someone to tell us that we need everyone to fight for the fate of the world. I think Earth First! tried to do this. Beware of the corporate lawyer, inside approach; paper monkeywrenching is not going to affect real change. The system is now the enemy and all that's a sideshow, like genetic engineering to resurrect extinct species is a sideshow to the real battle of combating global warming. Am I saying: Go out and make yourself a spear and sharpen it over the fire? Possibly. I think activists need to know the wild, get out into it as much as feasible. Much of our job is still to go out and save a bear or a prairie dog or a bird or a goddamn forest.

I know you can't see me, but I was smiling there for a large portion of that. It reminds me of, uh... well I don't know, it's just very inspiring. I think the ideas of megalinkages and wildlife corridors—the ideas of rewilding—are very useful and basically correct. But this whole strategy of getting millionaire[48] to do it, while helpful, just can't be the whole strategy.

Alright, one last thing. We talked a little about Earth First!, and we've talked a little bit about global warming, and all of these other things. Earth First! fell apart at one point because of a division between kind of the social justice, left-wing faction and then...

¹ Christine Dell'Amore, Species Extinction 1000 Times Faster than Humans?, National Geographic (May 30, 2014).

Ah yes, a very public squabble, as I recall. But even today, we could achieve social justice on earth and not have a planet to practice it on. So what comes first? When it comes down to social needs versus ecological reserves, I'm going to bet on the planet every time. Like Ed Abbey once said, "I'd sooner kill a man than a rattlesnake." And it's going to happen with or without us. Nobody's going to make it if we don't save mother earth and the few wild landscape remnants that our whole species evolved on. We didn't evolve on farms or in cities: We evolved in habitats—savanna, tundra, forests, grasslands and mountains— whose remnants today are called wilderness. And that is our homeland, not well-run refugee camps or any other artifact of culture.

As Abbey so often queried, "What to do? What to do?" Live your life, however hurried or brief, but live it well.

Doug Peacock is a long-time conservationist and the author of several books, including *Grizzly Years* and the new *In Shadow of the Sabertooth*. Learn more about him at www.dougpeacock.net.

Chapter 9 . The Wildernist's 2015 Reading List

A common request among those who are interested in The Wildernist and Wildism is a list of reading materials that covers the basics of our thought and the theory, strategy, and history that informs it. The following is the 2015 version of the list. If you have any suggestions regarding additional texts, feel free to email the editorial team atthewildernist@gmail.com.

Movement Texts

Wildism is a new movement, and some of the texts are still in languages other than English. However, all movement texts in English are available in The[<http://www.wildism.org/lib/>][Wildist Library]] at Wildism.org. Pay particular attention to the following:

“Industrial Society and Its Future” and Technological Slavery by Ted Kaczynski. One of the most important texts of the movement, “ISAIF,” outlines the threat industrial technology presents to freedom and wild nature. More texts by the author can be found in his book, Technological Slavery. See the “history” section below for more information about Ted Kaczynski.

“Leftism: The function of pseudo-critique and pseudo-revolution[<http://www.wildism.org/lib/item/903453d1/>][in techno-industrial society”]] by Ultimo Reducto. Wildist Ultimo Reducto outlines the meaning of leftism and the threat it presents to a revolutionary movement against industry.

“The Truth about Primitive Life” by Ted Kaczynski. A criti-cism of the anarcho-primitivist movement and its tendency to romanticize hunter/gatherer life. Given that Wildism is sometimes mixed up with anarcho-primitivism, this article is extremely important to read for people new to our thought.

“The Revolutionary Importance of Science” by John Jacobi. In a response to “green” anarchist Alex Gorrión, John Jacobi outlines the reasons science is the best tool we have to gain actionable and correct knowledge about the world.

History

The two histories especially relevant to Wildists are the history of early Earth First! and the history of Ted Kaczynski. As the pieces by Lee, Wolke and Foreman show, contemporary Earth First! is almost nothing like it was originally, so those new to Wildism should be careful to distinguish between the two periods.

Earth First!: Environmental Apocalypse by Martha Lee. Criticized by some for her central thesis (that Earth First! was originally a millenarian movement), the text nevertheless holds up as one of the most well-sourced accounts of the early history of Earth First! Documents Lee used can be found at The Talon Conspiracy and the Environment & Society website.

Confessions of an Eco-Warrior by Dave Foreman.

“Earth First!: A Founder’s Story” by Howie Wolke.

History of Ted Kaczynski. The editorial team knows of no good text about Kaczynski and his campaign against industry from 1978 to 1995. However, we do encourage those looking into the history of Ted Kaczynski to include the following texts in their reading:

— “On the Question of Technological Slavery: A Reply to[<http://www.thewildernist.org/2015/03/skrbina-question-technological-slavery-campbell-lipkin/>][Campbell and Lipkin”] by David Skrbina. A philosophy of technology professor at the University of Michigan defends Kaczynski’s ideas as presented in the manifesto, and questions the origins of the dominant dismissive response Kaczynski received.

— “Why the future doesn’t need us” by Bill Joy. The founder of Sun Microsystems, who could easily have received one of the Unabomber’s packages, says quite clearly that Kaczynski was right.

— *Truth vs. Lies* by Ted Kaczynski; “Note on *Road to Revolution*” by Ted Kaczynski; and “Note about the existence[<http://www.wildism.org/blog/2015/03/note-about-false-kaczynski-texts/>][of texts falsely attributed to Ted Kaczynski”] by Ultimo Reducto. Many distortions, misunderstandings, and outright lies have circulated around almost all aspects of Kaczynski’s story. These texts should set the record straight. Truth vs. Lies can be requested from the University of Michigan Special Collections Library (The Labadie[<http://www.lib.umich.edu/labadie-collection/>][Collection].)]

— *Communiques of Freedom Club*. These are the letters sent by Kaczynski when he operated as Freedom Club during his campaign against industry from 1978 to 1995. Some old, inaccurate, or incomplete versions of this text exist on The Anarchist Library or the blog El Tlatol, so, for the sake of accuracy, links should only point to the Wildism.org version.

Civilization and Collapse

The Col lapse of Complex Societies by Joseph Tainter.

Guns, Germs and Steel by Jared Diamond. A good companion text to this book is an essay, also by Diamond, entitled “The Worst Mistake[<http://www.wildism.org/lib/item/8fd4684b/>][in the History of the Human Race.]”

Col lapse by Jared Diamond.

30 Theses by Jason Godesky. This text was written by an anarchoprimitivist, contains some factual errors, and encourages values (such as “diversity”) that are not encouraged by or are opposite to the values encouraged by Wildists. However, some sections, especially #29, summarize ideas on civilization in a way that has not been done elsewhere. So for the 2015 reading list, we do recommend people look over Godesky’s arguments.

Theory

Cultural Materialism by Marvin Harris. Harris combines the ideas of Marx, Darwin, and Malthus, among others, to devise a theory about “the universal structure of society.” Indispensable for an understanding of culture and how it works. The Wildernist team would only like to note that Harris was almost certainly wrong about the effects of human biology and human nature on culture (see the texts below).

The Adapted Mind by Cosmides and Tooby. Known as “the bible of evolutionary psychology,” Cosmides and Tooby outline the theoretical foundations of and various case-studies using a psychology that works with, rather than against, recent findings in the biological sciences.

The Blank Slate by Steven Pinker. Pinker uses ideas from evolutionary psychology to eloquently argue for a human nature and its affects on our society. Keep in mind that Pinker is a humanist who argues for

values that are contrary to the Wildist concern for autonomy, nature, and wilderness.

Consilience by E. O. Wilson. Evolutionary biologist E. O. Wilson outlines the idea of “consilience”: that science can be a unified enterprise, with findings from various fields, including the social sciences, informing and learning from various other fields.

Strategy

The Organizational Weapon by Philip Selznick. An analyst from the RAND Corporation delves deep into the psychology and tactics of the Bolsheviks. In reading this book, Wildists should be careful to separate relevant from irrelevant tactics based on other movement texts, since the Bolsheviks were neither a model group of revolutionaries nor a model group of human beings.

Rewilding North America by Dave Foreman. Foreman, Michael Soule, Reed Noss and others are at the forefront of the conservation movement with their ideas on rewilding, wildlife corridors, and wildlife restoration areas. Their science-based conservation strategy has made real, tangible demands that The Wildernist's editorial team believes should be considered as a potential basis for our no-compromise efforts against industry.

Chapter 10 . Refocusing Ecocentrism: De-emphasizing Stability and Defending Wildness

There are some who can live without wild things, and some who cannot Like winds and sunsets, wild things were taken for granted

until progress began to do away with them. Now we face the question whether a still higher standard of living is worth its cost in things natural, wild and free..... These wild things, I admit, had

little human value until mechanization assured us of a good breakfast, and until science disclosed the drama of where they come from and how they live. The whole conflict thus boils down to a question of degree. We of the minority see a law of diminishing returns in progress; our opponents do not[49].

— Aldo Leopold

Introduction

At the beginning of the century, the howl of wolves still haunted Yellowstone National Park. But wolves were considered “varmints” and were poisoned, trapped, and shot as part of an official government policy of predator extermination that succeeded in eradicating wolves from Yellowstone by 1940. Today, most environmentalists believe that the extermination of the wolf was wrong and that its recent restoration was right.

Several widely held rationales for these judgements are rooted in ecocentric ethics. An ecocentric ethic treats natural systems as intrinsically valuable and/ or morally considerable. This ethic is holistic in that it bases moral concern primarily on features of natural systems rather than on the individuals in them. Traditionally, ecocentric ethics has relied heavily on “holistic” ecological theory to provide its empirical foundation. It has evaluated human impacts on the environment primarily in terms of their effect on the integrity, stability, and balance of ecosystems.

Many have argued, for example, that without wolves the Yellowstone ecosystem was incomplete. Wolves were in Yellowstone long before modern settlement of the area, and they are integral to the identity of that ecosystem. Holmes Rolston, III says that Yellowstone is the “largest, nearest intact ecosystem in the temperate zone of earth”[50] and suggests that the wolf was one of the few missing components. Wolf biologist

David Mech supports wolf reintroduction by arguing that “one of the mandates of the national parks is to preserve complete natural systems. Somehow Yellowstone was shorted. For more than sixty years it has preserved an incomplete system.”[51] On this view, returning the wolf helps restore Yellowstone’s integrity by making it whole again.

Many also support returning the wolves in order to restore the balance and stability of the Yellowstone ecosystem.[52] Wolf predation helps to control ungulate populations. Absent a major predator with which they coevolved, the elk population in Yellowstone increased dramatically. Vast herds of elk confined year round in this hunting sanctuary have eaten so much of the aspen and willow that these species are not regenerating. The decline in aspens and willows led to the decline of the beaver, a keystone species in maintaining riparian areas and park hydrology. On these grounds, Alston Chase, among others, argues that the balance of the Yellowstone ecosystem was upset by the restriction of the range of the ungulate population, by fire suppression, and by human eradication of wolves and other predators. Restoring the wolf is perceived to be an important step in allowing the Yellowstone equilibrium to return.

The idea that integrity and stability fundamentally characterize natural systems is far from uncontroversial. According to numerous ecologists, disturbance, disequilibria, and chaotic dynamics characterize many natural systems at a variety of scales[53]. Ecosystems are frequently interpreted by these ecologists as historically contingent, transient associations, rather than as persisting, integrated communities. Although many ecologists continue to find stable dimensions of some ecosystems, the presence of instability is trouble for traditional ecocentric ethics. It is risky to advocate preserving the integrity of natural systems when such integrity may not exist, and it is questionable to criticize humans for causing instability in what may already be unstable natural systems.

In this article, we assess the implications of instability models in ecological theory for ecocentric ethics. We use the elimination and restoration of wolves in Yellowstone to illustrate troubles for traditional ecocentric ethics caused by ecological models emphasizing instability in natural systems. We identify several other problems for a stability-integrity based ecocentrism as well. We show how an ecocentric ethic can avoid these difficulties by emphasizing the value of wildness in natural systems and we defend wildness value from a rising tide of criticisms. We do not attempt a full-fledged justification of ecocentrism; in particular, we do not defend ecocentrism against individualistic or anthropocentric environmental ethics.

The Ecology of Stability and Traditional Ecocentrism

The ecological theories on which traditional ecocentric ethics are based, theories we call collectively the “ecology of stability,” were developed by Frederic Clements and

Eugene Odum, among others. They tended to view natural systems as integrated, stable wholes that are either at, or moving toward, mature equilibrium states. The terms equilibrium, balance, stability, and integrity often go unexplained in traditional eco-centric ethics. Kristin Shrader-Frechette and Earl McCoy have identified over twenty different uses of stability and equilibrium in ecology[54]. Central among these are the following uses.

A system is in equilibrium if the various forces acting on it are sufficiently balanced that the system is constant and orderly with respect to those features under consideration; thus balance and equilibrium are closely related. A balance or equilibrium can be either static or dynamic: equilibrium is displayed both by a constancy in tree species in a mature forest ecosystem and by a regular oscillation in a predator-prey system. A system is stable (1) if it is relatively constant over time, (2) if it resists alteration (i.e., it is not fragile), (3) if upon being disturbed it has a strong tendency to return to its pre-disturbance state (i.e., it is resilient), or (4) if it moves toward some end point (“matures”), despite differences in starting points (“trajectory stability”).[55] Whether a system is in equilibrium and/or stable depends on the features under consideration and the scale at which the system is described. Vernal pools that exist for perhaps a dozen weeks each year and then dry up are ephemeral on a time scale of months but constant if the scale is years.

Integrity is also used in a variety of senses. The general idea is that the elements of the ecosystem are blended into a unified whole. This idea is commonly associated with the view that ecosystems come in fixed packages of species whose coordinated functioning creates a unified community. A system which has integrity is characterized by a high degree of integration of its parts. Complex patterns of interdependency weave the parts into a well-integrated unit.

In the ecology of stability, natural systems do undergo some changes, such as fluctuations in the populations of predators and prey, but usually such changes are regular and predictable (as in the cycling of predator and prey according to the Lotka-Volterra equations). Disturbances are considered atypical, and when they occur, ecosystems resist upset. When a natural system is disturbed, it typically returns to its pre-disturbance state or trajectory. Successional ecosystems will move through a predictable series of stages to their mature climax states. In these end states, biotic and abiotic elements of the ecosystems are in balance and the system has “as large and diverse an organic structure” as is possible given available energy and environmental limitations.¹ According to this paradigm, the loss of a species, such as the wolf, upsets the balance and often results in a decline in ecosystem stability, for species diversity in an ecosystem is thought to be proportional to its stability. Thus, ecosystem integrity, stability, and diversity are seen to be closely interrelated phenomena.

¹ Meaning that once it is deemed fully recovered by the best available science, the species will be delisted by the agency in charge of its recovery.

This conception of natural systems provides a powerful and seemingly objective basis for determining when ecosystems have been damaged or their value diminished[57]. Integrity, stability, and balance are properties that have widespread and powerful normative appeal. In an ecocentric ethic that emphasizes these properties, our duties to natural systems seem to arise from the nature of ecosystems themselves, rather than from human preferences concerning natural systems. An ecosystem missing a top predator is not simply one that environmentalists do not like; it is a damaged ecosystem. Ignoring this damage betrays ecological ignorance. Ecological science thus appears to underwrite environmental ethics and environmentalist policies. Further, because nature tends towards these states absent human intervention, the ethic based on this normative ecological paradigm warrants preserving ecosystems intact, limiting human impacts, and restoring nature after human degradation.

Advocates of ecocentric ethics frequently appeal to the basic notions of the ecology of stability. Aldo Leopold's often quoted summary maxim—"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community; it is wrong when it tends otherwise"—relies on these ideas[58].

Many, such as J. Baird Callicott, have taken Leopold's views as the basis for their environmental ethic[59]. In articulating his ecocentrism, Holmes Rolston puts considerable evaluative weight on the integrity and stability of biotic communities: "A biotic community is a dynamic web of interacting parts in which lives are supported and defended, where there is integrity (integration of the members) and health (niches and resources for the flourishing of species), stability and historical development (dependable regeneration, resilience, and evolution)"²[60] Although Rolston's ecocentrism relies on a number of values

that systemically make nature valuable (such as diversity, complexity, creativity, and a tendency to produce increasingly valuable "ecological achievements"), ecosystem integrity and stability are central among them[61].

The Ecology of Instability

An ethic based on the integrity, stability, and balance of natural systems ill accords with some trends in ecology.[62] The more radical proponents of what we call the "ecology of instability" argue that disturbance is the norm for many ecosystems and that natural systems typically do not tend toward mature, stable, integrated states³. On a broad scale, climatic changes show little pattern, and they ensure that over the long term, natural systems remain in flux. On a smaller scale, fires, storms, droughts,

² J. Baird Callicott, *In Defense of the Land Ethic* (Albany: State University of New York Press, 1989)

³ P. Parenteau, *An empirical assessment of the impact of critical habitat litigation on the* [http://lsr.nellco.org/cgi/viewcontent.cgi?article=1000&context=vermontlaw_fp][administration of the Endangered Species Act.] Vermont Law School Faculty Papers. Paper 1 (2005).

shifts in the chemical compositions of soils, chance invasions of new species, and a wealth of other factors continually alter the structures of natural systems in ways that do not create repeating patterns of return to the same equilibrium states⁴.

Many empirical studies show that populations fluctuate irregularly⁵. Simple predator/prey models in which numbers of predators and prey oscillate predictably over time ignore the myriad of factors that affect population size. Major population explosions and declines are inherent features of numerous natural systems. Some ecologists suggest that many interacting populations are chaotic systems, in the mathematical sense of chaos[66]. Although these systems are fully deterministic, accurate predictions about them are impossible because tiny (and thus hard to measure) differences in initial conditions can produce drastically different results. Furthermore, ecologists no longer assume a tight correlation between stability and diversity. There is evidence that an intermediate level of disturbance can increase diversity[67]. Also, some stable ecosystems are not very diverse, such as east coast U.S. salt marsh grass ecosystems where *Spartina alterniflora* grows in vast stands that are simple in species composition but quite stable.

With flux taken to be the norm on a variety of levels, it becomes more difficult to interpret natural systems as well-integrated, persisting wholes, much like organisms. Ecosystem integrity becomes problematic when species relationships are opportunistic. Noting that co-occurrence of species is determined by abiotic factors as much as by species interactions and that typical interactions between species involve competition, predation, parasitism, and disease, one well-known conservation biologist claims that “the idea that species live in integrated communities is a myth.”[68] Evidence suggests that species groupings are historically contingent and are not fixed packages that come and go as units⁶.] Insofar as species associations are transient, individualistic, biotic assemblages, we must begin to question the ideas that ecosystems are supposed to have certain species, that without all of its species an ecosystem is “incomplete,” and that exotic species do not belong.

Indeed, the very notion of an ecosystem has become suspect in some quarters. A number of ecologists now investigate the dynamics of “patches” of land, giving up on the idea of homogenous ecosystems. Others retain the notion of an ecosystem, but drop the organismic assumptions often associated with it. We follow the latter course, recognizing that without these assumptions, what counts as an ecosystem depends on our purposes as well as on the empirical facts.

⁴ Tulchin Research, Poll Finds Overwhelming, Broad-Based Support for the Endangered[<http://www.defenders.org/publications/Defenders-of-Wildlife-National-ESA-Survey.pdf>][Species Act Among Voters Nationwide]] (July 6, 2015).

⁵ ALERT, “The Ecological Role of Lions,” LionAlert.

⁶ While lions generally avoid rainforests, they have been known to inhabit them, as reported[<http://news.mongabay.com/2012/0813-hance-lions-ethiopia.html>][by Mongabay in 2012.]]

One intriguing response to these worries has been advanced by J. Baird Callicott⁷. Callicott points out that, like biotic communities, human communities are neither stable nor typological—that is, they change over time and do not come and go as units. Human communities are also composed of individualistic, self-promoting, and competitive individuals. Callicott concludes that biotic communities are no less integrated and no harder to demarcate than are human communities, and thus that if human communities are sufficiently coherent to generate obligations to them, then so are biotic communities.

One problem with this argument is that human communities are held together by shared purpose and meaning. That people see themselves as part of a human community is essential to its unity. Self-seeking individualism, predatory competition, and parasitism, unchecked by community spirit and identity, tear apart human communities. Sprawl development characterized by vacant strip malls, big-box stores adjacent to diseased local merchants, and aggressive automobile traffic hardly constitutes a community that generates preservationist obligations. Callicott's analogy ignores the fact that the shared purpose and meaning that bind together changing, self-seeking individuals into human communities are lacking in biotic communities[71].

Callicott also suggests that the Leopoldian response to the ecology of instability should be to modify Leopold's dictum to say: "A thing is right when it tends to disturb the biotic community only at normal spatial and temporal scales. It is wrong when it tends otherwise."⁸ This implausibly suggests that it is morally permissible to intentionally extirpate other species so long as we do so at rates comparable to normal extinction frequencies in evolutionary history. It also has the unfortunate consequence that extensive restoration projects are impermissible insofar as they disturb nature at nonnormal scales. Callicott has not quieted the worries about ecocentric ethics generated by the ecology of instability.

We want to stress that there are important ways in which many natural systems display significant degrees of integrity and stability in various respects. Ecosystems are certainly not mere jumbles of self-sufficient individuals. No one denies the existence of causal connections between individuals in ecosystems or dependencies between species. Species adapt to each other, to disturbances, and to changing environments. Sometimes these adaptations can make ecosystems more resistant (and persistent), as when a key-stone tree species on hurricaneprone barrier islands evolves a thicker trunk and begins to hug the ground. Selective pressures also put a brake on species self-aggrandizement, for example, by working against predator species that drive their prey to extinction and parasites that destroy their hosts. Many dimensions of natural systems clearly persist on human time scales.

⁷ During glacial maximums during recent ice ages, the sea separating Asia and North America receded, leaving a low altitude plain in its absence, known as Beringia.

⁸ The Massai, a pastoral culture, were feverently protective of their livestock against lions, and the act of slaying a lion was viewed as a rite of passage from boyhood to manhood.

The ecology of instability is far from achieving the status of a dominant paradigm. There continues to be ongoing fruitful work on stability at larger scales and in systems where the disturbance interval is long relative to recovery time.[73] Some recent experimental research supports the claim that increases in diversity produce increases in stability[74]. Additionally, ongoing research in group selection (i.e., natural selection operating on higher levels of organization than the individual), including selection at the community level, may provide support for ecosystem stability and integrity of certain sorts⁹.

Some respected ecologists even suggest that the emphasis on disturbance, instability, and chaos is as much a function of sociological factors, such as the novelty of research on disequilibrium, as it is of new data in ecology.[76] Ecologists are exploring a variety of fruitful metaphors drawn from other sciences and society at large. The success of population biology and of chaos theory outside ecology, as well as our culture's increasing individualism, provide resources for plausible sociological explanations of the popularity of the metaphors and models informing contemporary ecology. Nonetheless, these models have also proved to be empirically fruitful.

Although it would be unreasonable to reject wholesale the ecology of stability, the dangers of basing an environmental ethic on that ecology are significant. An ecocentrism that emphasizes preserving the stability and integrity in ecosystems would seem to leave those ecosystems which lack significant stability or integrity largely unprotected. If an ecocentric ethic is based on valuing stability and integrity, would it not follow, implausibly, that less stable and integrated ecosystems were less valuable and thus less worthy of protection? Michael Soul thinks it positively dangerous to emphasize the equilibrial, self-regulating, stability producing tendencies of ecosystems[77]. If nature is so stable, it ought to be able to handle human disturbance. If it can, it seems we ought to be protecting the more fragile ecosystems rather than the more stable ones. Moreover, what about the different kinds of stability? Would ecosystems that lacked resilience, but had constancy, such as tundra ecosystems, be subject to more or less protection than those that are resilient, but less constant, such as fire-prone chaparral? Would more tightly integrated biotic communities (e.g., ecosystems with keystone species) take precedence over looser species assemblages? Such questions indicate how developments in ecology muddy the waters for an ecocentrism that emphasizes stability and integrity and leave it with a range of unpalatable implications. Leopold's dictum that what is right is what "preserves the integrity, stability and beauty of the biotic community" seems all too vulnerable to the charge that we may be obligating ourselves to preserve something that frequently does not exist.

In particular, consider the implications of viewing the case of the Yellowstone wolves through the lens of the ecology of instability. It is no longer clear that ecocentrists can justify the claims that elimination of wolves from Yellowstone damaged the ecosystem and that their restoration is desirable. Perhaps those who hunted and poisoned the

⁹ Martin Bailey, "Ice Age Lion Man is world's earliest figurative art sculpture," *The Art Newspaper*.

wolves did not disrupt any significant stability and integrity of the system. They may have merely changed the system, much like other phenomena might change it (e.g., an ice age, disease, etc.); now it is governed by a different set of dynamics.

Of course, it may be that characteristics of the Yellowstone ecosystem relevant to wolves can be most fruitfully explained by stability models. But what if, in relevant respects, Yellowstone is better interpreted using instability models? Suppose that elk populations would fluctuate dramatically and irregularly with or without wolves and that such fluctuations had a variety of unpredictable impacts on animals dependent on elk forage. Do we want our obligations to Yellowstone to depend on how stable or unstable, integrated or loosely organized it is? We think not. We may, of course, decide that we should restore wolves to Yellowstone for other reasons, perhaps because we enjoy seeing wolves and want our children to be able to experience them. But then we have abandoned an ecocentric ethic, and this, we believe, is premature.

Wildness and Ecocentrism

We think that advocates of ecocentric ethics should shift the emphasis away from integrity and stability toward other intrinsically valuable features of natural systems, such as diversity, complexity, creativity, beauty, fecundity, and wildness. For reasons we outline below, we think that the value of wildness plays a central role in this nexus of values. Emphasizing wildness provides the most promising general strategy for defending ecocentric ethics. Others have suggested that the wildness of some natural systems gives us a strong reason for valuing them intrinsically¹⁰. We support this claim by showing how wildness value is in reflective equilibrium with many considered judgements, by showing how a focus on wildness avoids a number of problems with traditional ecocentrism, and by defending the value of the wild from a host of criticisms.

The term wild has a variety of meanings, many of which are not relevant to our defense of ecocentrism. For example, by wild we do not mean “chaotic,” “fierce,” or “uncontrollable.” As we use the term, something is wild in a certain respect to the extent that it is not humanized in that respect. An entity is humanized in the degree to which it is influenced, altered or controlled by humans. While one person walking through the woods does little to diminish its wildness, leaving garbage, culling deer, or clear cutting do diminish wildness, although in different degrees. Do we tend to value wildness so defined?

Numerous examples from ordinary life suggest that people do value wildness in a variety of contexts. For instance, admiration of a person’s attractive features is likely to diminish when it is learned that they were produced by elective plastic surgery. People prefer the birth of a child without the use of drugs or a Caesarean section, and they do so not just because the former may be more conducive to health. Picking raspberries discovered in a local ravine is preferable to procuring the store-bought commercial

¹⁰ Jeremy Hance, “Asiatic lion population rises by 27% in five years,” Mongabay.com.

variety (and not just because of the beauty of the setting). Our appreciation of catching cut-throat trout in an isolated and rugged mountain valley is reduced by reports that the Department of Fish and Game stocked the stream the previous week. Imagine how visitors to Yellowstone would feel about Old Faithful if they thought that the National Park Service put soap into the geyser to regulate and enhance its eruptions. In each example, people value more highly what is less subject to human alteration or control than a more humanized variant of the same phenomenon. The value differential may result from several features of these cases, but central among them is the difference in wildness. Notice that if we focus on different aspects of these situations, the judgment of wildness changes: the mountain stream may be wild in many respects, even if its fish are not. Although we value wildness in many things, an ecocentric ethic will focus on the value of the wildness of natural systems.

In addition to such specific judgments, there are powerful and widespread general intuitions that support the value of the nonhumanized. People rightfully value the existence of a realm not significantly under human control—the weather, the seasons, the mountains, and the seas. This is one reason why the idea of humans as planetary managers is so objectionable to many[79]. Consider a world in which human beings determine when it rains, when spring comes, how the tides run, and where mountains rise. The surprise and awe we feel at the workings of spontaneous nature would be replaced by appraisal of the decisions of these managers. Our wonder at the mystery of these phenomena would not survive such management. People value being a part of a world not of their own making. Valuing the wild acknowledges that limits to human mastery and domination of the world are imperative.

Humans also need to be able to confront, honor, and celebrate the “other.”[80] In an increasingly secular society, “Nature” takes on the role of the other. Humans need to be able to feel small in comparison with something nonhuman which is of great value. Confronting the other helps humans to cultivate a proper sense of humility. Many people find the other powerfully in parts of nature that do not bend to our will and where the nonhuman carries on in relative autonomy, unfolding on its own.

With dramatic humanization of the planet, wildness becomes especially significant. In general, when something of value becomes rare, that value increases. Today, the spontaneous workings of nature are becoming increasingly rare. Reportedly, humans appropriate between twenty and forty percent of the photosynthetic energy produced by terrestrial plants.[81] Humans now rival the major geologic forces in our propensity to move around soil and rock[82]. Human population, now approaching six billion, is projected to increase by fifty percent by the middle of the next century. Leaving out Antarctica, there are now 100 humans for every square mile of the land surface of the Earth.[83] Almost everyone knows a special natural area that has been “developed” and is now gone. The increasing importance of biotechnology further manifests our domestication, artificialization, and humanization of nature. Wildness is threatened on a variety of fronts, and the passions that fuel many environmental disputes can

often be explained by this rapid loss of the wild and the consequent increase in the value of what remains.

By positing wildness as a significant value-enhancing property, we account for a wide range of intuitions. Of course, the nature that we value in virtue of its wildness is also valuable because it is complex, creative, fecund, diverse, beautiful, and so on. Why focus on wildness, rather than on biodiversity, as is currently fashionable (or on some other characteristic)? We believe that the emphasis on wildness is justified by the transformative and intensifying roles it plays in this nexus of values. These roles suggest that wildness is a kind of “root” value, that is, a significant source of these other values.

Wildness is transformative in that it can combine with a property that has neutral or even negative value and turn the whole into a positive value. For example, wildness helps to transform biodiversity into the powerful value it is in today’s environmental debates. Biodiversity is not by itself valuable. If it were, we could add value to ecosystems by integrating large numbers of genetically engineered organisms into them. But doing so seems unacceptable. It is wild biodiversity that people wish to protect. Wildness transforms biodiversity into a significant value-bearing property. The presence or absence of wildness frequently transforms our evaluation of things; a beautiful sunset is diminished in value when it is caused by pollution. Wildness also intensifies the value of properties that are already valuable[84]. For example, wildness often significantly enhances the value of beauty. As Eugene Hargrove argues, “our aesthetic admiration and appreciation for natural beauty is an appreciation of the achievement of complex form that is entirely unplanned. It is in fact because it is unplanned and independent of human involvement that the achievement is so amazing, wonderful, and delightful.”[85]

An ecocentrism that emphasizes wildness value also puts a brake on alleged human improvements of nature through anthropogenic production of the properties in virtue of which we value nature. A stability and integrity based ecocentrism would have to judge human activity that enhanced ecosystem stability or integrity as value increasing. A highly humanized ecosystem could be more stable, integrated, and diverse than a natural ecosystem that it replaced. For example, an engineered beach with breakwaters and keystone exotics that held the sand might be more stable, integrated, and diverse than the naturally eroding beach it replaced. Only an ecocentrism that puts its central focus on wildness value can prevent the unpalatable conclusion that such human manipulation of nature would, if successful, increase intrinsic value.

While we argue that it is now reasonable to strongly value wildness, it was not always reasonable to do so. The value of wildness varies with context. For example, clearing an old-growth forest in the late twentieth century has very different value implications from doing so ten thousand years ago. In early periods of human history, wildness was ubiquitous and threatening. Controlling a small patch of land was a significant achievement for humanity and had significant value in itself. In contrast, wildness had little or no value in itself: there was simply too much of it relative to humanized environments. This contextualization of the value of wildness fits well with

the “holistic” insight that the seriousness of environmental threats depends on what else is taking place on the planet. Humans extirpating the wolf from the Yellowstone region in the first part of this century had a vastly different impact on wildness value than did comparable prehistoric anthropogenic extinctions.

The value of wildness depends not only on the larger historical context, but also on the kind of object it characterizes. For example, a vegetable garden gone wild is less valuable than one under the gardener’s control because of the purposes implicit in the description “vegetable garden.” We do not here undertake the difficult task of providing a theory of the appropriate contexts and object descriptions for evaluating wildness. One may worry that contexts could be gerrymandered or objects artificially described so that implausible appraisals of wildness result. For example, wildness on the Earth is of great value given its relative rarity, but if the context is the solar system with its abundance of wildness, we might reach a different conclusion. In most cases people can recognize such clearly inappropriate contextualizations or descriptions, but it is often difficult to specify how they do so. This difficulty applies to almost any theory of value, as the contextualization of value is pervasive.

In arguing that ecocentrism should emphasize wildness value, we are not suggesting that wildness is always an overriding value or that highly wild ecosystems are always more valuable than less wild places. Wild things can have value-subtracting qualities that are more weighty than wildness value. Both anthropocentric values and nonanthropocentric values may trump wildness values in some situations. For example, to protect biodiversity, we might put out a fluke lightning-lit fire in order to protect the biodiversity of an island packed with endemic plants. Moreover, a somewhat wilder, but much less biodiverse landscape (e.g., Antarctica) is not necessarily of greater intrinsic value than a somewhat less wild, but much more biodiverse landscape (e.g., the Amazon rain forest). A full theory of wildness value would include some priority principles indicating when wildness value will trump other goods. We cannot provide such thorough guidance here, though we do suggest that as the planet becomes more humanized, wildness value will increasingly trump other values.

Some may worry that an environmental ethic that emphasizes wildness value abandons ecocentrism in favor of an instrumental anthropocentrism because it apparently appeals to human pleasure at contemplating wildness. But this worry confuses what is being valued with the valuing itself (or with a byproduct of the valuing). Valuing nature for its wildness is not valuing wild nature for the pleasure it brings us, anymore than valuing a friend is simply valuing the pleasure one derives from the friendship. Pleasure may be a sign of value without being its source.

We are not maintaining that the value of wildness inheres in natural systems themselves independent of consciousness of them. We remain neutral on the issue of whether wildness value is objective in this sense or is a function of a valuing subject. We also remain neutral about what kind of a value wildness is. Some may think that wildness value is an aesthetic or religious value rather than a moral value. As long as the presence of aesthetic or religious value can obligate us in significant ways, we need not

decide whether wildness value is aesthetic, religious, or moral (or some combination of these).

Objections and Responses

Wildness has come under increasing criticism. One concern is that intuitions about the value of wildness are idiosyncratic. Many people do not seem to value wildness, but instead fear it or profess dislike for things not under human control.[86] David Orr identifies a trend he calls “biophobia” and claims that the more “we dwell in and among our own creations,” the more we become “uncomfortable with nature lying beyond our direct control.”[87]

We are not suggesting that everyone will immediately assent to the claim that wildness is valuable. Rather, we claim that valuing wildness is a rational and reflective response to the current situation on the planet[88]. We grant that it is not the only rational response. No doubt, the valuing of wildness springs from and reflects certain cultural traditions.¹¹ In this respect, it is no different from many other values that orient ethics and policy, such as the value of human equality or freedom of political speech. Even if the valuing of wildness originated in Western culture, wildness value can have much wider significance. After all, the notion of human rights arose from movements in Western thought, but it is now believed to have universal validity. We believe that, for a wide range of people, increased education about the massive humanization of the Earth will lead to greater recognition of the value of wildness.

Furthermore, many people value wildness without understanding their evaluations in these terms. Wildness comes in degrees and often people value things in virtue of lesser degrees of wildness. People value gardening, bird watching, golfing, dinner on the porch, or walks in the park, partially because these activities put them in touch with nonhuman nature. Even the ranchers who opposed the restoration of wolves into Yellowstone seem to love the outdoor lives they have chosen in part because it involves an encounter with the relatively nonhumanized.

An increasingly frequent objection to “wilderness environmentalism” is that by privileging big wilderness areas, it ignores the value of more local, humanized landscapes.[90] Our position avoids this objection by valuing some natural systems, such as pasture and parks, for their intermediate degrees of wildness. It would be a mistake to equate wildness with wilderness, though wilderness is an important manifestation of wildness and would be strongly protected by the proposed ecocentrism. A related concern is that a focus on wildland preservation ignores the central importance of finding a way for

¹¹ See *Earth First!: Environmental Apocalypse* by Martha Lee for more on the ways early Earth First! was built around an apocalyptic and millenarian belief system. Note also that in our interview with him, Dave Foreman restated a similar conviction: “My point is the system is going to come down, one way or another way, on its own. My task is keeping all the building blocks of future evolution that we can.”—Ed.

humans to live in nature without destroying it¹². We too believe that turning human societies toward a sustainable use of nature is crucial. An ecocentric ethic that emphasizes wildness value does suggest that we should diminish our impacts on nature, and this is one aspect of sustainability. But clearly other values, including anthropocentric ones, are needed to fully guide humans to a more sustainable relationship with the Earth. We believe, however, that without an emphasis on wildness value, sustainability will all too likely result in human domination of the Earth.[92]

Embracing degrees of wildness also allows for a response to the objection that there is no wild nature left to value. Recent work in ecology, anthropology, and environmental history points to long-standing and sustained human impact on the planet. On the basis of such research, J. Baird Callicott (among others) has attacked the idea of wilderness, claiming that “in 1492, Antarctica was the only true wilderness land mass on the planet”—that is, the only place “undominated by the works of man.”¹³ If we add to this large-scale early human influence the impact of more numerous and technologically powerful modern humans, then valuing the wildness of natural systems may appear to be a *will-o'-the-wisp*.

We have noted that relatively less humanized places carry significant wildness value. It may be arbitrary to make fine discriminations in degrees of wildness, but that should not obscure obvious distinctions. The following environments are ordered in clearly increasing degrees of wildness: an air conditioned building, a parking lot with weeds sprouting up, a garden, a tree farm, a national park, a wilderness area. Even extensively humanized places like backyards, gardens, or New York's Central Park carry important wildness value in the right context and when contrasted with more humanized places.

This objection also fails to account for ways in which humanization “washes out” of natural systems. Early human influence on a system is dampened by intervening epochs with little impact. A system can recapture previous levels of wildness as human influence diminishes. Intuitively, Dartmoor in England and the Western Adirondacks in the U.S. (both areas once stripped of their treecover by humans) are examples of high degrees of wildness returning after significant human impact.

Some charge that emphasizing the value of wildness dichotomizes humans and nature and ignores the Darwinian insight that humans, like any species, are a part of nature and are not separate from it[94]. Many are inclined to view humans, especially native peoples, as “biotic citizens” who are members of the natural communities they alter, just as beavers are members of the natural communities they radically alter. We do not deny that humans are part of nature in important senses of this phrase. To a significant extent, humans are the result of and are embedded in natural processes. Certain dimensions of human life are properly understood and valued as manifestations

¹² This is a reference to the work of millionaires and billionaires who are buying up great pieces of land to help create wildlife corridors and megalinkages. See “Can the World Really Set Aside Half of the Planet for Wildlife?” by Tony Hiss.—Ed.

¹³ Holmes Rolston, III, “Biology and Philosophy in Yellowstone,” *Biology and Philosophy* 5 (1990): 242.

of wild nature. Allowing our bodies to reflect the impacts of sun, wind, and aging is to partake in wildness. Acting on instinct is letting the spontaneous processes of nature unfold within us. We value the wild in humans as well as in nonhuman nature[95]. Of course, we do not always value wildness in humans, just as we do not always value wildness in ecosystems. Much depends on competing values and the context. It is obviously appropriate for humans to civilize themselves and civilization clearly has enhanced human value. Nonetheless, we agree with Thoreau when he says, “I would not have every man nor every part of a man cultivated, any more than I would have every acre of earth cultivated.”[96]

Although humans are a part of nature in the above senses (and others), there are important reasons to distinguish human activity from the activity of wild nature[97]. Human transformations of the land are different in evaluatively relevant ways from transformations imposed by nonhuman species or processes. For example, only human activities are fully morally assessable. Also, human activities can affect nature on a scale and speed much greater than the activities of other individual species. Rolston has identified important differences in the methods and speed by which humans transfer and use information.[98] Little in nonhuman nature approaches the deeply layered intentional, cultural, social, economic, and technological dimensions of much human activity.

As a group, humans have become too powerful and too populous to be simply “plain members and citizens” of biotic communities. Given the intense human domination of the planet, the metaphor of the biotic citizen is as likely to mislead as it is to help. It suggests that modern humans should be fully assimilated into natural systems, but doing so would have a disastrous effect on many ecosystems. For an environmental ethic to interpret the human presence in, and influence on, natural systems as not different in evaluatively relevant ways from that of any other species or natural phenomenon is to carry a valid Darwinian insight to absurd lengths.

Restoration, Wolves, and the Wild

Appealing to the value of wildness provides strong reasons to believe that it was wrong to extirpate wolves from Yellowstone. Eliminating wolves involved significant human alteration of the processes that characterized that system. In the context of the twentieth century, this loss of wildness in Yellowstone carried with it significant loss of value. Nonetheless, we cannot directly infer from the loss of wild value in Yellowstone that wildness counts in favor of restoration of wolves, for reintroducing wolves involves significant additional human alteration and management of Yellowstone, and it is hard to see how such a reintroduction can be sanctioned by the value of wildness. Indeed, intuitions about the positive value of restoration result in another objection to wildness value. As Robin Attfield puts the point, “How can anything be restored by human agency the essence of which is to be independent of human agency?”[99] Restoration is

a contentious environmental issue. Some philosophers disparage restorations as fakes or artifacts[100]. Other philosophers stress our obligations to restore nature and suggest that certain types of restoration can increase value significantly[101]. We believe that an ecocentric ethic that emphasizes the value of wildness has the virtue of maintaining and explaining this ambivalent attitude. Although restoration typically fails to increase wildness in the short run, it can speed recovery of wildness by helping humanization wash out of natural systems.

Notice that a stability-integrity ecocentrism must be quite sanguine about restoration (at least in theory). If an ecosystem's stability or integrity is restored, no loss has occurred. In contrast, restoration designed to enhance wildness value wears its limitations on its sleeve. Not only will the additional human activity involved in restoration tend to detract from wildness value, but restoring the original system's wildness will not be possible in one respect: human activity will forever remain part of the causal chain leading to that ecosystem. Nevertheless, wildness value can count in favor of restoration projects. By returning the system to what it would have been had humans not altered it, restoration can help diminish human influence.

A number of factors affect the speed and extent of "washout." In general, the greater the human influence on a system, the longer it will take for the humanization to wash out. For example, previous levels of wildness will return more quickly to a selectively-cut forest than to a clear-cut forest. Temporal distance from the humanization also affects washout. The mere fact that it has been at least six hundred years since humans removed the trees from Dartmoor makes that landscape significantly wilder than it would be had the deforestation occurred fifty years ago. Complete washout of human influence can occur rapidly. A volcanic eruption that destroys a humanized landscape and covers it with a thick layer of lava would seem to return the full wildness of the landscape almost instantaneously. The land becomes very much like what it would have been whether or not it had been humanized. Such transformations suggest that washout is also a function of the extent to which a system instantiates a pattern it would have displayed absent some relatively recent humanization. A fourth factor affecting washout is the extent to which natural processes rework an humanized area, whether or not the result instantiates what it would have been absent humanization. For example, Dartmoor has recovered more of its lost wildness than has the cliffs of Mount Rushmore because natural processes have been more successful in changing the humanized state.

We think that restoring wolves to Yellowstone is a case in which additional human activity can help humanization washout of a natural system. The human involvement in the restoration does initially subtract from wildness in important respects: humans transporting wolves from Canada into the park, attaching radio collars to the animals, and then tracking their movements involves additional and significant human activity in natural systems and it alters natural systems as they are currently constituted. Yellowstone would become wilder sooner if wolves returned without human assistance. Still, we believe this additional human activity will eventually decrease the degree to

which Yellowstone is a humanized environment. By putting wolves back, we diminish the overall impact of humans on Yellowstone, much the way picking up litter in a forest diminishes the human impact on the forest or removing a dam reduces the human impact on a river—despite involving additional human activity. Contrast wolf restoration with introducing snow leopards into Yellowstone. Wildness value counts significantly in favor of wolf restoration rather than snow leopard introduction because wolves and not snow leopards would have been in Yellowstone today. An ecocentrism based on stability would have no reason to support putting back the native species rather than a functionally equivalent exotic.

Conclusion

We have argued that an ecocentric ethic that emphasizes the value of wildness of natural systems has a number of virtues in comparison with traditional ecocentrism. Most importantly, it avoids the ecologically and philosophically troubling assumptions that natural systems worthy of protection are integrated and stable. Moreover, by focusing on wildness, ecocentrism can avoid the counterintuitive result that humans can improve ecosystem's value by increasing their integrity, stability, biodiversity, and so on. An ecocentrism that emphasizes wildness allows for a more ambivalent assessment of restoration than the overly sanguine approach resulting from traditional ecocentrism.

We have shown how focusing ecocentrism on the wildness of natural systems can explain a wide range of intuitions, including beliefs about our obligations to preserve and restore natural systems like Yellowstone. We have also shown how common objections to emphasizing wildness can be avoided. It seems unwise to ground ecocentrism in general theories, such as the ecology of stability or the ecology of instability, when nature displays so much variation and complexity. Powerful intuitions about the value of wildness that are accepted by many people can provide that grounding. Other values can also play important roles in a fully developed ecocentric ethic, though, if we are right, their roles will usually depend on wildness.

[Ned Hettinger, Philosophy Department, College of Charleston, Charleston, SC 29424; Bill Throop, Philosophy and Environmental Studies, Green Mountain College, Poultney, VT 05764. The authors thank Baird Callicott, Gary Comstock, Todd Grantham, Carl Whitney, two referees for *Environmental Ethics*, Wayne Ouderkirk and Brian K. Stevenson, and especially Holmes Rolston, III, for stimulating comments and criticisms. We also benefitted from discussing these ideas with audiences at Baylor University and Texas A & M University and at meetings of the Society for Conservation Biology and the International Society for Environmental Ethics.]

Chapter 11. A Sketch of Wildism in Contrast to Leftism

I.

A friend recently sent me an email in which she complained about the poverty of Wildist critiques of leftism:

You and other wildists have spent a lot of time articulating what leftism is so that you can later say “we are not that.” And usually your rebuke of leftism is hardly explained well. The only real reason I understand is that it inundates a movement with all sorts of causes, so weakens the one or two most important ones. But it’s obvious you reject leftism for more reasons than just that. And even if those reasons were clear, you would be better off explaining what you’re for, since any number of political belief systems could be “non-leftist,” and if what your [sic] for really has no similarity to left-wing groups, they would not be attracted to it anyway.

My friend is correct that, now that the critique of leftism is out of the way, Wildism should devote more time and energy to explaining what Wildism is. In this essay, I do not intend to give an exhaustive exposition of all the principles of Wildism and their consequences, but I do hope to give the general character and approach of the Wildist ideology, especially in the places that it differs from the left. In this way we might take some steps toward a positive articulation of our ideology and, consequently, the way it differs from some other non-leftist ideologies as well, such as laissez-faire libertarianism.

But first, a note on why it was necessary to begin with a critique of leftism. I believe that my friend has undeserved faith in the left to recognize its incompatibility with a given ideology and to walk away from the ideology without conflict. As Ted Kaczynski pointed out in “Industrial Society and Its Future,” as Itimo Reducto pointed out in “Leftism,” and as a recent study on “victimhood culture” on college campuses pointed out¹, the psychological character of the contemporary left is characterized largely by a quest for power. Of course, the left’s ideological battles against sexism, racism, homophobia, etc. are serious commitments for many, especially among the oversocialized; but the quest for power as an underlying psychological motive often determines how those battles play out. For example, if the left were seriously committed

¹ J. Baird Callicott, *In Defense of the Land Ethic* (Albany: State University of New York Press, 1989)

to ending sexism and racism, you would think they would dedicate most if not all of their time attacking the most powerful structures in our society producing these ills. Instead, a significant portion of the left focuses on attacking relatively powerless or insignificant figures or groups. For example, at a recent Earth First! Rendezvous (2015), a clique of rather noxious individuals threw a great fit about the white people with dreadlocks. A leftist might be able to look at this event positively: perhaps, he might think, we have done so well at achieving our goals that these white people are the only ones left to attack. But given the race riots that have recently flared up all over the US, I think we can all agree that this perspective would be delusional, and the unpleasant individuals throwing their temper tantrum could have engaged in much more productive work. Another example: earlier this year a petition began circulating that called for an all-white, all-male rock band named “Black Pussy” to change its name or suffer a boycott. The petition got significant press, and at least one venue cancelled on the band after complaints and threats.²[103] One Facebook event description for a protest against the band called the band’s refusal to change their name “an act of racialised, sexist violence.”³ All this, despite the band not being well known before the petition and almost definitely benefitting from the controversy. These kinds of things are typical of the contemporary left, and it is because a significant amount of left-wing activists are more interested in getting fulfillment from exercising collective power than they are interested in the actual cause they profess to be fighting for.[105]

The underlying quest for power means that at least a faction of the left often flees to movements once they begin to become influential, and sometimes this includes movements that are decidedly not leftist in character to begin with. An elegant example of this can be seen in the history of Earth First!, which provides us with historical evidence that even if a movement’s original principles are not compatible with leftist values and currents, the movement may still become subject to “leftist swarm.”[106] This might occur for no other reason than the leftist need to embark on a noble crusade to eradicate all the perceived evil — isms from a movement. For this reason, it is of the utmost importance to clearly and explicitly articulate a rejection of leftism, and to maintain due diligence in avoiding the terrible disease of “leftist swarm.”

There is an added complication. Several currents in the “New Left” talk about “rejecting leftism” and have the delusional belief that they themselves are not part

² Campbell, B., & Manning, J. (2014). Microaggression and moral cultures. *Comparative Sociology*, 13(6), 692–726. An excellent summary of the article can be found at Friedersdorf, C. (2015). The rise of the victimhood culture. *The Atlantic*. Note how victimhood culture only arises among those who have the ability to defer to third party authorities and when the victims (or alleged victims) have no option to deal with the issue by dueling or fighting.

³ In arguing that the most important natural value is the “systemic value” of ecosystems, that is, their ability to create value, Rolston says: “the stability, integrity, and beauty of biotic communities is what is most fundamentally to be conserved” (*ibid.*, p. 177). Rolston is well aware of ecologists’ ambivalence toward ecosystem stability and integrity. He ties his discussion of ecosystem stability to a discussion of historical change. At one point, he calls the notion that ecosystems tend toward equilibrium “a half-truth.”

of the left-wing. (This is especially popular amongst anarchists and New Left types.) Usually these currents mean three things by “the left.” First, they sometimes mean only the most innocuous of left-wingers, the liberals or progressives, who are derided because they are “not radical enough.” Oftentimes the progressive application of left-wing values (through NGOs, international bodies like the UN, etc.) are seen as “co-optation” of left-wing struggles. But this is not “co-optation” in the normal sense. Che Guevara t-shirts are an example of capitalist co-optation: they depict and idealize a left-wing hero, but only after he has been drained of all meaning and detached from any significant challenge to capitalism. The “co-optation” of NGOs and international bodies, however, are real applications of left-wing values. Survival International really does want to see an eradication of “settler culture”; the NAACP really does want to see black equality in the US; and the UN really is fighting for gender equity, among other things. They may have differences with more extreme left-wing groups concerning analysis and strategy, but the values are basically the same. The second use of the term “leftist,” as it is used by other leftists, refers to the “Old Left.” Usually the cited reasons for rejecting the Old Left include its reliance on hierarchical organizations (or even “organization” itself), its emphasis on ideology rather than “lived experience,” and its focus on the working class rather than a focus on “all forms of oppression.” Finally, not everyone on the left likes the power-seekers who spend more energy attacking other leftists and left-wing movements than they do governments and elite classes. Oftentimes these people are derided as “identity politicians” or something else, but sometimes they are the meaning behind a left-winger’s confusingly derogatory use of the term “leftist.” All this again indicates that without an explicit statement of what leftism is and an accompanying rejection of it, a movement could easily become vulnerable to left-wingers and their web of causes. For all these reasons, we started with a statement of rejection and are now moving on from there.

II.

We can divide the tenets of a political ideology into two categories: analysis and values. Analysis concerns an understanding for what is: where does the problem come from, how can it be solved, etc. Values, on the other hand, are the principles, objects, or qualities that the group that believes the ideology holds in high regard. The two categories are not strictly separate of course. For example, the question “What is the problem?” involves both analysis and values. And since analysis is an epistemological issue, it involves at least an implicit set of “epistemological values” such as a preference for simplicity, scope, etc. But the categories are separate more or less, which ends up meaning that two ideologies can have an identical analysis but diverge in extreme ways because of a difference in values, and vice versa.

The Wildist analysis relies on the principles behind scientific materialism and—especially—one of its most important theories, the theory of evolution. Scientific ma-

terialism is simply the idea that all things in the universe are material (i.e., made of matter or energy) and all phenomena are a result of material processes. (This idea cannot be absolutely proven, nor, for that matter, can any of our knowledge, but, as I explain in “The Revolutionary Importance of Science,” this is not a very strong argument against it.) Our scientific materialism also comes with a set of epistemological values that prefer “accuracy, consistency, scope, simplicity, and fruitfulness”[107] (or, as the philosopher of science Imre Lakatos put it, “predictive” and “explanatory power”[108]; and it accepts, at least by way of a modest metaphor, that an “out there” exists, and that we can both discover it and more or less accurately represent it with our language, theories, and models.⁴

The Wildist analysis also relies on a concept called “consilience,” which is, according to Merriam-Webster, “the linking together of principles from different disciplines especially when forming a comprehensive theory.” In other words, it is the belief that our ideas about culture should not contradict our ideas about psychology, which should not contradict our ideas about biology, which should not contradict our ideas about physics, and so on; rather, all these disciplines should complement and inform each other.⁵ This is an especially important principle to keep in mind when trying to understand social processes and culture, since a lot of literature on the subject agrees with Emile Durkheim’s opposite idea that social phenomena are autonomous from the material world and can therefore only be explained by other social phenomena[111]. For example, Durkheim’s idea, or a version of it, is the inspiration for the alleged difference between sex and gender, with idealist theorists often claiming that gender is completely unrelated to sex, or, at the very least, that gender, a “social construct,” is best explained by other social phenomena, like power. In contrast to Durkheim’s idea, an analysis of social life that is consilient with other scientific disciplines can be found, for example, in the work of evolutionary psychologists, who point out that many ideas around gender are rooted in material sex differences⁶. In fact, a consilient view, such as the one offered by Diane Halpern in *Sex Differences in Cognitive Abilities*[113], would find that even the division between gender and sex is dubious.

Scientific materialism immediately separates Wildism from the majority of other ideologies in existence today, including all ideologies that believe in a supernatural realm and those that believe in a realm autonomous from material processes. The former includes almost every religion, except for a small group of quasireligions like Unitarian Universalism (and even then only some of the time). The second includes many leftist currents, including the social constructionism common among feminists, and orthodox

⁴ Ibid. For research documenting chaotic behavior of populations independent of perturbations, see Alan Hastings and Kevin Higgins, “Persistence of Transients in Spatially Structured Ecological Models,” *Science* 263 (1994): 1133–36.

⁵ See Reice, “Nonequilibrium Determinants,” p. 428.

⁶ Looking at the fossil record of the last 50,000 years, David Jablonski says, “The most important message ... is that ecological communities do not respond as units to environmental change..... Species are highly individualistic in their behavior, so that few, if any,

Marxism, which relies on “the dialectic.” Indeed, the left has had a rather tumultuous relationship with Darwin’s idea of evolution. The Soviet communists called genetics “a bourgeois pseudoscience” and replaced Darwinian evolution with Lamarckism and Ly-senkoism. And the anarchists were so upset at Darwin’s recognition that competition played the dominant role in evolution that one anarchist, Peter Kropotkin, outlined his alternative theory that cooperation was just as important a factor, if not more important[114]. Even today, Marxists like Stephen Jay Gould continue to have trouble accepting the full implications of evolutionary psychology.[115]

Some important clarifications: we do not believe that science and reason have any intrinsic morality, nor do we believe that education based on the principles of science and reason will somehow eradicate the “darker” sides of human behavior (i.e., usually the sides of human nature that are an obstacle to the proper functioning of civilization). These are all delusional Enlightenment ideas, and they have been partially debunked by science itself.

By “science,” we mean “scientific thinking,” and when we advocate scientific thinking, we are only necessarily advocating it for the small group of revolutionaries dedicated to aiding the collapse of industry. This is because science, despite its real problems, is simply the best tool we have to understand our reality, explain it, and in some limited ways predict it. This matters for revolutionaries in particular, because without a proper understanding of reality, they significantly increase their likelihood of failure. Think of the countless hours revolutionaries with a religious ideology have spent praying, studying scriptures, or doing some other task that does little to breed useful knowledge for their cause. Furthermore, without scientific reasoning or some measure by which to evaluate empirical claims, we are left politically impotent: the king who claims he has divine authority, the climate-change deniers, the touters of racist pseudoscience all have as much claim to truth as we. Obscuring the truth has been a great tool for the powerful to exercise their power over mystified populations.

Of course, these reasons for a scientific analysis means that we believe it would benefit most people in their day-to-day lives in some way. However, and this point cannot be overstated, the goal of Wildism is not to indoctrinate or evangelize to the general population; it is to have a tangible effect on the functioning of industrial society. For various reasons, an ideology is conducive to this goal, but for the most part these reasons do not make it necessary for anyone beyond the core of committed revolutionaries to believe it.

And finally: we do not advocate scientific exploration at the expense of freedom and wild Nature. It is utterly disgusting to tear up a forest for a massive lab that will only be used as a playground for technocratic physicists who like to smash atoms together. What is worse still is that the findings of those physicists contribute to some of the most dangerous threats we face today. Knowledge is important, but we must always ask, “Knowledge at what cost?” Thus, the importance of values.

III.

A different analysis alone does not differentiate us from leftism. Indeed, many of the most convincing left-wing currents agree with our analysis one-hundred percent, but their values result in different obligations and conclusions regarding the same issues. In the following paragraphs we will examine the political views of Peter Singer, Steven Pinker, and Noam Chomsky, three people who believe in scientific materialism yet maintain left-wing viewpoints. While we review their beliefs, keep in mind the three values that *Itimo Reducto* discerned were present in all forms of leftism: equality, indiscriminate solidarity, and justice (or “liberation”) for victims or alleged victims[116].

Note

Itimo Reducto pointed out to me that he wrote “identification with or solicitude towards victims or alleged victims,” which is different from both “justice” and “liberation.”

In 1999 Peter Singer published a book entitled *A Darwinian Left: Politics, Evolution and Cooperation*, in which he argued that the left should not:

Deny the existence of a human nature, nor insist that human nature is inherently good, nor that it is infinitely malleable;

Expect to end all conflict and strife between human beings, whether by political revolution, social change, or better education;

Assume that all inequalities are due to discrimination, prejudice, oppression or social conditioning. Some will be, but this cannot be assumed in every case...[117]

... and that the left should use knowledge of human nature to better actualize its values, one of the most notable being compassion for victims. Indeed, in his book Singer defines the left by this value: “If we shrug our shoulders at the avoidable suffering of the weak and the poor, of those who are getting exploited and ripped off, or who simply do not have enough to sustain life at a decent level, we are not of the left.”

Singer argues against an appeal to nature—that what is natural is good—and says that despite the fact that competition is a central part of evolution, the left should “promote structures that foster cooperation rather than competition.” This echoes statements made by Richard Dawkins, who has said we humans should be “deliberately cultivating and nurturing pure, disinterested altruism— something that has no place in nature, something that has never existed before in the whole history of the world.”[118] All these goals, Singer argues, would be easier to achieve with a proper understanding of reality.

Singer outlines his idea of equality, which is “not a description of an alleged actual equality among humans” but “a prescription of how we should treat human beings.”[119] Of course, the idea of granting equal moral consideration to every human being is rather new. But Singer is also the author of a book *The Expanding Circle*, in which he argues that, although altruism developed in order to protect kin and community members, this biological inclination is now the basis for an ethical choice that expands the circle of moral consideration to all human beings and even, as Singer argued in another book,

to animals.[120] (This is to what Itimo Reducto refers when he mentions indiscriminate solidarity.) The expansion of our moral circle is, according to Singer, a sign of “moral progress,” which we achieve through the application of our reasoning abilities.

Pinker has similar opinions as Singer. For example, he says of equality: “The ideal of political equality is not a guarantee that people are innately indistinguishable”; rather, “it is a policy to recognize inalienable rights in all people by virtue of the fact that they are sentient human beings.”[121] The mission to institute policies and structures that include all vulnerable populations into this vision is, according to Pinker, an important part of achieving the ideal. Again, in this he is in complete agreement with Singer. What Pinker does better than Singer, however, is illustrate the infrastructure, organization, and complexity necessary to achieve and maintain an expanded moral circle. More on this later.

Chomsky is not much different from the other two in his beliefs. I only mention him here because he is loved by (or at worst innocuous to) most portions of the left; Singer and Pinker, on the other hand, have received very significant and visceral hatred from factions on the left, so a left-winger reading this essay might be tempted to say that what I have written here does not accurately represent leftist views. I doubt anyone can say such a thing about Chomsky. Chomsky also offers to us an added insight into the left-wing idea of equality, which is only vaguely articulated sometimes because of the discrepancy in possible meanings:

The distinction between equality of condition and equality of rights loses its apparent sharpness when we attend to it more closely. Suppose that individuals, at each stage of their personal existence, are to be accorded their intrinsic human rights; in this sense, “equality of rights” is to be upheld. Then conditions must be such that they can enjoy these rights. To the extent that inequality of condition impairs the exercise of these rights, it is illegitimate and is to be overcome, in a decent society. What, then, are these rights? If they include the right to develop one’s capacities to the fullest, to realize what Marx calls the “species character” of “free conscious activity” and “productive life” in free associations based on constructive, creative work, then conditions must be equalized at least to the rather considerable extent required to guarantee these rights, if equality of rights is to be maintained. The vision of the left, then, blurs the distinction between equality of rights and condition, denies that inequality of endowment merits or demands corresponding inequality of reward, rejects equality of condition as a principle in itself, and sees no intellectual dilemma in the conflict between egalitarian principles, properly understood, and variability of endowment. Rather we must face the problems of a repressive and unjust society, emerging with greater clarity as we progress beyond the realm of necessity.⁷

Now, I promised in the introduction that most of this essay would be spent outlining what Wildism is, not what leftism is, and we will certainly get to that. But the previous exposition was not only necessary to accent the ways Wildist values contrast from the

⁷ For a powerful treatment of this topic, see Rolston, *Conserving Natural Value*, pp. 223–28.

left; the exposition was also necessary to make an added point about why criticizing leftist values is such a priority. The leftism outlined above is, with only minor deviations some of the time, the dominant ideology of contemporary industrial civilization. That is not to say that it is the most common ideology, although that certainly may be true, depending on the scope of consideration. No, leftism is “dominant” in the sense that it has extraordinary persuasive power, general acceptance, and naturalized tenets. In other words, it is “dominant” in the sense of power, not numerical superiority. Just think: even if in practice a man grants greater moral consideration to his family and close friends, he will not question the dominant assertion that all of humanity deserves equal moral consideration. And even though politically significant ideologies that do challenge this claim operate in our world, they are certainly not the ideologies preached by the UN, NGOs, the mass media, or the elite classes. As Kaczynski points out in “The System’s Neatest Trick,” some self-professed radicals have been duped by this ideology just as effectively as the supposed non-radicals. And we can see the likes of Naomi Klein, Bill McKibben, Murray Bookchin, and now even the Pope spewing out a grotesque blend of green convictions and red socialism that further obscures the problem. Wildism attacks leftism because, more than any other ideology, its promises of inclusion, an expanding circle, and moral progress are vehicles of legitimacy for more of the technological infrastructure that is tearing apart our wild earth. For this reason it must be rejected, delegitimized, and sent to the burning fires of hell where it belongs.

IV.

Now we’re going to move into the realm of tangible facts, which, as I mentioned earlier, is difficult for some factions of leftism. The factions that disagree with the facts and their proposed explanations as stated here should be dismissed from the reader’s mind, as they are not the factions meant to be represented in this section. Rather, the important part of this section is where we differ from the scientific left in how our values are applied to the facts, and what moral obligations this application produces.

Violence has generally decreased since the advent of human civilization. This fact is disputed by some, but, with a few notable exceptions, the ones who dispute this are usually accompanied by profound ideological commitments (e.g., indigenous rights activists). Otherwise, I have heard nothing but support for this idea from credible sources, many of them skillfully collected and presented together in the book *The Better Angels of Our Nature*, by Steven Pinker. In *Better Angels*, Pinker makes the case that the advent of the state, democracy, communications technologies, and so on bring a decreased chance of a violent death to individuals within the realm of influence of those exogenous factors. This contributes to the overall trend of violence decreasing amongst all humans worldwide.

Pinker points out six statistically significant trends—the Pacification Process, the Civilizing Process, the Humanitarian Revolution, the Long Peace, the New

Peace, and the Rights Revolutions —and he dedicates one chapter to each. For example, the chapter dedicated to the Pacification Process outlines the effect the advent of the state has had on violent deaths. Pinker spends this chapter explaining the evolutionary logic behind violence and presenting various statistics concerning homicide amongst hunter-gatherer and horticultural societies, both prehistoric and modern. The presence of a state has a striking effect (see Figure 1). Pinker also suggests that another statistically significant trend, during which people denounced torture and the like, was caused largely by the advent of new communications technologies, such as books, which helped sustain an expanded moral circle that was mentioned earlier.

5*mr Nahar Rai, India, 3140–850 BCE

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... And so on. I'm not going to try to restate Pinker's whole argument here. The book is over 800 pages and jam-packed with numbers, graphs, and citations, so a summary within a short essay would hardly do it justice. But suffice it to say that the book is convincing, as are his many sources, including *Homicide* by Martin Daly and Margo Wilson; *War before Civilization* by Lawrence Keeley; *Retreat from Doomsday: The Obsolescence of Major War* by J. Mueller; the Hu@@@man Security Report Project; and so on.

So what are we to make of all this? The main lesson to be learned is that leftist values cannot be instituted without artificial infrastructure to uphold them. The value of "peace" is the most obvious example, as it is the subject of the book, but this lesson applies to other values as well. For example, for "humanity" to be a

valid unit of moral consideration, as is required for the humanism that sprung out of the Enlightenment, there must be some sort of communications infrastructure in place to constantly reinforce this idea; similar reasoning applies to the human rights revolutions occurring right now, both partially spurned on and reinforced by digital communications technologies. Should infrastructure break apart so as to make concern for all of humanity impractical, it is unlikely (I don't think it is a stretch to say "impossible") for such a morality to arise. Consider the absurdity of the people of ancient Egypt being concerned with the welfare of gays in the Indus Valley, or even the people as a whole, to the extent that NGOs are concerned with the welfare of "developing" nations today.

Of course, this is all a matter of values. If you are not concerned with the creation of bubbles of artifice to escape, albeit temporarily, the ins-and-outs of wild Nature, or if you think this is a small price to pay for peace, solidarity, justice, and equality, then there is no arguing with you. Someone can either agree with the value you place on those things or he can't. And being a Wildist means the latter. A Wildist accepts only wild Nature as his primary value; all other values are subordinate. Insofar as the actualization of specific values implies development against wild Nature, those values are incompatible with Wildism.

But why do we value wild Nature so much? This question invokes the core issue of ethics: intrinsic versus extrinsic value. The topic has been subjected to much debate over the years without any clear answer arising, so in many ways this question is unanswerable. However, two points are relevant here.

One, any moral system has to rest on first principles that cannot be proven. At some point we have to take the position that some thing or action is valuable in itself, where its value cannot be derived from anything else. This is the point at which we have reached "intrinsic value." There is no way of getting around it. There is a similar problem in science, which was outlined by the philosopher David Hume. Hume pointed out that empirical knowledge comes from our senses, but that there is no real reason to trust our senses. Because of this, the position of radical skepticism is irrefutable. Yet, no one lives out their day to day lives as a radical skeptic. We simply accept that empirical knowledge is valid (or we do not).

Second, we might ask what imbues something with intrinsic value, according to Wildism, and this is best explained by way of analogy. A left humanist places intrinsic value on those things that have the ability to flourish and the ability to experience pain. Traditionally this has included only humans, but the question of what has the ability to flourish and experience pain is at least partially a scientific one, and as a result some circles have expanded the humanist project to include some kinds of animals. In a similar way, a Wildist places intrinsic value on those things that are natural (in the sense of "non-artificial") and have the capacity to be wild (in the sense of "autonomous"). Thus, just as the flourishing of human (or sentient) beings is primary for the left humanist, the wildness of Nature is primary for the Wildist. This would include the non-artificial aspects of human beings (called their "human nature"), it would include ecosystems such as those in the Grand Canyon or the Amazon rainforests, and so forth. There is always going to be some level of ambiguity in the Wildist ethic, just as with the humanist ethic there is ambiguity over which animals are sentient and which are not. These ambiguities are an indication that we should tread lightly and take potential consequences seriously, but they do not by themselves invalidate an ethical system.

V.

There are some consequences of the Wildist ideology that are mentioned frequently enough to bring up here. Still, keep in mind that the core value is wild Nature itself, especially since the following concepts have been interpreted in many ways that do not consider wild Nature primary, such as the concept of freedom.

First, Wildists emphasize the individual and his relations (“allegados” in the writings of the Spanish Wildists). “Relations” is perhaps a vague term, but it is all that is left after the fascists have taken “kith and kin” to reference their respective racial groups. A man’s “relations” are different than a racial group, as a relation can be anyone with whom one has a deep and powerful connection. (Racial solidarity is, like solidarity amongst all humans, indiscriminate solidarity.) Generally, humans only have the capacity to sustain about 150 or so relations (usually much lower), after which stable and cohesive groups require more restrictive rules and regulations. This number, by the way, is known as “Dunbar’s number,” conceived of by the anthropologist Robin Dunbar in his article “Neocortex size as a constraint on group size in primates.” Other similar studies report higher estimates, but as far as I know they never exceed 300.

It is clear that civilization, and especially industrial civilization, is abrasive towards or, at worst, destructive of the individual and his relations. For example, nepotism is the scourge of many areas attempting to industrialize, and in-group loyalty with “no snitching” codes often get in the way of effective law enforcement. Industry requires that an individual’s loyalty to his relations be kept at a non-threatening level or that the loyalty be broken down completely. Kaczynski writes more about this in “Industrial Society and Its Future,” although he refers to “relations” as “small groups.”

Another consequence of wild Nature as a primary value is the veneration of freedom (defined in the Statement of Principles as the autonomy of human nature, or the non-artificial part of humans). This is related to the above point, which advocates for the autonomy of the individual and his relations, even at the expense of larger social structures. Primitive man had a fairly reasonable amount of control over the circumstances of his own life. He could make decisions about when to eat, how to eat, what to eat; he could decide whether to engage in warfare or not; and so on. In modern industrial society, man’s choice is restricted by large corporations and governments. Even a man who has es-caped into the forest to live alone cannot avoid the consequences of industrial development, if not directly, then indirectly from pollution, possible disasters, climate change, and so on. One might correctly point out that primitive man’s choice was restricted by nature, and technology would allow him to escape from this restriction. But as I stated a few paragraphs above, the primary value is wild Nature, so this is, to a Wildist, acceptable.

The value system might seem absurd. Why would someone detest restrictions enforced by an artificial system but be okay with the restrictions caused by wild Nature? But consider this idea again, keeping in mind that it operates in many places. Today there are men and women all over who go into the wilderness for what they describe

as freedom and peace of mind. But certainly the crickets at night are not peaceful and the winters are not always conducive to freedom. Yet these same men and women often detest the noise and restrictions from civilization: the noise of development and cars, the smothering atmosphere of modern work, and so on.

Some explanations for why humans tend to behave in these ways come from the theory of evolution. If we evolved for thousands and millions of years as nomadic hunter-gatherers in the Pleistocene, then unless our physical bodies are changed through technics, we are bound to desire or require many things that are actualized by that way of life. Consider, for example, the work in evolutionary aesthetics, which suggests that many ideas about beauty are innate to human beings, the result of physiological responses that evolved in response to our Stone Age environments[123]. These kinds of explanations are not sufficient, however, since some of valuing wild Nature comes from the application of reason, not direct experience, emotion, or intuition. One might compare this to the way empathic abilities have sometimes granted left humanist movements potency, as did the emotions stirred by Uncle Tom's Cabin during the abolitionist movement, even though the philosophy of humanism stands or falls based on abstract moral reasoning, like the concept of rights and sovereignty.

It is more of this abstract moral reasoning that is required to solidify the foundations of Wildism, and now that the critique of leftism has been solidified, there is room for such an endeavor. Hopefully this essay has provided a foundation for us to take our first steps in that direction and toward a wild world.

For the wild,

John Jacobi, September 2015

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Introducing *Hunter/Gatherer*

AFTER closing down *The Wildernist*, a student conservation magazine I ran from 2014–2016, I wanted to start another journal, this time more scholarly and focused exclusively on fleshing out the main ideas of wildist conservationism. However, it didn't take long for me to realize that there are too few wildists out there for the journal to start off as developed as I would like. That was the whole reason for starting a popular magazine in the first place!

Still, shutting down the magazine was a good idea. Both I and the other executive editor found ourselves living drastically different lives than those we were living when we first started the project, and the publication's flow and structure were an odd fit for the new conditions. Furthermore, the magazine was an experiment that had by the third and final issue proven successful. We concluded that enough people care for the wild world, and enough evidence exists that it is being relentlessly trampled by industry, that there is room for an uncompromising ethic to enter the stage and demand, with sacrifice to back it up, that the trampling stop. This may or may not mean the end of industry wholesale, but if it does, and if this goal is feasible, then we ought to make it so.

Hunter/Gatherer, then, will focus exclusively on developing the implications of these ideas, but I will be writing most of the articles, at least at the beginning, simply because I am the only one of the people working on the project who writes well in English and enjoys it. But the publication is intended to be a forum for wildists, so more contributors are expected as it develops.

My long-term goal for the publication is to use it to consolidate wildist conservationists so that we might become a notable force within the movement. No one knows exactly what that will look like, of course, but hopefully it will become clearer with more issues of

Hunter/Gatherer. Until then, the goal is exclusively to develop a foundational and reasoned body of literature for future practical work to draw on. Thus, the intended audience is not the general public, but cadres of committed individuals willing to study the articles and, later at least, engage in whatever work is necessary to implement the ideas.

Please share this publication widely, and for more information, or to submit to the journal, email:

<mailto:johnfjacobi@wildism.org> or johnfjacobi@wildism.org

For *wild aature*, John Jacobi, 2016

Our Strategy, 2016

John Jacobi, Jeremy Grolman, Alex Kellogg

Abstract—The Wildist Institute is an organization dedicated to spreading the ethical philosophy of wildism and helping create a movement able to pose a real challenge to the industrial destruction of wild nature. Towards these ends, this article is the Institute’s 2016 strategy.

I. What We’re Sure Of

This journal is meant to investigate what we don’t know, but there’s still quite a bit we’re sure of. For example, although we are trying to decide exactly what it means to be in conflict with industry (e.g., should we wait for collapse or instigate collapse where possible?), we are sure that we ought to preserve and restore nature from the remnants left. To this end, the Institute will be encouraging at least four kinds of work through *Hunter/Gatherer*.

First, of course, is conservation work. Conservation biologists have been essential in outlining the ways current industrial practices are incompatible with wild nature, destroying the wild to a degree offensive to just about anyone’s moral sense, if they have one. Furthermore, in the very act of protecting the things we love, conservation activists are bringing to the forefront the tension between nature and industry. What does it say about a civilization that extinction of non-human life is a normal part of its operation, and, worse, that con-servation of that life is completely at odds with it?

Second is journalistic work. So long as the journalists stick with the facts, not intentionally bending their narrative to fit their politics, their work should be as effective as the conservation biologists. On the other hand, if they lie or distort the facts, which, even apart from being unethical, is completely unnecessary, they’ll do more to inspire tension between the public and conservationists than the public and industry, hurting, rather than helping, the cause.

Third is academic work. Deep ecology has a strong academic base that sustains the intellectual foundations of the movement. There ought to be more concerted work being done specifically under the heading of wildism, particularly in the area of applied ethics.

Fourth, monkeywrenching can at times be a very effective tactic that we will not condemn, and in fact will report on when it is done strategically and for the sake of conscience, rather than the sake of simply breaking the law. What we will report on includes old tactics like tree spiking and sand in bulldozer tanks, but it also includes new tactics like whistleblowing and urban-oriented actions. We’re serious about the importance of conscience, though. Dave Foreman wrote a great piece on the topic entitled “The Perils of Illegality,” in which he wrote, “Be careful and deliberate in

choosing the laws you break for ethical reasons, or the targets for monkeywrenching. Be sure you are justified, that you have exhausted every legal means.” Please also keep in mind that *our* domain of work is wholly legal and will remain that way.

Finally, we’re sure that all this work ought to be done on the basis of wildism. As explained in this issue’s “The Foundations of Wildist Ethics,” deep ecology has served its purpose, but it’s time to focus and to no longer obscure the incompatibilities between some deep ecologists, focused on a reasoned defense of wild nature, and most of the others, who belong to left humanist movements, who espouse social progressivism, or who are interested mostly in woo woo spirituality. Rather, our resistance must be based on scientific and reasoned principles, it must be concerned with increasing the autonomy of nature, and it must reject all narratives of progress, including and especially those of the social progressives.

II. Our Work

One of the aims of the Institute is to build the intellectual foundations for a movement that can pose a real threat to the industrial destruction of wild nature. The core of this is the ethical philosophy of wildism, but there are other important topics of investigation to work through as well. Most of this long-term work can be divided into three general categories—wildist ethics, scientific analysis, and conservation strategy—with three tangible counterparts—the ideology, the publication, and the conservation program and projects.

A. Wildist Ethics

Most of the foundational work in this category has been done and merely needs explication. This is a primary task of the first volume of *Hunter/Gatherer*, and it has mostly been done with “The Foundations of Wildist Ethics,” but no doubt some clarification essays will be necessary. After that, however, the foundations will have been set.

The next step will be to introduce wildism to environmental ethics journals. This will achieve many things, including increased credibility, a more distributed and therefore resilient movement infrastructure, and a greater field of influence. It will also ensure that the ideas will be long-lasting, since academic preservation practices are meant to withstand time. And, finally, it will allow people better acquainted and equipped to deal with philosophical conundrums relevant to wildism to address them and maybe even sort them out.

These first two steps are necessary to have a consistent and exact language for conversations about wildism *among wildists*, but the third step is to spread wildism outward, into the real world, most likely with accompanying activism. Earth First! did this with deep ecology, for example. (This is not to say that we need to do it the

same way as Earth First! To the contrary, while Earth First! contributed a great deal to the movement for wild nature, much has changed, and our efforts must be properly attuned to the political landscape, both the broad, mainstream one, and the narrower, ecological one.)

B. Scientific Analysis

Theoretically there is a major gap that must be filled for wildists to make a proper analysis, namely, the gap in our knowledge of cultural and technical evolution. For this, there must be a synthesis between cultural ecology and sociobiology, as the former gives too little attention to human nature and the latter has major gaps that cultural ecology could fill. Those at the Institute are provisionally calling the synthesis “biocultural materialism.” Sometime in the near future we will be publishing reviews on the available literature to instigate work in this area.

A second area of focus should be on human nature. Sociobiology has the most to offer on this topic, and being familiar with the concepts of evolution, evolutionary psychology, game theory, and so forth should be necessary for most wildist cadres, especially those that do journalistic or theoretical work (and by default those that do scientific work).

Finally, of course, is the work of the conservation biologists, which is already well-understood.

C. Conservation Strategy

Much of the work in the area of conservation strategy will have to be highly innovative. This is especially true given the seriousness with which we at the Institute are outlining the utter incompatibility of industry and nature’s wildness. If our conclusion that the collapse of industry is our only way out sustains itself through critique, then clearly this will require some changes in strategy. Still, innovation is not our focus right now and won’t be for at least another year or two.

Our primary effort is building what we call the “tactical spectrum.” The concept is best explained by a David Brower quote:

The Sierra Club made the Nature Conservancy look reasonable. I founded Friends of the Earth to make the Sierra Club look reasonable. Then I founded Earth Island Institute to make Friends of the Earth look reasonable. Earth First! now makes us look reasonable. We’re still waiting for someone else to come along and make Earth First! look reasonable.

In recent years, leftist swarm has successfully broken down this spectrum which used to unite radical and moderate efforts in the conservation and environmentalist movements. It is absolutely necessary that the spectrum be rebuilt and strengthened, because the time is indeed fast approaching for a movement that makes Earth First!

seem reasonable. As discussed below, one of the primary ways to go about doing this is through tangible conservation projects.

D. The Role of the Ideology

Radical ideologies serve at least three functions that are relevant to us. First, they mobilize a small core of committed people, and are emphatically not for large-scale mobilization. They are important especially in asymmetric battles where the smaller side cannot rely too heavily, if at all, on the usual tools of hierarchical organization, bureaucracy, and so on. Instead, ideologies provide a sense of unity and a basis for independent but coherent and directed action without the overhead of bureaucratic management.

Wildism exists, then, to motivate only a small party of people. It's not just that one can expect the party to be small; smallness is, in fact, desirable, since it allows quicker and more unified action. Thus, the party should not be afraid of factionalism per se. Minor disagreements should be no big deal, of course, but major disagreements that can't be resolved in a timely manner would be better ended with a split. Because of the importance of ideology in maintaining the strength of the small side in an asymmetric conflict, a primary goal of the party should be to preserve a loyal core even at the expense of greater numbers. This is the first function of the ideology.

The second function is to allow the core to speak about relevant issues exactly and efficiently.

A different and looser approach is required for broad-based action, but even in the context of specific actions or conservation projects, wildist cadres should strive to make the wildist narrative the dominant one, where appropriate. Speaking in technical language is in most of these circumstances unnecessary or even harmful, but it is important to answer the public's "Why?" with *wildist* answers that point out the tension between nature and industry, rather than, say, the social ecologist's pro-socialist answers. To put it another way, if you throw a pie at a Jewish CEO, it matters whether your reason was that he was a CEO or whether it was that he was Jewish. Thus, the third function of the ideology is ensuring that the cited reasons for an action are well-reasoned and true.

E. The Role of the Publication

The publication is the most important project of the party. It always serves more than one function, and because it is such a versatile tool, these often change with the shifting political landscape. Still, one consistent function it has is unifying the party with a single project that teaches members how they best work with each other and which keeps them consistently working on the stated cause.

The publication also provides a means to consolidate wildists. Whereas conservation projects and actions are usually geared toward the general public, the movement publi-

cation is for an internal audience. Public-facing publications should also exist, but are not the purpose of *Hunter/Gatherer*, at least at the moment. Most of the public-facing work should be done by cadres and individuals who read *Hunter/Gatherer* and can translate the ideas for the general public through projects, art, articles, speeches, etc.

The final function of the publication is, of course, to spread information and provide a forum for movement discussions.

A. The Role of Conservation Projects

Whereas the ideology and internal publication exist to consolidate and maintain networks, relationships, and infrastructure, more broad-based mobilization should be done through tangible conservation projects or specific actions with concrete goals. These sorts of projects allow a wider range of ideological opinions because, although a certain amount of unity is important, people mostly need to simply agree on the goal, no matter their stated reasons.

Given that the Institute's primary focus is laying intellectual foundations, for now we will mostly be focused on ideology and the publication. Other tangible work we do will not innovate on conservation strategy much at all, and will stick with the normal goals of protecting wildlands, connecting habitats, conserving species, and so forth.

At some point we hope to produce a general program that will consolidate many of the grassroots efforts we are and will be involved with. This will build on much of the great work already being done by organizations such as The Wildlands Network, Yellowstone to Yukon, and The Rewilding Institute. But we will also try to fill in the gaps in the programs, such as the conspicuous absence of any mention of ocean life.

We will also work to develop effective talking points for the public. Some issues are complex and difficult to deliver in soundbites, but with care the gist of the argument can be delivered quickly and eloquently. To give just one example, in arguing that industry is incompatible with nature and nature's wildness, we need not bring up arguments about technical and cultural evolution, we merely need to focus on technologies that function as "pressure points," such as roads, mines, genetic engineering, agriculture, and dams.

I. The Big Questions

In addition to outlining the basic ideas of wildism, a goal of the first volume of *Hunter/Gatherer* is to intensely scrutinize the hypothesis that industrial collapse is the only way out of our ecological problems, and even more intensely scrutinize the hypothesis that we must therefore aid the process of collapse. While most of us are fairly convinced of this conclusion, its repercussions are too far-reaching for us to run with it without carefully considering the alternatives first. This is especially true in the

case of aiding collapse— which could mean a broad range of things, many of them not what we espouse at all. To this end, we are putting effort into answering the following questions:

Is there any viable alternative to the collapse of industry given our stated values?

What are strong criticisms of the idea that collapse or aiding collapse is the solution to our ecological problems? '

What is the moral difference between collapse happening and helping collapse along, if any?

How true are the Anthropocene booster's claims that technology can decrease human impact on nature?

Individuals attempting to take on these questions will have to draw from a wide range of sources and fields, such as population ethics, the ethics of war, conservation science, and, in the case of the last question, technical and engineering sciences. This should consume at least a year of time, possibly more.

IV. Conclusion

The Institute is focused on issues that fall into three general categories: wildist ethics, scientific analysis, and conservation strategy. These roughly parallel the three components of our work, namely, our ideology, our publication, and our conservation projects and program. At the moment and into the near future, we will be focused on only the ethical and analytical components, working especially to ensure that we are correct when we say that the collapse of industry is our only way out, which could mean aiding collapse is a moral obligation. These immediate tasks should take at least a year or two.

This work is especially important in light of new revisionist ideologies and the left-wing takeover of environmentalism. It is important to reinvigorate the tactical spectrum that once strongly united radical and moderate conservationists, and to build a group that can maintain that spectrum and function as the conscience of the conservation movement, guarding its critique from the revisionism of the boosters, the watered-down critique of the cowards, and the anathema that is leftism, so that we might move far, far away from this industrial disaster and toward a wild earth.

r/T.

The Foundations of Wildist Ethics

John Jacobi, *The Wildist Institute*

Abstract—Wildism is an ethical philosophy that stresses the importance of wildness in conserving and restoring nature. It could be considered part of the deep ecology movement, but was largely borne out of the perceived need for something more focused and well-suited to wildlands advocacy and other wildness-centered conservation work, especially in this age of revisionist conservation ideologies like the one of the Anthropocene boosters. This piece examines the foundational ideas of the resulting philosophy. The first part examines the epistemological and metaphysical principles undergirding wildism, while the second part outlines the ethical principles and ideas. Apart from the section on ethical discourse, the main ideas are as follows: (1) the Cosmos is a proper object of worship, as men such as Einstein and Carl Sagan have also asserted, and conservation work in this context can properly be conceived of as a sacred duty; (2) the dominant mythologies of progress are false, which includes social progressivism; (3) the conservation imperative must be extended to human nature; (4) industry is almost certainly incompatible with wild nature, leaving the collapse of industry as the only viable solution to our moral problems; (5) wildlands conservation is a foremost duty for wildists. In conclusion, the threats posed by revisionism are restated, as well as some necessary work for elaboration beyond this piece's foundational ideas.

1. Introduction

WILDISM is an ethical philosophy that asserts that wildness matters enough to make civilized agriculture and industry morally condemnable. The ethical system could be considered a subset of the broader deep ecology tradition, and while I usually refer to it this way, I and the others involved in its creation have made no effort to live up to even the dearest tenets of the foremost deep ecology philosophers.

Indeed, wildism was borne out of frustration with the various weaknesses of the deep ecology philosophy. Predominant among these is the vagueness and amorphous nature of the philosophy as espoused by Naess, compounded by the conflicting and often selfcontradictory versions later outlined by Sessions and especially Devall. As

one critique put it, “deep ecology...is well on the way to becoming all things to all interested parties” (Sylvan, 1985). Admittedly, the only reason I cannot say that wildism is explicitly not a part of deep ecology is because of how broad Naess made it. Still, while I am suspicious of Naess’ methodological vagueness and the implications it has for truth and honesty, his broad-based approach also provided some clear advantages. For example, because of deep ecology, there exists a definitive base for any radical ecological movement, which has definite strategic benefits.

Even so, a more specific and rigorous system is necessary at this time. Not only are ecological problems worsening and expected to continue to do so, the traditional conservationist focus on wildness is being attacked on all sides by various revisionist ideologies, from proponents of “sustainable development” to the Anthropocene boosters to the environmental justice faction that now defines the climate change movement. All of these, however, challenge the focus on wildness based on the same two ideas: that humans are benefitted by civilization even if non-human nature is not, and that reason, technology, and scientific planning can solve the problems caused by our current industrial civilization.

Thus, the time is now for the basic philosophy of the wilderness movement to be articulated with clarity and applied or extended to take on these two challenges. The first task—clarity—requires that the philosophy distinguish itself from deep ecology generally. The second is addressed throughout this text in the following manner.

Section II, “Consilience in Ethics,” covers the metaphysical and epistemological foundations of wildism. I write about the scientific materialism on which wildism depends, argue for an ethical science, and explain how two such ethical sciences already exist, namely, medicine and conservation. Each of these roughly parallels its ideological counterpart, humanism and wildism, respectively. Although this section will likely be boring or difficult for those not inclined to philosophize, I urge readers to pay attention to the outlined concepts, since I refer back to several of the ideas throughout the text.

Section III is the meat of the essay, covering all of wildism’s core ethical principles. Subsections B (“Cosmos as Divinity”), E (“Anti-Industrial Reaction”), and F (“Wildlands Conservation”) are rather short, the first two because they are still undeveloped and the last because most of the ethical work for it has already been done elsewhere. The idea of “Cosmos as Divinity” is likely to stay undeveloped for several years, but subsection E addresses what is currently the primary work of The Wildist Institute, as will be explained.

Subsection A covers the meaning of nature and various questions concerning its value, especially the significance of wildness in relation to it.

Subsection C outlines the heart and soul of wildism: the critique of progress. I define the myth of progress as the idea that human beings can artificially modify nature through reason or some pre-established blueprint to bring about a fundamental improvement in the world, especially the human condition. Most environmentalists have now recognized that this applies to non-human nature, but the prevailing refutation of progress is rather shallow, not taking into account that the critique must be more

than an assertion that progress is not living up to some given set of values. Rather, much of the wildist critique of progress consists of empirical questions regarding limits to reason and the ability of humans to design a society. Note that because environmentalists tend to forget that the critique of progress applies to human nature as well, I focus especially on outlining why ideologies like left-wing social progressivism are in error.

Subsection D, “Conserving Human Nature,” deals with the most controversial subject matter, and as such it is the most extensive section. Nevertheless, its argument to extend the conservation imperative to human nature is of central importance to this century’s environmental battles, and with the critique of progress is one of the most important ideas of wildism.

Finally, I conclude the piece with a summary of wildism in plain language, some words on where the ideology needs to be developed, possible weaknesses with the presented ideas, and various issues to which they ought to be applied. In particular, I note the need for scientific work concerning the empirical questions raised about human nature and cultural evolution, as well as the issues raised by restorationist practices in conservation strategy of recent years.

In short, what follows is an attempt at detailing the ethical ideas that, sometimes unconsciously, drive the present wilderness movement or large portions of it. In the long run, we at The Wildist Institute hope these ideas will be utilized by individuals who wish to preserve the conscience of conservation, especially in this age of relentless revisionism, so that we might together pose a real challenge to the ongoing destruction of our wild earth.

2. Consilience in Ethics

“Consilience” is agreement between various fields of knowledge, such as between biology and physics. Commitment to the project of consilience, or the linking together of various fields of knowledge, also means being unsettled when two fields are in fundamental conflict with each other. The logic at play here rests on a belief that the universe is basically orderly and unified and that our knowledge of it must reflect this reality to the extent possible. Consilience is, in other words, a logical consequence of scientific materialism (henceforth simply “science”), a paradigm that is accepted well enough that I will not defend it here. We will instead take science as our starting point and the unity of it as our project.

A word on some of the problems with consilience. Even though scientific materialism would suggest that pure consilience is theoretically possible, the same paradigm denies the possibility that it is practically achievable, at least without modifying human nature substantially. Human biologies evolved not to ascertain truths about the world but to propagate genes, something that just so happens to be helped along by knowing a few things. But there are undoubtedly limits, not only to the amount of what we

can know, but also to the amount of achievable unity between two areas of knowledge. It may be, for example, that the division between physics and biology is more a result of how our brains are structured than anything else.

Thus, I do not necessarily insist on any pure form of the theory. For now, it is enough to say that the project is almost certainly helpful when it comes to its three main battles: the divide between mind and brain, the divide between culture and biology, and the divide between ethics and science. It is the latter that I will focus on here.

A. The Is/Ought Problem

It is common to say that science and ethics have little or nothing to do with each other. “Facts,” the thesis goes, “can tell us nothing about values.” Almost invariably the name “Hume” follows, and with it comes that old and brilliant philosopher’s argument that one cannot derive an “ought” from an “is.” But even if we accepted the “is/ought” critique, it would not be enough to stop the project of an ethical science. If it was, all of science would be in trouble, not just ethical science.

Take, for example, Hume’s other problem, the problem of induction. All of science and knowledge is at some point dependent on a piece of inductive logic like this one:

1. My knee hurts every time it hits the table.
2. I will hit my knee on the table tomorrow.
3. My knee will hurt tomorrow.

All other things being equal, we would intuit that this is true. But between 2 and 3 there is a sort of logical jump, called an “inductive inference,” that is made inexplicably or that is made on the basis of an unstated premise that the world yesterday is like the world today and the world tomorrow will be just the same (“the principle of the uniformity of nature”). This is problem because the premise cannot be demonstrated except through induction.

In fact, Hume is famous for saying that we can know absolutely nothing for sure, and this position has come to be known as “radical skepticism.” It is irrefutable. But people do not live out their day-to-day lives as radical skeptics—such a thing would nigh be impossible—and this critique, even if true and interesting, does not keep a scientist from doing his scientific work, nor should it. Although the divide between facts and values is a separate problem and may or may not be true, it has no greater ability to press the brakes on an ethical science than the problem of induction has to press the brakes on science itself.

B. Explaining Ethics with Biology

One aspect of consilience that is almost certainly true is the assertion that biology and related fields can *explain* ethics, at least better than religion and philosophy has.

The basic argument rests again on simple logical consequences of reductionist materialism. If humans are fully material creatures then they are subject to the laws of evolution, and if there are no such thing as emergent phenomena inexplicable by lower-level phenomena, then moral precepts have to originate in material processes that are either biological or fully constrained by biology. To argue otherwise, one would have to challenge the fairly well-established premises, for example, by claiming that humans have a supernatural component.

The explanation is more than just a deduction, however. It also fits all of the epistemic values of science: it strives for accuracy, it is consistent with other disciplines, its implications expand beyond and are testable in scenarios other than one it hopes to explain, it is simpler than the alternatives, and it provides the basis for further investigation and research. That the materialist paradigm is still capable of producing such robust theories is a testament to its power and relevance.

Explaining the universal cultural presence of an incest taboo is one example of the theory's robustness. Haidt (2001) once ran an experiment in which he told his subjects about imaginary siblings named Julie and Mark. In the story, the imaginary characters decide to go on a vacation and decide to have sex with each other. Julie is on the pill, and Mark uses a condom. The brother and sister enjoy having sex but decide not to do it again, and they also agree not to tell anyone about it. After telling this story, Haidt asked the experimental subjects whether they thought what Mark and Julie did was okay. Most said it was not, but cited reasons like "the children could be deformed" or "they might have damaged their relationship," despite the fact that the story already addressed these concerns. After some questioning, many of the subjects simply said, "I don't really know why, it's just wrong."

There's also the "Westermarck hypothesis," which states that children raised together will probably not be sexually attracted to each other, even if they are unrelated. This was confirmed in a study of the Israeli kibbutzim, wherein it was revealed that out of 2,769 marriages in second-generation kibbutzim, none were between two members of the same peer group, and no heterosexual activity between two members of the same peer group was discovered either (Shepher, 1971).

Finally, there's evidence gathered by the evolutionary psychologists. One of the most interesting is a study (Lieberman, Tooby, & Cosmides, 2003) in which participants ranked 19 social taboos in order from most to least offensive. Various kinds of incest ranked 5–10, below child molestation, rape, and spousal murder, but above assault with a weapon, robbing a bank, and various minor crimes.

Data such as these suggest that at least some of our moral precepts are shaped directly by biology. Other examples support the conclusion, like evolutionary explanations for altruism (Lieberman, Tooby, & Cosmides, 2007; Fehr & Fischbacher, 2003). In fact, there is so much support for a biological basis of morality that I do not think it imprudent to say that the idea can properly assume the status of "fact." The implications of this are far-reaching.

C. The Implications of the Biological Explanation

1. Moral Relativism

One obvious implication of the biological explanation of morality is that it invalidates any “transcendentalist” conception that argues for an origin of morality outside of human biology. This includes religious insistence on the supernatural, but it also includes Kant’s idea of the categorical imperative or those social scientists who would insist that cultural phenomena are only explainable in terms of other cultural phenomena.

In some ways, this is much less unsettling than affected parties would have it be. Some from the JudeoChristian tradition, for example, find the idea that there is no soul to be a terrifying prospect, because, among other things, then there is no source for objective morals. But this is only terrifying to such a high degree when one believes one is losing something; and if the materialist explanation for morality is true, then the religious are not losing objective morality, they are only losing the mystified belief that they had it. Good thing too! Moral absolutism is almost always accompanied by blood and slaves. It seems a much better thing for man to be aware of his inadequate knowledge and to grapple with this inadequacy.

Wilson (1998) describes scientific fields as operating on different “levels.” Mathematics and physics are at the bottom, molecular biology on top of them, evolutionary biology further up, and cultural anthropology further up still. The fields on the higher levels may not speak the language of those further down, but consilience *usually* entails that they operate on a stage set by the lower levels. If followed, this model would significantly decrease fragmentation in scientific endeavors. For example, an ethical science would be very high level, and striving for consilience would automatically knock off most ethical systems in existence today, like those that argue for a supernatural realm or a blank slate conception of human nature.

But it cannot reduce fragmentation completely. The project of consilience relies on at least a modest account of material realism (Sokal & Bricmont, 2004; Boyd R. , 2002) and it is on the basis of this account of ontological unity that epistemic unity rings true. But by the same account we have to realize that our knowledge of the “out there” is not *the same as* the “out there,” and this limits the extent to which consilience can be achieved.

This is true even when it comes to the lowest levels of scientific inquiry. Individuals with neurological disorders would, of course, not have a disorder if we all suffered from the same condition. Their knowledge of reality would simply be the standard understanding. Note that I don’t mean disorders like synesthesia. I refer more to the modules in our minds that establish the obviousness of some statement like “A can never be $\sim A$.” Of course this does not keep us from achieving something very close to unity in low level sciences, because, for clear evolutionary reasons, humans have standard hardware and software for dealing with the relevant questions of those disciplines.

The same cannot be said for moral values. I am unlikely to find a person who will deny the existence of a chair in front of me (except for maybe among postmodernists, who do indeed seem to have a different set of software from the rest of us). But humans are astoundingly diverse in their dispositions, characters, and moral judgements, and not all of that is because of ignorance or deception.

Consider psychopaths. They are an astoundingly persistent part of human social life, and make up a large proportion of living individuals (Babiak & Hare, 2006). They also have rather different moral compasses than most other humans, and there is no changing this without changing the person's biology. As one study put it, game theory predicts that human populations evolve to a "stable equilibrium with a fixed proportion of individuals habitually behaving antisocially, and with suitable payoffs the proportion of antisocial individuals corresponds to the known prevalence of [the disorder]" (Colman & Wilson, 1997).

Related is the idea of "moral ecology," or the idea that stable human populations will tend towards some degree of moral diversity, which, among other things, allows for more robust responses to the environment (Dean, 2012). If the idea of moral ecology proves true, then incommensurability of ethical first principles is built-in to the very "design" of human evolution.

Thus, while I am unlikely to find an individual who denies the existence of a chair in front of me, the evidence just given indicates that the obviousness of that chair's existence will parallel the obviousness of individual moral beliefs only to some groups of humans. As a result, the discipline of ethical science is likely to have several competing fields, say, a humanist ethical science and a wildist ethical science; and overcoming this is, at least for now, a logical impossibility, because the logical playing field begins differently for everyone. (Some, like Harris S., 2012, argue that a universal morality is possible because of our reasoning abilities. I address this later.)

2. Free Will and Responsibility

There is also some unrest over the implications materialist theory has for the concept of free will. But this, too, is unfounded. The idea, for example, that free will means freedom from any influence whatsoever is incoherent. Even if human decisions had a spiritual source, the source would presumably still be subject to similar kinds of cause and effect relationships between things in the spiritual realm. So the question is not whether human decisions are free from the influence of anything but whether they are free from the influence of some specific class of things. To many of the religious, this specific class of things consists of the material world. They would either have it that human decision-making is an entirely non-material process or that it is at least partially so. But the supernatural does not exist, so we can dispose of this idea.

After we reject the supernatural, the real debate about free will is primarily concerned with what conditions qualify as "free." Some jump the gun and insist that free will simply doesn't exist. These individuals are right to argue that what they call "free

will” doesn’t exist. For example, one study found that the brain makes a decision several seconds before its human being is consciously aware that he has made it (Soon, Brass, Heinz, & Haynes, 2008). Thus, any notion of free will must accommodate aspects of our material reality such as this.

Others espouse a spectrum of positions known as “compatibilism,” and they claim that “freedom” does not have to be metaphysical. For example, we could say that a person has free will when he is not coerced by another human being, or, sometimes, even external but rare factors like temporary, induced mania. Ultimately the argument is a semantic one, so we would do well to avoid debates framed with the question, “Does free will exist?” It is enough to say that the thing being described by the compatibilists is philosophically significant, whatever one wishes to call it.

In some ways this might seem like cheating, but the compatibilist notion (or at least this version of it) fits the primary function of free will fairly well, that function being a way to determine whether or not a person should be punished (or rewarded). That is, a person should be punished if he acts in a negative way that he can be expected to act in again. Or, the reverse, a person should not be punished if he acts in a negative way that he cannot be expected to act in again, and this is possible in cases listed by the compatibilist notion, namely, coercion by another person or through some temporary non-human force. Once these forces are no longer exerting their power, the individual might not ever think about engaging in the same behavior again.

Of course, this does not always determine whether or not the individual should be punished or killed or jailed. If a man walks into a public area and reveals that he has a bomb that he will detonate, the police are surely justified in shooting the man first, no matter who or what coerced him to do so. Furthermore, even in cases where a person acts from some irregular coercive force, it may be necessary to punish him for the sake of social stability, to deter others from engaging in the same behavior.

These exceptions indicate that perhaps compatibilists, although not incorrect, provide a framework that is not quite as illuminating as alternatives could be. Consider again the fact that the brain makes decisions before we are consciously aware of them. According to the notion above, we have free will because the brain is ours, so decisions that the brain makes are ours. But does this apply to our microbes? It seems that the most illuminating position may yet be disposing of the free will idea entirely. Nevertheless, wildist discourse at the moment uses a compatibilist notion of freedom, useful especially in the context of the great “unlinking,” a notion that should become clearer further on.

Why, then, must we feel motivated to do anything? One major reason is that we don’t really have a choice but to feel motivated, else we would find ourselves falling into depression with its severest symptoms. This happened to me when I was younger and discovered that my Christian God did not exist. Another reason is evidence indicating that when people discard of the concept of free will, they begin acting in odd and potentially negative ways (Shariff & Vohs, 2014). This indicates an interesting dynamic that Daleiden (1998, p. 78) calls the *Responsibility Paradox*: “Although humans are

totally determined by biological and environmental conditioning and, hence, are not truly responsible for their behavior, society must treat persons as morally responsible to ensure that the consequences of those person's actions provide the necessary motivation to generate prosocial behavior."

I would word it differently than Daleiden, but he is essentially correct. Not only are we effects of causes, we are causes of other effects; thus, in the context of a unit like a social group, norms created by its members can provide an incentive that feeds back to help determine the same member's behavior, as well as the behavior of future generations. A major difference between wildists and humanists, however, is what counts as a legitimate reference group. Humanists and others in industrial society would advocate large-scale solidarity, to the point of encompassing all humans or even some animals. Wildists, instead, stress the importance of *relations*, something explained in section III.D.4, "Man and His Relations."

Still, to create social norms is also a determined action, and this returns us to the same problem of determinism that has nagged philosophers for years. I have some hypotheses for how to deal with this problem, related to the brief section, "Cosmos as Divinity." For now, however, this important but tangential topic must be set aside for a later time. What has been covered is enough for the purposes of this text.

3. Biological Limits to Knowledge

I mentioned earlier that pure consilience is likely impossible, at least so long as we are constrained by our biologies, because our ability to know things about the world exists only for that ability's value to evolutionary fitness, or because it is a byproduct of some other ability that has fitness value. For example, there is absolutely no direct evolutionary reason why humans should be able to understand subatomic particles, so clearly we have that ability only because the same structures that allow humans to understand those particles happened to grant some evolutionary advantage in the ancestral Pleistocene environment. In other words, we know that what we can know has definite limits, and this includes our moral knowledge. For sure, we can "transcend" these limits with reasoning to some degree. But reason has limits as well.

Some examples are simple, such as the fact that we aren't privy to some sensory information that other animals are privy to. Migratory birds, for example, sense the Earth's magnetic field (this is how they know where to migrate) and sometimes even have a type of synesthesia that allows them to *see* it (Beason, 2005). And at least some sharks have the ability to sense electric fields (Kalmijn, 1971). Humans, of course, do not have these abilities.

But the problems get more difficult. The psychologist Daniel Kahneman illustrated a series of such problems in his excellent book, *Thinking, Fast and Slow*. One example he gives recalls an experiment in which he and the psychologist Amos Tversky told participants about an imaginary character named Linda. Linda, the story went, was single, smart, and outspoken on the issues of discrimination and social justice. After

explaining this, the two psychologists asked if it was more probable for Linda to be a bank teller or for Linda to be a bank teller who was active in the feminist movement. Of course, basic lessons in statistical probability would reveal that the first answer is the correct one. Only a subset of all bank tellers are feminist bank tellers, so adding the extra detail will necessarily decrease the probability. But most participants said the second answer was correct.

Another phenomenon Kahneman reports is called the “availability heuristic,” which means that the easier something comes to mind, the more probable the human mind will judge it to be. For example, Kahneman and Tversky (1973) asked participants in one experiment to judge whether words that began with the letter *k* were more probable, or whether words with *k* as their third letter were more probable. Because we recall words by their onsets, words beginning with the letter *k* are easier to recall. Thus, the duo predicted, rightly, that participants would judge words beginning with *k* as more likely, even though the opposite is true. One could repeat this experiment using almost any letter.

The availability heuristic helps explain why people seem to fear things in a way that is totally incongruent with statistical probabilities. For example, death by falling furniture is much more likely than death by murder, but because it is easier to recall instances of murder, perhaps from the news or even novels, people fear it significantly more. This may explain why individuals in nations with extremely low crime rates but oversaturated with news media suffer from undull anxiety about crime.

The heuristic also has implications for moral reasoning. In his book, Kahneman describes two kinds of systems in the human brain. System 1 is intuitive, fast thinking, and it utilizes various shortcuts in order to come to conclusions. For all its imperfections, System 1 can be surprisingly accurate, especially when making decisions closer to the kinds our Stone Age counterparts would have made. In contrast, System 2 is analytical, slow thinking, the part of the mind that humans use to write or do complicated math.

Kahneman argues that the fast, intuitive system is more influential and that individuals often act on its conclusions without the analytical mind ever even knowing about it. But just imagine what this means for humans making split-second moral decisions with big consequences, like dropping a bomb or initiating a drone strike. Or even just imagine what this means for humans who run large and ostensibly benign systems that might also require split-second decision-making, like nuclear facilities.

Finally, there are the most unsettling biological limitations of all, which also happen to be the ones that brush up against the topic of morality most directly. One of the most striking of these is our inability to reason about moral obligations to large populations. For example, Slovic (2007) once conducted an experiment in which he told volunteers about a starving girl, measured their willingness to donate, and then told the same story to another group but with the added detail that millions of others were also starving. The second group gave around half as much money as the first. In fact, Slovic found that even adding just one more person would begin the process of “psychic numbing.”

Slovic's finding that humans have a hard time reasoning about large numbers of people is in some ways unsurprising. In fact, it is a hallmark problem of population ethics. Churchland (2011, p. 178) put it this way: "no one has the slightest idea how to compare the mild headache of five million against the broken legs of two, or the needs of one's own two children against the needs of a hundred unrelated brain-damaged children in Serbia."

The evolutionary explanation for this is that humans have never had to deal with such large numbers of people, so conditions didn't encourage the evolution of mental mechanisms that would allow us to do so intuitively. It may be that we can use Kahneman's analytical System 2 to conquer the problem, but it may also be that our analytical mind isn't equipped to deal with it at all. Whichever happens to be correct, the problem stands as one of the more important ones of our age.

4. Summary

The biological explanation for morality (and the mind) is compelling and likely true, but it comes with far-reaching consequences for our understanding of how capable humans are at moral reasoning. Coupled with moral relativism, also an implication of the biological explanation, these consequences are unsettling. It seems that humans are fated to doing the best they can without any real guarantee that they are right, or even a guarantee that they will eventually know they are right, and all the while their best has to rub up against very real, sometimes insurmountable limitations and imperfections of the mind. Acknowledging and grappling with this reality is a necessary part of the program of any twenty-first century ethics—especially one that hopes to address such consequential problems as climate change, genetic engineering, and the sixth mass extinction.

D. From Scientific Explanation to Ethical Science

1. Importance of First Principles

Consilience in ethics means more than just explaining ethics scientifically. It is also possible to devise an ethics that is itself a science. Earlier I mentioned that Hume's "is/ought" problem has as much power as the problem of induction to stop such an endeavor, which is to say, it has no power at all. But of course, someone who really didn't like the idea of an ethical science could always bring up one of the other myriad of issues that the project poses. Unlucky for him, none really get more powerful.

Consider, for example, the criticism that an ethical science would betray the scientific spirit of not assuming anything, simply going out into the world to discover and *then* explain. While this is a popular criticism, it's not substantive, because that's not how science works at all. Any short introduction to the philosophy of science will include concepts like "the problem of induction," "underdetermination," and "paradigms,"

and near the end of the survey of the problems, the big reveal will be that all of science relies on first principles.

Imre Lakatos (1978) offered the metaphor of a core surrounded by a protective belt. The core consists of theories that are absolutely essential to what he called a scientific research program (which is basically the same as the more common “paradigm”). A change in the core would mean the end of the research program, or at least its transformation into something rather different. But around the core is a “protective belt” of theories that can be changed, and may be changed without any real reference to evidence if it means preserving the core. Of course, if that happens too much, then the research program stops producing new explanations and successful predictions, which Lakatos calls a “degenerate” state. At that point the program is susceptible to being replaced by a new and better one with a different core.

Some scientists have adopted Lakatos’ theory rather explicitly. The anthropologist Marvin Harris (2001, pp. 3–76) begins his research program of cultural materialism with assumptions about epistemology, a “universal structure of society,” and the idea that a culture’s material productive factors have the strongest influence on its character. In other words, it is expected that a person who ascribes to cultural materialism will *assume* these things when looking at a set of evidence. Consider also the way this plays or played out in evolutionary theory, Newtonian physics, and even mathematics (which calls its first principles “axioms”).

An ethical science, then, will have to jump over expected logical hurdles and decide on first principles, and in this way it will be no different from non-ethical science. From what I can tell, this includes mostly questions of value—what to value, how much value, what to do in the case of competing values—but also includes whether to evaluate behavior based on consequentialism, deontology, or virtue ethics. Again, these problems are not much different from problems in mathematical logic and the philosophy of science.

2. Examples of Ethical Sciences

A field of ethical science that has decided on its first principles would probably look something like medical science. In fact, if we are to define “morality” as “the rules that govern behavior,” then medicine, a field founded on the scientifically unprovable value of “health,” could easily be called an ethical science. Practitioners often take up the questions outlined above by debating them at conferences and in journals, and the answers produce obligations for those who value health in themselves and others. The reason, perhaps, that all this is not considered ethics is that concern for health is, for good evolutionary reason, mostly universal. (Although “health” is ambiguous enough for this not to be true for all of medicine, particularly when its normative postulates are broadened by humanists.)

Another example would be conservation science, a discipline that is often compared to medicine but is

much more explicitly identified as ethical in its concern. This is seen clearly in Michael Soule's seminal article, "What is conservation biology?" One section heading is even entitled "normative postulates," which Soule introduces with an interesting paragraph:

The normative postulates are value statements that make up the basis of an ethic of appropriate attitudes toward other forms of life—an ecosophy... They provide standards by which our actions can be measured. They are shared, I believe, by most conservationists and many biologists, although ideological purity is not my reason for proposing them.

Soule goes on to outline the normative postulates as seeing value in biodiversity, ecological complexity, and evolution. As he does, one can detect the obvious influence of deep ecology.

This indicates that conservation biology is the field of ethical science relevant to wildists, much in the way medicine would be a relevant field for humanists, with their concern for "human well-being." In both cases, the primary task would be bringing to light the values that undergird the work of significant populations of practitioners in the fields. In the case of medicine, the humanist would point out that health is simply a subset of the larger ethical concern for "human well-being," at least to many or most of the practitioners. (See, for example, Cohen, 1950, and "humanistic medicine.") In the case of conservation, the wildist would point out that biodiversity is, at least to many or most conservationists, a subset of the larger ethical concern for wildness.

One can see a battle between the two ethical sciences playing out most clearly on the topic of biotechnology. Medical science holds some of the strongest arguments for biotechnology because it presents itself as the most promising solution to anti-biotic resistance, various until-now incurable diseases, and other problems that have to do with health and human well-being. It is on the basis of these that biotechnology will be argued for. One biologist said to me, while discussing my views on the topic, "Not to try to eradicate [pain and sickness] is, in my mind, unconscionable." And a medical practitioner, after a similar con-

John Jacobi: The Foundations of Wildist Ethics versation, brought up the success of industrial technologies at "quelling death by infection all over the globe." Both of these echo the statement by Professor Julian Savulescu, the editor of the *Journal of Medical Ethics*, who stated that genetically engineering human babies was a "moral obligation" (Alleyne, 2012).

These perspectives of course have logical difficulties, but are generally on solid ground *given their central value*, namely, the well-being of humans (and sometimes the broader "sentient beings"). The conservationist perspective, however, which sees value first in the autonomy of nature and thus the smallness of man, will necessarily clash with biotechnology and even industrial medicine. To a serious conservationist willing to state his views frankly, this includes cases where these technologies benefit or ostensibly benefit humans. For if one of the central theses of the conservationist project is that man is not unique in the way the humanist claims, then the conservation

imperative applies to human nature just as well as non-human nature. This is indeed one of the implicit ideas underlying much conservation work, and something that this systematization of wildist thought makes explicit.

3. The Necessity of Ethical Science

Because the first principles of the ethical sciences are incommensurable, to a much greater degree than Kuhn (1962) would have even lower-level sciences be, the coming century's battles cannot only be about ideas; they instead *must* entail practical efforts as well, and therefore will have great consequences. This alone is reason enough to support the development of an ethical science, for a developed field, if truly scientific, would provide mechanisms to stave off those who would obscure and mystify moral truths for the sake of power, something that is especially important to guard against when the negative repercussions could be so great.

Furthermore, many of the great ethical issues facing us do not come intuitively and cannot allow so wide a margin of error as would be permissible under circumstances with lesser consequence. This indeed is the whole reason that the institutions of science have succeeded so thoroughly. Whereas our primitive counterparts possessed the capability to reason and did so frequently (Liebenberg, 1999), newer material conditions that required more precision of thought and had more extensive impacts in case of miscalculation needed technical methods to offset human biases and error. Thus, in light of, say, Slovic's (2007) findings on human moral reasoning, an ethical science that hopes to address such questions as overpopulation must regard as indispensable a culture that places value on critique, counter-critique, and truth. This would thankfully allow much of the trial and error process that reveals moral truths to occur in the cognitive realm, so that those actions that are taken in the real world do not unnecessarily become painful and guilty memories.

3. The Ethical Principles of Wildism

A. The Value of Nature

The primary assertion of wildism is that nature has non-instrumental, non-derivative value, sometimes called "intrinsic" value (O'Neil, 1992). This belief in the non-instrumental value of nature compels wildists to be fundamentally concerned with increasing and respecting nature's autonomy, which, put differently, is at its core a contention about human control and domination, an assertion that humans simply shouldn't have as much control as they do. At the least, this applies to human

control in the context of intensive agriculture and later, something I explain more fully below.¹

1. The Meaning of Wild Nature

The word “nature” is an ambiguous one, but here I use it to mean “the world not made or controlled by humans or their technical systems.” This is in contrast to “artificial,” which is just the opposite. Note that the distinction between “natural” and “artificial” is descriptive, akin to the distinction between Jew and Gentile. Both are a part of the material world, so saying that something is made by humans and is therefore not natural does not mean this thing is somehow less subject to physical laws and processes. It is not, that is, the old doctrine of human separateness.

The confusion in this regard stems from another meaning of “nature” that equates it with “the material world.” This usage is still popular in the lower-level sciences like physics, and this is primarily because of the convenience of the term in contrasting science’s domain with that which is called “supernatural.” This meaning of “nature” is the one scientists (and some conservationists) use when they state that “humans are a part of nature,” usually to make clear that humans are a product of evolution like every other living thing. It is also the meaning used by the obscurantists who would counter conservationist critique with the statement “Everything is natural.”

Of course, it is true that “Everything is natural,” given that “natural” means “the material world.” But this is not the kind of nature that the conservationist is concerned with. The current mass extinction is a material process just as much as the past mass extinctions were. The point is that this one is artificial, humancaused, and because of this it is morally relevant in a way that no other mass extinction has been. The same applies to climate change, deforestation, and most other issues associated with conservation or environmentalism.

Thus, to quell the confusion, I will separate the meanings by using a terminology that should already be clear: “the material world” refers to all that exists, and “nature” refers to the part of the material world that is not made or controlled by humans or human technics (see Figure 1). This is common in environmental ethics and conservation (Hunter, 1996; Vining, Merrick, & Price, 2008; Schroeder, 2005; Angermeier, 2000; Hettinger, 2002).

It is important to note that situating humans within the material world is an indispensable part of the conservationist critique. Being concerned with the value of the world not made or controlled by humans seems to occur only once belief in the supernatural and the doctrine of human separateness dies (White L. , 1967), which

¹ Faarlund’s original text reads: ‘to elaborate on our versions of the fusion of the natural science of ecology and the philosophical keel and rudder—values orientation—for an ecophilosophy’ Later in the original text, he repeats the phrase ‘values orientation.’ Although for clarity I had to amend the specific wording, it is important to note the importance Faarlund places on *orientation* and *values* as instrumental to the paradigm shift necessary for the respect of Wild Nature. — ed.

might explain why nature has become a primary source of spiritual experiences for secular nations (Taylor, 2004). But this insight is the extent of many people's environmentalism. These people are concerned mostly with teaching the importance of the scientific view that the fate of humans is tied to the fate of ecosystems, and thus their primary concern is ensuring that environmental degradation does not impact "human well-being." Most of the time when this insight exists by itself, the result is "bright green" environmentalism, or what Naess (1973) called "shallow" environmentalism. It is a quite different brand of environmentalism than what I will outline here.

As for the "wild" in "wild nature": it is synonymous with "autonomy" in the phrase "autonomy of nature." When I say nature is "autonomous," I mean, following Katz (Heyd, 2013, pp. 77–85), that it is not dominated by humans or human technics. There is no need to complicate this definition by debating whether "autonomy" entails some sort of self-propulsion or dynamic movement. Such discussions are bound to be overly heady and unhelpful. The important point is that the lack of human domination is what we strive for. Thus, rocks, for example, can be autonomous. To demonstrate the relevance of this conception of "autonomy," Katz notes the debate over whether rock climbers should be able to use metal bolts for climbing, and whether or not they should be allowed to leave the bolts for other climbers (p. 83). Given our stated concerns, we should clearly lean towards "no," especially considering the ongoing and rapid loss of the few remaining wildlands.

Note that wildness is an aspect of naturalness. Fully natural objects are also fully wild. The wildist concern, then, is in some sense increasing the naturalness of the world, but this does not communicate the values precisely enough. Those who are in fact concerned primarily with preserving biodiversity may just as well demand an increase in what they call naturalness (Ridder, 2007). A more precise discourse speaks of concern for nature's autonomy, or the wildness of nature. To illustrate, caging a wild animal would not immediately decrease the animal's naturalness except insofar as it decreases its wildness. Yet it is precisely this decrease in wildness that permits and begins any drastic decrease in naturalness, such as, in the case of an animal, the process of domestication. Similarly, the release of human control is the first step toward increasing the naturalness of the world, such as with domesticated animals that have gone feral or a river ecosystem that is freed from the control of a dam upstream.

Finally, naturalness (of which, to repeat, wildness is a part) should be conceptualized as an end on a spectrum with artifice rather than being dichotomous with it (see Figure 1). Thus, one might speak of a wilderness area as having a high degree of wildness but a city as having a low degree of wildness. In between, one might place an abandoned building. Although this involves some level of ambiguity, those involved in conservation science have found ingenious and reliable methods for measuring naturalness or, conversely, human influence (Anderson, 1991; Machado, 2004; Theobald, 2010). Those who look on such measurements with skepticism must keep in mind that a similar use of science is important for clarifying many kinds of ethical systems. For example, the humanist who places value on sentient beings will have to expand his

scope of moral consideration to at least some animals as scientific inquiry reveals more about the ability of these animals to suffer or flourish. In a similar way, reasoned assessment of empirical evidence can aid us in discerning at least general degrees of naturalness and artificiality in an ecosystem or organism, with the extremities of the spectrum being the most obvious. And while uncertainties are an indication that we should tread lightly in applying our values, uncertainty alone does not invalidate an ethical system.

2. Values and Valuers

To say that nature has non-instrumental, non-derivative value is not to say that the value exists independently of a valuer. Some ethical philosophers (e.g., Holmes Rolston) have certainly argued this, but is not a necessary component of the kind of intrinsic value that is relevant here. It is enough to say that “nature has intrinsic value when it is valued (verb transitive) for its own sake, as an end itself” (Callicott, 1995).

Combined with moral relativism, this concept of intrinsic value might lead some to believe that we are impotent to act, but all it really does is make clear that appeals to nature’s intrinsic value are impotent among those who do not accept it. This allows those of us who do accept it to more appropriately direct our efforts to practical work. In truth, this applies even if moral value existed independently of a valuer, since there is nothing about an independent value that would enforce it to be respected.

The non-objectivity of nature’s value also does not preclude radical action. For instance, many people have died in the name of national self-determination or democratic freedom, but no one ever requires that these individuals demonstrate the objective existence of the value of liberty in order to justify their struggle. 3) *Increasing Value*

Value can also increase. Some, known as the “Anthropocene boosters,” argue that because naturalness has been so diminished, we humans should simply accept our place as Earth’s gardeners. But it makes much more sense to argue, as I and others do, that as naturalness becomes rarer, its value should increase (Wuerthner, Crist, & Butler, 2014, pp. 174–179; Noss, 1995).

Among the individuals at The Wildist Institute, there is a popular phrase: “Live wild or die.” It is true that so radical a statement may not be appropriate at all times or in all places. Indeed, maybe in other times and other places a fight to the death would be too costly a price in the face of only slight and temporary violations of wildness. But the assault on nature has been too long and too thorough for this to be the case any longer. In the face of widespread human and technical domination, the mantra “Live wild or die!” is the only response capable of reclaiming our and nature’s autonomy—*especially* if the Anthropocene boosters are correct.

3. The Autonomy of Nature

To value nature non-instrumentally includes all the things that the term “nature” entails, such as biodiversity or ecological integrity. However, to value nature non-instrumentally also necessarily produces an obligation to respect nature’s autonomy, much in the same way that non-instrumentally valuing a human being entails respecting his autonomy. For one discussion of this idea, see Heyd (2013).

Thus, the autonomy of nature, or “wildness,” functions as a core value that anchors other aspects of nat-urality. To offer an example, conservationists often speak of or biodiversity, but as Hettinger & Throop (1999) point out, biodiversity is only valued within the context of wildness. Otherwise, conservationists would have no issue with artificial attempts to force greater biodiversity, such as through introduced species, as one Anthropocene booster suggested (Thomas, 2013). But many conservationists clearly do take issue with those approaches.

Finally, as Fox (1993) explains, valuing nature noninstrumentally does not mean that its autonomy is “in-violable.” “Even in the human case,” Fox writes,

we readily accept that it is justifiable to harm— even kill—another person if, for example, we are acting in self-defence. Thus, the question of whether it is wrong to harm or interfere with entities that are intrinsically valuable actually turns on the question of whether we have sufficient justification for our actions.

The actual work of determining what qualifies as “sufficient justification” is the domain of conservation science, and will not always yield to easy answers.

To make a final point, related to the one above, respecting nature’s autonomy does not mean demanding that nature be “untouched” by man. Howard Zahniser got it right in The Wilderness Act when he wrote of the need for places “*untrammelled* by man,” using an old, uncommon word that means “not deprived of freedom of action or expression; not restricted or hampered.” The problem, then, is not with human influence; it is with human domination (see Hettinger, 2002).

4. How Much Value?

In moving from the question of whether there is value in nature and onto the question of how much value, “benchmarks,” a concept from conservation science, help wildists further specify their ethical claims. Common benchmarks include the transition to agriculture and civilization, European colonization, the onset of the Industrial Revolution, and the first use of nuclear bombs. Though imperfect, not all of these benchmarks are arbitrary. For example, that the transition to agriculture fundamentally transformed human-nature interactions is undeniable.

Still, the concept has two mutually exclusive uses. On the one hand, those who are concerned primarily with biodiversity often use historical benchmarks to determine what is natural. For example, an idea in classical conservation work considered the state of ecosystems prior to European colonization as the natural state that conser-

vationists should attempt to preserve (Angermeier, 2000). However, this is an incoherent use of benchmarks for the ethic of wildness. Although influential, the idea of ecosystem stability is not consistently true or applicable (Hettinger & Throop, 1999). Consequently, restoring levels of wildness does not necessarily restore ecosystems to a “stable state” that can be seen in some previous historical period (Landres, Brunson, Merigiano, Sydoriak, & Morton, 2000; Sydoriak, Allen, & Jacobs, 2000).

We might therefore use benchmarks not as points on a historical timeline, but as rough measures of potential human impact. For example, instead of proposing the Pleistocene as a benchmark, a more accurate benchmark of influence would be the nomadic hunter-gatherer mode of production. Of course, nomadic hunter-gatherer societies can vary widely in their influence, but since societies cannot extend beyond the influence permitted by their infrastructural determinants without transforming those determinants, modes of production enforce a more or less consistent limit on human control.

This is not to say that historical time periods aren’t useful. To the contrary, the science of ecosystem stability is consistent enough for historical time periods to function as rough indicators of what ecosystems might look like should some level of wildness be restored. As Angermeier (2000) writes, though “ecosystems are too poorly understood to allow precise measurement of all human effects,” they do “have functional and evolutionary limits and natural ranges of variation, which provide a basis for [an] objective assessment...” Nevertheless, these limits have changed through geologic history, and human effects such as climate change and extreme rates of extinction signal that the limits may again be shifting permanently (Zalasiewicz, et al., 2008).

Most conservationists argue against industrial practices and many other environmentalists do as well. This is easily justified, since technologies as basic to industry as roads (Noss, 2015; Trombulak & Frissell, 2000) and dams (Ligon, Dietrich, & Trush, 1995) have devastating effects on wild nature, some of them the main causes of the worst environmental problems of the day. In fact, even the Anthropocene boosters argue for keeping industrial technology on the grounds that innovation or better practices could reduce industry’s impact. (Kareiva, Marvier, & Lalasz, 2012).

Conservationists are also commonly against civilized agricultural practices. By this I mean agriculture that sustains cities, very often through imports, largescale habitat destruction, and human enslavement, and, in the industrial age, through technical intensification that is especially harmful to wildlife and over a greater area (McLaughlin & Mineau, 1995; Lemly, Kingsford, & Thompson, 2000). With rural agriculture, however, it is hard to find as heated opposition. No doubt some of this has to do with relevance—current agricultural practices are almost always intensified with industrial technology—but in some cases wildness-centered conservationists explicitly state that rural agriculture could be morally permissible (Heyd, 2013, pp. 86–98, 99–118).

Following these views, the core idea of wildism can be stated thusly: wild nature matters such that production at least at the level of industry and civilized agriculture is morally unjustifiable. This “level of value” could be a result of a convergence between

wildism and some other ethical philosophy, or it could solely stem from the amount of value nature has, regardless of other values. However, as the domination of wild nature becomes ever more severe, even caring for it a little should be sufficient justification for the benchmarks, because, as stated above, value can increase.

To give an intentionally drastic example: Imagine that industrial degradation of nature carries on so that by the second half of the century there is only one true wilderness area left on earth, about the size of Yosemite. Clearly, among those who value wild nature, this area would be very valuable and even extreme efforts to protect it would be justified. But if we also imagine that the continued existence of industry would inevitably result in the destruction of this wilderness area, any protection would necessarily entail the end of industry. Since in this imagined scenario industrial production has spanned the entire globe, the end of industry would practically mean more than just that. Instead, for many if not most areas, a lack of industry would allow at most extremely small-scale cultivation on the part of its human inhabitants. Thus, valuing nature and nature's autonomy would in this scenario require a benchmark of production before civilized agriculture.

Still, it is not important that all wildists agree that the benchmark is justifiable on the grounds of nature's value alone; the important part is simply that they agree. This is mostly for practical reasons. A person can say he values nature but then insist that it matters only so much that *further* industrial destruction is un-justifiable. But clearly this would not be what even most environmentalists believe. Thus, while there can be more or less radical elements within the bounds set by the given benchmarks, they are narrow enough to entail a politically discrete population of conservationists and not so broad as to be meaningless.

Note that the foregoing is only about wildist moral values, not their practical application. Just as someone might argue that all murder is wrong while also recognizing his inability to prevent all murder, a wildist, along with most other environmentalists, can recognize that civilized agriculture and industry are morally unjustifiable while simultaneously recognizing practical limits.

5. Other Values

Clearly, *wildism* is concerned with wildness. However, the central assertion is that *nature* has intrinsic value because naturalness includes more than wildness, and subsidiary values like biodiversity, ecological integrity, and so forth matter as well. These values interact in complex ways, and discerning the ways in which they do is the practical work of conservation science, especially since interactions are bound to be contextual. Thus, Hettinger and Throop (1999) put it best when they wrote:

...we are not suggesting that wildness is always an overriding value or that highly wild ecosystems are always more valuable than less wild places. /For example, to protect biodiversity, we might put out a fluke lightning-lit fire in order to protect the biodiversity of an island packed with endemic plants. Moreover, a some-what wilder, but much

less biodiverse landscape (e.g., Antarctica) is not necessarily of greater intrinsic value than a somewhat less wild, but much more biodiverse landscape (e.g., the Amazon rain forest). A full theory of wildness value would include some priority principles indicating when wildness value will trump other goods. We cannot provide such thorough guidance here, though we do suggest that as the planet becomes more humanized, wildness value will increasingly trump other values.

The problem they mention in the latter half of the quote is essentially the problem of restoration. For example, we might be able to argue that preserving a biodiverse ecosystem through active management is necessary for a time, as Noss (1995) has argued, but the perpetual question is always how long such active management is appropriate. How far ahead must a “later time” be for the compromise to cease being acceptable? This is no easy question, and remains a pressing one.

There is also the question of how biodiversity in particular interacts with wildness. This debate is longstanding (Noss, 1996; Hettinger & Throop, 1999;

Ridder, 2007), but the first principle of wildism is clear regarding this point. Although there are ambiguities in restoration practice, both conservation and restoration should be done with the end goal of restoring nature’s autonomy. Thus, efforts to conserve biodiversity for economic, technical, and scientific use should always be subordinate to the ultimate goal of respecting nature’s autonomy and discarded when these goals are incompatible. This is an immutable point because it is a moral one. Its importance should become clearer in section III.D.9.

B. The Cosmos as Divinity

Once the supernatural is abolished with the razor of scientific thinking, one necessarily realizes that the rest of the material world has been neglected in the name of fantasies, and that we must begin to discern our moral obligations toward it. Thus, we find after the death of God another infinite, omnipotent “Creator,” the Cosmos, and in our efforts to discover the moral boundaries between our work and Its, the artificial and the natural, we might find a certain usefulness in traditionally religious concepts, like ritual, sacredness, and the Sublime.

Note that even the New Atheists, who have applied the razor of science to the superfluous power-hungry aspects of religion, have found such concepts to be implacable. Dawkins (2005) writes, “My objection to super-natural beliefs is precisely that they miserably fail to do justice to the sublime grandeur of the real world. They represent a narrowing-down from reality, an impoverishment of what the real world has to offer.” And Hitchens: “If we could find a way of enforcing the distinction between the numinous and the superstitious, we would be doing something culturally quite important” (Dawkins, Dennett, Hitchens, & Harris, 2012).

A general vision for the “distinction between the numinous and the superstitious” has been outlined already. Wilson (1998), for example, insists in *Consilience* that “Material reality discovered by science already possesses more content and grandeur

than all religious cosmologies combined,” and he argues that evolution may be the best creation myth we’ll ever have. Neil deGrasse Tyson has hinted at similar concepts through his TV show, *Cosmos*, just as Carl Sagan (2011) did before him:

A religion old or new, that stressed the magnificence of the universe as revealed by modern science, might be able to draw forth reserves of reverence and awe hardly tapped by the conventional faiths. Sooner or later, such a religion will emerge.

Similar views have been espoused by Einstein, Nietzsche, Feuerbach, and Spinoza.

Now we must fill this general idea in with specifics, something wildism is well-suited for. Thus, future work will place great emphasis on these concepts, with guiding principles, outlined theological arguments, and so forth. The idea remains mostly undeveloped, but here are three things that are certain.

First, there must be an overriding respect for truth. There is a difference between what is inarticulable as a matter of human limits and what is inarticulable as a matter of obscurity, the latter always a function of power. Indeed, something need not be inarticulable to be Sublime at all; “respect for truth” necessarily entails an understanding that intellectually reducing our experiences to material interactions does not mean a reduction in the quality of our experiences, and very often leads to their enrichment. Still, respect for truth does not mean making values impotent. Part of the careful work to be done is to distinguish between the two kinds of revisionism, as has been done in science, where values of objectivity, parsimony, and so forth may not be revised, but where the actual discoveries of work done under those values *ought* to be revised when appropriate.

Second, we must recognize the various social, psychological, and ecological roles of religion and ritual. Those who insist on faith in this age do not need more facts; they need alternatives that respect truth but do not degrade what people often refer to as the “non-scientific” aspects of religion. Not once have I found these aspects to actually be non-scientific. There is a scientific explanation for the fervor a young me felt while speaking in tongues and dancing at the altar of my childhood Church of the Pentecost. But clearly to explain such an experience in terms of chemicals and neurons would be unnecessary in most instances, even inappropriate. Similarly with the breaking of bread that occurred after service.

Wildist concepts of sacredness also have a clear ecological role to play. To understand this, consider Harris’ (1974) study of the taboo against eating cows in India. He explains that the practice’s function is economic and ecological: there are strong temptations to kill cows during times of famine, but to do so would have ruinous effects on the well-being of the ecosystem and would end a consistent source of milk, fuel, and labor. It would be a completely disastrous decision. Thus, material conditions select for the idea of the sacred cow, and, as he notes, different Indian ecologies lead to variations in the taboo. One cannot help but notice the parallel appropriateness of wildist concepts of sacredness in an age of even more disastrous decisions than cow-killing.

The social aspect of religion may also aid in disseminating wildist values, especially those that rely on complex concepts or that require careful exposition. For instance,

sermons, stories, and poetry may help convey the awe due to the Cosmos and nature, the redeeming pessimism inherent in the wildist critique of progress, cognizance of human folly, and the like.

Finally, we might look to the psychological appeal of other religions and tease out what, precisely, is appealing. For instance, although I was raised a Christian, I spent much of my childhood and youth studying Jewish writings and tradition, and have found the Old Testament, the Pentateuch in particular, and its associated Jewish commentaries, a perpetual source of wisdom even to this day. Something about the myths of Abraham, Noah, Ruth, and David has caused them to be imprinted onto my mind forever.

There is a lot to learn from the Jewish tradition, which has many parallels to the conservationist one. For example, a Jewish friend was the first to explain the concept of the “tactical spectrum” to me, noting the gradation from Orthodox to Reform Judaism, and suggesting that it could be applied to conservation (only later did I learn that David Brower had already done this). Further, the Jewish tradition has, built in, the idea of a chosen people who will preserve the world’s spiritual standing before God. Compare this to the idea of the “conscience of conservation.”

I was always especially stricken by the concept of *tikkun olam*, “repairing the world.” In recent years, left-wing Jewish groups have utilized this concept to push a narrative of progress, but the man who taught me of *tikkun* eviscerated these “hubristic interpretations.” Rather, he stressed that *tikkun* came from the *Aleinu* prayer, where the Jewish people collectively pray for God to “remove all idols from the Earth, and to completely cut off all false gods; to repair the world.” As I learned it, these idols include man’s unending faith in himself. As Maimonides (1904), who wrote much about humility before God, put it, “man’s intellect indubitably has a limit at which it stops.” Compare this version of *tikkun* to “rewilding,” a concept that has similarly been coopted by those with progressivist biases.

Catholicism is another potential source of inspiration, especially because of their success at conveying notions of sacredness. What if we develop just as effective ways to convey the notion of nature’s sacredness, or the idea of wilderness as a temple? Perhaps this idea has nasty side-effects that do not properly convey wildist values, but at least the point and direction of our efforts are clear.

There is a lot to learn from the negative aspects of religion as well. For instance, religions incessantly appeal to authority, an unavoidable fact so long as they rely on supernatural doctrines. The Jewish and Catholic religions are particularly nasty in this regard. Here, wildism has a leg up, since its object of adoration is the Cosmos, and its way of knowing science, which all can practice. Furthermore, even though there is psychological appeal in referring back to ancient thinkers, wildism suffers no loss here, since what is more ancient than nature?

Although the proper object of focus in a wildist religious practice should, of course, be nature, there must also be a literary component. By “literary,” I mean the broad meaning of the term and include oral tradition, perhaps even especially so. Stories have

driven human understanding since at least the late Paleolithic, and religious liturgy and texts have important functions, contributing to a sense of unity and communion, among other things.

There is a final thing to stress about this idea of a religion of the Cosmos. Although the religion should not depend on the revelations of prophets or supernatural deities, it is clear that in the real world, not all men

are equally equipped to establish its foundations. Rather, the initial work should be carefully outlined and articulated by a group of learned individuals intimately familiar with and committed to wildist values, and mechanisms should be established for individuals of a similar caliber to preserve its focus and direction. If the initial crop can manage to incite a spiritual revival of the kind Muir himself wished to muster (Stoll, 1993), such a group would become absolutely necessary. Historical examples of similar revivals support this, such as the Apostle Paul's constant vigilance in sending guidance to his churches through letters (White L. M., 2005, pp. 143–216), and Marx and Engels' arguments with Bakunin about the need for learned guidance in their revolutionary movement (e.g., Engels, 1978; Woods, 2010).

C. The Critique of Progress

The “myth of progress” is the idea that artificial modification of nature can fundamentally improve the world, particularly the human condition. In particular, it addresses the *faith* that artificial blueprints can improve the human condition, often with the explanation that there was not enough tinkering in the case of failure. The environmentalist critique of progress states that this is a delusion. Concerted attempts at artificial improvement of nature have always or nearly always resulted in unintended consequences with runaway effects that progressivists never fail to argue can be fixed with more progress. Yet the unintended (and in many cases intended) consequences keep coming, because the systems that humans are trying to improve are too complex to be fully understood by them. Thinking that these limitations can be transcended without even more unintended consequences is what is meant by “human hubris” (Ehrenfeld, 1981), and the critique applies equally well to agriculture, civilization, social progress, and to the ongoing efforts of “new conservationists” to convince everyone that nature now needs us to make it through the Anthropocene.

1. Why the Critique is Important

The critique of progress is the core of environmentalism's challenge to dominant values, but the power of the critique is obscured by two things. The first is the influx of “watermelon environmentalists,” or those who profess to be “greens,” but who actually harbor “red,” social justice convictions. Sometimes this truly

John Jacobi: *The Foundations of Wildist Ethics* is a concerted effort by socialist and communist cadres to exploit the contemporary popularity of environmentalism. Mostly, though, this is just a result of the predictable unwillingness of people to accept and profess values that are such substantial challenges to the dominant ones; or, more often perhaps, the predictable inability of many individuals to fully comprehend the clash.

The second, more harmful reason is the unwillingness of even its avid defenders to take it seriously when it clashes with the most precious of modern values. Even the wildness-centered conservationists who profess to challenge this great mythology of progress have at times, especially recently, fallen prey to the progressive narrative's power. This is demonstrated, for example, in an otherwise excellent volume entitled *Keeping the Wild: Against the Domestication of Earth*. The book is a collection of responses to the revisionist ideology of the Anthropocene boosters, who hope to make earth into a garden in the name of humanitarianism (Kareiva, Marvier, & Lalasz, 2012). However, in the book one can observe some authors claiming that the fight for wild nature is just one in a long line of progressive causes, like the fight against racism, sexism, and colonialism; that fighting for wilderness can be humanitarian; and that caring for nature is caring for "human well-being," a term borrowed from humanism and that only makes sense in a conservationist context with severe revision. The result is clear: the new conservationists are winning, and they're pulling even the old guard further to their side of the spectrum. It is almost as if the latter are saying, "See, we're progressive," "See, we aren't misanthropes."

This is why the ethical philosophy of wildism is so important. In an age where the wildness-centered ethic is suffering such frequent and relentless attacks, saying frankly and clearly what we are is a necessary step. We should not be disguising our rhetoric; we should be stripping it bare, more explicit than ever. It will inspire backlash, we will be called misanthropes, and we will be unpopular. But that is what it will take to preserve the conservationist critique, which is precisely the role of wildism: to be the conscience of conservation and the keeper of its core message. So do not be surprised if the following sections greatly offend the

modern moral sense. That is, indeed, exactly the thing that should be offended.

1) Limits to Reason

The core reason progress doesn't work is because humans simply don't know what they're doing. But let's be clear what this *doesn't* mean. For one, it doesn't mean that human beings are unable to use reason to get out of tough situations. Clearly that is untrue.

Furthermore, it doesn't mean that humans can't transcend some biological limitations with technology. For example, we might refer back to the list of animal senses that humans don't have, given in section II.C.3, like the ability of some birds to see

electromagnetic fields. There is reason to believe that with a little technical innovation, humans might be able to very directly experience the same thing—that is, even more directly than seeing the fields through a screen. This is because brains in most living creatures have similar components, and seem to be very good at picking up patterns from inputs that get instant “yes, good” and “no, bad” feedback, allowing the brain to discern rules and turn the input into *perception*. For example, in one experiment, researchers put participants in a chair that poked images into the participants’ backs. When they sat blind individuals into the chair, the individuals eventually gave very accurate reports of what they were “seeing” (Bach-Y-Rita, Collins, Saunders, White, & Scadden, 1969). Somehow the brain had accommodated the new input.

So the point isn’t that humans can’t do anything cool with their reasoning abilities, or that everything that presents itself as an insurmountable problem now is actually an insurmountable problem. But there *are* hard limits to reason. One famous example is Godel’s incompleteness theorems, which prove that any practically relevant logical system has to rely on axioms that are unprovable by the same system, and that, by extension, these systems cannot demonstrate their own consistency. See also Chaitin (2006). Another example is chaos theory, which studies phenomena that are so highly sensitive to initial conditions that humans can’t hope to practically predict their behavior. Even though problems with chaos are strictly speaking practical problems, they are in many cases insurmountable practical problems.

But let us return again to the hard limits in moral reasoning mentioned in section II. To review, we established that much of morality is primarily biological, like incest taboos; that moral first principles are in-commensurable; and that humans have almost nothing to work with when it comes to many modern moral problems, like those concerning large populations of people.

The problem, generally stated, is that humans evolved in hunter-gatherer conditions, and their intuitive systems, what Kahneman calls “System 1,” are well-suited to those conditions. But when you throw what are essentially Stone Age creatures into modern life, things get a little thorny, and we have to depend much more on our slow, System 2, analytic systems. You might compare this to a DSLR camera, with automatic settings well suited to certain conditions that the manufacturer could foresee, but also equipped with a manual mode for unforeseen conditions.

Some moral philosophers like Peter Singer (1981; 2000) and Joshua Greene (2013) argue that we can distinguish between those moral precepts that are purely biological or intuitive and those that are the result of moral reasoning, and that with this knowledge we can decide how to properly modify human nature to improve the human condition. That is, we can make moral progress. Singer in particular speaks of these ideas in the context of biotechnology and genetic engineering. But there are real problems with this idea.

The most obvious is defining “better.” Both Singer and Greene, as well as many other moral thinkers, argue that this is actually a non-issue. *Of course* humans would all want to improve their “well-being.” Clearly, wildists think that wildness is more important

than well-being, however, so the universality of well-being as a first principle is not at all obvious. But here we need not get into an argument about first principles, lest our critique of progress be merely a restating of the wildist ideology. We can simply assume that these utilitarian humanists are correct, because even then there is serious doubt as to whether human beings can achieve the goal.

A major and insurmountable hurdle is the fact that humans “improving” human biology is a self-referential exercise. Thus, no human can fully understand the implications of this “improvement” until the change has already been made, making it an open question as to whether or not it is actually an improvement. For example, consider a human brain that is modified with computing technologies to be more intelligent than any previous being could ever have hoped to be. No one knows what all the implications of this would be, but we do know that the end result would essentially be a human who is to us what we now are to dogs or monkeys, as far as intelligence goes. Indeed, the founder of information science, Claude Shannon, said, “I can visualize a time in the future when we will be to robots as dogs are to humans...[and] I’m rooting for the machines” (Liversidge, 1987). This is an example of a hard limit on reason’s ability to ensure that moral “progress” is actually a good thing.

A similar kind of problem applies to the development of societies, which are very important to human well-being. We cannot ever hope to rationally control the development of a society because if, for example, we come up with a technical system that can predict all the consequences for a society at a given level of complexity, predicting the consequences of that technical system would necessarily require an even more complex society.

Practical problems are even more insurmountable than these hard limits. I’ve already mentioned chaos theory, for example, and it applies to many aspects of social systems and the human body. But there are also limitations in how reason can be applied in the context of a society, because cultural development is an evolutionary process that takes place above the level of human intention. Thus, while human intention provides the “motor” for much of the evolutionary process (although not all of it), selection pressures that include more than and are more powerful than human intention decide the outcome of a particular cultural meme. The same applies for technical development.

Consider this analogy. In a version of UNO I often play with my family on holidays, individuals keep a tally of how many points are in their hand after each round has ended. When someone surpasses 500 points, the game ends, and the winner is the person with the least number of points. However, if someone hits 500 exactly, they go back to zero. Sometimes individuals end up with a number of points very close to 500, and they begin to think they can manage to keep just the right amount of points in their hand so that when someone else goes out, they will have 500 points exactly, go back to zero, and have a shot at winning again. The problem is that no matter how much skill and reason someone puts into trying to reach 500 exactly, there are still an enormous amount of factors that the person could never control, and that ultimately

determine whether he will actually achieve his goal. Reason isn't enough. Cultural evolution works similarly. See Nia *et al.* (2015) for an example of this idea as applied to violin acoustics.

Just as in biological evolution, this all occurs without a rational creator, and is in some part due to chance happenings. The x-ray and penicillin, for example, were discovered by accident, and we still use the Gregorian calendar mostly because it happened to be invented in the right place at the right time by the right people, not because it is the most rational or economic choice, or because it contributes most to human well-being, all of which are arguably or demonstrably false (99% Invisible, 2015). Ideas expounding on this idea of cultural evolution are now widespread (Basalla, 1988; Boyd & Richerson, 1988; Czikó, 1997; Ridley, 2015), but there is unfortunately no comprehensive synthesis just yet. Nevertheless, it is clear that human intention and attempts at control do not have the final say in how a society turns out, and in many cases are very weak contributing factors.

Here's another practical limitation: Many people have pointed out, like I have, that humans are Stone Age creatures in a modern world, and that this calls for greater use of our evolutionarily-endowed ability to reason. And even though this whole section is an exercise in defining a more modest place for reason, no one can deny that reason has done remarkably well. The problem is that in a modern world, even one mistake can be absolutely devastating. We are creating a world where we have to think very, very hard to make the right decision sometimes, but circumstances are not quite as accommodating as might be required for a good enough track record. Decisions made in war, for example, must be swift and ideally the most moral decisions possible, but such devastating and complex modern weaponry means both an increased chance of error and greater consequences as a result of those er-

rors. One fix to this would be machine decision-making, of course, but that will be addressed more fully later on.

One might respond to all this by arguing that the bar for understanding has been set too high, and that humans do not need to know so much about a system to have a reasonable expectation that it will be improved with modification. In some cases this is true, especially when it comes to systems with which humans should have evolutionarily-endowed mechanisms to properly navigate, like small groups. But it is clear that at least some of the problems we are facing do indeed require an extremely high level of understanding.

For example, I've already mentioned Singer's suggestion that we modify our human nature with genetic engineering when this becomes feasible, and other thinkers have done the same. Richard Dawkins has said we should be "deliberately cultivating and nurturing pure, disinterested altruism—something that has no place in nature, something that has never existed before in the whole history of the world" (Singer, 2000, p. 63).

But, in addition to the above-stated problems, we've been wrong about morality before. Slavery is the most glaring example. And once we've engineered enough people to defend the moral blindspot that is the modern-day equivalent of slavery, the damage will have already been done, and there may then be no way to reverse it. I'm oversimplifying, but recall the editor of the *Journal of Medical Ethics* insisting that we have a moral duty to engineer "ethically better" babies. It just takes one wrong decision.

We might also consider the problem of artificial intelligence, mentioned briefly above. If we engineer a computer to know as much as a human, then it will almost instantaneously become smarter than a human. The moment we reach singularity will be the moment we move beyond it. But if these superintelligent computing beings are or become malicious (again, oversimplifying), there isn't much we would be able to do about it. Proposing that we simply turn them off would be like proposing the monkeys turn us off because we keep destroying their habitats.

And in any case, even without such a high bar for understanding, real-world examples show that human John Jacobi: The Foundations of Wildist Ethics reason is nonetheless inadequate for dealing with modern problems, both because of hard and practical limits. A pressing contemporary example is the change being wrought by self-driving cars. In an article entitled "Why aren't urban planners ready for driverless cars?" one planner was quoted as saying, "We don't know what the hell to do about it. It's like pondering the imponderable."

So far I have only addressed human nature and culture, but when it comes to ecology and non-human nature, human reason has failed tremendously *and we still keep making the same hubristic decisions*. For example, climate is one of the stock examples of a chaotic system, but in response to climate change some scientists are seriously contemplating geo-engineering. That is, they hope to use technology to artificially offset some of the damage that has been done already so that certain regions of the world may be more fit for the "well-being of conscious creatures." Some scientists are even actively lobbying in support of geo-engineering, despite us knowing almost nothing about it and its potential effects.

Finally, a major limitation of human reason is that it is done by humans, who are not wholly rational creatures, and who will sometimes make unreasonable decisions even when reasonable decisions are possible. This is a simple critique, but perhaps one of the most powerful and devastating of them.

The conclusion of all this is that human attempts at rational control are extremely limited in their effectiveness, even when it comes to non-wildist moralities. All the unintended and negative consequences listed in the next section should demonstrate this point even more thoroughly, and seeing the whole critique in the context of wildist ethics should be enough to deliver a final blow to the myth of progress. But if that's not enough, there is more, which will be explained more fully after exploring the consequences of human folly. 3) *Unintended and Negative Consequences*

If it is true that there are notable limits to human reason, it should also be true that history is full of unintended and negative consequences as a result of “progress.” Indeed, this is the case.

A favorite example of conservationists is the car, which introduced far-reaching social changes and has, as has been mentioned, wreaked havoc on nature.

Some aspects of the technical evolution of cars were a result of human reason. But far more than human reason has decided on the outcome that we are now living with, including infrastructural selection pressures, economics, and so forth. Thus, while human reason is a necessary component of cars existing, it is far from the whole story, and not the most powerful force deciding the direction of the car’s technical evolution.

Diamond (1997) applies this same kind of argument to the transition from foraging to agriculture, arguing for the importance of ecological and demographic pressures in explaining the transition, rather than human reason and intelligence. In an article dramatically entitled “The Worst Mistake in the History of the Human Race,” he further eviscerates the idea that the transition is in any way a result of calculated reason, and shows that it is not at all a clear improvement over hunter-gatherer ways of life. He points out that individuals living in agricultural societies were on average more malnourished, more susceptible to disease, and more socially stratified compared to their hunter-gatherer counterparts. He specifically calls out the progressivist notion that “we’re better off... than people of the Middle Ages, who in turn had it easier than cavemen, who in turn were better off than apes.”

Less common than the example of cars and agriculture are the ill effects of industrial medicine. Of course no one would deny that industrial medicine has achieved amazing things. But one cannot separate the good parts of medical technics from the bad parts, not even with further technical innovation, and the bad parts of industrial medicine are turning out to be *very* bad. One example is anti-microbial resistance. Another are the high number of sicknesses that are caused by the very technical infrastructure that permits industrial medicine to exist. One can of course always posit that more technical innovation, efficiency, and training will correct the problem, and hypothetically this is true. But the principles of technical and cultural evolution, combined with the other weaknesses of human reason listed above, and in the context of the not-so-great historical track record, all break that argument down thoroughly. Of course innovation, efficiency, and education can change the problem and even in ways most people would agree are better, but reason alone is only a minor influence in the overall development of industrial medicine, meaning for the most part, if we want the good of medical technics, we have to also take the bad.

By now it should be clear that the wildest critique of progress isn’t just that “the process of progress isn’t living up to wildist values,” and in fact the critique is of all kinds of progress. Nevertheless, the process of progress doesn’t line up with wildist values in an important way: progressivism calls for a technical solution to the negative consequences of previous technical solutions, which always results in more negative

consequences. Of course, the negative consequences often come with positive ones as well, but it is important to note the negative consequences because constant technical solutionism results in an inexorable degradation of wildness.

This is really quite obvious once you think about it. In the context of wild nature, nature provides the necessary components for survival. But when humans modify nature, they must keep up the process of perpetual modification, because the rest of the natural system has not evolved to function in that state. That is, humans must use their energy and labor to “fill in the gaps.” For example, without any human intervention, natural processes will deal with animal feces. But a toilet requires entire technical systems of human labor, waste disposal, state management, and so forth. The plumbing is convenient, this is true, but at the cost of great overhead, necessary policing, and further modification of nature.

A civilization is the same kind of problem magnified a thousandfold. But in the context of a world with finite resources and energy, there is an inevitable end to a process like this, which requires progressively greater resource use and energy expenditure. This was pointed out by Joseph Tainter (1990), who observed that civilizations eventually reach a “point of diminishing returns” and begin a process of collapse. This has happened with almost every civilization, only a few having lasted to form the modern one, and there is no reason to think that the same thing will not occur again. In fact, Tainter posits that industrial civilization has already reached the point of diminishing returns.

To illustrate in a more intuitive way what this means, consider the following: My father recently said that he didn’t think New Orleans should have been redeveloped after Hurricane Katrina. He found it beyond reason that someone would build a city below sea level—“Why did we even do that in the first place?”—and then gave this piece of wisdom: “Besides, if you think about it, the levees are bound to break again.” I couldn’t help but say it: “Dad, that’s a perfect metaphor for what I’ve been saying about civilization.” 4) *The Human Condition*

But let’s return to the topic of progress assuming that the utilitarian humanists are right that “well-being” is the highest moral value. If it is true that humans cannot expect their blueprints to turn out as planned, nor can they expect the blueprints to always be adequate, nor can they expect humans to even pursue implementing the blueprints (no matter how rational), then it seems remarkable that modern societies so thoroughly exemplify left humanist moral values. Despite claims to the contrary, violence is decreasing and has been for a long time (Pinker, 2011); women, gays, and other minorities are, so far as we can tell from the available data, doing much better than they were just several decades ago (ibid.); digital technologies are uniting humans across the globe and possibly expanding the circle of moral consideration (Singer, 1981); and so on.

The reasons for this are not, however, because the left humanists have somehow succeeded at transcending the limits of reason and pushing the world in a more enlightened direction. Rather, industrial civilized conditions select for left humanist morality. In

other words, left humanism is an argument for civilized conditions *after the fact*. This is the same idea espoused by Marx when he wrote, “It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness” (Marx, 1904, p. 11).

This takes us to perhaps the most devastating strike against the left humanist narrative of progress, which I’ve singled out several times because of its dominance: leftist progressivism is dominant because it is helpful for the functioning of industrial civilization, not because it improves the human condition.

At one point this was less clear. The doctrine of the blank slate, or the idea that human nature was a blank tablet waiting for environment and conditioning to fill in the white space, gave people the illusion that with just the right environmental changes, the human condition could be improved. If this doctrine was true, the idea of constant tinkering and technical solutionism would sound a lot saner. But the new sciences of human nature have shown the blank slate doctrine to be false (Pinker, 2011), which has lead people like Steven Pinker, Peter Singer, Richard Dawkins, E.O. Wilson, and others to advocate modification of human nature itself (they call it “improvement”). In other words, it turns out that left humanism is not about *humans* at all.

D. Conserving Human Nature

1) The Meaning of Human Nature

“Human nature” is the part of human beings that is not controlled or made by them or their technical systems; that is, it is the part of humans that is the product of non-artificial evolution and is biologically innate. Like all of nature, human nature can possess a high degree of autonomy (wildness) or a low degree. The autonomy of human nature is what we call “freedom.”

There are extremely prevalent misunderstandings attached to the contemporary scientific notion of human nature. Most of these have been adequately addressed by Wilson (1978), Cosmides and Tooby (Barkow, Cosmides, & Tooby, 1995), Pinker (2002), and others, but I’ll briefly address one major problem here: the “nature versus nurture” argument.

The argument is a stale outgrowth of what Cosmides and Tooby (see above) refer to as the “Standard Social Science Model,” which entails a belief that culture is autonomous from material processes and that cultural phenomena can be best known in terms of other cultural phenomena, like power. Once we ditch this model for materialist reductionism, argued for most aptly by Wilson (1998), we are left with the conclusion that human behavior is shaped by a combination of innate biological drives and environmental factors. The result is still a deterministic outlook, but it is not only biologically deterministic.

Nevertheless, when we recognize that biology determines certain aspects of human behavior, we also have to recognize that biology limits the *range* of possible human

behavior and modes of social organization, insofar as the biological limits cannot be transcended with technics. Wilson (1978) explains this by asking his readers to imagine that a range of behaviors A-Z is present in all of nature. Zebras, he writes, may be biologically endowed with the capacity for D-Z, but unless under extreme environmental pressure usually express the letters between D-M. This would be “zebra nature.” Human nature functions the same way.

2) Linking the Two Natures

Man is linked to nature by virtue of their joint material condition. This is not an obvious fact to many, and the fight for acceptance and recognition of it has a long history. Darwin, for instance, in a world gripped by Christianity, initially avoided applying evolution to humans, and it took Thomas Huxley’s bellicose manner for the issue to be brought forward publicly in the man’s famous debate with a bishop (of course). Later, Huxley’s *Evidence as to Man’s Place in Nature* (see Figure 1 for differing uses of “nature”) and Darwin’s *The Descent of Man* further established that human beings are animals and subject to evolutionary processes as much as any other living creature.

Much of the continuing effort to link man and nature continued in the field of anthropology with the work of individuals such as Ernst Haeckel, Eugene Dubois, and Franz Weidenreich. Primatologists have also been influential. When Jane Goodall reported on apes using tools in a time when tool use was considered unique to humans, the anthropologist Louis Leakey said, “Now we must redefine ‘tool,’ redefine ‘man,’ or accept chimpanzees as humans” (Goodall, 1998).

In other words, the scientific evidence suggests that the biggest thing humans have to learn about their condition is not what makes them separate from the rest of the material world, but what tethers them to it. Of course, this is easy to say, but history shows us that the endeavor is littered with many battles, some terrifying.

E.O. Wilson, when he suggested that humans are indeed subject to the processes of evolution, had water poured on his head by an upset activist and suffered profound backlash from many academics (Alcock, 2003). This was more than 100 years after *Descent of Man*. Similarly, Paul Ekman, when presenting his findings that a core set of facial expressions are universal among humans (and so probably biological in origin) found himself interrupted by a prominent anthropologist in the audience, who stood up and demanded that Ekman not be allowed to continue because his views were fascist (Ekman, 1987). And then, of course, there is the rising popularity of creationism in the US—something formidable enough that Bill Nye thought it appropriate to debate a prominent figure in the movement, the founder of the Creation Museum in Kentucky.

With all this trouble, it is no wonder that conservationists have not stressed applying conservation to human nature. But now more than ever there is a need to extend the conservation imperative, and this is a major aspect of wildism. The logical chain

develops easily once we recognize the truths fought for by Darwin and Huxley and Wilson.

For example, if non-human animals display all sorts of negative symptoms when they are caged and domesticated, would not the same apply to caged and domesticated humans? Would humans not be better off wild? Quite a bit of evidence suggests that this is the case (Wu, 2014; Diamond, 1999; Sahlins, 1972; Abramson, Seligman, & Teasdale, 1978).

In extending the conservation imperative, there is the threat of making conservation all about humans, given the dominant tendency to forget about the bears, elephants, insects, turtles, and other non-human entities that are suffering as a result of civilized man's actions. Indeed, even if man could not be saved, the intrinsic worth of non-human nature is reason enough to challenge ongoing industrial devastation.

Nevertheless, the conservation imperative must be extended. Although it is true that the intrinsic worth of non-human nature is reason enough to challenge industry, the fate of human nature is linked to the fate of non-human nature. Industry requires that man modify his humanness just as much as it requires the modification of non-human nature. Furthermore, conservation flirts with failure by not challenging the narratives that legitimize the modification of human nature, like social progressivism, because they are the primary justification for civilization's existence. Most recognize by now that civilization has been a net negative for the animals and plants. But even in the case where people believe that we can continue to "improve" the human condition without adversely affecting non-human nature, the very pursuit of human "improvement" is what justifies civilization's development.

But in extending the conservation, wildists do not insist that human nature is "good." As with nature generally, it includes beautiful and ugly, comforting and terrifying, attractive and heinous components alike. Thus, the logic is not that we should conserve nature because it is good, but because "progress," or human attempts to improve it, is a lie. Indeed, someone could easily be a wildist and maintain an ambivalence toward both natures. In this way, the wildist understanding of nature and our duties toward it is as complex as the Jewish idea of Yahweh, a simultaneously wrathful and graceful God, whose grandeur inspires fear as much as wonder, as anyone who has read the Pentateuch is keenly aware.

The rest of this section will further explain the threat to human nature, but will speak little about what conserving it will or ought to look like. Some examples include resisting propaganda and surveillance technologies and especially biotechnology, but I leave it an open question as to what is strategically the best focus, as well as what shape this resistance might take. This is primarily because we must take extra care not to betray a key assertion of our ethic, namely, that all of nature matters, not just humans. So far, wildlands conservation offers the best balance of these considerations, so at least for now, we should remain focused on it (see section III.F).

3) Humans Need Not Apply

I've mentioned already that modern man must use his analytic mind (System 2) more and his intuitive mind (System 1) less. There is nothing necessarily wrong with this. Indeed, wildism is an exercise in analytical thinking since reason, morality, and science truly are some of the best tools we have to deal with the conditions created by our newly evolved capacity for cultural evolution "unlinked" from biology. The problem with the progressivists is that they are arguing for a world where the analytic mind is favored at the permanent expense of the intuitive mind. It is not mistake that Greene (2013), who argues that we can improve our moral sense, demonstrated his claims with brain-damaged individuals.

Sometimes this is clear in the case of specific technologies or technical systems. One example comes from an article in *Aeon*, "Is Technology Making the World Indecipherable?" (Arbeson):

Despite the vastness of the sky, airplanes occasionally crash into each other. To avoid these catastrophes, the Traffic Alert and Collision Avoidance System (TCAS) was developed.

TCAS alerts pilots to potential hazards, and tells them how to respond by using a series of complicated rules. In fact, this set of rules — developed over decades — is so complex, perhaps only a handful of individuals alive even understand it anymore.

But the larger point is that this is becoming true of society as a whole. For example, developer Kevin Slavin (2011) has pointed out that 70% of the stock market operates by algorithms that do the trading for brokers, but that no one truly understands (this is called "black box trading"). In fact, some people's sole duty is to examine the automated systems and pick out individual algorithms that run it. As a result, when something like the Flash Crash of 2:45 happens, that is, when 9% of the stock market simply disappears in seconds, no one can give an explanation. A 2013 article from *Nature* echoed this, the authors explaining that finance functions because of a "machine ecology beyond human response time" (Johnson, et al., 2013).

This "machine ecology" is driven largely by artificial intelligence, the merger of biological and computing systems, and things like "evolutionary programming" (where programs "evolve" instead of being created directly—see Arbeson), and in the economic realm this new wave of automation is likely to have far-reaching repercussions. To be clear, these repercussions will not be apocalypse, as some doomers might have it, but they will probably underpin more unrest than other economic crises, such as the Great Depression or the first wave of automation at the start of the Industrial Revolution.

To illustrate: one study recently predicted that 47% percent of the workforce is slated for unemployment due to technical advances (Frey & Osborne, 2013). Unemployment during the Great Depression reached only 25%. And while a common argument is that technical innovation has always provided more jobs, this has been true only in the long term. In the short term, rapid economic changes have led to quite a bit of instability, and this second wave of automation is occurring at a rapid enough

rate for something comparable to happen (CGPGrey, 2014; Thompson, 2015). Self-driving cars, for instance, will cause immediate turmoil for one of the world's largest industries, transportation. And already some innovations spurred on by computing technologies, like Uber, have incited riots by Taxi drivers (Clifford, 2015), echoing the Luddite revolts early in the Industrial Revolution.

Three possible outcomes for human nature, or a combination of them, could result from this second wave. The first two assume human nature will not be significantly modified, which will either lead to human irrelevance or human leisure. That is, if we imagine something similar to the techno-utopian's "postscarcity" economy, either all humans or a large amount of them will become useless and a drag for the technical system, leading to their extermination or exploitation (since their labor will be cheaper); or humans will benefit fully from post-scarcity and not have to worry about much but their chosen "self-actualizing" endeavors. The reality is likely to be a combination of both, as it is now and has been since the advent of civilization, where some people in more materially developed nations live leisurely lives and those in underdeveloped nations are exploited and regarded as expendable, if only implicitly.

Still, the major threat according to most humanitarians, scientists, and others from the technician class, is a widening gap between the rich and poor (Brian, 2014; Gates, 2015; Agger, et al., 1964). Steven Hawking (2015), for example, wrote:

If machines produce everything we need, the outcome will depend on how things are distributed. Everyone can enjoy a life of luxurious leisure if the machine-produced wealth is shared, or most people can end up miserably poor if the machine-owners successfully lobby against wealth redistribution. So far, the trend seems to be toward the second option, with technology driving ever-increasing inequality.

Note, then, that the economic changes in late industrial society are the selection pressures for social progressivist ideologies, as was argued previously. For instance, if inequality is poised to be a great economic destabilizer, the social system will require efforts to mitigate inequality if it is to survive. Thus, the major institutions and figures of industrial society, from international organizations to college campuses to transnational organizations, espouse this ideology of social progress.

One other possible future for human nature is worth mentioning, and is likely to combine with the other two. Instead of remaining "mere" biological creatures, it may soon become economically important to more extensively modify our own natures, such as through genetic engineering, so that we will merge with the already-existing "machine ecology." Thus, human biologies will become cultivated much in the way land is cultivated for economic productivity. And although these changes may begin as optional, so did cell phones and cars.

Already there are some emerging narratives to prepare the way for these new technical and economic conditions. The philosophical underpinnings are a thoroughly post-modern attempt to break apart and weaken the concept of "human nature" (Haraway, 1991), much in the same way postmodernists have attempted to attack the concept of wilderness primarily on the basis of social justice concerns. On a higher, less philosoph-

ical level, the new narratives are becoming united by a vision has been described as “transhumanism,” espoused by men as prominent as Google’s director of engineering, Ray Kurzweil.

A final note: without dismissing the severity of the current predicament, it is important to recognize that even as many aspects of human naturalness are severely threatened in this late industrial age, the *autonomy* of human nature has long been violated, and civilization depends on this violation. Pinker (2011, pp. 31–58), for example, refers to the advent of the state as “the pacification process,” and Elias (Elias, 1982) writes of “the civilizing process,” which describes the creation of the European “second nature,” or internalized norms imposed by the new social conditions. Furthermore, every major civilization has been built on the backs of slaves, and industry, a much more intensive mode of production than agriculture, was only made possible with an equally more intensive kind of slavery, namely, the Atlantic Slave Trade (Williams, 1944).

More examples abound: the whole history of colonialism, nearly any instance of civilized peoples coming into contact with primitive ones, and the popular revolts that chronically afflicted feudal societies all illustrate the same story of human domination and resistance to that domination. (Wildist historians would do well to provide an account of these histories to the public.) But it would be a mistake to name the enemies here as “the colonists,” “the Westerners,” “the whites” or “the landlords.” Instead, these actions are impossible or near-impossible to separate from the overall development of civilization (i.e., progress), and they can only properly be understood in the context of the larger wildist and conservationist critique. Further on, this concept will be differentiated from the idea of “social progress.”

4) Man and His Relations

Of course, human nature is not just about individuals; it also has a social component. There is some controversy as to the evolutionary mechanisms behind human social behavior (i.e., whether group selection theory or kin selection theory is correct), but it is generally agreed that the natural social domain of human beings is rather small. In fact, the anthropologist Robin Dunbar (1992) took steps to discover those limits, and he found that, generally, humans only have the capacity to sustain about 150 or so relations (usually much lower), after which stable and cohesive groups require more restrictive rules and regulations or some other kind of artificial intervention. This is predictable, given our evolutionary history as nomadic huntergatherers whose social domain was restricted to bands of 40–100 humans.

This is in stark contrast with the modern condition, where we are encouraged to care about all of humanity, and even animals, equally. Such behavior is of course necessary in an age of increasing interconnectedness, where favoring our relations could diminish productivity and economic stability. Thus, industrial society continues to exist not only because of its modification and degradation of human nature, but because it requires

an individual's loyalty to his relations be kept at a non-threatening level or be broken down completely. For example, nepotism is the scourge of many areas attempting to industrialize, and in-group loyalty with "no snitching" codes often get in the way of effective law enforcement. Consider again the limitations to human moral reasoning discovered by Paul Slovic (section II.C.3).

This does not necessarily mean that we should resist modification of human nature by doubling down on in-group loyalty, especially since many modern people lack an in-group. To the contrary, just as we may use reason while preaching against a world where reason dominates against all else, we will undoubtedly have to cooperate at larger-than-natural scales in order to most effectively achieve our political goals. Sometimes attacking a problem directly is simply not the most effective way of dealing with it.

5) The Case of Social Progressivism

With all this technical and economic change has also come a set of justifying narratives that I've referred to collectively as "social progressivism." The dominant narrative of social progressivism today is the left humanist one (as opposed to, for instance, colonial progress narratives).

Its first major wave after the Industrial Revolution came in the form of various reform movements and individual thinkers like the utopian socialists, Adam Smith, Jeremy Bentham and John Mills, and Karl Marx. Its second major wave is known as the Progressive Era, which included muckrakers, anti-corruption activists, and proponents of "scientific management." Finally, its contemporary incarnation is preached most forcefully by the activists who are involved in what Pinker (2011) calls "the rights revolutions." Note, once again, that all of these are attempts to "correct" the ills caused by the Industrial Revolution or to use new technologies for social innovation, and they were not and are not the driving force of technical change.

I've singled out social progressivism instead of colonial progressivism or scientific progressivism because it is not widely challenged, even though the critique of progress applies as much to it as all the other narratives. This is primarily because left progressivism is the dominant ideology of late industrial societies. Thus, in an effort to have broad appeal, or simply by virtue of the fact that left progressivist values are normalized by institutions like the UN, mass media organizations, or college campuses, conservationists attempt to frame their work in the context of social progress. But wilderness-centered conservation often contradicts the goals of these activists and are emphatically not a part of their grand history.

Many examples are simple. For instance, a vast majority of anti-racist activists wish to eliminate not just power differences among blacks and whites or national citizens and immigrants (etc.), but also prejudice in general. But prejudice against out-group members, including people with different skin-colors, is part of human nature, to the point that even wholly artificial and inane categories can incite in-group/out-group mentalities (Kubota, Banaji, & Phelps, 2012; Gottfriend & Katz, 1997; Reynolds,

Falger, & Vine, 1987; McEvoy, 1995/2013; Pinker, 2011, pp. 320–343, esp. 331, 336, 338, 343). This prejudicial human nature is a major reason racist power differences arose in modern conditions, with their extremely radical changes in demography (McEvoy, 1995/2013) and new technical environments, like cities. Other infrastructural factors, like geography, help explain why Europeans specifically came to dominate the globe.

As another example, a significant population of feminists and queer theorists say that gender is a “social construct” and that it is “fluid,” so that a single individual may move back and forth on the “gender spectrum” throughout their life. This is a delusion (Halpern, 2013; Pinker, 2002, pp. 337–351). Gender and sex, and there is no meaningful difference between the two, are rooted in complex biological organs, mechanisms, and hormones, and they are in no way simply “social constructs” or much of a choice. Furthermore, there are clear and measurable differences between men and women, which could explain or partially explain differences in employment, the pay gap, and other gender issues (*ibid.*).

These untrue social progressivist ideas arose in order to justify pursuit of equality, as did the blank slate doctrine generally (Pinker, 2002, pp. 16–17, 141–158). But they are comparable to the spiritual and religious narratives that played ecological functions for some primitive humans: they work, but are untrue, and very often scientific explanations work even better (see, for example, the work of Marvin Harris). Thus, some thinkers are calling for a scientific left that recognizes human nature and is not afraid to cultivate it in pursuit of left humanist aims. I’ve already mentioned the a few of the most visible advocates of this idea, like Peter Singer (2000; 1981) or Noam Chomsky (Chomsky & Foucault, 2006, pp. 38–39).

I must restate that being in opposition to this effort and advocating the conservation of human nature is not the same as espousing prejudice (for instance) as a good thing. The wildist argument is not that nature is good, but that the belief that we can mold it to our preestablished blueprint is delusional, will have major negative repercussions, and will come at great cost to wildness. As will be more extensively argued later, progress itself has caused many of the problems the left progressivists are now trying to fix, but any attempts to challenge a society on the basis of its own values are doomed to fail, because even the society will agree that violation of those values is bad, and will give the inevitable response: “Let’s fix it.”

Wildists also do not exactly argue that because something is “natural,” there is nothing we can do about it. This is an emotionally complex issue, but not particularly difficult to understand intellectually. For instance, Dave Foreman was widely criticized by social ecologists and other leftists for his comment that the US should not give aid to Ethiopia. I will not deny that the form of the statement was tasteless and insensitive, but I stand behind Foreman’s opinion and the reasoning behind it, especially after he better articulated it, some time later, in a written debate with the leader of the social ecology movement, Murray Bookchin (Bookchin & Foreman, 1999).

Essentially, Foreman argued that a huge part of the problem in Ethiopia was rooted in demographic pressure, that is, too many people and too few resources, and ecosystem

restraints, like climate change. This is true (Brown, Gardner, & Halweil, 1998; Ehrlich & Ehrlich, 2009). Furthermore, even if the social ecologists are correct that with enough technical infrastructure managed the right way, resources from other parts of the Earth can be redistributed for the well-being of Ethiopians (the progress narrative), they fail to note that this technical infrastructure will consist of roads, fuel extraction, and so on, betraying the “ecology” part of their name.

But the rest of the argument is better communicated by way of analogy. I once had a friend who suffered from mental illness, the kind where not taking his medication was itself a part of the mental illness, and he consistently attempted suicide over the time period that I knew him. At first I tried to fix the problem, pressuring him to take his medication, and so on. But not only was it exhausting, it was impossibly exhausting, especially because he frequently managed to get out of taking his medication anyway, and because the medication didn’t always work as intended. Even though it was not wrong or unnatural for me to worry about him, I eventually had to accept that there were forces more powerful than me that would decide his fate. It turned out that the fate was death by suicide. Of course, understanding all this intellectually does not do anything about my hurt, but at least as I have figured out how to manage that hurt, I’ve done it in the context of moral wisdom.

This roughly parallels many social issues like the problem of poverty in Ethiopia. Of course, the problem isn’t that Ethiopians have a mental illness, nor are the sexual practices of individual Ethiopians even close to the whole story. But there are many forces outside of human control deciding on the country’s fate, and further human attempts to tinker “just enough” to improve well-being, ignoring these more powerful forces, are, as all attempts to implement social blueprints, going to go differently than planned and at great cost, often to human well-being itself.

In addition, there are much clearer and less sensitive issues with the left progressive notion of “poverty.” In many cases it is a code word for “not industrialized,” the goal, of course, being to develop the nations, which is clearly opposite of conservationist values. In other cases, it is referring to actual poverty, which is largely a result of industry itself. As mentioned earlier, Diamond (1999) notes that the advent of agriculture brought social stratification that lead to decreased health and well-being for nearly everyone but the elites. Industry has not fundamentally changed this state of affairs. While the Industrial Revolution did indeed bring *materially* better conditions for individuals in first-world nations, the majority of humans in the third-world, and those living in extreme poverty, would have been better off as hunter-gatherers.

With all this in mind, it is hard to conclude that wildness-centered conservation is the next step in the ladder of progress. Social progressivism seeks not to increase the wildness of the world but to manufacture social relations that are conducive to the functioning of industrial society, even by actively modifying human nature and its associated social behavior.

6) The Social Progressivist's Trick

Interestingly, the grievances associated with social progressivism are not all illegitimate; but in recognizing them, the progressivists play a trick (see Kaczynski, 2010, pp. 190–205 for more on this trick). That is, some issues associated with left progressivism are repugnant even on wildist grounds, such as slavery and colonialism. However, in order to properly understand the wildist perspective, we must distinguish between human domination of humans and human domination of nature.

Human domination of humans is sometimes an aspect of nature (e.g., Somit & Peterson, 2001). Some associated with left-wing radical environmentalism insist otherwise, like green anarchists, anarcho-primitivists, or social ecologists. Consequently, they preach a noble savage narrative and see “domination” of humans and nature as one and the same. However, even apart from relying on an incoherent use of “domination,” this idea contradicts our entire understanding of evolutionary theory and associated concepts, like game theory, and it is a rather odd perspective in the first place, as is evidenced by any actual time in nature or, according to some, time spent with hunter-gatherers (Chagnon, 2013; Chagnon, 1997; Diamond, 2012; Everett, 2009, p. 89; Holmberg, 1950). It is no mistake that a synonym for wildness is savagery.

But our distinction between human-human and human-nature domination complicates the simple definitions of “naturalness” and “wildness” given earlier. Earlier I wrote that “naturalness” means “not controlled or made by humans or their technical systems,” and I wrote that “wildness” or the “autonomy of nature” is that “not controlled” part. Also recall Figure 1, the spectrum of naturalness in the context of the material Cosmos. Finally, recall that “control” or “domination” of nature is not synonymous with “influence” (Hettinger, 2002), and often being on more equal footing with nature contextualizes the boundary between the two, just as a husband and wife might influence each other more profoundly than two strangers without their influence crossing over into the territory of domination. As Fox (1993) puts it, to say something has intrinsic value is not to say it is “inviolable,” even if relentless and far-reaching violation might make moral defense more sensitive to such a threat.

That bit about influence versus domination is important. The root of our problems lies in our evolved capacity to outpace biological evolution with cultural evolution, something that probably happened in the late Paleolithic era. This is not necessarily a bad thing. At least, that’s not the claim of wildists, even if it is arguable that the ability has made our species non-viable—often the argument of misanthropists but suggested even by men like Chomsky (1998). Rather, this ability has created the phenomenon mentioned earlier, where humans must “fill in the gaps” that aren’t naturally filled when our cultural innovations mismatch with the biological landscape. This was exacerbated with our transition to agriculture at the beginning of the Neolithic, when Wilson suggests cultural and biological evolution truly became “unlinked” (Lumsden & Wilson, 2005), and it was made even worse with the Industrial Revolution.

The conservationist asserts that the results of this unlinking, like species extinctions or alienation from nature, are troubling. Luckily, we find that the same evolved capacity for complex, creative reasoning and morality, which allow us environmentalists to identify a moral problem in the first place, could contribute to a positive response. In order to speak about these issues efficiently, wildist ethical discourse establishes a split between “naturalness” and “artificialness” and speaks of artificial domination of nature, a mostly adequate linguistic convention. But since human domination over other humans is sometimes a result of natural conditions, such as male hierarchies, it cannot be called domination of nature, just as it would be absurd to say that the domination of alpha wolves over others in the pack is wolf domination of “wolf nature.”

Nevertheless, when these conditions become sufficiently “mismatched” from our hunter-gatherer conditions, they start to require artificial restrictions and development to “fill in the gaps,” resulting in a loss of wildness and consequences for us humans. We are not particularly happy when we are perpetually subject to artificial management. But the key is that the tension is between artificial domination and our biologies, our human natures, rather than being between two groups of humans. This is the state of things because cultural evolution has outpaced our natures as much as it has outpaced nature as a whole. As evolutionary psychologists Cosmides and Tooby (1997) put it, “our modern skulls house a stone age mind,” a cause of many modern problems, and also the reason we find ourselves unable to properly deal with the massively-scaled crises of late industry like climate change.

This is the key to understanding much human unrest over the course of civilization. Humans were not made to be slaves, so humans put in the trying conditions of slavery will revolt. Humans did not evolve to be happy with toil under the direction of another, so of course there was popular unrest under feudalism. Humans evolved to toil with purpose and autonomy, so of course there is widespread disdain for modern work and its purposelessness.

Of course, not all of these problems can be fully explained by a mismatch between human nature and civilization, and usually noting the mismatch alone does not adequately deal with the nuance of the problems. For example, black revolt in the US is more effectively spoken of in a “higher-level” language, such as by noting the heavy-handedness of police forces. There is usually no need to speak of these things in terms of “mismatch,” just like there is usually no need to explain World War II in terms of biology and, to an even lesser extent, chemical reactions. Still, the higher-level language suited to these issues must operate in the context of ecology, so claims like “prejudice and xenophobia are purely a result of hierarchical social structures,” which contradict the base ecological understanding, would not be viable. Imagine a history of WWII that contradicted basic ideas in physics.

Furthermore, the base ecological understanding of human nature and nature generally sheds light on historical events that would otherwise be obscured by the progressives. Consider again the conditions of black people in the US. Much, though not all, of the contemporary conditions are residual effects of slavery. And although all major

civilizations have been built on slavery, it is clear that the Transatlantic Slave Trade was slavery of a much higher magnitude and rather different quality than any previous form. It was precisely this new intensity that permitted and some say spurred on the Industrial Revolution, since it was the mechanism by which the resources and capital necessary for industry were accumulated, and since the capital it generated financed much of the revolution itself (Williams, 1944).

The trade required use of black bodies for labor and economic production, and its justifying narrative was that blacks were as savage as the nature they were pulled from, and just as nature was there to have productivity squeezed from it, so too were those people whose faces were veiled in black. Though there are many instances of this narrative, consider the *ProSlavery Argument*, a pamphlet published in 1853, which contended that “slavery has elevated the Negro from savagery. The black man’s finer traits of fidelity and docility were encouraged in his servile position.”

Of course, human nature being what it is, a rather vast infrastructure had to be developed to “fill in the gaps” and keep these individuals productive, such as slave-catching forces. Furthermore, contrary to popular narratives, this infrastructure wasn’t always the extremely brutal and bloody narrative modern individuals learn of and wonder, “How could that have lasted so long?” Rather, it was a mix of the brutal and bloody, the pleasant (for incentives), and the mundane (Fogel & Engerman, 1974)—that is, it is just what one would expect from an infrastructure designed to extract resources and capital from human bodies with a human nature. These economic conditions merged with human nature’s propensity for in-group/out-group divisions, and the results were white supremacist ideologies and racial progress narratives.

This association between blacks and savagery has carried on into contemporary times. For example, a major component of the Central Park Five case, where five black boys were falsely convicted of gang rape, was hysteria over “wilding,” a term that referred to rowdy boys roaming city-streets to terrorize residents (Mock, 2014; see Figure 2). See also the examples given in section III.D.9, “Race, Eugenics, and Social Darwinism.” This kind of rhetoric isn’t entirely surprising, since it truly was not that long ago since slavery ended in the US. The primary way these residual effects show, however, is not through overt prejudice or ideology; to the contrary, most of the ideological and institutional centers of industrialized nations preach a left progressive narrative. Nevertheless,

many structural biases against blacks still exist, and many, though not all, black communities, which remain largely separate from white ones, still do not have adequate institutional forces to fully ingrate them into industrial societies.

DuBois argued repeatedly in his writings that slavery and other aspects of European domination kept blacks from developing their own contributions to global civilization, and that a great moral failure of Emancipation was its aftermath: “I insist it was the duty of some one to see that these workingmen were not left alone and unguided, without capital, without land, without skill, without economic organization, without even the bald protection of law, order, and decency” (DuBois, 1909). And although

he saw the appeal in believing that harmony between whites and blacks could happen quickly, he argued that first the black race would have to develop its own capacities, “its particular message, its particular ideal, which shall help to guide the world nearer and nearer that perfection of human life for which we all long...” (DuBois, 1897) With these politics in mind, he started the NAACP, along with many other projects, and has truly had an unsung but profound influence on black politics. However, DuBois was a humanist, and strove for the ideal of universal solidarity. As such, he never challenged the idea that the black person had to be improved, and instead strove for this kind of progress.

Much data supports his conclusions about the failure of Reconstruction. For example, Pinker (2011) notes that homicide is much higher among blacks than whites and higher among southerners than northerners, suggesting that a huge reason is these populations’ “culture of honor.” This is an indisputable fact among those who study homicide. However, Pinker is a humanist as well, so implicit in his overall argument is that effort should be made to improve these communities, since honor cultures are dangerous for the development of industrial civilization, and lead to more violence. These things are both true, of course.

To be clear, this is not an argument that these higher rates of violence are rooted in biological racial differences. Human nature is astoundingly unified, and rates of violence are much higher in some white populations as well, although usually not by virtue of their being white, mostly because their history did not include anything akin to the Transatlantic Slave Trade.

The problem, then, is that not all black people have been sufficiently integrated into industrial civilization, and because of these lack of institutions and overall integration, the “second nature” (which is cultural, not biological) that Elias argued had been developed in Europeans has not fully reached all black populations. The “second nature” that African slaves did have was of a foreign, non-European kind, and at the time existed only in the context of the agricultural civilizations that many Africans came from. Then, rather than being sufficiently socialized according to European standards, slavery stunted the “development” of further generations, as did the inadequate response after Emancipation. The latter is also why the South in general still has a “culture of honor.”

Thus, poorer blacks are revolting today in places like Ferguson, Missouri. They, like most in industrial society, experience an underlying unease with modernity, and they experience all the same psychological problems it causes in human beings living in it. But unlike many other humans in these conditions, they are not “plugged in” quite well enough for the media, schools, and so forth to quell their revolt. And again, this is not racial in a biological sense. Black people who have gone through the socialization process, like university students, revolt in a manner one would expect from the highly educated and privileged, because, again, all humans are united by a common human nature, and only because of history have a large portion of blacks been excluded from industry.

Of course, from these conditions there are two options forward. On the one hand, the left's demands will "develop" poor blacks by giving them avenues into industrial society, such as through a toothless and artificial "black culture," with any elements dangerous to industry removed. On the other hand, those who wish not to be subject to socialization and development might revolt against industry and its ideology. Similar kinds of explanations apply to the industrial underclass, the third world, natives, and others who have not been sufficiently integrated into industry.

The role of left humanist movements is to coopt the unrest of the many excluded classes and declare it an expression of dominant humanist values. This is the progressivist's trick. An important characteristic of the oversocialized element that does this is an almost neurotic empathy for victims or perceived victims, which helps justify solidarity beyond relations and which functions as a sort of "detection and response system" for identifying non-integrated populations (see, e.g., Singer, 2000, p. 9). But for a wildist to give historical explanations is not or should not be an exercise in this neuroticism; rather, it is and should be an expression of intellectual nuance, or the ability to note that some more than others have been integrated into industrial society. To recognize this is intellectually honest, strategic, and to the benefit of those of the excluded who value wildness and seek freedom rather than a pathway for "development."

A related note of caution: many have noted the prevalence of "cause-junkies" among the left. In truth, this is a tendency present in many mass movements, a side-effect of industrial alienation. In all of these mass movements, however, the cause-junkies are directed by an ideological force. In the case of, for example, the Islamic State, this force consists of religious theologians. In the case of the left humanist movements in industrial nations, this consists of an oversocialized population from the technician class, university professors being an especially notable example. Hoffer (2011) writes extensively of this phenomenon of the alienated masses and their ideological directors. Many of these alienated individuals are head-strong and young, and they are helpful only if their unrest can be directed to a single cause. Otherwise, they are loose cannons and ought to be avoided, especially because their lack of discernment dilutes movements. Keniston's (1974;

1968) work on the New Left demonstrates this problem well. Also see Lee's (1995) account of the schism in Earth First! after it was overrun with left-wing activists.

So even if the conditions of blacks, natives, and others are partially or largely explicable in terms of domination over nature, by bringing this up we cannot succumb to the temptation to forget about our core concern, namely, nature's wildness. This temptation is especially strong in a society that values indiscriminate empathy for victims or perceived victims (Ultimo Reducto, 2009). That is, when the goal is integration into industry and development of these populations, it makes sense to have separate political causes, because each can progress more or less separately. But industry's scale has made it such that no person can be free until its stronghold has been weakened and, ideally, terminated. The role of the above is exclusively to challenge the left hu-

manists' assertion that they are on the side of the oppressed. As we have seen, they are only trying to "develop" the excluded into properly functioning elements of civilization, glossing over the sources of their unrest by "plugging them in" to universities, the media, and the larger culture, but not freeing them from the fundamental source of that unrest, namely, the technical domination of their nature. 7) *Does Artifice Have Value?*

The primary concern of wildists is the autonomy of nature. Thus, the value of artifice is of secondary importance. Nevertheless, while wildism by itself does not fully answer the question of the value of artifice, it does place clear limits on said value.

Recall that the primary issue is that cultural evolution has outpaced biological evolution. The focus, then, is on reappraising the value of the non-artificial in order to potentially end our immoral domination of nature, which has meant the extinction of thousands of species, the loss of most of the world's wildlands, climate change, and many other grave consequences. Still, discourse that divides "artificial" and "natural," with an emphasis on shifting back toward "naturalness," is most relevant in big-picture social contexts. When it comes to personal or extremely small-scale contexts, the distinction becomes, perhaps, less morally relevant, especially because a large part of the issue with the dominance of artifice is its scale and perpetuity.

Furthermore, specific cultural artifacts clearly have some kind of value, if only aesthetic. Music and art that could only be produced by complex civilizations are the most obvious examples. Certain kinds of access to knowledge, such as through library systems, are particularly strong arguments for me. Some friends have noted the aesthetic beauty of city skylines. But always the question is whether these things are worth their price. Certainly slavery produced some things of some kind of value, such as the pyramids or various aspects of Roman civilization. This does not, however, justify slavery.

Ultimately, this question easily turns into the same endless argumentation that we avoided earlier, when it was established that the onset of civilization was a significant benchmark in relation to the question, "How much wildness?" That was decided because discussions such as this could become similar to problem of when cells become a person in the abortion debate. Thankfully, at least our problem is simplified by several orders because, unlike the development of the zygote into a baby, the benchmarks from primitive humans to now are rather clear expressions of changed human-nature relationships. So to avoid endless debate, wildists simply state that wildness has value such that civilized agriculture and industry are morally condemnable (along with their intermediate productive stages). Thus, to make things simple, we might say that artifice never matters so much as to excuse the damage done after that cut-off point of civilized agriculture.

All that said, my deepest desire is to see the conversation on the value of artifice abandoned. Given that the whole machinery of industrial society expends perpetual effort on reaffirming the value of human endeavors, the small number of wildists, with their limited influence, would do well to spend their energy reaffirming the value of

nature regardless of what this means to human artifice. Although such an attitude may not be appropriate at all times and in all places, it certainly is in this age of crisis. No doubt, the sheer depth and breadth of the power pushing the opposite view of progress will ensure that some valuation of artifice will survive no matter how much of a purist position wildists take in defense of nature. For more on this line of reasoning, see Hunter (1996), and for related but potentially more fruitful questions, see Hettinger (2002; 2012).

8) The Bad Parts of Human Nature

What about the bad (or “bad”) parts of human nature? Isn’t it true that, just as you can’t have the good parts of technology without the bad, you can’t have the good parts of human nature without the bad either? Indeed, this is true.

Earlier I mentioned that evolutionary game theory predicts that a consistent portion of the human population will be psychopathic. One might wonder how this is worth conserving. Remember, however, that wildists do not claim that nature is good, only that progress is a myth. In fact, it would be absurd to call many aspects of nature “good,” but a big-picture perspective clearly does establish that nature has value.

To leave the case of human nature for a moment, consider the mosquito. Many individuals, seriously and as a joke, insist that the mosquito should be eradicated. Quammen (1981), however, challenges the wisdom of this view, noting that the insects “make tropical rainforests, for humans, virtually uninhabitable.” If you’re not sure why this could be a good thing, perhaps you don’t know that rainforests hold nearly *half* of Earth’s terrestrial species, yet are in deep trouble because of industry and agriculture. Writing in 1981, Quammen explains:

The current rate of loss amounts to eight acres of rainforest gone poof since you began reading this sentence; within a generation, at that pace, the Amazon will look like New Jersey.

Conservation groups are raising a clamor, a few of the equatorial governments are adopting plans for marginal preservation. But no one and no thing has done more to delay the catastrophe, over the past 10,000 years, than the mosquito.

Essentially, the problem is that when humans clear the vegetation, mosquitoes come down from the canopy and attack, bringing disease with them. The rainforests, writes Quammen, “are elaborately boobytrapped against disruption.” He then notes that native forest peoples eventually became immune to some diseases and developed hunting-and-gathering technics that minimized any run-ins they might have otherwise had with the canopy-dwelling insects. But colonists, out of place technically and biologically, were still vulnerable, and in West Africa, rainforests came to be known as “the white man’s grave.” Thus, while humanity has colonized most places on Earth, rainforests remained, until recently, relatively untrammelled.

Yet progress marches on, and in recent years, Oxitec, a biotech company, has genetically engineered mosquitoes with an “assassin gene” that eventually kills off mosquito

populations. Already they've run successful tests in Brazilian cities and are set to be released in the Florida Keys. Brazil has also considered releasing populations of GM mosquitoes in preparation for the 2016 Olympics (Kitamura & Khan, 2014). As this kind of technology develops, it's not difficult to see a future where mosquitoes truly have been eradicated.

Note that this is all being done in the name of "fighting disease," and remember the earlier mention of medical science as a humanist ethical science. But even fighting disease is an example where the "bad" parts of nature might actually end up having some bigpicture value. For although our efforts to eradicate disease have been fairly successful, they and the technical infrastructure they are built on have most likely traded small, inconsequential outbreaks for one or more extremely large ones (Quammen, 2012; Garrett, 1995; World Health Organization, 2014). Not to mention disease's role in checking population growth. In other words, even though one can hardly call malaria or smallpox "good," it might not be wise to call eradicating them "good" either. See Ehrenfeld (1981, p. 209) on this point.

The same logic should be applied to human nature, so long as it is understood that humans are, as Darwin, Wilson, and others have established, apes, albeit apes with pants. As stated earlier, if the problem is "unlinked" cultural evolution, and if this applies to our Stone Age biologies as much as it does to non-human nature, and if it is clear that cages and domestication leave animals worse off, and if there is evidence that the same applies to humans, then what, other than the old story of human exceptionalism, is keeping us from coming to the obvious conclusion?

Nevertheless, this is likely a necessary but not sufficient argument for conserving human nature with its "bad" parts, because some elements so thoroughly offend modern sensibilities. If we are serious about equating human nature with non-human nature in the significant sense that we do, we ought to face up to these negative elements, which include the following: **violence**, and I meant *violence* (e.g., Chagnon, 1997; Pinker, 2011; Daly & Wilson, 1988), **cannibalism** (Roach, 2003; Stoneking, 2003; Sugg, 2013; but see Routley, 1982), **various non-PC sexual dynamics** (Buss & Schmitt, 2011; Barkow, Cosmides, & Tooby, 1995, pp. 249–326), **natural propensities toward criminal behavior** (Rice, 2013; Wilson & Herrnstein, 1985), **psychopathy, rape** (Thornhill & Palmer, 2001), **prejudice and xenophobia** (Reynolds, Falger, & Vine, 1987), **infanticide** (Daly & Wilson, 1988, pp. 37–89), and probably some others I'm neglecting to mention.

I'll address a few here. Consider again psychopathy and anti-social personality disorder. For now let's ignore some of the potential reasons to be suspicious of the role of "personality disorders" in medical science (see Bradshaw, 2006). I wish only to stress that the implications are rather clear for individuals who wish to challenge dominant values, including and especially those normative postulates that drive medical science—which isn't to say the empirical findings are incorrect, since they are often irrefutable.

But, at least right now, progressives cannot argue that industry better guards against psychopathy. Psychopathy may, in fact, be rather well-suited to it. Accord-

ing to one industrial psychologist and an expert on the illness, upwards of 1 in 25 business leaders could be psychopathic (Babiak & Hare, 2006). Similar kinds of arguments apply to crime. Often the behavior that is called criminal is that which is not conducive to the technical system, which isn't to say that it is excusable or good, but that other kinds of crimes committed by the upper class are ignored, especially difficult to detect, or especially difficult to prosecute (Sutherland, 1983).

Also consider the various arguments stating that violence declines as civilizations develop. Pinker's (2011) is the most famous, but much of his book simply consolidated the work of others, like Daly and Wilson (1988), Mueller (1990), Keeley (1997), and the Human Security Report Project (2013). The empirical argument is convincing, but the normative argument should at least be questioned. By no means can I argue that the magnitude of violence present throughout human history and prehistory is desirable, but I do question the value of eradicating violence completely. Even the present levels are of questionable benefit, especially in universities, which are the keepers of society's dominant values, but also home to professors and students pathologically averse to violence, calling even "microaggressions" a form of it and truly perceiving them that way (Campbell & Manning, 2014). Lorenz (1963) writes that the result of this pathology is a society in which there is "no legitimate outlet for aggressive behavior" (p. 244) arguing that "innocuous outlets" must be constructed. But do we truly desire such a constructed environment meant to develop, direct, and hone our desires? At what point does this become unacceptable? And where, in any of these options, can we find freedom?

Furthermore, Pinker often notes side-effects of the very technologies and institutions that are the probable cause of various declines in violence. A pertinent example is digital communications technology, the likely source of the new wave of "rights revolutions," as he calls them, but also a primary reason no person intuitively believes they are living in less violent times. Basically, the "if it bleeds, it leads" mantra that runs the media means we humans are constantly inundated with news of violence. This combines with our mind's "availability heuristic," mentioned earlier (section II.C.3), and we become convinced, unconsciously or not, that because we can easily recall instances of violence, there must be a lot of it. Islamist terrorists are effectively exploiting this tactic now, and the result is constant anxiety, despite the trend toward peacefulness. Of course, there are possible solutions, but I can't think of any that sound appealing. Is the media going to become regulated so that just the right amount of good news enters our brains to improve our "well-being"? Huxleys and Orwells of the world, take note.

All that said, there is one item on the list that is truly unsettling: rape. And there's good reason for the feeling. Rape *could* be what in evolution is called a "reproductive strategy." This theory is not conclusive, but it is a fairly well-supported one (Thornhill & Palmer, 2001; McKibbin, Shackelford, Goetz, & Starratt, 2008; Shields & Shields, 1983; Thornhill & Thornhill, 1983). Once again, recall that "natural" does not mean "good." It also does not mean "inevitable." In fact, where rape is present, so is retaliation

against it, and societies universally have norms or laws against rape (Shields & Shields, 1983; Palmer, 1989). The only exception is the rape of wives, which until recently was not prosecuted even in industrial nations (McKibbin, Shackelford, Goetz, & Starratt, 2008). It seems that, since rape would be most likely in circumstances where the potential price is not too great for the male, such as in times of war, and since both Paleolithic women and their families would have been effected by the outcome of a rape, certain psychological propensities, like revenge, and possibly social norms, evolved in order to combat it, decreasing the possible reproductive advantages for males (see the above sources).

Still, it is possible that rape declines with industrial and economic development. Pinker offers some weak data that is unconvincing on its own, but in the context of declining violence in almost every other area, it is worth considering. In contrast to Pinker, activists contend that levels of rape are profound and that current infrastructure is woefully inadequate, which would indicate that reducing the stronghold of industry would not make much of a difference, since even primitive methods of dealing with rape would be a step up. Probably, though, Pinker is more correct, and there are some indicators of this. For example, consider Zentner and Mintura's (2012) paper, entitled "Stepping Out of the Caveman's Shadow," in which they noted that the more developed a country is, the more divergent its men and women's mate preferences are from those predicted by evolutionary psychologists. Instead, men and women become more similar in their mate preferences.

In other words, the likely status of women in a less developed economic world will probably be at least as powerful an argument against decreasing industry's stronghold as eradicating disease is. I can't pretend that this isn't an issue, and it is a point that ought to be addressed more fully in the future.

I'll leave the other elements on the list for now. I wish only to point out that in nearly all of these cases, the bad (or "bad") parts of human nature are sideshows, and as a critique against wildism they cannot stand alone. For could I not name many ills associated with industry's domination of nature, most of them several orders more impactful than any problems humans could have merely among themselves? I cannot help but note the ills of climate change, rapidly increasing population growth, the threats of genetic engineering, the impacts of roads, the massively increased rates of extinction, and the fundamental unrest of all human beings, and then I cannot help but challenge any individual to come up with an approach to these problems that does not in some ways have unsettling implications. Clearly, this is impossible, and in a reasoned assessment of what we can do from where we stand, we would do well to admit that we are, unfortunately, in a time where the best we can hope for is the least damage done—and this is no fault of the wildists.

9) Race, Eugenics, and Social Darwinism

This talk of “conserving human nature” should be a red flag for readers familiar with conservation history, since within the “resourcist” faction of the conservation movement, similar ideas equated to or were closely tied to “race conservation.” Before I review the history, however, let’s establish what the science is concerning race and biological human variation.

a) The Science of Human Variation

There is biological variation within the human species, including at the population level (see, e.g., the Human Genome Diversity Project). The most obvious examples of this are skin color, eyes, lips, and so forth, the differences in all of which are mostly due to climactic adaptations. But many people do not know that genetic data alone can reveal a person’s geographical origin, “often to within a few hundred kilometres” (Novembre, et al., 2008), and the probable racial category the person identifies with. One can also usually determine the latter from bones alone (Brace & Gill, 2000). Furthermore, some populations genetically tied to a geographical area are more prone to diseases than other human populations, such as Tay-Sachs disease in Ashkenazi Jews, sickle-cell anemia in African Americans, and cystic fibrosis in Caucasians.

Whether variation such as this amounts to *racial* differences is a matter of controversy, although the debate is bogged down by semantics. Suffice it to say that there are good and scientific arguments for the usefulness of race in biology, even if the counter-arguments are also reasonable (Risch, Burchard, Ziv, & Tang, 2002; Witherspoon, et al., 2007; Edwards A. , 2003; Brace & Gill, 2000; Hellenthal, et al., 2014; Wade, 2015, but see below; and several others).

Note “usefulness” rather than validity. Although “race” at one point was a taxonomic level lower than “subspecies,” now the two are considered equivalent. However, “subspecies” is an amorphous concept, and in animals the definition is usually something like, “a population within a species that occupies a distinct ge-ographical region and shares one or more distinct features.” For example, Yellow-rumped Warblers, with yellow throats, and Myrtle Warblers, with white throats, were once considered distinct species because of differences in appearance. However, when it was discovered that the two “species” mated, they instead became considered two subspecies. Genetics and evolutionary theory have since complicated these schemes, but the concept of subspecies, in general and in relation to humans, still conveys useful information in conservation, forensics, medicine, evolutionary history, and so on. In recent years, a genetic concept of race has gained legitimacy especially in the medical field, where the humanistic concern of eradicating diseases is slowly winning out over other ethical issues (e.g., Risch, Burchard, Ziv, & Tang, 2002).

This should shed some light on research dynamics in the era of “scientific racism.” Consider, for example, the recent case of Nicholas Wade’s *A Troublesome Inheritance*.

Wade's book argues that race exists biologically (the first part) and then that race was an important component of major events in history, such as the dominance of the Western world or the transition to industry (the second part). Several reviews noted that the science of the first part of Wade's book was largely correct. After that, however, Wade begins arguing for racist ideas that are almost entirely speculative and that go way beyond the facts.

Here's the thing, though: Wade repeatedly said that his ideas were speculative, and normally in science, this kind of hypothesizing is quite acceptable, a necessary step that is then countered with experiments and more data, and then revised. Strictly speaking, Wade's ideas aren't *necessarily* wrong. However, we can't forget that Wade operates in the context of a nasty history, and his arguments could have social implications that would be hard to undo if that step after the hypothesis phase—experimentation and data collection—refutes his initial ideas. So goes the argument of people against Wade's book, and I am fairly sure I support some soft version of it. Wade, a science journalist and popularizer, was being irresponsible. Furthermore, it is undeniable that some, though not all, of Wade's "hypotheses" were influenced by racist notions, unconscious or not, rather than being reasonable extrapolations from available data.

Even though there were a great many preposterous tracts of pseudo-science, many of the ideas that come from the era of "scientific racism" were like Wade's, and in that light it's hardly difficult to understand how that era occurred. As the theory of evolution gradually started being applied to the human animal, it mixed with prevailing values and produced rather horrendous results, especially where scientists' ideas spread into the area of policy and politics, where they were not bound as tightly to data. But the problem is not the science; the problem is the prevailing values.

b) Conservation and Eugenics

No one embodies the nasty aspect of conservation history more than Madison Grant. One of the most influential figures of the conservation movement, Grant was also a major proponent of eugenics. In fact, he is well-known among those on the racist far right as the author of a book entitled *The Passing of the Great Race*, in which he argued for the conservation of the "Nordic race" responsible for civilization. Hitler sent him a letter of admiration for it, calling it "my bible."

Gifford Pinchot is perhaps more unsettling simply because he was even more connected to power than Grant. Pinchot was the founder of the "resourcist" faction of the conservation movement and a great friend of Teddy Roosevelt. He and the president were leaders of the Progressive Era, and Pinchot often attended international events as a representative of the US. One

such event was the Paris International Exposition of 1889, which included a "negro village" as an exhibit. This was quite common with world fairs, meant to encourage and put on display the new world that technical innovation had created, such as communities united by national symbols instead of symbols of small communities. In

fact, “human zoos,” as they were called, were especially popular from the 1870s up until World War II. Keeping with this rich tradition, at one point, Grant had the director of the Bronx Zoo (which he had founded) put the Congolese Pygmy Ota Benga on display with the chimpanzees, labelling him “The Missing Link” (see Figure 3).

Wohlforth (2010) and Rydell (1987) explain all this and more, and I encourage readers to investigate their works for greater detail. Suffice it to say, there is a reason Darwinism has a bad name.

c) The Anti-Industrial Left

Darwinism, however, was not to blame. Rather, the conservation ethic espoused by Grant, Pinchot, and Roosevelt was an intrinsic part of Progressive Era policies, with their great faith in human reason and technical development. No document better expresses this than a report put out by the National Conservation Commission entitled “National Vitality, Its Waste and Conservation.” It covers all the basic causes of the pro-gressive movement, from improved worker conditions to restaurant inspections. It also advocates eugenics and a national program for “race hygiene.” In other words, eugenics was an element of the progressive left that now decries it. In fact, many of today’s familyplanning organizations, like Planned Parenthood, were started as eugenics projects.

To really rub this point in, consider that the names who have supported eugenics over the years include Theodore Roosevelt, Hellen Keller, Winston Churchill, Woodrow Wilson, Henry Ford, John Rockefeller, Andrew Carnegie, Herbert Hoover, George Bernard Shaw, H.G. Wells, Francis Crick, Margaret Sanger, and Alexander Graham Bell, among many, many others.

This is not because the science suddenly made everyone terrible, or because the science was wrong. To the contrary, the science of eugenics is basically correct. But its correctness is precisely the issue, as it enabled the prevailing values of progress and faith in human artifice to be enacted with devastating precision.

But technical progress moved too fast, and there was a backlash from the left itself. It had been forming for several years, but by the 60s it burst onto the scene in full force as the “New Left,” primarily a result of disillusionment after two world wars, catalyzed by the Vietnam war, and reinforced by the anxiety of the Cold War. The “New Left” saw itself in opposition to the “Old Left,” and in reaction to what they saw as class reductionism, they stressed gender and race issues, emphasized non-hierarchical organization, and focused on “lived experience” rather than scientific analysis.

Their revolt, rather than being against dominant values, became instead a revolt against science, reason, and technology, which they saw as the root of the evils that were just reviewed, as well as new issues like the massive weaponry utilized in World War II. Out of this revolt against science and reason were borne cultural phenomena like Woodstock, postmodernism, and a resurgence of non-classical forms of anarchism, specifically with a focus on the “primitive” and a new myth of noble savagery that

presumes humans originally lived in left-wing paradises that became despoiled by institutions. Thus, left-wing movements became hypersensitive to institutional failures and developed the highly responsive “detection and response” element mentioned earlier. The left became a reaction to itself.

As a result, today we have individuals who espouse left humanist values but who profess to be against progress and “leftism” (the Old Left). Rand (1971) called these individuals part of the “anti-industrial left.” These are the same individuals who exhaust everyday folk with their perpetual allegations of racism and sexism, and who no doubt will see this entire text as antiwoman, a polemic for race realism, a tirade against uncivilized blacks, and driven by a desire to see starving, savage Ethiopians die cruel deaths.

These individuals may fall into three categories. First, they may be the oversocialized, who have internalized dominant values so thoroughly that they rebel as a psychological release, but only in terms of the values they cannot let go of. Second, they may be the alienated, a large portion of normal individuals who are simply uneasy with modernity and need an outlet that the oversocialized provide for them. Third and finally, they may be individuals with an ethic similar to or the same as wildism, perhaps also alienated, shocked and angered by the history of technical domination, but driven to the left because it seems the only option. But it is not the only option.

d) Biodiversity versus Wildness

In fact, Pinchot’s conservation has nothing to do with wildism. Always in the movement there have been two ethics, completely at odds with each other, one accenting the conservation of nature for efficient resource use, the other conservation of nature for its own sake. At the time of Pinchot, the latter was expressed by John Muir, who worked diligently to establish Yosemite, founded the Sierra Club, and saw himself as a sort of John the Baptist who was to submerge into the wilderness those who wanted renewal. Although at one point Roosevelt established a pact with Muir to set up the national parks system, at the end of Roosevelt’s presidency Muir was betrayed. A dam, which Pinchot campaigned for, was set to violate the autonomy of the waters of Hetch Hetchy Valley, and despite Muir’s pleading to Roosevelt, Pinchot’s views won. The plans for the dam were signed into law, and Muir died a year later.

But while Muir is an inspirational figure, more important is the idea he preached and represented: *wild-ness*. As he put it, “Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity” (1901). Contrast this with Grant (1909), who argued that man now has “complete mastery of the globe... On this generation then rests the responsibility of saying what forms of life shall be preserved, in what localities, and on what terms.”

Thus, when we speak of human zoos and eugenics and feel that gut-wrenching disgust, we have a perfect illustration of the ongoing moral crisis that wildist conser-

vation is concerned with. We are repulsed by eugenics, the management of human nature, because it is a violation of due autonomy. This same disgust is warranted for any proposal that will have biodiversity at the expense of wildness, that speaks of management without respect for nature's autonomy.

The New Left, then, has made a grave mistake. In choosing to eschew humanity's best method of understanding the world so far, they have made themselves impotent as an anti-industrial force, and, worse, by re-volting in the name of their society's own values, they've become a vital self-correcting force for that same society. Yet, they may be fading away. Slowly, the left is transforming into a pro-progressive force again, a change spearheaded by thinkers like Singer and Pinker. Along with this change comes with an emphasis on harnessing human nature with advances in biotechnology, which Wilson (1978) has damningly envisioned as a "democratically contrived eugenics." One can clearly see efforts to conserve the biodiversity of human nature, perhaps after a first attempt at genetic engineering goes wrong and leaves us rather homogenous. (In fact, Wilson asserts that we ought to preserve the biodiversity of human nature until we have greater knowledge for his eugenicist vision.)

That said, these thinkers—Singer, Pinker, Wilson, and the others—do not deserve the charges of racism and sexism that activists have thrown at them. And Wilson in particular has contributed much to conservation, sometimes inconsistently jumping between a resource-use ethic and something akin to a deep ecology ethic. But even so, the man and the others are playing with fire that might quite literally consume the whole world.

Interestingly, Wilson's combined contribution of sociobiology with his ideas on genetic engineering echo the character of B.F. Skinner, who in the 1970s contributed his theory of behaviorism and later wrote, in a book aptly entitled *Beyond Freedom and Dignity*, "A scientific view of man offers exciting possibilities. We have not yet seen what man can make of man."

Skinner's theories are now either discredited or humbled more than he would have liked, but Wilson's will likely persist. Biology truly is the science of the 21st century, and now is unavoidably an age of biopol-itics. Thus, rather than rejecting science, we must recognize the capabilities of this great way of knowing and challenge the values that justify its technical nastiness. This is a much stronger and more lasting approach than that of the anti-industrial left, and it has the advantage of being true in its ideas. Ultimately, however, the conflict will only be resolved in the hard, material world, with a change in technical and economic conditions that will either mean a permanent reduction in the extent of man's violation of wildness, or, hopefully not, but perhaps, a permanent end to human nature.

E. Anti-Industrial Reaction

With these foundations set, there is that most pressing question, "What is to be done?" It cannot yet be fully answered, but figuring out the answer is a primary purpose

behind The Wildist Institute. Among them, one of the most viable is the idea that it is a moral obligation to disrupt industry beyond repair, to the extent possible. This would essentially be an antiindustrial reaction to the Industrial Revolution.

Although many upon hearing this idea find the most pressing question to be whether or not such a goal is possible, this is one of the least important considerations. Civilizations are rather fragile things, and focused groups can, in the right circumstances, be rather powerful ones. Furthermore, like they always do, the levees will eventually break. The histories of various revolutions and collapses support these points.

Another common response to the proposal is questioning whether collapse is the only way out of our ecological troubles. Indeed, upon initial consideration it makes sense to consider other hypotheses, and one new hypothesis, that late industrial technology can decrease human impact, is worth at least considering for the sake of thoroughness, even if it is probably untrue, and would entail forsaking the conservation of human nature. Investigating this idea's veracity and viability is one short-term task of the institute.

However, collapse is almost undoubtedly a necessary aspect of ecological conservation and restoration. Consider, for example, the environmentalist assertion that we must decrease consumption and production. Historically, this has happened no other way than collapse (or depopulation, such as with the Black Plague). Or consider the idea that we must decrease carbon emissions. What civilized solution has worked? Many eminent scientists have noted how woefully inadequate the solutions so far have been (Milman, 2015; Edwards L. , 2010; McKibben, 2012), and according to one study, one of the only places that has decreased carbon emissions at an adequate speed, Syria, has done so because of large-scale infrastructural turmoil and associated demographic changes (Lelieveld, Beirle, Hormann, Stenchikov, & Wagner, 2015). Another study points to the decline in emissions during the 2008 financial crisis, but then a rapid increase that "more than offset...the decrease" as economies started to recover and developing economies grew (Peters, et al., 2012).

Since collapse is almost certainly our way out, those at the institute will be spending more time exploring things like whether there is a difference between waiting for collapse and aiding it, or whether rapid and aided collapse would do more damage to nature than unaided collapse, or whether it is even wise to engage in a revolutionary-like politics in the first place, especially given the wildist awareness of human folly. There are numerous other considerations, but it is sufficient to say that, given the consequences of such an idea in practice, real and effortful thought must be put into it.

Nevertheless, more modest but still radical anti-industrial action is undoubtedly necessary and a moral obligation. Given the above ethic, something akin to the early years of Earth First! would be beneficial at this historical juncture. In particular, and at the least, ongoing efforts to expand and connect wildlands ought to be made reasonable with a radical non-institutional force. This would of course involve defense of existing wildlands, but perhaps the most effective efforts would include taking ad-

vantage of industrial or natural disasters that rapidly undevelop areas where wildlife corridors would otherwise never be built. The fight for now would primarily be against redevelopment.

Such an effort would also establish an audience of people most receptive to the idea of an anti-industrial reaction, should one become obviously necessary over the course of our investigation. Otherwise, the effort would at least help jump-start the slow, ongoing transition to more proactive conservation work, which is strongly supported even by moderates.

F. Wildlands Conservation

The literature on wildlands conservation is vast, and most of what this synthesis would add to the discussion is strategic rather than ethical, discussions best suited for a later time. However, I do wish to make an ethical point about the so-called “wilderness debate.”

The “wilderness debate” is a political fiction, and its name is a woefully inadequate descriptor of what has really occurred over the past few years. Given the value of nature, the importance of wildness, and the critique of progress, the necessity of wildlands conservation with an eye toward wilderness is uncontroversial. No one but the densest of individuals could fail to see how it unites all the threads of ethical concern noted here. Therefore, rather than being a debate, it is much more an attack, albeit a skillfully maneuvered one. It deserves the charge of revisionism as much as Kareiva’s recent polemics for the Anthropocene.

Other than that, the imperative of wildlands conservation is straightforward. As Abbey put it, “The idea of wilderness needs no defense. It only needs more defenders.” This is the true resolution of the wilderness debate.

IV. Summary

Let us briefly review the core ideas of wildism.

Sometime during his evolution, probably around the Late Paleolithic, man evolved the capability for creative, symbolic, reasoned thought. Thus, when the Neolithic arrived with agriculture and civilization, cultural evolution became “unlinked” from biological evolution and began to outpace it. Because of this, human and technical (i.e., artificial) objects or modifications of nature were not mostly supported by interacting natural systems, as before, and even began to destroy surrounding natural systems. For example, unlike making a spear, which requires little and only temporary input of artificial energy, animal husbandry is out of pace with nature to such a degree that it requires a great and perpetual amount of artificial energy input to “fill in the gaps” that nature can no longer fill.

As a result of this unlinking, there have been many consequences of great moral concern: anthropogenic climate change, increased rates of extinction, overpopulation, etc. And the Industrial Revolution, which un-leashed cultural evolution to a profoundly greater degree than the agricultural one, worsened the problem with its roads, dams, carbon emissions, pollution, and intensified agricultural practices. Furthermore, just as cultural evolution has outpaced non-human nature, it has also outpaced human nature, the primary cause of our modern ills and a contributing factor for why we are unable to solve them. It seems that the only way to escape or delay this, short of the collapse of civilization, is to modify nature so that it can keep up. Those in support of this imperative, either in non-human or human nature, or both, advocate enacting it through new technologies such as genetic engineering, artificial intelligence, and the like. However, apart from being most likely impossible, this results in a profound loss of what *wildists* value most: wildness.

It could be that the unlinking has made humans a non-viable species, meaning we will at some point die out, hopefully without taking too much of nature with us. However, the same capacity for creative moral and reasoned thinking *could* lead to positive responses to our problems. With this possibility in mind, we at The Wildist Institute have sketched a moral discourse and set of moral axioms to be applied to conservation science.

Central to this discourse is a divide between the artificial and the natural, that which is made or controlled by humans and their technical systems, and that which is not. Both are placed on either ends of a spectrum, and our normative obligation is to move the world closer to naturalness. We note that wildness, or the relinquishment of human control and the decrease of artificial energy input, is a defining and necessary step toward increasing naturalness. This is why collapses of civilizations have historically been beneficial to nature; it is why a freed population of domestic animals becomes feral and then wild; and it is why a river ecosystem begins to be restored with the removal of a dam.

The best known way to measure artificial control on a social level is through modes of production, which function as mostly clear benchmarks for transitions in the artifice-nature dynamic. We argue that as a moral matter, and not necessarily as a practical matter, social systems at the civilized agricultural and industrial modes of production are morally condemnable.

In order to properly convey the moral importance of these ideas, wildists note the usefulness of borrowing traditionally religious concepts like sacredness, ritual, and the Sublime, and intend to take up the call for a religion of the Cosmos advocated or suggested by men such as E.O. Wilson, Christopher Hitchens, Carl Sagan, Einstein, and others. This will perhaps increase the effectiveness and preciseness of our moral discourse.

Many solutions have been posed for these moral quandaries, but wildism discerns between viable and non-viable solutions with its critique of progress. Mythologies of progress are civilized narratives united by a belief that human reason and ingenuity can

improve the world, particularly the human condition, by artificially modifying nature. While wildists of course question the normative assumptions of progressivism, noting that technical solutionism justifies decreases in wildness, the most important challenge they make is to the “blueprint mentality.”

The “blueprint mentality” is wrong on several grounds. It is wrong in that it assumes that (1) rational blueprints will be sufficient to solve the problem; (2) they will be enacted properly or at all; (3) that, when enacted, they will go as planned; (4) that, when they go as planned, they will not have unintended consequences. Chaos theory, various logical and mathematical limitations, and various practical problems suggest that 1 is mistaken and an insurmountable problem. Humans will simply never know enough to subject nature or their societies to rational human control. Furthermore, since it is humans enacting them, we can expect even good blueprints to be ignored, enacted improperly, or to suffer from various other problems that stem from the reality that man is not primarily a rational creature.

3 suggests that even if humans do everything right on their part to enact the blueprint, this is rarely any guarantee that it will go as planned. The primary evidence in this regard is the concept of cultural evolution, a theory that states, among other things, that while man provides a “motor” for much, though not all, of technical evolution, the selection for various technical “memes” occurs on a level higher than human intention. Selection factors that prove more relevant and powerful than human intention include geography, demography, technology itself, economic factors, and so forth. To further illustrate this point, consider an UNO game where players count the points in their hand at the end of each round and add it to their point total. This game ends once one player surpasses 500 points, and the player with the least amount of points at that time wins the game. However, if a player has exactly 500 points, his point total returns to zero. Given this set of rules, players who have point totals very close to 500 may try to play the game so that their hand ends with just the right point value to return them to zero. But because of so many other factors—chance distribution of cards, decisions by other players, etc.—no amount of reason will ever be sufficient for the player to achieve his goal. Cultural evolution works similarly.

Finally, even if a blueprint goes as planned, which, given above, would be due to more than just human reason, and even if it considers all the knowledge that humans could have reasonably been expected to know while devising it, the blueprint is still bound to have unintended side-effects that, in the context of the narrative of progress, are always responded to with more technical solutions, which themselves have unintended side-effects. This results in a major loss of wildness, and some evidence suggests that, short of mythological technologies like cold fusion, this will always lead civilizations to collapse. Eventually, artificial energy input will simply not be sufficient to withstand changing natural circumstances, or it will not be enough to encompass all the problems that require ever-more energy input, bringing a civilization to the “point of diminishing returns” where it begins the process of collapse. This has occurred with

every previous civilization and there is no reason to think it will not happen again with industrial civilization.

The critique of progress puts major limitations on what human beings can do in response to the current predicament. Large-scale technical solutions that propose new green energies, new industrial or post-industrial infrastructure, and other such ideas cannot be a viable solution for those who value wildness, and are unlikely to be a solution even for humanists who wish to mitigate environmental degradation for the sake of “human well-being.”

Wildists also question the idea that humanists are concerned with *human* well-being. They note that humanism, rather than propelling technical progress, is produced by and justifies technical and economic conditions. Thus, the “human” of concern to humanists includes only those aspects of human nature that are conducive to the functioning of industrial civilization. This is why the emerging “scientific left” (or the “Darwinian left”) advocates modifying human nature through genetic engineering, in order to make it accord with left humanist values.

Furthermore, this means that when left humanist movements profess to be on the side of populations excluded from industry, such a narrative, regardless of what individual members of the movement believe, functions only to justify “developing” and civilizing that excluded class, which often for historical reasons has been kept from the fruits of industry (although usually not agriculture). Historical examples include various victims of colonialism, the slaves and descendants of slaves of the Trans-Atlantic Slave Trade, the third world, and the industrial underclass or the “rabble.”

When bringing this up, wildists note that it is only to delegitimize the claims of left humanism, and insist that several reactions to this critique ought to be guarded against. Notably, a core element of the character of left humanist movements is a hypersensitivity toward victimhood or perceived victimhood, which functions as a sort of “recognition and response” system to identify excluded classes, and which helps justify solidarity beyond “relations,” a term for an individual’s natural social group. Furthermore, because industrial society diminishes individual and small-group power, many individuals see psychological appeal in mass movements, and some of them become “causejunkies” dedicated primarily to the thrill of causes rather than to the causes themselves, and especially undiscerning in the contradictions between various movements and ideologies. Thus, wildists insist that these individuals be guarded against, lest the critique of left humanism itself turn into a means by which left humanists can coopt wildism. The best way to avoid this is to maintain focus on a single, root cause of all the problems, which, wildists point out, is the tension between nature and industry.

Thus, it is clear that a major component of wildism ought to be wildlands conservation, which rather elegantly unites all the ethical threads mentioned into a single framework. Not only does it directly protect that which wildists are most concerned about, much of it can be successful within the context of industry, which means that even if the most radical implications of wildism fail to be enacted, positive work will

come out of wildist efforts. Examples include the work of The Wildlands Project, which has come up with a system of megalinkages and reserves that, if properly enacted, could mitigate the extinction crisis, depending on how soon industry stops pounding away at wild nature, perhaps through collapse.

In fact, because of our critique of progress, and because of the myriad of evidence indicating the positive effects economic downturn has on nature, wildlands advocacy is likely only the subsidiary political desire to a much larger, defining one, namely, the collapse of industry. The primary work of The Wildist Institute is investigating the veracity of this idea. Are there alternatives to collapse, as the Anthropocene boosters suggest? What about nuclear weapons? Is there a morally significant difference between collapse happening and helping it along? All these questions and more will be the subject of intense scrutiny, and will undoubtedly have far-reaching implications.

V. Conclusion

The ideas outlined here are a result of only two years of study and discussions, so they are necessarily foundational rather than comprehensive. In fact, even a whole lifetime may not be able to produce a sufficiently comprehensive review. However, for a set of ideas that boasts such consequential conclusions, some elaboration beyond foundations is necessary, with priorities so as to get to the most important questions first. With this in mind, a small group of wildists have established what is soon to be a nonprofit, The Wildist Institute. As it stands, we see research priorities in the following manner.

The overwhelmingly dominant concern of existing wildists is addressing the issues briefly covered in section III.E, “Anti-Industrial Reaction.” Should it become obvious that aiding collapse is in some significant way a moral obligation, as I and a small group of wildists believe is probable, the focus of wildism would on the one hand become clearer, but on the other hand become more dangerous. Furthermore, the question itself is a burden when its repercussions are so great, and one of the main points of this piece, that human folly defines history more than human achievement, should add a certain flavor of skepticism and restraint to the ruminations. In this light, I personally recommend the American revolutionaries as a group for inspiration, given their open contemplation of human nature and its limitations, as well as the general wisdom with which men like Jefferson, Paine, and Adams approached their obligations.

The next major concern is solidifying and simplifying our critique of progress. It appears that this is almost entirely an empirical question, well suited to academic and scientific work, and should focus on synthesizing the knowledge of the sociobiologists with the cultural ecologists. Provisionally we at the institute refer to this synthesis as “biocultural materialism.”

After that, the task becomes largely strategic, finding ways to insert wildist philosophy into academia, pamphleteering and doing journalistic work to convey the ideas to

the general public, and dealing with major strategic concerns, such as the tension between the human and non-human in relation to industry, or the re-relationship between the possible anti-industrial reaction and wildlands conservation.

Finally, of course, is the result. The possible outcomes in the battle between nature and industry are astoundingly divergent, a great, epic story waiting to unfold. It is impossible to predict how it will go in more than a general way, but at least one thing is clear: the attacks from revisionists will only continue to increase. As I've written, for those concerned with nature's autonomy, the collapse of industry is almost certainly the only way out of our current predicament. Almost. But that "almost" is a big threat, especially when technology is moving so fast that the technician class can hardly convince the rest of us of the necessary change in values, leaving people like the editor of the *Journal of Medical Ethics* putting out statements like, "people have a moral obligation to select ethically better children" through genetic engineering—something that sounds like lunacy to large portions of the world.

Combined with the inevitably small and potentially large economic turmoil of the coming years, which could amplify the power of a focused group to enact change, the industrial elite has great reason to fear a popularly appealing and true ideology that poses a threat to the basis of their power and values. And revisionism is their most effective tool. Nothing destroys a movement more thoroughly than a band of individuals who pose as members and begin to divert the focus away from the original values.

Thus, I return again to the role of wildists in this time: to incite that revival so passionately preached by Muir, and to maintain the resulting fervor as the conscience of the conservation movement. This is how we guard the chances for a hopeful and wild future.

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The Fable of Managed Earth

David Ehrenfeld, *Rutgers University*

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We must judge with more reverence the infinite power of nature, and with more consciousness of our own ignorance and weakness..... Why do

we not remember how much contradiction we sense even in our own judgment, how many things were articles of faith to us yesterday, which are fables to us today?

— *Michel de Montaigne, Essays, 1580*

Human civilization can thrive only in a healthy natural world. For at least two centuries, environmentalists, conservationists, and ecologists—greens—have, to their everlasting credit, made this point, showing that technology, for all its genius, will not last if it stands alone, damaging the natural world and disregarding the essential place of nature in our lives. Techno-optimism is a deeply flawed worldview—not only morally and ethically but also technologically. Yet in the midst of planetaryscale destruction, technology remains seductive; even some greens now proclaim the coming of a gardened planet, in which all nature is tamed, preserved, and managed for its own good by enlightened, sophisticated humans.¹ But these “neo-greens,” or “ecological modernists” as some call them, are doomed to disappointment: The gardened planet is only a virtual image; it will never happen in the real world.

We do not need to be prophets to know that we do not have the technological ability to produce and sustain a smoothly running, completely managed Earth. Of the existing technologies that are supposed to service a managed Earth, it is easy to show that many don’t work well now, and they will be even more prone to failure in a future without extensive natural systems to serve as emergency backup.

From a human perspective, planetary gardening can be divided into a number of critical management areas. These include: food production; energy production; global climate control by geoengineering; accident prediction/control/repair; restoration of damaged ecosystems; assuring water supplies; regulation of human population size; and the maintenance of cooperative working relationships among nations. I will concentrate on the first four, but the others are also critically important. All of these processes must

¹ F. Pearce, “New Green Vision: Technology as Our Planet’s Last Best Hope,” *Yale Environment* 360 (15 July 2013).

interact smoothly; positive adjustment of one set of variables should not negatively affect others.

I. Sustainable food production

Beginning in the 1940s, a technology that came to be known as “the Green Revolution” created enormous increases in crop production, primarily the grains—rice, wheat, corn, etc.—which comprise the bulk of our food supply. These increases were achieved by breeding dwarf plants that could respond to the application of synthetic nitrogen fertilizer by increasing their production of edible grain rather than growing longer stems and more leaves. The dramatic increase in food production brought about by the Green Revolution saved many millions of people from starvation. Yields of rice, the first crop to benefit from Green Revolution technology, increased as much as tenfold, and prices fell accordingly. Norman Borlaug, the geneticist who was the father of the Green Revolution, was awarded the Nobel Peace Prize for his achievement.

An essential feature of the new agricultural technology was the growing of grains in fertilized, irrigated monocultures—only one crop at a time in supersized fields. In these very large fields, the plants were more accessible to the machinery that applied not only the necessary chemical fertilizer but also the newly developed insecticides, herbicides, and fungicides needed to protect the vulnerable crops from the insect pests, weeds, and fungi that thrive in monocultures. The big fields also allowed more convenient use of the irrigation apparatus that provides water to wash the fertilizer into the soil, and to water the dwarf crops, whose small root systems are less able than roots of traditional varieties to extract water from dry soils. The dramatic yield increases brought about by the Green Revolution peaked in the 1960s, 1970s, and 1980s. By the 1990s, it was becoming clear that yields, especially of wheat and rice, had started to plateau. Farmers around the world had achieved the maximum benefit that the technology had to offer. Lester R. Brown, then president of the Worldwatch Institute, wrote in 1997:

In every farming environment, where yields are increased substantially, there comes a time when the increase slows and either levels off or shows signs of doing so. During the four dec

*ades from 1950 to 1990, the world’s grain farmers raised the productivity of their land by an unprecedented 2.1 percent per year, but since 1990, there has been a dramatic loss of momentum in this rise.*²

² L. Brown, “Can We Raise Grain Yields Fast Enough?,” *World Watch*, Worldwatch Institute (July–August 1997): 8–17; see also F. Magdoff and B. Tokar, “Agriculture and Food in Crisis: An Overview,” in *Agriculture and Food in Crisis: Conflict, Resistance, and Renewal*, ed. F. Magdoff and B. Tokar (New York: Monthly Review Press, 2010), pp. 10–17; D. Ehrenfeld, “Agriculture in Transition,” in *Beginning Again: People and Nature in the New Millennium* (New York: Oxford University Press, 1993/1995), 164–74.

According to *Vital Signs 2006–2007*, world grain production per person peaked around 1985.³ A growing world population (a growth propelled, ironically, by the Green Revolution) needs more food, but supply is no longer increasing proportionally.

Nevertheless, people had become accustomed to the idea that technology would solve their food problems, and technology appeared to be about to respond.

Genetic engineering of food crops rose to the fore in the 1990s and in the early twenty-first century. People hoped that genetically modified (GM) crops would end world hunger.

But the great increases in crop yields that were supposed to be the result of genetic engineering have not materialized, and they seem unlikely to do so in the foreseeable future. In fact, compared with conventional crops, GM yields have often decreased, and sometimes the quality of the GM seeds is poor.[170] Yet despite this mixed performance, by the beginning of the second decade of this century, the acreage planted to GM crops in the United States, Brazil, China, and other countries had increased substantially. This increase happened for a variety of reasons, some related to transient agricultural advantages of the new crops but another significant factor being the link between economic subsidies and the political power of the multinational corporations that produce the GM seeds. By contrast, the nations of the European Union and India have largely rejected GM crops out of fear of their biological and socioeconomic side effects.

At the time of this writing, the proponents and opponents of genetic engineering are waging a fierce battle, with victories and defeats on both sides. Genetic engineering is not likely to disappear, but its claims of potentially ending world hunger have no basis in reality; GM crops are not another Green Revolution.

What went wrong after forty years of the Green Revolution, and then, more quickly, with genetic engineering?

The Green Revolution has fallen victim to a host of intractable problems. It entirely depends on cheap energy to produce the synthetic nitrogen fertilizer; to

make and run the machinery that is needed on the monoculture farms; and to package and transport the crop surpluses to distant markets. By the 1970s well into the 1990s, cheap energy was starting to become a thing of the past.

The monoculture fields that were so much a part of the green revolution were also causing serious problems. The heavy equipment used on the fields was compacting and breaking down the soils, increasing erosion, and decreasing soil fertility. The chemicals used to combat the pests, weeds, and diseases that are a hallmark of monoculture were affecting the integrity of ecosystems as well as the health of humans and other species. Irrigation required large amounts of energy, and it was drawing down scarce groundwater reserves. And the shift from many small farms to a smaller number of large ones, combined with the displacement of farmworkers by machine labor, caused

³ B. Halweil, "Grain Harvests Flat," in *Vital Signs 2006–2007: The Trends That Are Shaping Our Future* (New York: Norton,

a mass migration of people from rural areas to cities all over the world, from Sao Paolo to Manila, creating huge urban slums.

Genetic engineering has had less time than the Green Revolution to reveal its problems, but so far they seem just as numerous and intractable. Some are specific to this technology; others are shared with the Green Revolution.

One problem specific to genetic engineering is that its exaggerated claims are based on a genetic fallacy. It is common knowledge that most genes have more than one function, often many more, and that expression of these functions can be influenced by the changing environment of the cell, of the entire organism, and of the external world. But the hype surrounding genetic engineering is grounded in the false belief that one gene does one thing—even when the gene is moved from one species to another—and that its expression remains constant over time. Sometimes this is true; frequently it is not. The public sees only the illusion of one gene, one function; the high failure rate of genetic engineering is proof that this hype cannot be trusted. For example, in March of 2012, Reuters reported that a group of plant scientists were warning that Monsanto's GM corn, which had been engineered to resist corn rootworm, was "losing its effectiveness," potentially leading to "significant production losses."

Similarly, in November of 2011, the U.S. Department of Agriculture, in an extensive study of Monsanto's "drought-tolerant" corn (MON87460), concluded that "equally drought resistant varieties produced through conventional breeding techniques are readily available."⁴

Contrary to the claims of agribusiness, genetically engineered crops have caused an increase in the use of pesticides. This is hardly surprising, because the companies that develop and sell the genetically engineered seeds are the same companies that produce the agricultural chemicals. For example, seeds genetically engineered to contain a bacterial pesticide, *Bt* (*Bacillus thuringiensis*) toxin, a naturally occurring bacterial toxin, kill some pests, but its use results in enabling other pests, previously viewed as minor disturbances, to rush in and fill the ecological void, with unexpected consequences. In a May 2010 *Nature* article, Jane Qiu gives an example:

More than 4 million hectares of Bt [GM] cotton are now grown in China. Since the crop was approved, a team led by Kongming Wu, an entomologist at the Chinese Academy of Agricultural Sciences in Beijing, has monitored pest populations at 38 locations in northern China, covering 3 million hectares of cotton. Numbers of mirid-bugs,...previously only minor pests in northern China, have increased 12-fold since 1997, they found [and according to Kongming Wu]

'Mirids are not susceptible to the Bt toxin, so they started to thrive when the farmers used less pesticide [for the bollworms].' [The mirids also eat] green beans, cereals, vegetables and various fruits. The rise of mirids has driven Chinese farmers back to pesticides.[172]

⁴ APHIS (Animal and Plant Health Inspection Services), U.S. De

87460, OECD Unique Identifier: MON 87460–4, Final Environmental Assessment” (Washington, D.C.: U.S.D.A/APHIS, Nov. 2011).

A perhaps more serious problem caused by agricultural technology—both Green Revolution and genetic engineering—is the erosion of the genetic base upon which all of agriculture depends. For more than ten thousand years, farmers have been cultivating and saving the seeds of the plants they have found most productive; most resistant to pests, diseases, droughts, and floods; and most delicious. Tens of thousands of local varieties of hardy crop plants that yield high-quality food even under adverse conditions are the heritage of these millennia of farming. The best seeds have always been saved and passed on to the next generation by the farmers who grew them, and, since the nineteenth century, they have also been produced and sold by many seed companies. However, starting with the Green Revolution, and accelerating with the rise of genetic engineering, restrictive patent laws and the growing power of the agricultural chemical companies (which now own the major seed companies) have caused the loss of thousands of preexisting crop varieties. Many corporate owners of these varieties have deliberately discontinued them in order to make way for their own, patented seeds. Restrictive laws in some countries now punish farmers who save their seeds. Loss of agricultural varieties is a worldwide phenomenon. For example, according to Dr. H. Sudarshan, in India, where in the first half of the twentieth century there were an estimated 30,000 indigenous varieties of rice, it is now predicted that soon just 50 varieties will remain, with the top ten accounting for more than threefourths of the subcontinent’s rice acreage.⁵

The spread of genetically engineered crops is causing a threat to traditional varieties and wild relatives of our crops. Corporate claims to the contrary, genetically engineered genes are escaping from the planted fields and contaminating the gene pools of traditional crops and their wild relatives. It is a paradox that the success of the Green Revolution, GM crops, and conventional agriculture largely depends on the preservation of the gene pools that are now being deliberately discarded by industrial agriculture, wiped out by herbicides, or accidentally contaminated with engineered genes. The genetic engineers are sawing off the very branch on which they sit.

Another effect of the genetic contamination is the transfer of the genes conferring the genetically engineered traits from the crops to the weeds. In another, more recent *Nature* news article, in August 2013, Jane Qiu reports that transgenes from rice crops genetically engineered to resist the herbicide glyphosate have crossed over into weedy relatives of the rice. Not only have the weeds become resistant to the weed killer, but they now have higher rates of photosynthesis, grow more shoots and flowers, and produce 48–125 percent more seeds per plant than their non-transgenic relatives.

⁵ H. Sudarshan, “Forward” in V. Ramprasad, *Hidden Harvests: Community Based Biodiversity Conservation* (Bangalore, India: Green Foundation, 2002), 4–6.

An ecologist at Shanghai's Fudan University stated that "making weedy rice more competitive could exacerbate the problems it causes for farmers around the world."⁶

Monocultures have been praised for their high yields, but even these appear to be an illusion. The physicist and agricultural scientist Vandana Shiva has exposed what she calls "the myth of productivity." [175] Traditional polyculture systems, where many different crops are grown close together on the same farms, actually produce more food per acre than do modern monocultures. A mixture of corn, cassava, and peanuts yields less corn per acre than a GM corn monoculture, but it produces two and a half times as much total *food* per acre. As Shiva points out, "The Mayan peasants in the Mexican state of Chiapas are characterized as unproductive because they produce only two tonnes of corn per acre. However, the overall food output is twenty tonnes." Shiva concludes that "industrial breeding has actually reduced food security by destroying small farms and the small farmers' capacity to produce diverse outputs of nutritious crops."

Thompson, "War on Weeds Loses Ground: The Rise of Herbicide-resistant Varieties Drives a Search for Fresh Methods of Control," *Nature* 485 (24 May 2012): 430.

I. Sustainable energy production

It was cheap energy that powered the Green Revolution and the entire industrial revolution of the twentieth century. Chief among the sources of energy was oil, a concentrated energy source that was easy to extract from the ground. Coal and natural gas completed the trio of "fossil fuels," carbon-rich substances that were the end result of millions of years of decay of plants buried deep underground. Although vast, the underground reserves of fossil fuels are finite, and the easily extracted parts of these reserves have been largely depleted.

As the physicist Albert Bartlett pointed out,⁷ with an increase in fuel consumption of 7 percent per year, a typical twentieth-century growth rate, the amount of a fuel consumed in ten years is equal to the grand total of oil consumed in the recorded history prior to that decade. In other words, simple arithmetic shows that if oil consumption grows at a rate of 7 percent per year between 2010 and 2020, we will have used during that same decade an amount of oil equal to all the oil consumed in all the years before 2010. Clearly, these extraction rates cannot continue, and they haven't. The economist Herbert Stein put it succinctly in what has become known as Stein's Law: "If something cannot go on forever, it will stop."

The cheap energy that helped produce industrial civilization is nearly gone, as anyone who buys gasoline knows. This author remembers once, in the midst of a "gas war" during the 1950s, buying gas at 11 cents a gallon to fill the tank of his gas guzzler;

⁶ J. Qiu, "Genetically Modified Crops Pass Benefits to Weeds,"

⁷ A. A. Bartlett, "Forgotten Fundamentals of the Energy Crisis,"

now gasoline is more than thirty times as expensive. Some of the difference is due to a drop in the value of the dollar; most is because of dwindling supplies of cheap oil. Modern technologies of prospecting for new oil reserves are very sophisticated, yet new oil discoveries peaked in the 1960s. And oil consumption continues to grow, propelled by consumer demand and industrial expansion in China and India. However, according to World Energy Outlook 2010, global oil production peaked in 2006, and it is expected to decline from 70 million barrels per day in 2006 to less than 16 million in 2035. The International Energy Agency, the U.S.

Joint Forces Command, and the oil companies themselves all know that cheap oil is a thing of the past.

The loss of cheap oil (and cheap oil = cheap energy) is an incontrovertible fact, so the technophiles have turned to the idea that technology will invent oil substitutes to power our technological civilization, and they keep alive their hopes that cheap energy will continue to be available to run a managed planet. Coal-to-liquid conversion; nuclear fission or fusion; hydrogen; tar sands and oil shale; fracking for natural gas; offshore and deep-sea oil and gas drilling; and the “renewables,” including solar power, wind power, and biofuels, are expected to rescue us.

But the cold facts tear this dream to pieces. True, nearly all of the celebrated energy substitutes are technically feasible and have been shown to work, but all suffer from one or more major problems. They require large-scale investment and have long lead-in periods. They frequently need expensive government subsidies. Some routinely cause serious environmental damage and have high greenhouse gas emissions. Some are subject to major accidents. Their processing may place great demands on scarce freshwater supplies and can require high energy inputs for production. They may not be capable of producing enough energy to replace what we now use. And all the new energy substitutes are guaranteed of being more expensive, often much more expensive, than conventional oil.

The University of Manitoba’s Vaclav Smil, one of the world’s leading energy experts, writing in the May-June 2011 issue of *American Scientist*, looked at the substitutes for conventional oil and dubbed them “the latest infatuations.”¹¹ They reminded him of the scientist at the grand academy of Lagado, in *Gulliver’s Travels*, who had spent eight years on a project for extracting sunbeams out of cucumbers. (Actually, as mentioned below, cucumbers probably could be used for biofuel, but nobody in their right mind would think that the world’s energy needs could be met by cucumbers.)

Enthusiasm for the new energy sources waxes and wanes, as it does for any new fad. A few years ago the fad was hydrogen: Hydrogen-powered cars and distributed energy systems were the rage. But when people stopped to think, they realized that hydrogen is not a primary energy source (there are no hydrogen wells)—it takes money and energy to extract it from natural gas or water. Also, hydrogen is highly explosive (remember the Hindenburg disaster); is corrosive; and, in liquid form, even contains much less energy per gallon than does oil. Not surprisingly, we hear less about hydrogen cars now than we did in 2000.

Before hydrogen, nuclear fusion was going to save us. It was thought that ordinary seawater, believed to be in endless supply, could have acted as the fuel for a fusion reactor. The first patents for fusion reactors were registered in 1946. In 2012, sixty-six years and millions of research and development dollars later, I heard a lecture from a prominent fusion scientist who was equally enthusiastic about the limitless potential of fusion. When asked how long it would take to get a working reactor, she replied about thirty to forty more years.

Nuclear fission power plants have existed for decades in many countries. The oldest operating commercial nuclear power plant in the United States, New Jersey's Oyster Creek plant, has been producing power since 1969, and it is not scheduled to shut down until 2019. Until the Fukushima Daiichi disaster caused by the Tohoku earthquake and tsunami in March of 2011, many assumed (despite the earlier accidents at the Three Mile Island and Chernobyl plants) that nuclear power would ease the transition to a new, renewable energy world. Since Fukushima, fission has become an increasing cause for concern: Few new reactors are being built; Germany has announced that it will abandon nuclear power completely by 2022; and, after Fukushima, Japan closed or suspended its 50 nuclear reactors.

Moreover, as noted by Mark Bittman in *The New York Times*, on August 24, 2013:

The dangers of uranium mining, which uses vast amounts of water...[are] barely regulated or even studied. Thousands of uranium mines have been abandoned, and no one seems to know how many remain to be cleaned up. The cost of that cleanup...will be borne by taxpayers. Then there's disposal of spent fuel. Decades into the nuclear age there remains, incredibly, no real plan for this. The economic viability of nuclear

power is no more encouraging. Plants continue to close and generation rates continue to drop

Subsidies for nuclear power have been more than double the expense of power generation itself.⁸

U.S. oil shales and the Canadian tar sands contain large reserves, but the environmental damage associated with the extraction of the oil is enormous; a great deal of freshwater is used in the process; the energy ratio, Energy Returned Over Energy Invested (EROEI), is terrible—only about three barrels of oil out for every two barrels put in; and the need to construct new pipelines to transport the heavy, toxic crude oil from remote production sites many miles to distant refineries generates grave political and environmental problems. Offshore oil, another heralded energy source, is extremely expensive, and it was dealt a serious blow by the *Deepwater Horizon* explosion. The *Deepwater Horizon* drilling rig cost a billion dollars to build and a half-million dollars a day to operate— while it lasted.[179]

⁸ M. Bittman, "The New Nuclear Craze," *The New York Times*,

Improvements in the efficiency of energy generation and use can save us a great deal of energy. These improvements are both desirable and possible. Again, however, they are unlikely to meet the energy needs of a highly managed planet. Modern agriculture has a much lower energy efficiency than that of traditional farming systems, which take advantage of the free energy subsidies offered by nature. And even when efficiencies materialize, there is the Jevons Paradox, first described by the English economist W. Stanley Jevons in 1866: Increased efficiency of energy production leads to increased consumption. Using the coal industry as his model, Jevons showed that improvements in efficiency led to lower cost of the product, which in turn caused a rebound increase in consumption of the coal. This paradox applies to other sources of energy besides coal.

Renewable energy. Let us take a closer look at renewable energy—solar, wind, and biofuels, the great hope of the neo-greens. According to Smil, the renaissance of renewable energy “has led to exaggerated expectations rather than to realistic appraisals.” In 2011, he wrote:

Promoters of new renewable energy conversions that now appear to have the best prospects to make significant near-term contributions— modern biofuels (ethanol and biodiesel) and wind and solar electricity generation—do not give sufficient weight to important physical realities concerning the global shift away from fossil fuels: to the scale of the required transformation, to its likely duration, to the unit capacities of new converters, and to enormous infrastructural requirements resulting from the inherently low power densities with which we can harvest renewal energy flows and to their [irregularity].⁹

Solar power. In his well-researched book *Green Illusions*, environmentalist Ozzie Zehner states:

If actual installed costs for solar projects in California are any guide, a global solar program [to replace fossil fuels in powering the planet] would cost roughly \$1.4 quadrillion, about one hundred times the United States GDP. Mining, smelting, processing, shipping, and fabricating the [solar] panels and their associated hard-ware would yield about 149,000 megatons of CO₂. And everyone would have to move to the desert, otherwise transmission losses would make the plan unworkable.¹⁰

Future costs of solar panels may come down with technological innovations (costs may already have started to plateau), but as Zehner notes:

Cheaper photovoltaics won’t offset escalating expenditures for insurance, warranty expenses, materials, transportation, labor, and other requirements. Lowtech costs are claiming a larger share of the high-tech solar system price tag.[182]

Passive solar power, which involves energy savings in heating and cooling achieved by sophisticated architectural design and construction, has been proving its worth

⁹ Smil, “Global Energy: The Latest Infatuations,” *American Scientist* 99, no. 3 (2011): 212–19.

¹⁰ O. Zehner, “Solar Cells and Other Fairy Tales” in *Green Illusions: The Dirty Secrets of Clean Energy and the Future of Envi*

for millennia, as the natives of New Mexico demonstrated in the tenth century with their incredibly energy efficient housing complex, which we call Pueblo Bonito. These energy efficiencies were built into Pueblo Bonito from the start of construction. Modern passive solar houses constructed today can be equally energy efficient and are a joy to live in. But many, perhaps most, existing homes have a limited potential for passive solar improvement.

Solar power has an important role to play among the energy sources of the future, but it does not seem to be about to replace cheap oil in maintaining our present industrial civilization.

Wind power. Wind power, like solar, is receiving a great deal of enthusiastic praise, some of it justified. I am among those who find the sight of a row of giant, stately wind turbines with their slowly moving blades thrilling and beautiful, but, admittedly, I don't live near them. Denmark is the pioneer in wind energy: In 2012, Denmark got 25–30 percent of its power from the wind, and now the country hopes to raise this figure to 50 percent or more. Denmark also produces half of the world's wind turbines. Like solar power, wind has a great deal to offer an energy-challenged future. Wind power is not, however, all smooth sailing.

In *The New York Times* on August 15, 2013, Diane Cardwell chronicled the problems experienced by Green Mountain Power, whose wind turbines line the ridge of Lowell Mountain in Vermont.[183] These problems are typical of those experienced by the wind power industry. Some of the difficulties include “curtailments,” mandated cutbacks in energy production when the grid will not accept the wind power energy, either because the electric company can get energy cheaper elsewhere or for technical reasons involving the interface between fossil fuel generated electricity and wind power. Other difficulties involve the size of the lines carrying the power. When curtailments occur, the wind turbines must operate at a fraction of their potential output. In her article entitled “Intermittent Nature of Green Power Is Challenge for Utilities,” Cardwell writes:

Because energy produced by wind...is intermittent, its generating capacity is harder to predict than conventional power's. And a lack of widely available, cost-effective ways to store electricity generated by wind only compounds the complex current marketplace
[One wind power CEO

noted that] at full operating capacity he can lose \$1,000 an hour if the electricity is not sold. “We have a grid system that's not smart...it's a 100-year-old system—and they run it like fossils and nukes are the only things that matter and the rest of us, they can fiddle with,” he said.¹¹

Integrating wind power into an electrical system that receives inputs from fossil fuel and nuclear plants plus, increasingly, solar installations involves daunting economic and technical challenges. Some of these will be fairly straightforward to resolve over time;

¹¹ Cardwell, “Grappling with the Grid: Intermittent Nature of Green Power is Challenge for Utilities,” *The New York Times*, 15 Aug. 2013, pp. B1, B6.

others, like the difficulty or impossibility of storing excess wind power when the grid cannot accept it, are much harder to fix.

Among the other problems that are an inseparable part of wind power are the fact that wind turbines kill bats and migrating birds, that wind power installations on the roofs of city buildings are noisy and hard to maintain, that turbine installations on ridgetops damage and fragment some of the last undisturbed wildlife habitats, and that many people complain that the huge turbines spoil their view of the countryside or of their neighboring coastal waters.

Bat and bird kills by turbines are easy to document. Numerous counts have been published of dead bats and birds collected under turbines; but there is as yet no evidence that any populations are threatened by wind power, and some radar studies have shown birds flying well above the turbines during migration. Urban wind power production on the tops of tall buildings has been promoted by neo-greens as a renewable source of energy in cities, but noise and maintenance issues are likely to limit the potential of urban wind energy for the foreseeable future. Even outside of cities, some people living in rural areas near wind turbines complain of health problems such as insomnia, anxiety, palpitations, and nausea, allegedly related to the low frequency noise. The existence of this “Wind Turbine Syndrome” is still debated.¹² As for the question of unsightliness of the windmills, there is no right answer; some love them, some don’t.

Biofuels. Biofuels are another mixed blessing as a replacement for vanishing cheap fossil fuel energy. The idea of biofuels is straightforward: Use plants to capture the energy of sunlight (like the Lagado cucumbers), and get some of that energy back by extracting energy-rich substances from the plants (sugars and other hydrocarbons) that can be either turned into fuel, such as ethanol, by chemical processing or used directly as a diesel fuel substitute. Corn, sugarcane, soy, rapeseed, palm and other tree oils, grasses, algae, and the desert plant called *Jatropha* are some of the plants used for biofuel.

Like solar and wind power, biofuels have a dark side. Some of the plants grown for biofuel, especially the grasses, can escape from cultivation and become invasive species, particularly harmful in agricultural fields. The EROEI of biofuels is troubling. Corn ethanol from the American Midwest has an EROEI ratio of about 1.0 or even lower, meaning that if we total the energy costs of growing the corn, harvesting it, and then processing it, we find that the amount of energy we get back is only equal to or less than the energy we put in, clearly a losing proposition. Meanwhile, we

They’re Making Them Sick. Almost As Upsetting: Their Neighbors Don’t Feel a Thing,” *New York Magazine*, 23 Sept. 2013, p. 28.

¹² K. French, “‘Never Stops, Never Stops. Headache. Help.’: Some People Living in the Shadows of Wind Turbines Say

have wasted land that could have been used for growing food and have also driven up the price of corn. The EROEI of other biofuels can be better than that of corn ethanol, but not always enough to offset the other difficulties of the technology.

If the results for corn ethanol are so poor, why does the Midwest in the United States continue to produce so much of it? The answer is political: Midwestern states receive huge federal subsidies for growing corn and producing ethanol, and few politicians are willing to tell the truth about corn ethanol and risk the wrath of midwestern voters.

The land used to grow biofuel plants is unavailable for growing food in a hungry world. True, plants like *Jatropha* grow well in dry, nutrient-depleted soils that are not suited for crops. But the conceivable supply of *Jatropha*-derived biofuel could run only a tiny fraction of the world's vehicles.

Timothy Beardsley summed up the problems with biofuels in an editorial titled "Biofuels Reassessed," in the October 2012 issue of *BioScience*:

It takes a lot of land, a lot of water, and a lot of energy to produce biofuel crops and convert them into usable fuels. The displacement of food crops by biofuels has already increased food prices, and many have argued that such effects will put limits on the biofuel enterprise..... The

enthusiasts are right that improvements [in biofuel technology] are possible...and the seriousness of the looming energy crisis—only partly ameliorated, at substantial environmental cost, by fracking—argues for the continuation of such efforts. Still...it is important to understand biofuel's limitations.¹³

Beardsley cites scientific studies showing that the amount of biofuel that globally could be produced is four times lower than previously published estimates:

All these numbers exclude losses due to manufacturing the fuel Actual current global pri

mary productivity suggests strongly that biofuels have less promise than many had thought

Some new biofuels may yet alleviate the human predicament, but nobody should be under any illusions about the constraints that nature—ultimately through the laws of thermodynamics— has put in the way.¹⁴

In concluding this section on renewable energy, we should heed the words of Vaclav Smil: "None of us can foresee the eventual contours of new energy arrangements—but could the world's richest countries go wrong by striving for moderation of their energy use?"²² In other words, the best thing we can do to sustainably run the Earth and our own civilization is to depend less on technologies of control and more on regulation of our own self-destructive consumption.

¹³ T. Beardsley, "Biofuels Reassessed," *BioScience* 62(2012): 855; see also S. Raghu et al., "Adding Biofuels to the Invasive Species Fire," *Science* 313(2006):293.

¹⁴ Beardsley, "Biofuels Reassessed," *BioScience* 62(2012).

I. Geoengineering to control climate change

To begin, climate change is a reality. In 1981, NASA physicist James Hansen calculated the extent of global warming he expected in the near future, based on man-made CO₂ emissions. Three decades later, these calculations have proven exceptionally accurate.²³ Temperatures have risen to meet or exceed Hansen's predicted levels; polar ice is melting; and drought-prone areas are receiving less rainfall. In recent years, other consequences of climate change—more frequent and more violent storms, and rising sea levels—have forced themselves on our attention. In a May 9, 2012, article in *The New York Times*, Hansen writes that if we were to continue to burn conventional fossil fuels and to exploit Canada's tar sands:

Concentrations of carbon dioxide in the atmosphere eventually would reach levels higher than in the Pliocene era, more than 2.5 million years ago, when sea level was at least 50 feet higher than it is now. Disintegration of ice sheets would accelerate out of control. Sea levels

*would rise and destroy coastal cities. Global temperatures would become intolerable. Twenty to 50 percent of the planet's species would be driven to extinction. Civilization would be at risk. That is the long-term outlook. But nearterm, things will be bad enough. Over the next several decades, the Western United States and the semi-arid region from North Dakota to Texas will develop semi-permanent drought, with rain, when it does come, occurring in extreme events with heavy flooding. Economic losses would be incalculable. More and more of the Midwest would be a dust bowl. California's Central Valley could no longer be irrigated. Food prices would rise to unprecedented levels.*¹⁵

Other parts of the world, including its most populous nations, China and India, are already experiencing the effects of climate change. In China, the Gobi Desert is expanding, moving toward the Yellow River, and is within 100 miles of Beijing. Growth of the Gobi is the result of not only climate change but also careless use of groundwater and indiscriminate logging in the past. Groundwater use and logging can be and are being controlled to some extent by the government, and millions of trees are being planted at the edge of the desert to halt its advance, but global warming is a continuing presence. In India, now the world's sixth-largest emitter of greenhouse gases (carbon dioxide, methane, and nitrous oxide), disastrous floods have been attributed to climate change; melting of the Hindu Kush ice mass is accelerating; and sea-level rise is forcing saltwater into coastal aquifers, contaminating drinking water.

The solution to the problem of climate change is obvious: We must immediately halt the expansion of greenhouse-gas release and quickly start to reduce it below present levels. A number of well-publicized, high-level meetings of governments have confronted this issue, with some positive results. But international environmental agreements are subject to compromise and delay; meanwhile, greenhouse gas levels continue to rise.

¹⁵ J. Hansen, "Game Over for the Climate," *The New York Times*, 9 May 2012.

Impatient with the political process, some scientists have decided that geoengineering offers the best hope of managing our planet. Geoengineering solutions fall into three categories: dimming the sunlight reaching Earth; using plant photosynthesis to take up and reduce the carbon dioxide already in the atmosphere; and capturing carbon dioxide, turning it into charcoal, and burying it in the Earth.

There are various proposed ways to reduce the sunlight reaching the Earth. One solution, inspired by the observed effects of volcanic eruptions, would be to spray solar-reflective sulfates into the stratosphere, perhaps from a giant balloon. Other schemes include using rockets to send tiny reflectors into space, growing lighter-colored crops genetically engineered to reflect sunlight, painting all roofs white, and covering the Earth's deserts with reflective Mylar.

Some of these ideas, like desert Mylar and lighter-colored crops, are too preposterous to deserve comment. After careful evaluation, most of the schemes, like painting roofs white, would not have enough effect to make a significant difference in global warming. Injecting 5 million tons of sulfates per year into the stratosphere (like other sunshade schemes) could make a difference, especially in the tropics, but could also disrupt monsoons, bringing famine to millions, and, according to Oxford's Tim Palmer,¹⁶ "You might turn the Amazon to desert." Sending enough tiny reflectors into space could require an estimated 20 million rocket launches. And if there were bad side effects, how would we get our little reflectors back? Using plants to pull carbon dioxide out of the atmosphere through photosynthesis has no obvious adverse side effects, and it does have the added benefit of putting oxygen back in place of the carbon dioxide removed. Planting forests of relatively fast-growing trees can tie up a good deal of carbon dioxide. Reforestation is generally a good idea, not just because of carbon sequestration but because of beneficial effects on local climate, water storage, and stream flow.

Backfire, Make Climate Change Worse," *Wired UK*, 16 July 2012, <http://www.wired.com/wiredscience/2012/07/geoengineering-climate-change/>; C. Hamilton, "Geoengineering: Our Last Hope, Or a False Promise?" *The New York Times*, 27 May 2013.

Reforestation, however, is slow, varies greatly from country to country, and can present ecological and social challenges. Reforestation can be a win-win procedure to slow climate change. But planet managers are an impatient lot—reforestation is too slow for many of them.

Algae in the world's oceans remove a great deal of carbon dioxide by photosynthesis, and some climate engineers might ask, Why not fertilize the oceans, increase the algal numbers, and pull out more carbon di-oxide? This would slow climate change, benefit marine food webs that are based on algae, and even, in closed systems, provide algal biomass to be used as animal food or for biofuels. That's the theory, and it works

¹⁶ See S. Battersby, "Cool It: From Sunshades to Making the Seas Bloom, There Are Plenty of Ideas About How to Stop the Planet Warming. But Will Any of Them Work?" *New Scientist* 215, no. 2883 (22 Sept. 2012): 31–55; J. Winston, "Geoengineering Could

to some extent. Dumping iron fertilizer in the ocean does stimulate algal growth; the algae do remove carbon dioxide; and, when they die, some of them take the carbon out of harm's way by sinking to the bottom of the ocean.

Unfortunately, ocean fertilization with iron can also stimulate toxic algal blooms and cause production of the greenhouse gas nitrous oxide. And when the algae die, as they do in vast numbers during blooms, the de-composition of algal bodies that stay at the surface pulls oxygen from the water while putting carbon dioxide back in the atmosphere. In closed, artificial systems, unlike ocean fertilization, the main difficulties are the costs of building, maintaining, and aerating the containers for the algae and the problem of scale— these systems will have limited impact on global climate change and biofuel energy production.

Carbon capture and storage is a geoengineering method that can reduce climate-changing carbon dioxide. The carbon dioxide is captured and removed at point sources, usually the smokestacks of large fossil fuel power plants, and then moved to sites where it can be deposited underground. This is a good idea, but one whose impact is limited because there are so many nonpoint sources of greenhouse gases. The principal risk of carbon capture and storage is leakage of the gas back into the atmosphere from its underground burial sites (declining oil fields, saline aquifers, un-mineable coal seams, and other suitable geological formations). Deep-well injection of unwanted substances has caused earthquakes. Needless to say, carbon capture and storage is a great deal more expensive than simply letting the gas escape into the atmosphere, and it may require government-sponsored incentives and subsidies.

Geoengineering has a great appeal to those looking for quick and simple solutions to overwhelming, complex problems. Such searches tend to promote tunnel vision, in which the gaze is always on simple models and their associated technical solutions, not on the many, sometimes serious, unpredictable, and unmanageable side effects produced by geoengineering technologies. Vaclav Havel, author and first president of the Czech Republic, wrote in *The New York Times* on September 27, 2007:

*I'm skeptical that a problem as complex as climate change can be solved by any single branch of science. Technological measures and regulations are important, but equally important is support for education, ecological training and ethics—a consciousness of the commonality of all living beings and an emphasis on shared responsibility.*¹⁷

¹⁷ V. Havel, "Our Moral Footprint: The Earth Will Survive—But Will We?" *The New York Times*, 27 September 2007, p. A33.

IV. Accident prediction, control, and repair

Our global management systems rest on a precarious edifice of predictions. These include predictions about the sustainability of industrial agriculture; the safety of nuclear power plants; the stability of the global political structure; the efficacy of our ecological restorations; the future of globalization—especially global trade; the continuation of economic growth; and, above all, the ability of our technology to solve any problems we face, now or in years to come.

These predictions are often unwarranted and very dangerous. one would think that the first priority of the planet managers would be to look at their past predictions and assumptions and see how well they have worked out. But this might involve admitting failure and, more important, shutting off sources of revenue for the failed projects. Consequently, risk assessments made at the start of projects are frequently “cooked,” unwarranted justifications for enterprises scheduled to go ahead no matter what.

In their book *Useless Arithmetic: Why Environmental Scientists Can't Predict the Future*,¹⁸ geologists Orrin Pilkey and Linda Pilkey-Jarvis show how a model of future beach erosion and coastal sand movements has been used to justify escape from reality and allow construction of questionable shoreline structures and buildings. The standard model used in beach engineering is the Bruun Rule, which describes how shorelines retreat in response to rising sea levels. This simple model to describe a complex process has some general validity, but, as the authors note:

The Bruun Rule resides in a world dominated by engineers rather than scientists. It is a world where it is not possible to admit defeat and walk away or to respond flexibly, one where an answer must be found...and where the answer, to be credible, is best found by the most sophisticated means possible Evidence continues to accumulate from all over the world that the basic assumptions behind the Bruun model are very wrong. Yet it continues to be widely applied by coastal scientists, who should know better, and blindly applied by social scientists, planners, and international agencies concerned with how future global trends will affect coastal cities.[192]

When the Bruun Rule is used to predict the rate of erosion of a particular shoreline, one has to know only the rate of sea-level rise and the slope of the shoreface on that particular beach. Two variables; it's easy. But as Pilkey and Pilkey-Jarvis show, there are at least 31 variables that matter, including beach subsurface geology, sand grain size, coastal sediment supply, beach nourishment projects, storm types and frequency, shoreline vegetation, upland bluffs and dunes, dam construction and removal in neighboring rivers, and history of dredging.

Even if you know how each of the factors works and interacts with other factors, including sealevel rise, in causing shorelines to retreat, you still can't predict the future because you don't know the order in which the factors will occur...

¹⁸ O. H. Pilkey and L. Pilkey-Jarvis, *Useless Arithmetic: Why En*

On different shorelines the various parameters will be of varying importance, over varying time frames. This is ordering complexity. This is why shoreline retreat related to sea-level rise cannot ever be accurately predicted.[193]

Ordering complexity can make some management predictions absurd. Pilkey and Pilkey-Jarvis give, as the ultimate preposterous example, the Department of Energy's Total System Performance Assessment (TSPA) for the proposed nuclear waste repository at Yucca Mountain, Nevada. The assessment of the chances of radioactive leaks from the underground repository, based on hundreds of models, is that it will be safe for more than a hundred thousand years. Yet, as the authors show, there are at least 15 important factors that will affect the seriousness of future leaks. None of these factors were known when the TSPA was formulated, and many will never be known.

In 2009, the Environmental Protection Agency issued a rule requiring that the Department of Energy (DOE) strictly limit the amount of radiation from the facility to no more than 15 millirems per year for the first ten thousand years after the facility's closure, and requiring the DOE to show that the nuclear waste repository will resist earthquakes, volcanic activity, climate change, and container leakage for 1 million years. The risk assessment charade came largely to a halt when work on Yucca Mountain was ended by Congress in 2011, for political reasons. It remains to be seen whether it will be started again.

Ordering complexity is only one kind of complexity that makes the long-term predictions and assumptions used in planet management unreliable. The other is structural complexity. The pioneer in studying the hazards of structural complexity is Charles Perrow, Professor Emeritus of Sociology at Yale. Using the well-studied 1979 accident at the Three Mile Island nuclear plant as his model, Perrow showed how the sheer complexity of the nuclear plant made accidents inevitable and unpredictable—"normal."

The operating system of a nuclear power plant has a large number of separate subsystems, many of which interact in ways that cannot be directly observed, and in ways that might not be understood even if they were observed. Moreover, the operating systems interact with safety systems, which are themselves complex and often cannot be directly observed.

In his book *Normal Accidents: Living With HighRisk Technologies*, Perrow describes how the accident at Three Mile Island was caused by failure of a pressure-relief valve, which resulted in radioactive water boiling out and onto the floor of the reactor building.¹⁹ This could have been determined only indirectly by the control room operators from a variety of gauge readings; while three audible alarms were sounding and simultaneously many of the 1600 lights on the control panels were flashing. Only 13 seconds elapsed between the time of the valve's failure and the time when the accident became irrevocable. The scene in the control room was chaos.

Several hours after the start of the accident, control room personnel and supervisors were still arguing about what was happening. The valve stayed open for two hours and

¹⁹ C. Perrow, *Normal Accidents: Living With High-Risk Technol*

twenty minutes until a new shift came on and somebody thought to check it. But the accident was just getting started. Two reactor coolant pumps did not work (possibly because of steam bubbles in the lines), and levels of coolant began to drop alarmingly, the most feared happening in a nuclear plant. The two dials indicating reactor pressure gave diametrically opposite readings.

Then, thirty-three hours into the accident, an ominous bang was heard in the control room. It was a hydrogen explosion inside the reactor building. No one had expected this. Frantic discussions occurred between the plant operators and the commissioners of the Nuclear Regulatory Commission. The emergency pumps, like all electric motors, can produce sparks; when hydrogen accumulates, a spark can cause an explosion that could destroy the reactor building. Should the pumps be turned off or kept running? Opinions varied. That an explosion did not happen was in good measure a matter of luck.

Because of the vast complexities of nuclear plants, paradoxically including their safety systems, the operators did not actually know what was happening while the accident was going on. But they had to do something. In this sort of situation, Perrow notes, you form a mental model of events. You imagine what is happening, based on the inadequate and partially erroneous information that you have. “You are actually creating a world that is congruent with your interpretations, even though it may be the wrong world. It may be too late before you find that out.”[195]

In other words, the complex systems that we invent to manage and run our world cannot be made fail-safe. And if we add economic and ecological interactions, our constructed systems become still more complicated and accident-prone.

Here is an example: On April 20, 2010, the *Deepwater Horizon* oil drilling rig in the Gulf of Mexico suddenly exploded in flames. As chronicled by Joseph Tainter and Tadeusz Patzek, in their book *Drilling Down*:

The Gulf Oil Debacle and Our Energy Dilemma:

Everything seemed to be under control, with the computers in charge and their sensors humming. The people assigned to watch these computers, and act on their advice, were content and getting ready to go to sleep. Suddenly all hell broke loose, and it became clear that the people watching the computer screens did not understand what the computers were telling them. It took just a few seconds for their false sense of

G. Wuerthner (Sausalito, CA: Foundation for Deep Ecology in collaboration with Watershed Media and Post Carbon Institute, 2012), 77–83.

security to go up in the same flames that consumed the Deepwater Horizon in two days.²⁰

When the flames were extinguished, the accident was far from over. Several months later, the well was finally capped. By then, an estimated 210 million gallons of oil had leaked into the gulf. Various attempts were made to contain the oil or mitigate its

²⁰ J. Tainter and T. Patzek, *Drilling Down: The Gulf Oil Debacle and Our Energy Dilemma* (New York: Springer, 2012), pp. 7–8.

effects. State of the art technologies were used. But several years later, we still do not know the long-term effects of this accident on the thousands of species living in the immensely complicated gulf ecosystem, or on the human communities of the adjacent land areas.

Tainter, a professor in the Department of Environment and Society at Utah State University, and Patzek, Chairman of the Department of Petroleum and Geosystems Engineering at the University of Texas, analyze in detail the causes of the accident. At the end of their book, they conclude:

The Deepwater Horizon was a normal accident, a system accident. Complex technologies have...ways of failing that humans cannot foresee. The probability of similar accidents may now be reduced, but it can be reduced to zero only when declining [energy returns] makes deep-sea production energetically unprofitable. It is fashionable to think that we will be able to produce renewable energies with gentler technologies, with simpler machines that produce less damage to the earth, the atmosphere, and people. We all hope so, but we must approach such technologies with a dose of realism and a long-term perspective.²¹

Three Mile Island and *Deepwater Horizon* teach us a simple lesson: We cannot predict all the accidents that will occur in our managed world; and even if we could predict them, we could not prevent many of them from happening. Disasters in our complex systems are bound to take place, and the techno-utopians' models offer no credible ways of fixing them.

V. Other global management concerns

Successful global management requires addressing issues of necessity besides the concerns listed above. To describe them briefly, they include:

Ecological restoration and preservation: In some cases, restoration of damaged ecosystems is possible if done with care and ecological knowledge; in others, it can be difficult or impossible. Restorations are often confounded by ignorance of the component species and complexity of the specific ecosystem; by prior species extinctions; by major soil or water changes; and by lack of sufficient funds to do the restoration properly or to monitor it after the restoration is complete.

Preservation can be as hard as restoration. Moving species endangered by climate change to more favorable climate zones ("assisted colonization"), and attempts to reintroduce recovering populations of endangered species to their original habitat are challenged by the limitations of our ecological knowledge. This is not a reason to abandon restoration and preservation efforts, but it should make us think twice before we boast about how green the coming garden planet will be.

Maintenance of adequate supplies of clean freshwater will be essential for sustainable global management; it is not happening now, and there are no affordable technologies

²¹ Tainter and Patzek, *Drilling Down: The Gulf Oil Debacle and*

on the horizon that will assure water for everyone, especially in the face of climate change. Already, international fights over water management complicate tense politics in the Middle East, South Asia, and parts of Africa. Water will undoubtedly be one of the greatest obstacles to a managed planet.

Growing populations require more space, more food, more water, more mineral resources, and more energy than stable ones; and they produce more waste. The Earth's population is growing: Estimates published by the United Nations (UN) in June of 2013 suggest an increase from today's 7.2 billion to 9.6 billion by 2050.[198] Population growth models are no more reliable than any long-term predictions involving thou-

sands of variables (climate and sea level, disease, ethnic conflicts and warfare, economic changes, etc.), and this sort of unreliability will greatly increase the difficulty of managing a gardened Earth. A point to consider is that per capita consumption is increasing more than twice as fast as population in many places around the world.

A managed world assumes *good working coordination between nations*. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) shows that this is occasionally possible.²² By 2013, 178 nations had ratified the convention, which protects—at least on paper—thousands of endangered animal and plant species from over-exploitation. With exceptions, this protection has been moderately successful. A great weakness of the treaty, however, is that reservations (exceptions) can be taken by member countries for specific species. Iceland, Japan, and Norway have taken reservations that allow them to hunt some baleen whale species, and Saudi Arabia has taken falcons as an exception. CITES is an encouraging model; nevertheless, the proliferation of regional military conflicts, terrorism, religious and ethnic strife, exhaustion of resources, and political instability do not bode well for cooperative management of the planet.

I have considered the various threats to the neogreen vision individually, but of course they interact, usually making the situation worse. For example, scarcity of cheap energy affects modern food production and water availability, while causing us to rely on increasingly dangerous energy technologies, which are prone to accidents that we are unable to predict. Similarly, climate change has a major impact on food, water, international relations, and energy use.

In conclusion, the paragraphs above give only an incomplete sampling of the reasons why many of the dreams of the planet-managing neogreens and ecological modernists are likely to turn into nightmares. In his chilling short story "The Machine Stops," written more than a century ago, E. M. Forster described the chaos and total collapse that descended on a managed world when the "Mending Apparatus," which had always repaired everything that was broken, itself began to fail: "Man, the flower of all flesh,

²² Convention on International Trade in Endangered Species of

the noblest of all creatures visible, man who had once made god in his image...was dying, strangled in the garments that he had woven.”²³

The dream-to-nightmare scenarios outlined here do not have to become reality. We *can* keep trying to make the world a better place, using any safe technology that is proven or seems promising. For instance, we already know that traditional polycultures can reliably produce far larger amounts of food than can industrial monocultures year after year, with less input of chemical fertilizers and pesticides. The field is wide open to apply careful, modern scientific research to improve this performance still further. And in the case of our energy deficit, reduction of consumption is safer, easier, faster, and more effective than deep-sea oil drilling or nuclear power.

Wendell Berry wrote in *The Unsettling of America* that “what has drawn the Modern World into being is a strange, almost occult yearning for the future. The modern mind longs for the future as the medieval mind longed for Heaven.”²⁴ This yearning, embodied in the blind worship of technology, has led us astray—if we open our eyes and look at who and where we are, we have our best chance of finding out where to go next. I end with a quote from my book *The Arrogance of Humanism*, published in 1981, with words that I believe are as applicable now as the day they were written:

Not all problems have acceptable solutions.....

There is...no need to feel defeated by the knowledge that there are limits to human power and control [We should start] with the honest

admission of human fallibility and limitations, and from this realistic base [rise to the] challenge to construct a good life for oneself, one's family, and one's community
We simply start with realism and then free the human spirit for

*high adventure, struggle, and an unknown fate.*³⁸

²³ Wild Fauna and Flora, <http://www.cities.org/eng/disc/what.php>

²⁴ (accessed Sept. 12, 2013).

In Memory of Doug Tompkins

Paul Kingsnorth, *Dark Mountain*

Adapted with permission from an essay originally published on dark-mountain.net.

On December 8, 2015, the conservationist and philanthropist Doug Tompkins died at 72 years old in a canoeing accident in Patagonia, Chile, where he lived. I knew Doug a little, having spent some time with him and his wife Kris in Chile a few years back, and I was in communication with him for a long time after that. I admired him and his work hugely. I don't have many heroes, but Doug was one of them. I believe his loss is a tragedy, and not just for those close to him.

Between them, Doug and Kris Tompkins spent the last 25 years working on one of the most ambitious conservation and rewilding projects on Earth, creating protected national parks in vulnerable areas of Chile and Argentina to provide a vital refuge for endangered wildlife at a time when the human demands on the non-human world increase daily. Between them, they protected more land from "development" than any other private individuals in history—over 2 million acres in total, and there were plans for more.

This remarkable display of both philanthropy and ecological ambition was a long-term project not simply to preserve wild nature and give it some chance of recovery, but also to persuade others to contribute to an overarching plan to connect protected areas throughout the continent, and in so doing to provide a wild corridor through which non-human life could move and survive. There is nothing else quite like it anywhere on Earth, and Doug's widow, Kris, who was a partner in the work and who similarly dedicated her life to it, has made clear in the last few days that she will continue, and even accelerate, it.

For me, though, perhaps the most significant thing about Doug and his work was not the amount of money he'd made setting up the clothing companies Esprit and the North Face (which he later came to loathe as the epitome of the corporate culture destroying the

planet) nor even the way he spent that money conserving and restoring so much wild land. What struck me most about Doug was the worldview which drove this work, which was rare, honest and uncompromising.

Doug saw the protection of non-human life, in the face of the human onslaught, as the crucial work of our time. He saw much of the green and conservation movements—rightly, in my view—as fatally compromised both by their need to remain broadly popular and by their increasing interest in human-centered social and political concerns.

For the mainstream green movement today, human “social justice” often seems as important as protecting non-human nature from human rapacity, despite the fact that the two are often in conflict (“there’s no social justice on a dead planet” was one of Doug’s favorite aphorisms). The deep denial which runs through our civilization right now, across the political spectrum—a refusal to accept the reality and implications of everything from climate change to human population numbers to the impossibility of limitless growth—is to be found everywhere, including in the green movement, and in most of our lives, most of the time.

Doug’s worldview, in contrast, was so long-term as to be incomprehensible to many people. He was a deep time thinker, aiming to preserve wild places and species in order to get them through the bottleneck of the “great acceleration,” as the human economy consumes all around it in a desperate struggle to keep growing. The work he did was not designed to pay out today, tomorrow or next year; it wasn’t especially designed to pay out to humans at all. It was a grand project designed with just one aim: to save as much of the wild world as possible from destruction.

This kind of work will always be hard and unpopular, and perhaps only people as determined, bloodyminded and ultimately wealthy as Doug Tompkins can really do it. Doug knew that civilization and nature were on a collision course—indeed, were already colliding, and that the consequences for wild nature were terrible. He didn’t finesse that truth, he simply spoke it, whether people liked hearing it or not—and most, including many mainstream conservationists and establishment greens, didn’t like it at all. But he spoke it anyway. And then he did something about it.

For his pains, he was often described—when his opponents were feeling polite—as “radical” or “controversial,” words that are regularly used about anybody foolhardy enough to undertake work that does not put the interests of “developed” human beings before anything else that lives. To me, what he was doing was neither of these things—it was just blindingly obvious, common sense, necessary work for the age of ecocide. The real controversy is that more people aren’t doing it.

I like to compare our culture’s treatment of Doug with its treatment of Steve Jobs, another wealthy US entrepreneur of the same generation. The two were friends, though friends with very different worldviews. Jobs, who spent his life creating a global web of oil-based digital technologies which encourage humans to divorce themselves from nature and disappear into virtual worlds, is lionized to such a degree that Hollywood will make a gushing biopic about him. Doug, who walked away from the same culture to dedicate himself to preserving huge swathes of the wild Earth, remained largely unknown until his death. Benedict Cumberbatch is unlikely to be portraying him on the big screen anytime soon, which is at least one crumb of comfort.

Being unknown, in any case, can be a blessing. In the end, the work, and the legacy, are what matters, and Doug’s is huge. If humans make it through the bottleneck, and if other life forms do as well, and if future generations come to properly appreciate a worldview that does not see the world as a human plaything, it will be at least partly

because of the work done by Doug and his companions. His loss today, though, is a hard blow, and I for one will miss him.

Briefly Noted

***Recognizing the Autonomy of Nature: Theory and Practice* by Thomas Heyd (ed.). Columbia University Press (2005), 232pp. \$39. ISBN 9780231136068.** — reviewed by John Jacobi

This collection of essays investigates the ethical concept of “recognizing and respecting the autonomy of nature,” and is an important read for any wildist. Some of the essays are interesting only because of how well they represent the usual voices in the debate, so are not strictly necessary to read. However, the essays by Eric Katz, Ned Hettinger, Bill Throop & Beth Vickers, and the introduction by Thomas Heyd are all well worth reading. Katz’ addition was by far the most interesting, as he argued for the strict interpretation of “autonomy of nature” that is espoused by wildists.

***Keeping the Wild: Against the Domestication of Earth* by George Wuerthner, Eileen Crist, Tom Butler (eds.). Island Press (2014), 248pp. \$24.95. ISBN 9781610915588.** — reviewed by John Jacobi

This collection is the response of the wilderness conservationists to the Anthropocene boosters like Peter Kareiva and Stewart Brand, who advocate turning the earth into a garden, or, in their words, embracing the fact that humans already are gardeners. It is a good book on many counts. The additions by David Ehrenfeld, Ned Hettinger, Dave Foreman, and Howie Wolke are the best, especially Ehrenfeld’s, which eviscerates the notion that new technology can live up to the promises of the boosters. Still, the book suffers from some severe weaknesses, especially the motif of conservation being the next step on the ladder of social progress. This no doubt was a response to Kareiva’s charge of misanthropy and call for humanitarianism at the expense of wilderness, but such a response is unprincipled. At some point the wilderness conservationists are going to have to admit that restoring wildness is at odds with humanitarianism, social progressivism, and left humanism. Finally, the book is fairly repetitive, so readers shouldn’t feel guilty about skimming large portions of the less well-written essays.

***The Science of Morality* by Joseph L. Daleiden. Prometheus Books (1998), 460pp. \$39.98. ISBN 1573922250.** — reviewed by John Jacobi

Most people are only familiar with Sam Harris’ argument for a science of morality in *The Moral Landscape*. This book is quite a bit better than Harris’. Daleiden writes in a more enjoyable tone, interacts with relevant philosophical literature, and displays a wide range of knowledge that he synthesizes skillfully. The particularly relevant parts of the book for wildists are part one, chapter thirteen, the appendices, and many of the works in the selected bibliography. The chapters on policy are also good, but

conservationists with a tight schedule can probably get away with reading his analysis on just one of the issues.

***The Blank Slate: The Modern Denial of Human Nature* by Steven Pinker. Penguin Books (2003), 525pp. \$20. ISBN 9780142003343.** — reviewed by John Jacobi

Pinker's book is the best one yet on the new sciences of human nature, even better than E.O. Wilson's *On Human Nature*. Pinker addresses much of the science, but his main goal is to quell the knee-jerk reactions and philosophical conundrums incited by it. He organizes the book into two parts, the first addressing "received dogmas" of the "ghost in the machine," the noble savage, and the blank slate, and the second addressing the ostensible threats of determinism, nihilism, imperfectability, and inequality. Pinker is obviously a humanist and does not argue in favor of wild nature, but his erudition lays the philosophical foundations for dealing with the problems of human nature, whether those problems are being sorted out by humanists, wildists, or others.

***Moral Tribes: Emotion, Reason, and the Gap Between Us and Them* by Joshua Greene. Penguin Books (2014), 432pp. \$18. ISBN 9780143126058.** — reviewed by John Jacobi

This book is Dr. Greene's proposal for a universal morality. Like *The Science of Morality* by Joseph Daleiden and *The Moral Landscape* by Sam Harris, two other prominent books on this topic, Greene advocates a version of utilitarianism as a "meta-morality" that can unite the world's "moral tribes." Readers already familiar with sociobiological explanations of human nature and morality can mostly skip ahead to part three. (And those who aren't should try reading Steven Pinker's *The Blank Slate* and, again, skipping ahead to part three.) It is there that Greene offers his most interesting and original ideas, and offers a very good explanation of utilitarianism and rebuttals of common objections to it. Arguably the ideas are more thorough than even Daleiden's. Ultimately, Greene fails at his attempt for a universal morality, unable to sufficiently jump over the hurdles noted in the wildist critique of reason and progress, but as a forced universal morality becomes more important for an interconnected world, some version of Greene's proposal is likely to be the chosen and dominant one, so his ideas are well worth reading. Not only that, much of Greene's ideas are highly relevant to wildism. Note especially his "modular myopia hypothesis," and pay attention to his analysis of the different versions of the trolley problem. The latter may be useful in finding a possible moral distinction (or lack of one) between collapse happening and aiding collapse.

***Earth First!: Environmental Apocalypse* by Martha Lee. Syracuse University Press (1995), 298pp. \$29.95. ISBN 9780815626770.**

In lieu of our own review, we suggest reading the following one, available online for free: Sessions, G. (1996). Martha Lee, *Earth First! The Trumpeter* 13(4).

***The Moral Landscape: How Science Can Determine Human Values* by Sam Harris. Free Press (2010), 322pp. \$16. ISBN 9781439171226.** — reviewed by John Jacobi

Compared to other books on the topic, this one only deserves a quick skim. It is useful for people being introduced to the arguments, but it largely ignores the problems inherent in any endeavor toward moral universalism, and it doesn't properly interact with even the most relevant philosophical literature. I also recommend Thomas Nagel's review. It doesn't line up with the foundational ideas of wildism, but it is worth chewing on. See Nagel, T. (2010). The facts fetish. *The New Republic*.

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Relations and the Moral Circle

John Jacobi, *The Wildist Institute*

Abstract—Although wildism professes to be a nonhumanist philosophy, it has been unclear how it diverges from the “expanded moral circle” approach traditionally taken in environmental ethics. This piece makes the distinction clearer by better connecting the wildist concept of *relations* to the ethical imperative to rewild. Specifically, while humanist ideologies wish to expand the scope of individual altruism and to enforce this expanded scope with technical infrastructure, wildists note that nature has value only because individuals grant it value, perhaps even for non-altruistic reasons, so they advocate global action as only a temporary coalition against the common threat of industry.

I. Introduction

Earlier in 2016, I published “The Foundations of Wildist Ethics,” the culmination of some years of conversations and study about the tension between the technical and the biological. There were, however, a few defects, and one of them was egregious: I didn’t distinguish properly between those views that expand the humanist project and those views that fundamentally challenge it. As a result, some of my metaphors, explanations, and examples were either mixed up themselves or failed to properly communicate their challenge to humanism.

This piece is an attempt to better emphasize and explain those concepts and ideas that I inadequately addressed in “Foundations.” In particular, I better link wildlands advocacy and the conservation of human nature; I take a stronger position on the source of values; and I clarify the concept of *relations* and how it plays into the ethical imperative to rewild.

I should admit here that the small element of confusion that I generated in my text was due primarily to my own failure to properly draw out the consequences of what I was saying. Thus, while the ideas offered here do not fundamentally change anything in “Foundations,” I might have used more particular wording in certain places in the text. In order to resolve this, readers should favor this text over “Foundations” wherever there are minor discrepancies.

II. The Prevailing Paradigm in Environmental Ethics

Deep ecology's core contention is that nature has intrinsic value, but from the very beginning environmental ethicists (nearly all belonging to some variant of eco-radicalism) have had to confront a series of philosophical conundrums attached to this claim. For example, where does this value come from? And, regarding the most popular formulation of deep ecology, "left biocentrism" or "biocentric egalitarianism," should we understand swatting a fly or other similar acts as having the same degree of moral seriousness as murdering a person? Is egalitarianism at the cellular, organismic, or ecosystem level? And so on.

The traditional response has been squarely within the humanist tradition, despite attempts to break free of these constraints. For example, some deep ecologists speak of the "rights" of nature, which is clearly an expansion of humanism, no more a challenge to it than the animal rights activists who push for societies to include some animals in their definition of sentience.

In one attempt to remove this talk of "rights," some deep ecologists devised an ill-defined and even more terribly articulated concept of "the expanded self." Devall (1987) explains: "If we experience the world as an extension of ourselves, if we have a broader and deeper identification, then we feel hurt when other beings, including non-human beings, are hurt." In another, closely related, concept, Leopold speaks of a "land ethic" under which humans situate themselves within a "biotic community."

But these formulations are also an extension of the humanist project. As Singer (1981) writes, along with several others, the history of civilization is the history of human beings expanding the circle of moral consideration. It begins with the band, moves outward to the tribe, the chiefdom, the ethnic group, the state, and so on, until now, when the dominant ideology of industrial civilization sustains and enforces a moral circle encapsulating all of humanity. And even here we have the margins of humanist activism, usually left-wing movements, pushing for consideration of all sentient creatures.

One of the more recent and not-entirely-resolved expansions of the moral circle included the shift from white supremacist, colonial, and racial progressive narratives to the inclusion of blacks and other nonwhites. This shift was encouraged by changing technical and economic conditions for quite a while before social revolutions began to catch up. This is why, by the time events like the American Civil War occurred, there was a fundamental tension between the humanistic language of the US Constitution or the documents of the French Revolution and the continuing institution of slavery. Arguably, the industrial revolution was the major event that allowed these new humanist ideas to become dominant.

Also in the early years of industry, humanist activists developed certain characteristics, like extreme sympathy for victimized classes, in order to resolve the tension

between humanist ideals and the state of, for example, the poor living in slums. Thus, when Aldo Leopold argues for a “biotic community,” he is doing nothing new, and this explains why some conservationists and environmentalists argue that their fight for the recognition of nature’s rights is akin to the recognition of black people’s rights or poor people’s rights.

This project also comes with no truly new problems. For example, it is sometimes said that the quest to find the basis for nature’s rights is a major problem for environmental ethicists. But this is not all that different from the problem faced by the French *philosophes* who attempted to find justification for the rights of man. Tellingly, the answers are very similar. Then, the French *philosophes* established the concept of “natural [materially intrinsic] rights,” while now environmental ethicists like Holmes Rolston III argue that nature’s value is objective. And in regards to economic conditions, then, the *philosophes*’ concept of rights made for a very efficient blueprint by which society could run more smoothly, with ideally no excluded classes, which was useful for production; now, the concept of nature’s rights is being produced by economic and technical conditions that require nature be preserved for the survival of the industrial system. In other words, environmental ethics conceived in this way is merely an expansion of humanism and a direct product of the dominant social system.

III. The Wildist Critique

Clearly, “rights” is an illegitimate concept. A scientifically-informed understanding is that values come from valuers, based on the various processes going on in their brain and whatever external circumstance affects those processes. That is, “nature has intrinsic value when it is valued (verb transitive) for its own sake, as an end in itself” (Callicott, 1995). Furthermore, even if one tried, one could not heed the calls of some deep ecologists to “think like a mountain.” We humans are tethered to a human perspective, and the mountain, in any case, has none.

For these reasons and more i will not address here, wildists dispose of the rights concept completely. There is no right to autonomy (in the humanist sense), to equality, to respect, and so forth, and one cannot condemn an action of another human being based on the idea that he violated some other thing’s rights. This includes even the most egregious of actions, like murder. Note that this does not mean that actions are not condemnable; only that the rights concept is insufficient.

I also generally avoid the terms “anthropocentric” and “eco-” or “biocentric.” For one thing, all three terms are notoriously ill-defined, “anthropocentrism” sometimes being equated with the very idea that something is valuable only if humans value it. Clearly, by this definition, wildism is anthropocentric, since, being informed by scientific materialism, we cannot say that a world without humans “has” value any longer, simply because it is no longer being valued. See Bradford (1989) for more on this point. And insofar as “anthropocentrism” means “the belief that humans are

due superior ethical consideration compared to other creatures,” it might be useful to invoke it only in order to reject it; but because the term is so closely associated with ecoand biocentrism, it is best to simply let it go.

Biocentrism’s premise that all living things have intrinsic value is irrelevant to wildism both because it is articulated as an expansion of humanism and because of its bias for “life.” The former has been addressed. The latter is an issue because wildism concern for “life” generally is a subset of the more pressing and relevant concern for *wildness*. And wildness includes death, pain, suffering, and a good deal of awful things just as much as it contains cozy ideas like “life.” Thus, rhetoric that speaks of a “dying earth,” for example, is revealed to have a rather ridiculous character.

Of course, some have pointed out that biocentrists take a metaphorical approach to include these concepts. Devall and Sessions (1985, pp. 70–71), for instance, write, “The term ‘life’ is used here in a more comprehensive non-technical way to refer also to what biologists (and also dictionaries) classify as ‘non-living’; rivers (watersheds), landscapes, ecosystems. For supporters of deep ecology, slogans such as ‘let the river live’ illustrate this broader usage so common in most cultures.” However, this comes across as intellectual laziness, and it is clear that the language of “life” should be tossed. In the specific example cited by Naess and Sessions, the concept of “wildness” is better anyway.

Ecocentrism includes non-living things, but beyond this distinguishing it from biocentrism is a difficult task. It is also, like biocentrism, simply an untenable ethic, or at least not a very clear one. For instance, ecocentrism nearly always needs to be accompanied by systems like “biospherical egalitarianism” to explain what, exactly, the ethic obligates us humans to do. Yet even if we maintain some “egalitarian” ethic only at the level of “ecosystems,” we resolve no problems associated with the more extensive egalitarianism in the traditional formulation. For example, by what do we mean “ecosystem”? Even ecologists admit that it is an amorphous concept. Furthermore, are all ecosystem’s truly equal? Would destroying the rainforest be just as devastating as destroying a small forest in upstate New York? These kinds of questions quickly get absurd.

Ecocentrism is also closely associated with the “thinking like a mountain” sentiment, its advocates arguing that the value of nature does not come from what it offers humans, or at least it does not exclusively come from this idea. Of course, natural processes are important for animals to live, so can be said to have value to non-human creatures, but this just transforms the question. Why should we be concerned with that animal?

Finally, this expansion of the moral circle is the product of and can only be maintained by artificial systems, especially the material technical base on which societies are built. For example, to press an ideology that values all of humanity is only tenable with industrial infrastructure. In fact, one could argue that no individual human even holds true to the ideology. We may not outright reject the notion that we should care for every human equally (because this is the dominant ideology, and it would be rather radical to reject the notion), but in practice we favor those close or useful to us. For

sure, there are oversocialized individuals who truly are motivated by the expanded circle, and who feel immense guilt when it is violated, but for the most part the expressions of this ideology are by technical systems rather than individual humans, such as

NGOs that operate autonomously of any individual or small group of individuals in order to do humanitarian work. In other words, the ideology is not the product of man's nature; it is a product of the technical system itself. We note that without technical infrastructure, some primitive people would, for example, pluck the feathers from living birds and then cook them to death (Turnbull, 1961, p. 101; 1965, p. 161). And of course primitive people could be very violent to human outsiders (e.g., Chagnon, 1997).

IV. The Wildist Alternative

Wildists adopt a scientific materialist, Darwinian perspective: things are valuable when humans value them. Furthermore, to say that someone values something is to make a statement about the physical state of that person's brain, hormones, and so forth. And to say that the person ought to do something is a shortened way of saying "If you value X, you ought to do Y." if you value nature, for instance, you ought to preserve it. There is technically a logical jump here from the "is" to the "ought," but it is akin to the problem of induction, posing no serious threat to the reasonableness of the "ought."

Thus, the starting point of wildism is an "is": we value nature intrinsically. In "Foundations" I wrote that "intrinsic" means "non-instrumental" and "nonderivative" (p. 15). However, "non-instrumental" is not always strictly accurate. i used it for much the same reason I still sometimes speak of "free will": the reality underlying what we perceive as free will is nonintuitive, and acting as though we have free will is still necessary for various reasons. Still, after further thought i have concluded that it poses no real risk to say that our valuing nature is in some ways instrumental, but not in the solely economic sense.

To say that nature has "intrinsic" value, then, is mostly a way of saying "here is a point at which further elaboration is unhelpful." That is, we could say that i value nature because of a love of natural noise (com-pared to the industrial racket), because of aesthetic preference, because of my cravings for communion with animals to a greater degree than is possible in the city, because of my desire for purposeful, goal-oriented activity, or I could even say "simply because." And then another person might name some other specific convergence of wants and needs that join to make him concerned with nature, the world maintained by the absence of human control. Elaboration on these points, however, is unhelpful, because the state of nature makes now the time to figure out the basis on which we can find political affinity. The starting point of this political project, the thing with non-derivative or intrinsic value, is nature.

Before moving forward, let's note a few things. First, although the wildist mode of analysis uses moral language, it does not attempt to obscure the fact that morals are really just another way of speaking about psychological realities. This is why, for instance, "Foundations" drew so heavily from the field of moral psychology. The implications of this is that "convincing" people of our values is really just another way of saying we are *finding* people who already have the capacity to value these things, and since we have no way of knowing whether we or some other factor will awaken this capacity, we converse with them while perceiving this as an act of will against will. Perhaps it is unhelpful to say that "will" in light of scientific materialism is an illusion, much like it would be unhelpful to say that Newtonian physics in light of quantum science is an illusion. Both Newtonian physics and will are a part of our reality in an important sense. The point is just to understand the "deeper" realities that underlie them. See "Foundations," pp. 10–11 for a somewhat more extended discussion on this point.

Also note that many components of the wildist ideology are instrumentalized, not-exactly-arbitrary cutoff points for the sake of political unity. (This is not to say that the moral principles of the individual members are instrumentalized, only the collectively agreed-upon markers.) One example is the assertion of the intrinsic value of nature (rather than, say, a highly-detailed list of things that make nature valuable), and another is, as discussed in "Foundations," the assertion that wildness has value enough to make civilization morally unjustifiable. I write, for instance, that "while there can be more or less radical elements within the bounds set by the given benchmarks, they are narrow enough to entail a politically discrete population of conservationists and not so broad as to be meaningless" (p. 19). We are, in other words, forming a coalition of individuals with a range of moral beliefs definite enough to produce a clear goal and a population unified enough to achieve that goal. Each of the individuals involved finds the coalition to be necessary because industry has violated the autonomy of nature in so thorough and unrelenting a manner that we hope to now move things in the opposite direction.

V. Challenges and Responses

A. Are Subjective Values Impotent Values?

some environmentalists are uneasy with subjectivizing nature's value. In their view, this makes our arguments impotent, or at least weaker, and it reduces us to Machiavellianism. However, such worry is unnecessary.

For instance, some might argue that if there is no basis for our moralities, then the world is simply a collection of interest groups competing against each other, and the human story is just a story of clashing selfishnesses. This is only partially accurate. It is true that, since there is no objective value, and since subjective values are bound to

have irreconcilable differences, then resolving those differences is a question of power, territory, and other such things. This is true even in the case of objective value, unless one believes in some supernatural mechanism for retribution, like Karma.

However, it is incorrect to presume that all human interests are inherently selfish. Some may be altruistic, and truly so. Those who argue that this is not a Darwinian perspective misunderstand evolution. The so-called “selfish gene” theory (an unfortunate metaphor that has obscured more than clarified) applies in a strict sense *only* to the gene, and it therefore applies to the organism only so much as it is a function of the gene’s selfishness. In other words, an organism may be selfish *or altruistic* depending on the advantage that this confers to the genes. This is why a male spider mates with a female spider even though it puts him at risk of being eaten by the female.

So while human social life is indeed one of competing interests, this need not mean that we have to seek ulterior motives underneath every interaction, nor does it mean that our quest to achieve political goals as a group with a defined range of interests is best achieved by pulling one over on some other group. Cooperation, while not always the best path forward, is certainly an effective possibility.

Nevertheless, the Darwinian perspective *does* mean that humans are inclined to a higher degree of selfishness than the humanist would like. This is simply because organisms are bound to be largely self-interested, since this self-interest would preserve their own genes. The extent to which we are altruistic usually only expands to a small circle of friends, family, and close ones, called *relations*. More on this below.

Finally, if one is ever faced with an opponent who laughs at the idea of nature’s value because of its subjectivity, one can simply point out that the same applies to his belief in nature’s non-value. If subjectivizing value truly does weaken value-claims, it does so to all claims, not just conservationist ones.

B. Why Care for Non-Human Nature?

Another worry of some environmentalists is more substantial: they worry that by saying that nature has value only because humans value it, this would reduce our efforts to conserve non-human nature. This worry is unfounded for several reasons.

For one thing, if a wildist professes to have disdain for largely artificial environments and hopes to see these environments collapse into less managed states, then I would regard this person as not very serious if he then failed to preserve the very unmanaged places that he professes to value. These are the freest places available to us as individuals, and, furthermore, by conserving them we are ensuring a quicker rebound from nature as industry’s stronghold is broken.

Of course, since humans are bound to their puny individual perspectives, then without reasoning abilities each wildist would only be concerned with the nature with which he is familiar. Luckily, we *do* have reason and science, and with these intellectual tools we can discern reasons to form a coalition to conserve even that nature with which

we are not individually concerned. For instance, the interconnection of world ecosystems indicates that we should be concerned with at least some foreign conservationist efforts. And global threats like climate change and the industrial system as a whole push disparate efforts toward unity.

Of course, this global networked coalition requires global infrastructure, something we ultimately hope to see collapse, but for now it is clear that at least some large-scale, networked coordination is a necessary temporary step toward effective political action. The difference between this and the humanist position is that the humanist environmentalists see permanence of this infrastructure as legitimate and attempt to “improve” human nature to suit it to the infrastructure. Thus, they attempt to enforce an expanded moral circle that includes all of humanity and nature, while the wildists simply acknowledge that together each unit of resistance is stronger at this time. (As a brief aside, human biology changing to suit artificial conditions is not a negative thing in every instance. Boyd and Richerson, 2005, show, in fact, that it is now simply a part of the human condition. I’ll remind the readers, then, that wildists have chosen the industrial mode of production because of its scale and perpetuity. See pp. 18–19, 37–38 of “Foundations” for a more sophisticated treatment of this point.)

This means it is fine to principally dedicate oneself to the ecosystems that are of most direct value. For instance, Dave Foreman, an activist behind The Wildlands Network, works primarily on North American ecosystems, hoping to preserve core building blocks of the continent until industry settles down or collapses. But his rewilding efforts are still connected to a larger movement that has now taken hold in Europe. From a wildist perspective, coordination between these two efforts is only expected to the degree that each benefits the other. At this point in time, mutual benefit is almost assured.

Of course, this set up does mean that animal rights ideologies, for example, and their cousin ideologies, would be excluded as justifications for wildist conservation. It is perfectly fine to kill invasive species if these species will degrade a wild area; it is perfectly fine to hunt a bear; and no human is expected to care too viscerally about an endangered turtle in the US if he lives in China. This is no doubt repugnant to some involved in the environmentalist movement, but it is not because wildists are not aware of the implications of our argument. We are aware, and we are not bothered by them.

V. Conclusion

The traditional approach in environmental ethics argues that humans should expand moral consideration from humans to the environment, and this often involves applying some formulation of “rights” to non-human units, the boundaries of those units a recurring point of tension. However, the metaphysical claims on which these “rights” arguments rest are false. Furthermore, even if one accepted wildist metaphysics, arguing

that nature has rights because humans confer the rights, this formulation would still be incompatible with wildism, because it would be incompatible with human nature.

For one thing, an expanded moral circle is only sustained by underlying technical infrastructure, like communications technologies. For another, one cannot expect a human being to feel altruism toward things he doesn't know, or even many people and animals he does know but that aren't close to him. We observe, for instance, that some in primitive tribes would pluck the feathers from living birds and then cook them to death. We also note that primitive man had no compunction against treating outsiders differently from his own relations. The point here is not to enforce this behavior, which would contradict the concern for wildness. It is only to acknowledge that in a world less managed by humans and technical systems, these sorts of behaviors would become more prevalent, just as certain ecological trends blossom when human artifice is removed from the landscape. We also note that to a large degree these behaviors are still present in man, and the expanded moral circle is truly only enforced by technical systems themselves, like NGOs that operate autonomously of any one human or group of humans. On the individual and small group level, humans still favor their relations.

Thus, wildists, valuing nature, including human nature, and not hoping to improve it, do not wish to enforce an expanded altruistic outlook on human beings. Rather, *wildness* is a rational ideal borne from the fact that it addresses a convergence of concerns of value to wildists. Put simply, the world maintained by the absence of artificial control, the unmanaged world, also known as *nature*, has value that is irreducible to any one thing that gives it value. Furthermore, the core quality of nature, its wildness, itself has value.

On an individual basis, we can expect that a wildist would only or mostly be concerned with those landscapes and people and animals that concern him directly. This is why it is no matter that some may be involved in preserving the ecological building blocks most relevant to their own geographical region. However, reasoned analysis clearly makes a temporary coalition desirable. The interconnection of ecosystems, and the fact that nearly all conservationists face the same core threat of industry, means that individuals and their small groups may network to form a resilient means of resisting industrial development, regardless of how they personally feel about others in the movement, or whether or not they feel for the others at all. Rewilding, then, is a collective task only insofar as the coalition is necessary, and talk of "collective human duty" should be avoided. And of course, the ultimate practical goal is to extinguish the need for a coalition by eventually extinguishing, for all practical purposes, the very industrial threat that makes it necessary.

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Refuting the Apartheid Alternative

John Jacobi, *The Wildist Institute*

Abstract—Recently a proposed alternative to the traditional conservationist approach has popped onto the scene. It calls itself “eco-modernism,” and rather than advocating decreased economic growth, it calls for the acceleration of technical and economic innovation, saying that this will leave more land for wildlife. The eco-modernists have also borrowed concepts like “rewilding” from the wildness-centered conservationists, which has led to charges of revisionism. This paper argues against the civilization/nature apartheid scheme that the eco-modernists advocate, and it outlines the moral differences between their humanist approach and the wildist approach to conservation.

I. Introduction

Wildism seems to require the collapse of industry: we wildists state, very plainly, that we care for the autonomy of nature such that the civilized agricultural mode of production and later are morally unjustifiable. How, then, could we even entertain the notion that there is an alternative to collapse?

The answer is simple: if the overall process of technical evolution begins to decrease civilization’s footprint, especially in regards to the amount of physical land it requires, then this will result in an increase of wildness and nature’s restoration. Such a thing has not yet happened except through collapse, but that does not necessarily make it impossible. our question, then, is whether technical development is decreasing human impact or looks like it will be doing this in the near future. Note that because of the wildist critique of progress (Jacobi, 2016, pp. 22–27), we have no illusion that any group of humans, no matter how organized, can *steer* overall technical development. our concern is mainly one of analysis and prediction.

Some evidence suggests that civilization’s impact may indeed decrease in the coming years, thanks to digital technology, new energy sources, ecological necessity, and other such factors. Armed with this evidence, some have proposed various alternatives that all fall under the banner of “half-earth proposals.” These proposals are unique in that they are appealing both to progressivist environmentalists, like the so-called eco-modernists, while also maintaining appeal among wildness-centered conservationists.

The idea is that humans can continue with civilization in some parts of the earth so long as non-human nature is able to flourish in wild conditions.

Here I will outline an apartheid proposal that is as attractive as possible to wildists and then explain why no such proposal would ever be sufficient as an end goal, for both moral and empirical reasons. That said, I argue that the logic of apartheid does not necessarily carry over to “half-earth” proposals, arguing that the later could be a positive development. With some caveats, then, I conclude that conservationists should engage in active work under these campaigns.

II. The Empirical Problems

The most important advocates of human/nature apartheid tend to be associated with The Breakthrough institute, a think tank dedicated to “modernizing environmentalism.” indeed, the landmark document in support of the idea was a report put out by the institute and entitled *Nature Unbound: Decoupling for Conservation*. other important texts include *Green Delusions* by Martin Lewis, in which the idea of “decoupling” was first proposed, and most of the work of Jesse Ausubel, who is by far the most convincing and datadriven advocate of apartheid.

The empirical evidence in support of the eco-modernist program is strong, and in many instances it is modest in precisely the appropriate places. indeed, many aspects of eco-modernism are refreshing to those environmentalists who find themselves surrounded on all sides by the irrationalism and lack of pragmatism pervading the movement. This is no doubt why it has gained such strength in such short time, especially when this is combined with their beautiful marketing.

The eco-modernists’ primary assertion is that industrial production can be “decoupled” from land use and other environmental problems. This is not a new argument. The story of progressivism is the story of elites calling for more, more, more innovation. Where these newcomers catch attention, however, is their substantial evidence that this process has already taken place and could continue to. in fact, many industries began to decouple just as environmentalism became a dominant force in industrial societies, around the 1970s. This is a large part of the reason why the prophecies of doomers like Ehrlich never really materialized.

One of the most striking examples of decoupling is corn production, which has “quintupled...while using the same or even less land.” A similar thing has occurred with potatoes and chicken (ibid.). One can also see many commodities plateauing and even dropping rapidly in recent years (see Figure 2), a trend that has been observed in plastics, paper, timber, lead, aluminum, copper, chromium, iron ore, and many more. Ausubel argues that several other commodities, like nickel, electricity, and cobalt, could also be peaking as well.

The beautiful thing about most of these commodities is that their decrease means more land for wildlife, whether or not they are being offset by other environmental

trouble-makers, like digital technologies. Of course, where the new pressure is going (when it isn't simply dissipating) is an important concern, and indeed it is one of the problems with the extent to which eco-modernists take their decoupling claims, but more, bigger, and more connected wildlands are good developments. This is not least because, as The Wildlands Network and others have shown (Foreman, 2004), it mitigates and protects against ongoing environmental problems, keeps basic ecological building blocks intact even if industrial civilization does begin to collapse, and allows these building blocks to restore themselves and remain resilient against permanent problems like climate change.

But the eco-modernists are not arguing anything like this. Instead, they argue that because of the decoupling phenomenon, humans should, instead of slowing down industrial and economic development, kick it into high gear. Moreover, instead of viewing the possibility of an Anthropocene as a great moral warning, humans should embrace it, baptizing themselves fully into the role of planetary managers.

But the empirical evidence does not support this narrative. For one thing, the trends are not all good, and though the eco-modernists are open about this, their response is essentially a faith-based one, compelling only to those who are so strongly attached to the civilizing project that they are willing to take great ecological risks to save it. Notable bad trends include the fact that industrial production has not decoupled from the oceans,—one of the eco-modernists' major areas of concern—and greenhouse gas emissions are

not at all on the decrease—something they don't mention much at all, but, ironically, one of the main reasons the oceans are doing so poorly.

In fact, economic trends around emissions are a particularly powerful blow to the eco-modernist vision. Since the Industrial Revolution, CO₂ emissions have almost only ever decreased in cases of economic decline and collapse, e.g., the Great Depression, the recession after the 1980 oil shock, the collapse of the Soviet Union, and the recent 2008 recession (Caradonna, et al., 2015; Schneider, Martinez-Alier, & Kallis, 2011; Peters, et al., 2012). In the 2008–2009 case, emissions rebounded so drastically with economic rebound that they “more than offset the decrease” that had been achieved (Peters, et al., 2012).

Furthermore, the extinction crisis continues to worsen. Scientists estimate that we've increased the extinction rate by at least 1,000 times since the Industrial Revolution, and it is now accepted that we are going through the sixth mass extinction event in geological history, the previous ones having been caused by asteroids or volcanoes or other natural phenomena, but this one being caused by industrial civilization (Kolbert, 2014). I have not witnessed any eco-modernists address the extinction crisis.

Even apart from specific problems and lines of evidence, the eco-modernists have not quite shown how the trend of decoupling applies or can apply to the industrial economy as a whole. For sure, the trends are observable for specific materials, but they can just as easily be offset by problems elsewhere, and problems like the ones just noted indicate that that is exactly what is happening. Because economics is complex,

this failure is understandable, and only a confluence of data after some study would be able to make a convincing case. And this may just happen. However, the data available now are not looking good for the ecomodernists. Civilizations have a history of overreaching and then collapsing due to precisely the kinds of ecological troubles the industrial one is now facing, and some experts have argued that collapse of industry is very near inevitable (Motesharrel, Rivas, & Kalnay, 2014; Tainter, 1990; Wright, 2004).

In *Nature Unbound*, I only found one brief mention of one of the problems related to a whole-economy view, but it took up less than half a page and made clear the stark difference between eco-modernist and wildist goals. The section mentions the phenomenon known as “rebound,” where improved efficiency results in more consumption rather than less. But, the piece goes on to say, “had our...technologies not improved dramatically over centuries, the human population would probably be significantly smaller and poorer.” As if our current population levels are desirable! Their counter-argument to the rebound objection is also insufficient, as they note only that material goods eventually reach a point of demand saturation. Unfortunately, they do not address whether the demands for other, newer goods create a good trade-off.

There’s much more evidence to offer, but this is sufficient for now, especially since the moral case against apartheid is much more relevant. In regards to the empirical evidence, we can conclude that while it doesn’t quite support the eco-modernist narrative, it does strongly support the main soft claim: that insofar as it is an observable and somewhat predictable economic trend, the phenomenon of “decoupling” is another strong tool in the hands of the conservationists. There is no reason to not take advantage of the phenomenon in the same way that conservationists have used wilderness areas, ecological and evolutionary science, and other tools to preserve nature and nature’s wildness.

|. The Moral Concerns

A. The Other Side

The real problem with the apartheid proposal is moral. Wilderness-centered conservation, which in the conventional account began with Muir, began with a skeptical look toward civilization, a willingness to dispose of it in pursuit of nature. The ecomodernists begin from a radically different point: they love nature, fine, but their primary focus is saving civilization, which they believe can coexist with nature. This of course means that they believe it can coexist with only some of nature, since the apartheid proposal explicitly legitimizes a non-natural side, a side for civilization.

one could say, then, that the eco-modernists “do not go far enough.” But this is not quite accurate. The problem isn’t that the eco-modernists aren’t radical enough, but that they want something fundamentally different. This is clear when we pay closer

attention to the civilization side of apartheid, see how disgusting it is, and realize that *they are arguing for it*.

Crist (2015) has written a poignant critique on the topic of nature on the civilization side. She points out that the eco-modernists advocate concentrated animal feeding operations (CAFOs), intensified agriculture, “aquaculture,” and other similar technical solutions to intensive production. But, she writes,

Industrial agriculture occupies extensive territories, after stripping them of their native life and engineering them for the production of grains, protein, oils, and fiber, most of which do not even directly serve as human food but as raw materials for industrial processing. An even larger portion of the globe allotted to livestock grazing is also roundly dominated, displacing wild animals, plants, and natural ecologies. In CAFOs farm animals are dispossessed of their natural life cycles, and treated as little more than easily subjugated objects to be rapidly turned over into commodities. Meanwhile, the vast majority of so-called fisheries are fished to capacity or overfished, nine out of ten big fish are gone, and massive habitat destruction of continental shelves and increasingly of sea mounts are the legacy of industrial fishing. On all fronts, industrial food production is a ruthless, machine-mediated subjugation of land and seas as well as of wild and domestic beings.

In other words, the civilization side of the apartheid scheme will leave humanity “still very much coupled” with nature—except, Crist writes, “‘coupled’ is hardly the right word—comprehensively dominated is a more accurate depiction.”

one might argue that this is mere tugging on the heartstrings. With a pragmatic approach, the math is simple: more intensive production here means vastly freer circumstances elsewhere. That doesn’t mean the “here” is pretty, but it’s the most promising approach we’ve got.

Indeed, the eco-modernists argue just this. Lewis, one of the originators of the decoupling idea in its eco-modernist incarnation, calls his approach “radical pragmatism.” The language of pragmatism and compromise also pervades the writings and reports of The Breakthrough Institute.

However, the ethical claims on which this equation is based are faulty. Admittedly, Crist herself remains susceptible to the eco-modernist response, and she is not alone among us wildness-centered conservationists. A common ethical scheme in our ranks speaks of the “rights” of nature or some similar concept. It speaks as though nature should be the next beneficiary of an expanded humanist philosophy, a continuation of what has occurred throughout the history of civilization in its move from band to tribe, tribe to race, race to nation, nation to humanity.

This is also the common ethical lens through which the public sees environmentalism. Animal rights ideologies are rapidly becoming more common, and oftentimes conservation projects find it easiest to mobilize people when they can put specific animals or ecosystems before the public. When nature or elements of nature are branded as victims of humanity’s technical ambitions, it is easy to invoke the dominant values of sympathy, equality, and solidarity to incite political action.

But, as I argue more extensively in “Relations and the Moral Circle,” this ethical lens is foggy and broken to begin with, and it is completely shattered under a scientific materialist approach. When we acknowledge the core materialist assertion—that matter is all that exists, and that our ethical values are therefore rooted in our biologies and evolved—one can only speak of one’s own wants and values and, in the context of collective action, an agreed upon spectrum that unifies a politically discrete population. After this, which values become dominant is a question of power and chance in the short term and fate and chance in the long term.

With this in mind, the eco-modernists can and do still say that the belief in the goodness of technical progress is their starting point. But then we see why wildism can have nothing to do with eco-modernism, since *its* central claim is that progress is a flawed mythology—including its applications to human nature. In other words, it is a delusion to think that nature, including human nature, can be improved by civilization.

A more thorough treatment of these claims can be found in “The Foundations of Wildist Ethics,” particularly pages 22–44. The critique consists of two parts, each invalidating the two remaining components of the progressive mythology: the first attacks the idea that humans can rationally implement their blueprints onto a society in a successful manner, that is, the idea that humans control the direction of progress; and the second attacks the idea that the process of progress is good, regardless of whether or not humans have directed it.

Although eco-modernist texts do not always make clear that they accept the first element of the critique, many times they do, and Ausubel in particular makes it clear that he holds views similar to wildists in this regard. This is why Ausubel’s primary emphasis is on predicting *continued* decoupling trends rather than on implementing an abstract blueprint of how the economy should run. However, eco-modernists, including Ausubel, still believe the fundamental point that progress has been good, including and especially for human beings.

This is the core difference between them and wildists. As I point out in “Foundations,” civilization is simply not desirable, and the process of domestication—which has been and is happening to humans just as much as the animals we breed—is a repugnant process, especially at industrial scales. One clear and well-understood implication of civilization, for example, is increased complexity, which leads to more regimentation and more power to large organizations at the expense of small groups. I write,

In the context of wild nature, nature provides the necessary components for survival. But when humans modify nature, they must keep up the process of perpetual modification, because the rest of the natural system has not evolved to function in that state. That is, humans must use their energy and labor to “fill in the gaps.” For example, without any human intervention, natural processes will deal with animal feces. But a toilet requires entire technical systems of human labor, waste disposal, state management, and so forth. The plumbing is convenient, this is true, but at the cost of great

overhead, necessary policing, and further modification of nature. A civilization is the same kind of problem magnified a thousandfold.

A final point to note on some of the empirical problems of eco-modernism: its “modernization for all” rhetoric is almost certainly false, and I’m quite sure that the men who espouse it are aware of this. Ausubel in particular strikes me as an exceedingly reasonable man, which ultimately means that the eco-modernist rhetoric probably only points toward an ideal rather than an actual, exactly achievable vision.

More realistically, the eco-modernist vision will leave still many excluded pockets, whether that be due to inertia from bureaucracy, politics, technical ability, negative reactions from those being modernized, or, a problem no one has addressed yet, where resources actually are, that is, geographical restrictions. There is a problem with the vision of “modernization for all” when coltan, for instance, which is vital for digital technologies, mostly exists in a few places in Africa and Australia. Of course, we might move from coltan to some other good, but the bottom line is that almost any resource will only be available in particular geographies. The geopolitical factors this entails brings quite a bit of inertia to deal with, and the problem is only magnified when we consider multiple similar problems for the complex network of goods necessary for something like modernization to even be possible.

Of course, this means that the vision of island civilizations might actually be more insidious than it sounds when packaged with nice words. That’s not to say that it isn’t worth pursuing—in fact, I sincerely doubt that any response to the great problems we are facing will be without some distasteful elements—but there are serious threats associated with it, which I will discuss further in section IV, “The Dangers of HalfEarth Rhetoric.”

B. Martyrdom

The first argument against apartheid, then, is that the civilization side is illegitimate in relation to both human and non-human nature, and wildists don’t want to live in it. Two responses to this, in favor of apartheid, are possible. The first says that even if civilization is not good for humans, it is the most promising moral option available, and humans who do not wish to live under civilized circumstances should be willing to sacrifice themselves for the good of non-human nature. The second says that any humans who do not want to live in the civilization side are free to move to the nature side.

E.O. Wilson and to a lesser extent Dave Foreman have arguments similar to the first. Wilson said in one interview that he supports the half-earth proposal because it will decrease damage to the biosphere until humans decide to “settle down” (Worrall, 2014). I am unsure, but I believe that Wilson was being intentionally vague and is aware that settling down could likely mean collapse, or, as some technophiles have argued, space travel, or any other number of options, some of which are clearly undesirable. Foreman

(2015) is more open about the possibility of collapse when he says that “the system is going to come down, one way or another way, on its own. My task is keeping all the building blocks of future evolution that we can.” The nature half, of course, would consist of these building blocks.

This leads us to a necessary point of clarification. The eco-modernist apartheid proposal is actually an outgrowth of a much older half-earth proposal that came from the wildness-centered conservationists. After leaving the radical conservationist group Earth First! in the late 1980s, some of the original founders created an organization that is now called The Wildlands Network. This new organization was built around a proposal that expanded the original Earth First! reserve system into a comprehensive and scientifically based proposal, later called “continental-scale conservation” and “rewilding.”

The conservation biologists who outlined this proposal introduced many new and exciting concepts, and one of the most important of these is *connectivity*—the fact that wild areas are better when linked. As a result, they devised a system of wildlife corridors and, in North America, four major megalinkages spanning the whole continent, which would leave about half of the land for wildlife and will be extremely important for animals who need to migrate due to climate change. They also counter the rather devastating effects of roads.

The most recent political formulation of this idea has been taken on by the WILD Foundation’s Harvey Locke, who is spearheading what is called the Nature Needs Half campaign, and Wilson has also come out in support of the idea with his book *Half-Earth*.

The wildness-centered origins of the half-earth proposal is part of the reason the revisionism of the eco-modernists is so appalling. They have taken the ideas of half-earth, rewilding, and “the positive agenda,” as well as many of the other concepts from wildness-centered conservation, and then they’ve wrapped them all up in a polemic for industry and civilization. Note that the tangible proposal itself has not entirely changed, save the new talk of economic acceleration; the revision instead takes place in the narrative, in what it legitimates.

Still, the narrative does subtly and not so subtly transform the long-term implications of the proposal. Under the eco-modernist narrative the half-earth idea literally becomes apartheid. As many have pointed out, they strongly encourage the modernization of non-modernized people and look with disdain on the environmental damage (and alleged environmental damage) of those who are not “decoupled.” In many cases this translates to a “don’t touch it” mentality, a revulsion at actually interacting with nature in any natural way. This is more than clear in works like *Nature Unbound*. Contrast this with the rhetoric around Nature Needs Half, where Locke (2014) writes repeatedly that the earth needs “*at least* half” (his emphasis) and has sparse things to say about the other side.

So if we move away from the apartheid proposal and onto the more legitimate (in wildist eyes) halfearth proposal, what is the problem with the idea that humans

should be willing to sacrifice their wildness and freedom for the sake of the wildness of so much more non-human nature? The answer is, simply, that wildists do not wish to be martyrs for something as abstract as “all of nature” any more than we would be martyrs for “all of humanity.” This is a direct outgrowth of our challenge to humanist ideology.

The explanation here will seem a little like hairsplitting, but it is vital. When we go with the prevailing paradigm in environmental ethics, we are told that we should extend our unrelenting altruism from humans to all of nature, and we should therefore be willing to fight to the death for nature’s own sake. This only makes sense if we assume that nature’s value is something legitimate outside of our own existence, something we must align ourselves with. But wildists acknowledge that “nature has intrinsic value when it is valued (verb transitive) intrinsically” (Callicott, 1995). In other words, there is no objective value in nature. We fight for it because we want it, not because something external to us demands it to be so (sometimes the implicit meaning behind the shoulds and woulds of moral imperatives). See “Relations and the Moral Circle” for more on this point.

This does not mean, of course, that we cannot sacrifice our lives for the sake of something else. But an abstraction like “all of nature,” while useful for intellectual parsing and theoretical discussions, is not that thing. Rather, wildists chant “live wild or die!” because we have analyzed the situation and have found that freedom and the freedom of our relations is impossible under the current conditions. Our willingness to risk death is the most assured way to regain it. Our slogan is therefore said in the same spirit as Patrick Henry’s passionate words: “Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take; but as for me, give me liberty or give me death!” (See also “Foundations of Wildist Ethics,” p. 17.)

To be clearer, this split in ethical foundations is not between the wildness-centered conservationists and the eco-modernists. It is instead a division within environmental ethics. However, it is a necessary division to point out because the eco-modernists are more in line with the prevailing paradigm, which is part of the reason their ideas have so much strength. When, for instance, Crist refutes the eco-modernist position on the assumption that humanist altruism should be expanded (rather than challenged) she leaves open the possibility of the martyrdom rebuttal. And in truth she may not even be totally averse to such a rebuttal, if she means what she says and is not simply unaware of some of the implications of her rhetoric.

The full reasoning behind the wildist view and why we still fight for non-human nature with it can again be found in “Relations in the Moral Circle.” Here I will simply conclude that martyrdom is not a strong response to the moral critique of apartheid.

C. Humans on the Nature Side?

The second response to the moral critique is, as stated above, the age-old argument, “if you don’t like it, leave.” A weak counter-argument would bring up the eco-modernist aversion to non-industrial forms of human-nature interaction. If adopted widely, and especially if adopted as policy, this could make it impossible for some and hard for most to leave the civilization side of the divide (see also section IV, “The Dangers of Half-Earth Rhetoric”). Recall that eco-modernists are repelled by natural human-nature interaction and are much more in favor of a “don’t-touch-it” attitude. Indeed, the main value of wilderness espoused by various eco-modernist tracts is a spiritual or aesthetic one. We’d also be wise to heed the words of a very conservative, bearded homeless gentlemen I became friends with back when I too was homeless: he told me that although he believed immigration was a problem, he didn’t support increased border security, because “walls don’t just keep people out; they also do real good at keeping people in.”

The stronger argument points out that it is actually not a solution to wildist grievances. Is escape actually an option? The reach of industry’s impacts is global, and escape is among the most impotent responses available. And given the global nature of those impacts, “escape” is far from an accurate word. A man who has left the city for the forest has reclaimed his life in only the most insignificant of ways. He may feel better, and as far as psychological health is the argument this is a somewhat reasonable justification. But on the whole he has merely fogged up his view of the world that still determines the trajectory of his life, so he is able to more easily delude himself into thinking he has freedom.

Meanwhile, the technicians continue to do their work, the emissions continue to increase, the possibility of runaway technologies remains, nuclear, biotech, and nanotech are still developed, and the escape artist remains fundamentally powerless. Interestingly, the infamous Kaczynski (2010) put it best when he said, “One does not have freedom if anyone else (especially a large organization) has power over one, no matter how benevolently, tolerantly and permissively that power may be exercised. It is important not to confuse freedom with mere permissiveness.”

Which brings us to the final point against the escape argument: it assumes that civilization will always remain benign toward the other half. The whole history of civilization up to this point is not a great record, and the economic predictions of the eco-modernists are not nearly empirically sound enough to convince us otherwise.

D. A Note on Collapse

It seems, then, that collapse is still the only option worth pursuing, since the eco-modernists’ only remaining argument with vague persuasive power is that accelerated

decoupling will result in less physical environmental damage than collapse would. But this is hardly a claim worth paying attention to.

For one thing, the evidence that collapse is good for nature in the long-term is far-reaching, so much so that it will be a topic for another essay. But consider as an example the case of nuclear power, often invoked as a reason why collapse couldn't happen without devastating repercussions. While this seems intuitive, the evidence of astounding wildlife rebound in the Chernobyl exclusion zone suggests a more haunting possibility: nuclear meltdown does less harm to nature than civilization.

Furthermore, the eco-modernists argue that decoupling happens only after production of a given material reaches "peak impact," which by their account was only reached by most commodities between 1940-1970. If we are to accelerate the modernization of all remaining non-modernized peoples, this would amount to an immense amount of devastation until the future vision of complete decoupling can be achieved. Unless the eco-modernists can dream up an alternative pathway to modernization, something that would betray the aversion to abstract blueprints that makes their argument so strong in the first place, they are left having to accept the fact that their plan is likely to do more physical damage to the earth than collapse, not less. And in any case, the desire to come up with an alternative pathway to modernization would only underscore their commitment to saving civilization rather than achieving a future where nature, including human nature, can be wild.

IV. The Dangers of Half-Earth Rhetoric

As has been established, the eco-modernist apartheid proposal differs from the conservationist half-earth proposal in some important respects. However, the half-earth rhetoric is clearly only a few steps from the eco-modernist perversion, and this is just one of the many threats associated with it. So while I am tentatively supportive of the Nature Needs Half campaign and would like to see it achieve its goals, before undertaking any actions in support of it we should fully understand the risks and especially the potential perversions that the campaign could produce.

To do this, we need to understand some of the economic and technical determinants that have brought environmentalist rhetoric to the forefront of many civilized conversations. Indeed, even though wildism and, in general, wildness-centered conservation are challenges to the dominant superstructure of industrial civilization, mainstream environmentalism is clearly and in contrast a part of it. This has been true at least since the 60s and 70s and became especially clear with the establishment of Earth Day.

Arne Naess pointed this out in the document that set off the Deep Ecology movement when he noted that some environmentalism has a shallow approach, some of it a deep approach. The former agrees on many of the facts: civilization will collapse if the ecological context of economics is ignored, it would be a great loss to have animals and nature gone from our lives, etc. But their normative claims are far from the same.

Mainstream environmentalism, or shallow environmentalism, recognizes the very true fact that climate change, mass extinctions, and other such things influence the world, even the world of humans, because humans are, in fact, still limited by nature, even if they don't always recognize it. Mainstreamers also note that things like pollution and other environmental problems could hurt the humanist ideal of human wellbeing, or even the whole progressive project of civilization. But they do not actually question progressivism and its various incarnations.

Eco-modernism is, to date, the purest form of this progressivist environmentalism, and just as mainstream environmentalism popped up at just around the time that ecological problems were becoming dire and impossible to ignore, so too is eco-modernism arising at an uncannily appropriate time, given the current material demands of civilization. The major threat is that half-earth rhetoric will take on some form similar to the eco-modernist version to be a new legitimizing narrative for these new conditions. The major threat, that is, is conservation as our new government.

Let's paint the picture of a likely future, ideological visions of either the wildists or eco-modernists aside. The scale of the current impacts of climate change, combined with politicians' unwillingness and inability to deal with it, combined with the speedy pace that any sufficient response would need but will not perfectly achieve, all combine to make it clear that at least some places, probably even a few major cities, will become casualties within the next fifty to one hundred years. Some places are going to lose, regardless. To be clear, this is not fearmongering, and it doesn't translate directly to the collapse of civilization. It's simply a reality and the conditions with which the civilizations of the future will have to cope. The US' Pentagon, for instance, lists climate change as a national security threat (Scarborough, 2016), and we *know* that rising sea levels will affect cities as major as Boston and Miami. One study found that over 400 American cities have already passed their lock-in date—meaning that the focus should be mitigating damage, since preventing it is out of the question (Strauss, Kulp, & Levermann, 2015).

Recall the eco-modernist vision of "island cities" connected by highly efficient transport systems and with vast expanses of wilderness everywhere else. The above evidence indicates why such a vision might be a serious contender for the dominant narrative of the new conditions. To be clear, the vision isn't going to actualize itself as a smooth transition where everyone is modernized and voluntarily migrates to wherever the islands are. Instead, we can expect the use of force in many cases, and, more likely, no human intervention at all as the wilderness spreads from natural disasters. Just a look at New Orleans after Hurricane Katrina indicates what this might look like. (The example is especially appropriate because, despite the actual horrors, life for most has gone on as normal— what could be called apocalypse certainly doesn't feel like it, and won't, especially to the decadents in the Capitol.)

More than just the eco-modernists have suggested this vision. The market has moved emphatically in that direction as well. For instance, Google is working on self-driving cars, which are by now clearly going to catch on, and soon, and on the whole allow

for much more efficient travel and use of resources. Musk is working on a hyperloop—perfect for connecting island cities, and devised to do just that—Tesla motors, SolarCity, and recently OpenAI. These places will not reach the whole world, but make the vision of efficiently run islands connected by high modes of transport very feasible.

And the non-wildness-centered side of conservation has a dark history standing very much in line with these kinds of visions, although perhaps more relevant are the modern instances. In recent years, ecological problems and the rhetoric of crisis has increasingly been used to justify global cooperation and the institution of global management schemes. This does not necessarily mean a government, especially since markets do so very well at making cooperation look nice, but a government is within the realm of possibility, especially given the low number of political actors total (fewer than 200 independent states) and the even lower number this island vision implies.

Consider, for instance, the ideas of the Club of Rome, which is well-known for producing the environmentalist tract *Limits to Growth*:

In Nature organic growth proceeds according to a Master Plan, a Blueprint. Such a 'master plan' is missing from the process of growth and development of the world system. Now is the time to draw up a master plan for sustainable growth and world development based on our global allocation of all resources and a new global economic system.

Or consider the suggestion of Ronald Wright, the author of *A Short History of Progress*, that we institute a global government in order to have “managed capitalism.” The basis for this argument, and the subject of his book, is the current intensity of environmental degradation and the increasing disparity between the rich and poor, which he points out were two common factors in the majority of collapses in history.

Wright’s argument is naive, particularly because he doesn’t pay attention to the increased energy input that any management system requires—this is part of the reason the eco-modernist vision of letting nature do a lot of the work for us is so convincing—but the fundamental drive toward global unity is there, and the primary rhetoric is of an environmentalist and “collapsist” nature.

Even E.O. Wilson, who wildness-centered conservationists have come to view as an ally (and in whom even wildists find inspiration), is at best a fickle advocate of our ethic and a mixed blessing. He should by no means be shunned for his mistakes, both because he offers a loudspeaker for the ideas and because he clearly cares about wild nature dearly. But he has always toed the line between a wildness-centered ethic and a management one, and taken together what he really advocates is a sort of chimera. One could walk away from his recent book on the half-earth proposal as either an eco-modernist or a wildist, and that’s even taking into consideration his rebuttal of the Anthropocene argument.

The threat, then, for any radical conservationists is that they may unwittingly become the vanguard for the new apartheid schemes. One can imagine an unholy union between those who have no regard for civilization and those who hope to save it when the latter acknowledges, at least in an implied sense, that civilization won’t

make it unless some wildernesses are created, unless some civilized places go under. One can imagine, in other words, a tactical spectrum where the radical factions make eco-modernist proposals look good rather than being beneficial to the wildness-centered, anti-industrial conservationists.

A striking example came to me when I was working with a young conservationist on a wilderness magazine. At some point he told me that he imagined a program of “voluntary land abandonment” in order to institute the land requirements for the half-earth idea. But of course that is unrealistic. What *is* realistic? Well, *forced* land abandonment, which is precisely the kind of thing that happens or is considered acceptable when people are swept up in revolutionary fervor, if history is any indication. Of course, the apartheid moderates would not be able to propose such a thing, and in fact would have to stick to the rhetoric of willingness and non-violence. But they could certainly be benefitted by a more radical faction.

Even more threatening is if this fervor is directed toward only the parts of the program that are beneficial for the creation of civilized islands. A true anti-industrial effort, that is, a radical faction on the wildness-centered tactical spectrum, would need to devote a good bit of its energy to making sure those islands aren’t possible. This is because if the eco-modernist version is instituted, the human half legitimized, and the islands made efficient, it could mean a very long time until industry falls again. The eco-modernist vision in its realistic version is quite powerful because it simplifies the machinery of civilization. Instead of added complexity from artificial energy input, civilization is made to instead harness energy from systems that already exist, through the creation of wild spaces, through biotechnology, etc. (Indeed, one of the great arguments in favor of wild spaces is their benefit to biotechnics—see E.O. Wilson’s “Encyclopedia of Life” project, for instance, and his 2016 Aeon essay.) Last time this happened without corresponding damage to infrastructure was the Bubonic plague, and it actually helped keep civilization going, jump-started markets and trade, and increased the quality of life for many of the surviving. In other words, simplification without collapse would just increase the lifespan of civilization.

Of course, perhaps even with a radical eco-modernist faction the civilized islands will not be made efficient enough to survive. But the pro-civilization environmentalists have a solution for this too: space travel. Indeed, Martin Rees in his book *Our Final Hour*, after giving an overview of the great threats to civilization we are currently facing, pointed out that it may be the only way to keep up the progressive project. And Elon

Musk, who was mentioned earlier, has another project called SpaceX, which he has explicitly said is to function as a backup plan if his other projects—for sustainable energy and efficient travel—don’t have the impact he hopes they will.

Let this sink in. A common argument against the wildist proposal is that collapse could have negative repercussions for vast swaths of humanity. But the technician alternative of space travel is arguably worse. How many people do you think they’ll

be able to fit on those ships, and what will those on earth be left with? Talk about a civilized island.

V. Conclusion

The de-coupling trend identified by the eco-modernists is real in at least a limited way, and it offers another tool for conservationists hoping to preserve and restore wildlands, including wildist conservationists. However, the prevailing narrative of the eco-modernist cadres, including and especially those at The Breakthrough Institute, is appalling, unsupported by the evidence, and points toward a future that no wildist wants. It is also a shameless attempt at revisionism, a perversion of concepts that originated from wildness-centered conservationists who first espoused a half-earth proposal.

Luckily, the wildness-centered conservationists are behind some of the largest organizations espousing the half-earth proposal, including The Wildlands Network and the groups behind the Nature Needs Half campaign. Wildists have a clear role to play in benefitting these campaigns, but should take care to avoid revisionist perversions that could transform half-earth from a radical proposal to protect *at least* half of the earth's wildlands to a literal, institutional apartheid policy separating humans from wild nature.

The best way to do this is to focus on the moral rather than empirical problems with the apartheid proposal. While empirical problems should be discussed and we should be open to changing our arguments in light of new data, graphs, facts, and numbers rarely fare well in the main channels of communication available to us, like the mass media or internet articles. Probably three arguments are worth focusing on with special forcefulness.

First, wildists, in public debates or in articles, should focus on the morally appalling things that will have to occur on “the human side” of the eco-modernist proposal. Refer, for instance, to the problems with CAFos and aquaculture brought up by Crist. Although the argument is more complex than just this point, it has enough emotional power that it will be a major blow to eco-modernists, especially in live debate.

Second, wildists should point out the conflict between the “modernization for all” dictum and the wants of the people who would be effected by this. While it is true that all of wildists would be good examples for logical argument, more effective figureheads would be non-industrial peoples, preferably wildists themselves, who say that they do not want to be modernized. However, if any wildists use this tactic, they should be careful not to argue that all nonmodernized peoples do not wish to be modernized, or even that most do. This is simply not true, especially amongst agricultural communities. However, on TV or in non-text-based media, the emotional force of a non-industrial wildist saying that he wishes not to be modernized and has a right to fight against it will make it difficult for eco-modernists to respond, especially since the attention of

the audience of industrial hu-mans watching will be brought to the inherently forceful nature of industrialization that they too often do not have to pay attention to.

Finally, wildists should focus *heavily* on the problem of “herding” populations into the fully modern, civilized islands that the eco-modernists envision. Here the eco-modernists will have to say that they do not advocate violence and that the entire process must be voluntary. However, the data makes it clear that this is wrong, and in this case wildists must be armed with that data and ready to use it. Remember, though, that in non-text-based media the audience will usually just hear “this person sounds like they know what they are talking about, because they are using numbers.” This means that, although we should *under no circum-stances* use false data, especially when accurate data is sufficient, the actual content matters less than the structure of the argument. Do not spit out so many numbers that the audience stops listening.

Finally, we should occasionally return to this question of apartheid and investigate whether economic trends have changed. If they have, we may recalibrate our argument. But the moral argument will of course remain, and with that we can say confidently that wildists will never support apartheid.

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How Might Ecologists Make the World Safe for Biodiversity Without Getting Fired?

David Johns, *Rutgers University*

Editor's Note: This is a reprint from the *Bulletin of the British Ecological Society*. We've decided to include it in Vol. 1, No. 3 of *Hunter/Gatherer* because it gives a small taste of Johns' brilliant book on conservation strategy, *A New Conservation Politics*. Please buy it and read it if you are interested in the strategic aspects of wildism.

Science without politics has no impact, politics without science can be dangerous...

—Peter Piot, MD, co-discover of Ebola, WHO administrator and UN Under-Secretary General.

[S]ince survival is nothing if not biological...perpetuating economic or political institutions at the expense of biological well-being of man, societies, and ecosystems may be considered maladaptive.

—Roy Rappaport, anthropologist

Don't expect me to do the right thing; make me do the right thing.

—Bruce Babbitt, former US Secretary of the Interior

For those who care about the life and ecosystems they study, the news is not good. The Millennium Ecosystem goals were not met by a wide margin and there has been much handwringing about what to do. Some have advised giving up and concentrating on what human societies, led by those with endless growth on the brain, are content to leave alone. That's not the sort of approach that ended apartheid.

I. Some Difficult Questions

For those who are not going to give up, the path forward presents hard questions. What if begging policy makers to do the right thing means barren oceans, the end of many species, and the end of wild places (not to mention a more dreary human existence)? What if halting the loss of biodiversity and healing the wounds to species and ecosystems depends on altering the human trajectory of conquest and instead adapting human societies to them?

For scientists there are additional tough questions. What if, outside scientific jousting in journals and at meetings (and, perhaps, the courts), it is not the quality of the argument that prevails, but the quality of the clout the arguer possesses—the ability to reward or punish decision makers? What if conservation success depends less on speaking truth to power than on organizing a political force that can bring more pressure to bear on decision makers than their opponents? Many scientists *do* try to influence decision makers, of course. They provide information and advice, write for broad audiences, and encourage NGOs to lobby for conservation goals based on good science. But many scientists leave it to others to act. But what if (the last *what if!*) natural scientists, by virtue of their knowledge, passion, commitment, are pretty much the only group that can be trusted with the fate of biodiversity and leading humankind out of their destructive ways?

This essay cannot answer these grand questions but raising them provides important context for discussing ways scientists can increase their effectiveness.

II. Thinking and Acting Strategically

Acting more effectively on behalf of biodiversity depends first and foremost on thinking and acting strategically. Whatever role a scientist chooses to play—researcher, teacher, government/business advisor, activist—it is incumbent on them to decide how their role fits into an overarching plan for getting biodiversity protection from *here* (decline) to *there* (recovery). The political landscape must be understood in addition to the ecological one.

Grasping the political landscape begins with a clear goal, because that determines which aspects of the landscape are relevant. Goals may be nested hierarchically and range from protection of an area or species to a prohibition on human activities which are more global such as habitat conversion or release of toxic chemicals or greenhouse gases. Some goals are more important than others because of their direct benefits, or because the leverage achieving them provides in achieving other goals.

With goals in mind other strategic questions can then be addressed:

Who has the power to make the decisions needed to reach the goal? Which legislature, chief executive, agency, business, landowner or combination of these?

Do the decisions sought require structural change in a social system or run contrary to powerful interests or societal inertia?

What groups in society have the necessary influence on decision makers to obtain the desired decision? Will quiet lobbying by insiders achieve the goal [politics as the art of the possible] or is mass mobilization and taking to the streets required [politics as the art of changing what's possible]? Are decision makers divided? Are opponents united or not?

What, exactly, is wanted from these groups, and when?

How can the groups whose support is needed be enlisted to bring about the right decision from decision makers? This requires answering several subsidiary questions: What are their interests and how do they see them? Which messages will emotionally resonate with the group and motivate action? How can the message be tied to the group's most fundamental assumptions about the world and therefore be cognitively satisfying? Which story is the most effective vehicle for carrying the message? Who is (are) the best messenger(s)? Which channels are the most effective for reaching the group? What can conservationists offer in return to groups whose support is solicited (*quid pro quos*, not shared values or goals, are the basis of much politics)?

What is the plan for enlisting or mobilizing the groups identified? What resources exist or must be obtained to carry out the plan? How will their mobilization be sustained over the required period, including after decision-making and through implementation and enforcement?

Who are the likely opponents of the desired decision and how can their opposition be minimized so that the relative power of the coalition in favor of the desired solution outweighs the power of opponents? How can this balance of power be sustained to ensure the decision isn't reversed or is a paper decision only?

How will progress toward success be monitored and evaluated, especially given the very long time it can take to achieve ecological goals?

A final consideration is best posed as admonition rather than question: avoid overinvestment in a strategy or expectations and remain observant, open to suddenly appearing opportunities such as a crisis that weakens opponents or causes decision-makers to be more receptive. Strategies should not be lightly abandoned, but rigid adherence to plans or to a particular understanding of the political landscape will cause missed opportunities.

Scientists' predisposition to think in terms of imparting information is best seen as an intermediate goal. If they care about what happens biodiversity scientists are really in the business of imparting motivation for changes in individual behavior and more importantly, motivation for taking collective action (mobilization) in pursuit of goals that alter the behavior of institutions such as governments and businesses.

Should scientists be in the business of motivating changes in the behavior of institutions such as governments and businesses?

I. Getting Things Done

There are several routes to mobilization scientists may take: directly organizing targeted groups or their leaders; advising those who do this; or more typically communicating scientific findings to activists, decision makers and others in ways that make them easy to incorporate in goal setting and action. Success in all of these depends on a good grasp of the answers to the questions posed in the fifth bullet—understanding how to make influential people feel an issue is urgent and personal so they act on it.

All three paths to action require communicating on three levels: emotion, needs and understanding. Messages mobilize when they evoke strong emotion: anger at nature's destruction and those doing it, love for wild places and other creatures, or pride in protecting the natural world. They must also enlist needs—the need to belong to a group, to be part of a cause, to have recognition for doing good, for a healthy world in which to live. Unfortunately human needs lend themselves easily to deformation and compensatory behavior. We can be socialized to eat food which is bad for us; or to go shopping or seek power when satisfying relationships are unavailable. Mobilization depends on breaking through these deformations of personality and touching genuine needs.

Mobilization also hinges on the cognitive aspects of appeals. This is more familiar territory for scientists who are in the business of explaining things. Culture—the guidance mechanism we rely in the absence of genetically determined behavior—is not just about how the world works but about its meaning and purpose. Messages are most effective when they are anchored in people's most deeply held notions of purpose (which are usually un-questioned and not easily tested). For example most people, religious and secular, have a deeply held belief in progress and any appeal challenging that faith is likely to be ignored. Mobilization is not about conversion, which is very difficult, but reaching people where they are at. (Conversion can occur in the face of personal or social crises and we need to be ready with alternatives when crises emerge.) So messages that seek to redefine progress rather than challenge it head on are likely to be more effective: progress is restoring the Earth to health, working less and spending more time outdoors connecting with nature, taking responsibility for caring for our real home and not converting more and more of the natural world into toys. Mobilization also depends on reinforcing and nurturing a sense of efficacy. People must believe they can make a difference before they will act.

We are storytelling animals. We don't just enjoy stories, but explain and navigate the world through stories. Successful communication depends heavily on stories which are compelling—which are vivid, genuine, familiar, and have characters, problems or plots that target groups can identify with or find themselves in.

Ritual is also central to mobilization. When people act in unison in support of a cause, when they sing, dance and march together, when they publically proclaim their support for a goal and take action to achieve it, they are much more likely to follow through and persevere than when these are absent.

Organization is critical to generating and sustaining collective action. When people ask what can they do to help too often ecologists reply (if at all) with “send money” or “send a postcard to the President, write to your MP.” This low level of mobilization has proved insufficient to reach conservation goals; it does not create or sustain the sort of mass political force that can effectively reward and punish decision makers over the long haul. People must be *involved* in groups to develop a strong and active commitment to sustained action. Group involvement need not (and should not) be focused only on political activities, but include all those activities that constitute a community

and deepen bonds among people. Outdoor activities such as wildlife viewing enhances empathy with nature

There is no substitute for re-immersing people in the world that gave us birth. Strip malls and electronic gadgets are not only biologically sterile (at best) but they insulate us, as does most technology, from the consequences of our actions. Hiking, camping, even an afternoon in the woods, grassland or park can reconnect people with the life-giving. Restoring habitat, such as Trees for Life's work on Scotland's Caledonian Forest, creates and nurtures bonds of empathy and lends itself to regarding places and other creatures as the subjects of justice.

The written word will never be sufficient. The history of every effort to reorder societal priorities has relied on music, theater, and—in the 20th Century—film to tell its story, to give people solace and courage and joy.

There are other attributes of groups that bring about successful change in addition. They include access to decision makers (or taking power and becoming decision makers), making allies among sectors of the elite (both are insider approaches to politics), mass action in the streets or withdrawal of cooperation (outsider approaches), recognition of opportunities, an unwillingness to compromise on goals and flexibility about means for realizing them, willingness to use the carrots and sticks available without timidity, and a record that convinces opponents and decision makers that we will never tire or go away.

The wheel has been invented. It is up to scientists and others who hold the great symphony of life on earth to be of the highest value to use the wheel effectively, intelligently, and forcefully.

Briefly Noted: Letters and Reviews

The Nature of Technology by Brian Arthur. The Free Press (2009), 256pp. \$16. ISBN 9781416544067. — John Jacobi

An alright book on technical evolution. Arthur's strong point is his refusal to shoe-horn technical evolution into the biological paradigm, even if there might be similarities. His solution is a compelling but still inadequate account of "combinatorial evolution." The opening and closing remarks of his book are also interesting commentaries on the tension between the technical and the biological that is of so much interest to wildist politics.

The Evolution of Everything by Matt Ridley. HarperCollins (2015), 368pp. \$29. ISBN 9780062296009. — John Jacobi

Simultaneously I have strong negative and positive feelings about this book, but I don't hesitate to recommend it to wildists. It covers a lot of the same information that was given in "The Foundations of Wildist Ethics" in issue one, sometimes to such a similar extent that I'm astounded that I hadn't read this book before writing it. In particular, Ridley's chapter on population was very similar to what I wrote about race, eugenics, and social Darwinism, and Ridley's is arguably a better historical overview. However, since he is a polemicist for industrial free markets and seems to be associated with the Tea Party, if only implicitly, his book often devolves into very political jabs that decrease its quality. Furthermore, he doesn't seem to realize the incoherence of some aspects of his philosophy. I'm reminded of a quote from Kaczynski's "Industrial Society and Its Future": "The conservatives are fools: They whine about the decay of traditional values, yet they enthusiastically support technological progress and economic growth. Apparently it never occurs to them that you can't make rapid, drastic changes in the technology and the economy of a society without causing rapid changes in all other aspects of the society as well, and that such rapid changes inevitably break down traditional values."

Final Solutions by Richard Lerner. Pennsylvania State University Press (1992), 260pp. \$30.95. ISBN 9780271028026. — John Jacobi

In this book Lerner argues that sociobiologists may be paving the way for some politics similar to Nazism in the same way early biologists did for Nazism itself. For the most part, the arguments are dismal, and the book is not that great. However, it is useful because to date I've not found another book that so comprehensively presents the "sociobiologists are Nazis" argument, and it is very useful to be knowledgeable of these arguments as wildists who depend on sociobiology for their political theory. Furthermore, even though Lerner's particular argument is absurd, wildists should pay

attention to the way Nazis used biology for their political efforts, if only to be sure we are not getting ourselves into scary political waters. Finally, Lerner doesn't speak too directly on this issue, employing a lot of dog whistling techniques in any discussion he does have, but sociobiology and the reality of human population differences do come with political implications that require careful consideration, and although Lerner does not provide that careful consideration, it at least makes the topics clearer than would a sociobiologist, important as it is for them to treat the issues delicately after the backlash in the 70s.

The Triumph of Sociobiology by John Alcock. Oxford University Press (2003), 272pp. \$50. ISBN

9780195163353. — John Jacobi

This book covers some of the history of the controversy around sociobiology and, wading through it, explains what sociobiology is actually about. It does this well, but unfortunately I have already read Pinker's *The Blank Slate*, which presents much of the same evidence with better writing and in a much more engaging manner. Nevertheless, it is a short book and useful for anyone who hasn't yet read Pinker, or who doesn't have the time for his lengthy tomes.

Letters to a Young Scientist by E. O. Wilson. W. W. Norton & Co. (2014), 256pp. \$21.95. ISBN 9780871403858. — John Jacobi

Wilson gives young scientists his own approach to scientific work and, as always, a bit of his personal philosophy. It is useful for wildists for two reasons. First, much of the wisdom Wilson has to impart is useful and applies to young reactionaries as well. Second, wildists should pay attention to the psychological effects Wilson achieves in appealing to young people. Science and engineering are nowadays largely sustained by mass movements, so employ much of the same techniques revolutionary efforts must, and Wilson's book is a prime example of their use.

Our Final Hour by Martin Rees. Basic Books (2004), 240pp. \$16.95. ISBN 9780465068630. — John Jacobi

Although highly recommended by other wildists and conservationists, I found this book to be quite boring. It wasn't bad, per se, but it seemed to go on for pages without saying anything substantial, and in my opinion the threats Rees identified are not nearly as important as many of the ones he ignored.

A Short History of Progress by Richard Wright. Carroll & Graf (2004), 224pp. \$12.45. ISBN

9780786715473. — John Jacobi

A good prelude to *Collapse* by Jared Diamond, Wright briefly explores the collapses of several civilizations through history and explains how these accounts are especially useful for our own time. Wright's book used to be a favorite of mine to recommend, but as I become more aware of his own politics, and since I've reread the book, I've been less enthused. Mostly this is because it is obvious Wright is using "crisis rhetoric" in order to push a certain political agenda, something that comes through especially in his interviews. This of course makes the objectivity of his work suspect, so while

I still recommend the book, I also recommend that people supplement it with more scholarly works on the topic of collapse.

The Eclipse of Man by Charles Rubin. Encounter Books (2014), 200pp. \$23.99. ISBN 9781594037368. — John Jacobi

Rubin is one of the men behind several conservative publications that address new technologies, particularly biotechnology, and this is his take on transhumanism. To date, it is the best tract rebutting transhumanism that I know of, unparalleled in its thoughtfulness and the sharpness of his critique. Particularly surprising is how much I enjoyed his technique of employing literature and art rather than science to make his arguments, something I usually find dull. The last chapter is an especially powerful critique of progress, applicable to all progressivisms, not just transhumanism. Highly recommended.

The New Atlantis at www.thenewatlantis.com — John Jacobi

This publication deals with the ethical issues surrounding biotechnology, nanotechnology, artificial intelligence, and other highly disruptive technological fields that humans seem not quite prepared to address. It is sponsored by several conservative organizations, so some bias is expected and apparent, but probably the kind that would be regarded well by wildists. The editorial position places emphasis on nature, critiques progressivism, tears apart Lockean concepts of improving nature with labor, is sympathetic to Darwinism even as it is critical of it, and is also, interestingly, known for being critical of anti-humanist environmentalism. It seems, though, that the publication confuses anti-humanism with anti-human, and wildists too are critical of the latter, which has sometimes been expressed by even our forebears like Dave Foreman. In any case, the publication may be an ally in our cause and is undoubtedly a source for ripe ideas.

Consequentialism, deontology, or virtue ethics? — John Jacobi

Several have asked me whether I regard wildist ethics to be consequentialist, deontological, or some version of virtue ethics. I do not know. I do mention it as a problem to be sorted out in normative scientific fields, and for the most part I think the role of conservation and medical journals address it adequately. In any case, the division between the three kinds of ethical systems seems a little off, and is, I think, deserving of some scrutiny. Still, if I *had* to give an answer, I would say that wildism is some mix of the first and last. But I've done enough philosophizing about these issues, and it seems that any further thinking on this question is a question of perfecting the ethical systematization rather than doing anything practical. This is not to degrade the task, and I actually find it very interesting, a sort of temptation. But my task is a broader one, and I can't concern myself with such an arcane question, so far as I can tell right now. I leave it up to another wildist with other goals than my own. I feel more of a pull to lay the broad foundations for a longlasting movement, and maybe if I am satisfied with this work I will revisit the question myself. For now, let's leave this one for the ethicists and philosophers in the academy.

Applying KISS to Wildism — John Jacobi

"The Foundations of Wildist Ethics" divided tenets of wildism into five: (1) metaphysical and epistemological foundations; (2) concern for nature; (3) a critique of progress; (4) the imperative to conserve human nature; (5) the imperative to conserve wildlands. Altogether, the essay went on, they produce a possible imperative to engage in an anti-industrial reaction. Although the fivefold division was necessary for the amount of content due to each topic, the overall framework can be simplified. Henceforth wildist ideas will be communicated and learned with a threefold division: (1) the foundational starting point of scientific materialism; (2) the critique of progress, including social progressivism; (3) the imperative to rewild, including the imperative to engage in an anti-industrial reaction. The idea of Cosmos as Divinity has been rightly criticized as "gimmicky," and will be subsumed into the materialist worldview, dropping the religious arge-bargle and simply using words like "numinous," "awe-inspiring," and so forth.

Flawed Science in "Foundations" — John Jacobi

Although most of the science in "Foundations" was sound, a few errors need to be noted. First, at one point I write about Marvin Harris' theory that certain religious ideas in India were selected by ecological conditions, and speculate that the wildist

ideology could fulfill a similar role in our time. This is definitely wrong. For one thing, Harris' theory is suspect. For another, functionalism can only be applied in limited contexts, and the current context is not one of them. Wildism is far too abstract and in dealing with long-term problems it becomes better classified under "abstract ideology" than "selected superstructure."

I also use the term "cultural, not biological." In very limited contexts this might be justifiable, but it obscures the fact that all human behaviors stem from biology, since we are biological creatures. Of course, the environment can effect that biology, as is clear from the phenomenon of learning, among other things. But ultimately human behavior is produced by chemicals, neurons, involuntary biological processes, and other such things as they are when they interact with the surrounding environment.

Finally, although we have no answer on it now, for the sake of a coherent and unified analysis, wildists are going to have to settle on either kin selection theory and group or multi-level selection theory. The former is the dominant perspective in biology, and one that I am personally sympathetic to. However, much theoretical work on technical evolution and gene-culture co-evolution has been done under the assumption that multi-level selection theory is correct. This creates some subtle tensions in the theoretical work on which wildism is based. This is a complex topic deserving of special treatment, but know, at least, the "Foundations" suffers from some tension between the two theories and until this is resolved, there is the potential for widely diverging theoretical perspectives, which is not desirable when it comes to such a fundamental aspect of our theory.

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Credits

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The Question of Revolution

John Jacobi, *The Wildist Institute*

Abstract—Wildists argue that the end goal of conservation should be disrupting industrial society beyond repair: only this will preserve nature and nature’s wildness to a degree that is both feasible and morally acceptable. This essay explains the idea of this antiindustrial reaction in more detail, focusing especially on various counter-arguments. Near the end, I provide an outline of the first tasks the revolutionary party should take, and explain how this is linked to the broader and explicit political goal of ending industry.

I. Introduction

Since rebutting the eco-modernist alternative to revolution, wildists are left with justifying their own belief that at this point, the end of industry should be the end goal of the conservation movement. This essay does little to explain the moral foundations for this view. Most of that has already been explained, and a condensed presentation of our grievances is left for the future. For now I deal mostly with defining revolution in the context of conservation; respond to rebuttals of the idea; and explain alleged or apparent discrepancies between the idea and the rest of wildism.

Responses to rebuttals usually follow one or more of a handful of arguments. The first considers whether or not the negative consequence is a result of a mismatch between the outcome and progressive values or whether even wildist, anti-progressivists would consider it to be truly negative. This is an important point, since many would obviously regard collapse as a wholly negative thing. Second, I often compare the consequences of revolution to those that we will or are likely to face if no revolution occurs. And third, I question whether the criticism of revolution comes from bourgeois comfort, a result of people pampered by their lives in protected bubbles sustained by infrastructure and police forces. This pertains to both physical discomfort, like violence, and psychological discomfort, like the kind caused by moral relativism and other ambiguities of life.

The last bit is especially important. There are no clear answers to many of the problems mentioned in this essay. Unfortunately, in a world without the supernatural, man is left to determine for himself, and often at great risk of error, how to move

through the world. Even acquiescing to prevailing conditions is a choice with potentially huge consequences. This clearly makes modern man uneasy. Afraid of violence, he cannot face the fact that existence is inherently violent, shielded as he is from directly interacting with this reality. Afraid of making decisions for himself, he submits himself to another, God or nation but invariably stronger than him, who makes those decisions instead. But once we become aware of our material condition and the fundamental uncertainty of life, we find ourselves making decisions in a way that can only accurately be described as “placing our bets.” Although many find this to be a scary condition, I recommend that readers consider the metaphor of Jacob wrestling with God, unrelenting until he is blessed. He walks away with a wounded hip, but he gets what he demands. So too must we struggle with our condition. This essay is one such struggle, and it goes as follows:

In section II, I give the background of the wildist project.

In section III, I explain rewilding and the “tactical spectrum” of conservation.

In section IV, I explain the concept of revolution in the context of wildist conservation.

In section V, I address questions of feasibility, always the first topic to come up when revolution is mentioned. I argue that it is feasible, and easily so.

In section VI, I examine negative consequences, specifically those associated with nuclear technology, population, medicine, and human nature.

In section VII, I address alleged incompatibilities between the proposal and wildism, such as the seeming conflicts with materialist determinism, the critique of progress, belief in human folly, and anti-humanism.

Finally, I link all the considered limitations of a reaction, moral and practical, and conclude with a sketch of a reactionary strategy against industry.

II. Our Journey So Far

Talk of revolution is always difficult when it is not grounded in concrete historical conditions. Without the grounding, discussions become unthreaded by hypotheticals and ought-to-bes. But the task before us isn’t to establish a blueprint for implementation; it is to discern the real options available to us at our present moment and to evaluate the morality of these options given our starting values. Let us recall, then, these starting values, and why they clash with our present conditions so violently that we consider even speaking of revolution.

By now we’ve simplified the main points of wildism into three: scientific materialism, the critique of progress, and the obligation to rewild.

The first asserts that matter is all that exists—a simple idea, but one that shapes our whole approach to the world. Readers unfamiliar with the materialist worldview and its consequences, especially for wildism, ought to read “The Foundations of Wildist Ethics,” Dawkins, 2011; Santayana, 1988; Wilson, 1998; and Wilson, 1978. It should be enough

here to say that the core elements of postmodernism, Marxism, most progressivist ideologies, and every religion that believes in a supernatural realm are immediately invalidated by materialism, thereby narrowing the scope of meaningful analysis by quite a bit.

The critique of progress, the second central point of wildism, criticizes the belief that humans can implement their rational blueprints onto nature in order to create a fundamental improvement in the human condition. The critique is a sort of bridge between the materialist worldview and the normative components of rewilding, so it possesses both an empirical aspect and a normative one. That is, first wildists note that societies are not de-signed, but evolved, and that this makes much of the appeal of progressivism fade away. (In fact, it annihilates many progressivisms completely.) We also note that the project of progress may not even be a possible one, practically speaking.

But in the second component of our critique, the real site of struggle, we note the negative consequences of progress and why they don't live up to wildist values. In other words, it is not just simply that the progressivists are deluded for thinking that they can direct progress; we also say that we don't like what progress has done and can be expected to do. This is in contrast to progressivists who remain after our empirical critique, that is, those who are polemicists for the artificial modification of nature even as they realize that progress is something that occurs autonomously from them and humanity as a whole.

Then we move into our actual normative claims, rooted in our understanding of human evolution. Sometime around the late Pleistocene, cultural evolution became "unlinked" from biological evolution and began outpacing it at an ever more rapid speed. This unlinking is what has brought us civilizations, and underpinning it all is technical evolution, an apparently exponential process. It is this unlinked cultural evolution that is called "progress," and its polemicists argue that it has improved nature and the human condition. Many of the claims are factually true: civilizational development results in decreased violence, better medicine, and longer life expectancies, among other things. This is not, of course, because man collectively decided that he wanted those things and then achieved them. Rather, it is because the technical backbone of civilization demands them. Nevertheless, the progressivists say, these things have been good, so we should keep civilization.

Wildists, however, note that civilization is inherently bad for the thing they care for most: wildness (of course). The great indicator of this is the degradation of the world that wildness maintains, called "nature." One can see the difference between these conditions clearly by observing the wilderness and then the city, and up until this point in history the mathematical relationship between industrial humans and the wilderness has been a clear one: more industrial humans means more expansion and degradation, and therefore less wilderness. This is why throughout most of history the growth of civilization has been in obvious conflict with nature. In a great many respects, this is still the case.

However, recent trends are less clear. Industrial processes have become so efficient, it seems, that many of them are becoming “decoupled” from the need for more land and resources. This has caused the savviest progressivists to change their tune and advocate a revisionist account of rewilding, arguing for a sort of human/nature apartheid through the establishment of “island strongholds” for industrial civilization. In other words, inside of these islands civilization can continue its progressive project while the rest of the world can remain free from its intrusion. Wild animals can roam free, and—crucially— natural processes that maintain resources necessary for civilization, much better than humans have been able to maintain them, can continue without disruptive modification.

A more extensive discussion of this proposal can be found in “Refuting the Apartheid Alternative.” In the end, I explain that wildists have to oppose the project of civilization even and especially in the case of apartheid. This is because, even if apartheid was possible to the extent that the proponents hope it will be, (1) it still assumes that human nature is fair game for modification; (2) it would threaten those who decide to live on the other side of the divide; (3) it would not solve the fundamental conflict between civilization and nature’s wildness, even if the domination ends up less physical.

In other words, wildists are left with a range of tasks that we call “rewilding”—true rewilding—and instead of seeking to preserve civilization, these tasks must be aimed at dismantling it or, at the very least, they must disregard preservation of civilization as a truly important concern. Let’s discuss this aspect of wildism more.

I. The Obligation to Rewild

The conservation movement is home to various factions with different, sometimes diametrically opposed, strategies, depending on the starting values. Wildists advocate a strategy called “rewilding,” which aims above all to restore the autonomy of nature and which hosts a variety of tactics placed along what is called “the tactical spectrum.” (This is separate from the rewilding program, an important tool devised by conservation biologists and organizations like The Wildlands Network. it will be mentioned later.) one side of the tactical spectrum consists of moderate, usually personal actions, like camping, naturalism, and studying evolutionary science. The middle consists of more socially impactful and “legitimate” actions, like litigation, conservation work, journalism, and scientific work. And the other side consists of radical, very impactful, and often “illegitimate” or illegal actions, like monkeywrenching. Most of normal conservation takes place on the middle of the spectrum.

Nearly all social movements have a tactical spectrum, and the most robust have elements all helping each other through varying degrees of radicalism. Martin Luther King, for instance, was greatly benefitted by the riots of the time, which were often spurred on by black nationalists.

The conservationists who spearheaded much of the contemporary movement put a lot of effort into building a robust spectrum, each of the more radical elements positioned specifically to benefit the more moderate efforts before them. This is best exemplified by a David Brower quote:

The Sierra Club made the Nature Conservancy look reasonable. I founded Friends of the Earth to make the Sierra Club look reasonable. Then I founded Earth Island Institute to make Friends of the Earth look reasonable. Earth First! now makes us look reasonable. We're still waiting for someone else to come along and make Earth First! look reasonable.

Reform movements generally only need to occupy the middle of the spectrum with perhaps temporary diver-sions into the radical end. The task of revolution, however, means shifting the whole movement further to the radical end. This is a delicate task. if most of the movement is at the moderate end and only a few groups engage in highly radical actions, they will be called terrorists, and because they will be easily isolated from the rest of the movement they could be stamped out. Furthermore, if the radical factions fail to actually occupy the spectrum and their actions benefit only their own efforts (i.e., if they are not “linked” to the moderate efforts) than they will also be easily isolated and stamped out. Finally, the radical factions should take care not to move the entire movement to the radical end of the spectrum, lest they delegitimize the entire movement. Again, the role of the party is to build the spectrum, link the factions, and radicalize the movement, slowly and thanklessly. it is not to ignite a revolution immediately, but to creep along a spectrum until a catalyst makes way for more radical advances than would be normally allowed.

in our work, we must take care to build only a wildness-centered spectrum. it is possible, for instance, to be engaged in environmental litigation but for management or industrial purposes. And we've seen plenty of “envi-ronmental” monkeywrenching that had more to do with social justice than it had to do with restoring nature's autonomy. There's also the perpetual threat of revisionism, as i make clear in “Refuting the Apartheid Alternative.” So in our efforts to build and link, we should only build and link those efforts that benefit wildness-centered conservation. otherwise, a wildness-centered revolution will become harder or even impossible.

The underlying point of rewilding is this: no matter where on the spectrum specific projects are, the moral un-dertone is advocacy for nature no matter the consequences for civilization. Nature first, civilization only if it doesn't interfere. This is the ethic espoused by Muir, and we must be sure that it is the ethic that binds all of rewilding together.

IV. The Question of Revolution

A. What we mean by revolution

it is one thing to argue that we should aim to rewild without regard for civilization; it is quite another to advocate comprehensive action aimed at attacking it, or at least its industrial incarnation. The former does not require a change in fundamental structures of society per se. But to call for revolution is to implicate oneself in an active threat to society and to therefore risk the clench of an iron fist.

The term “revolution” is rather vague, so let’s get more specific: wildists are proposing a conscious and relentless effort to disrupt industry beyond repair. Tangibly, this means that airplanes, paved roads, global communications networks, the internet, and other such infrastructure will be annihilated or in disarray to such an extent that they will only regress, because the cooperative energy necessary to restore them would be impossible to muster up and coordinate in a fast enough manner. Note that although annihilation is a goal to the extent possible, the main goal is to prevent industry from being able to recover.

B. Terminology

Immediately it becomes apparent that although “revolution” is technically an accurate descriptor of the wildist proposal, it is not at all an intuitive use of the term. In the past, “revolution” has been used to mean a step on the ladder of progress: the Industrial Revolution, the sexual revolution, etc. Related to this connotation, the word is also strongly associated with far-left groups, especially communism. So as a matter of branding, let’s dispose of the term for the rest of the essay.

In lieu of other terms like “revolution,” “counter-revolution,” or “restoration,” the institute has chosen “re-wilding,” “collapse,” and “reaction.” The latter is by far the preferable term since it gets to the heart of the anti-progressivism of the wildist mission, and, like “conservation,” speaks to the conservative values of our members: courage, ordered freedom (wildness), cognizance of human folly, loyalty especially to relations, an appreciation for nature, a recognition of the value of struggle, a disdain for the jolting revolutionary projects of the progressivists, etc.

Although this may all seem very semantic, having our own discourse, separate from the left-wing discourse so strongly associated with revolt, is an important aspect of our project. For instance, because of the ironic character of late industrial life, “revolution” has become an impotent term, whereas “reaction” remains difficult to coopt, an off-limits word especially in the context of dominant left humanist values. This leaves us with more power to shape our own image and project, and it makes clear that this revolt is true revolt, not revolt in quotation marks.

v. Feasibility

A. Collapse May Be Inevitable

in the long run, industrial collapse is inevitable. i speak practically of course, because one can dream up many hypotheticals to counter this claim, but in any realistic evaluation of our material limits, we can be quite certain that those hypotheticals will stay right where they are: beyond the horizon and out of reach. This is before we even investigate whether those scenarios are desirable.

Our question is whether collapse is inevitable within a reasonable amount of time from the present. And although politically taboo, the answer “yes” is a defensible one.

i consider this question of inevitability for two reasons. One is dealt with in section Vii.A, so i will not repeat it here. Another is just the fact that so many people, especially young or uneducated people, do not seem to regard collapse very seriously, not as a distinct possibility without wildist political action, and certainly not as a political goal. But collapse may well happen without us, and i hope the following sections make this clear.

1) Existential and Catastrophic Threats

Consider, for instance, the list of existential threats facing industrial society, in some cases the whole of humanity, and in some cases the whole of life. These threats used to amount to only natural ones, things like super volcanoes, asteroids, natural climate change, and so forth. But industry has rapidly added a handful more and continues to so at the same rapid pace. So quickly are the threats growing that numerous institutes, organizations, and conferences have formed to analyze them, with names such as the Global Catastrophic Risk Conference, the Future of Humanity institute, the Center for the Study of Existential Risk, and the Future of Life institute. in other words, this is no wingnut sermon: the threats are real, and if industrial society continues a basic requirement is figuring out how to deal with them without catastrophic consequences. implicit in that obligation is coming up with solutions that do not devolve into totalitarianism or otherwise reduce quality of life beyond what is acceptable (ignoring the fact that current industrial conditions have arguably already reached that point, especially for most living humans).

There are many lists out there, and I’ll not bore you with in-depth coverage of each threat. The ones of note include biotechnology, the threat of a pandemic, extreme climate change, and artificial intelligence. More important for the purposes of this text are abstract arguments that for the most part can be applied to all of them.

First, we need to always consider that if a given technology can be used for good, it can also be used for bad, and in the hands of malicious actors or in the context of major warfare, this bad (in relation to the technologies in question) can easily mean

the collapse of civilization at least across a large geographical area. At the very least it could contribute to collapse if it converged with other threats or material obstacles to effective counteraction.

This is a major argument in Martin Rees' *Our Final Century*, where he notes terrorism as one of the major existential threats facing industrial civilization.

Note that this also functions as an argument for collapse. If a technology can be used for either good or bad, then when the repercussions of the technology can be as extreme as those of bio or nanotechnology, we are justified in at least asking if the risk is worth it. And given that the development of these technologies is almost certainly inevitable with the continued existence of their industrial base, arguing that their development is *not* worth it necessarily implicates the arguer in an anti-industrial politic.

Second, increased management is nearly always a proposed solution to these problems, but this solution faces at least two major problems.

For one thing, increased management has a practical limit, since it requires energy input, and that energy has to come from somewhere. And especially in the case of humans, the energy required to maintain the management systems may actually end up being a net loss and unsustainable. Joseph Tainter (1990) argues that this bureau-cratic overhead and the associated political inertia is a major reason why societies collapse: they eventually reach a point of diminishing returns and their political systems are left so turgid that they can't respond effectively to the threats they face. Diamond (2005) argues something similar.

Furthermore, management schemes face inevitable failure, something that may be acceptable with current threats, but in the context of developing threats is a lot more dangerous. David Ehrenfeld's "The Fable of Man-aged Earth," reprinted in *Hunter/Gatherer 1.1*, gives a more thorough treatment of this argument, and his sources are also worth checking out (see Perrow, 1984; Tainter and Patzek, 2012). One quote from Tainter and Patzek is particularly insightful:

The Deepwater Horizon was a normal accident, a system accident. Complex technologies have...ways of failing that humans cannot foresee. The probability of similar accidents may now be reduced, but it can be reduced to zero only when declining [energy returns] makes deep-sea production energetically unprofitable. It is fashionable to think that we will be able to produce renewable energies with gentler technologies, with simpler machines that produce less damage to the earth, the atmosphere, and people. We all hope so, but we must approach such technologies with a dose of realism and a long-term perspective.

Slavin (2011) gives another useful example. He first explains that the stock market is now largely run by algorithms that no human understands, something called "algo-trading" or "black box trading." In fact, we are so ignorant of the algorithms that it is the job of some companies to go in and pull some of them out, give them cute names like "the knife," and explain what they do. The problem, Slavin explains, is that in May 2010, 9% of the stock market disappeared in just seconds, and to this day no one knows what caused it. A 2013 article from *Nature* echoed this threat, the

authors explaining that finance functions on top of a “machine ecology beyond human response time” (Johnson, et al., 2013). In other words, even if we wanted to manage these systems, we don’t have the knowledge or ability to do it.

As a final example, just because I want this management argument put to rest, consider an actual existential threat, the one of a global pandemic, particularly one caused by a genetically engineered pathogen. Although management would certainly be part of any solution to this threat, and seems to be one of the few viable ones, it is not nearly good enough to be reasonable alone. Just last year the Center for Disease Control accidentally sent live anthrax and deadly H5N1 samples to two different labs and a poultry lab, respectively. Scientists at an NIH lab also recently discovered nearly 330 unapproved vials of an array of deadly pathogens, including smallpox, dengue, and spotted fever, in a cold-storage room. Mistakes like these are not acceptable when the bar for disaster in cases of mistakes is so low.

Moving back to the larger discussion of anthropogenic existential threats: when we are piling them on so quickly, it gets progressively more likely that two or more will converge. In this scenario, each individual threat need not be an existential threat by itself, and can instead be some weaker version of its extreme potential; but combined with weaker versions of other threats, everything together can amount to a great threat to industrial society.

Arguably this is the situation we live in today. ISIS embodies the existential threat of terrorists super-empowered with modern technologies; the effects of climate change have not even reached their most devastating, but we know that at least a few major cities will inevitably be hit and likely go under within the next century; biotechnology, nanotechnology, and artificial intelligence are being developed at a rapid pace and it appears that they will hit us at relatively the same time, leaving our management systems scrambling in response; and so forth. It *may* be that even without an organized anti-industrial effort, industrial society will be pulled apart by these pressures.

And in all this we should note the nonchalance with which many technicians regard these threats. For sure, technicians form a major portion of the membership in humanitarian groups dedicated to these issues. But for the most part scientists and engineers are focused myopically on their technical work because it gives them psychological satisfaction, and the reasons for joining humanitarian groups are arguably the same. And in any case, these concerns and the real, tangible actions that they call for are often only afterthoughts to the scientists. Many point out that Oppenheimer and Einstein had great regrets for their parts in developing the atomic bomb. But the bomb was still developed, still used, and is still here.

I usually face a great deal of criticism when I make these claims, no doubt because they get personal and, rather than being abstract musings, implicate real people in their real actions that are affecting the real world. But I stand by this critique, and very often I respond by quoting a passage by Richard Hamming (1998), a major contributor to the field of information science (which I study) and a mathematician who worked on the Manhattan Project:

Shortly before the first field test... a man asked me to check some arithmetic he had done, and I agreed, thinking to fob it off on some subordinate. When I asked what it was, he said, "It is the probability that the test bomb will ignite the whole atmosphere." I decided I would check it myself! The next day when he came for the answers I remarked to him, "The arithmetic was apparently correct but I do not know about the formulas for the capture cross sections for oxygen and nitrogen—after all, there could be no experiments at the needed energy levels." He replied, like a physicist talking to a mathematician, that he wanted me to check the arithmetic not the physics, and left. I said to myself, "What have you done, Hamming, you are involved in risking all of life that is known in the Universe, and you do not know much of an essential part?" I was pacing up and down the corridor when a friend asked me what was bothering me. I told him. His reply was, "Never mind, Hamming, no one will ever blame you."

Such a response can be called nothing but criminal.

2) Past Collapses and Our Current Condition

Our new threats necessarily involve a degree of speculation, but many of the most serious are old news, the kinds of things that have brought down those great empires we read about in history books. Indeed, our current world is uncannily similar to many of these civilizations right before collapse.

Once again, this is not a wingnut sermon, and many of the foremost members of the industrial elite have argued similar things (Diamond, 2005; Rees, 2003; Tainter, 1990; Wright, 2004). Diamond, for instance, notes that of the twelve major environmental problems facing industrial civilization, the first eight have historically contributed to collapse. He also notes that overpopulation was a major problem underlying all collapses, and only a quick look at the statistics will show that the demography of our current world fits the definition of "collapse-prone." I do not wish to devolve into doom and gloom scenarios. As we have seen, the Green Revolution in the 60s and 70s pushed population disaster down the road by a few decades, and the so-called Gene Revolution, or biotech-reliant agriculture, has the potential to do the same. Still, we should recognize the threats.

Another great cause of past collapses is a widening gap between the poor and rich. In fact, one study, much publicized as being "funded by NASA" (which was true in only a limited sense), argued for a model they called HANDY (human and nature dynamics), which recognizes stratification as a primary element of most past collapses (Motesharrel, Rivas, & Kalnay, 2014). And the gap between the rich and poor in industrial societies, *especially* in a global context, does not tell a good story. One report put out by the World Economic Forum states, "In developed and developing countries alike, the poorest half of the population often controls less than 10% of its wealth" (Black, et al., 2015).

Overall, it should be enough to say here that collapse is rather common throughout history, and industrial civilization has not yet shown that it will escape the same problems that make that fact true. Of course, different collapses have distinct characters, and although interdependence of complex technologies make the whole process go quickly that it ends within a few decades, some civilizational collapses have occurred over a period of a century or two, a process interspersed with various technical and political crises. Rome is a major example of this kind of collapse. But industry could be either one. Slow collapse is easier to imagine, especially with the way threats like climate change are playing out, but Greer (2015) has offered a theory he calls “catabolic collapse,” which notes that the process in most complex societies is self-reinforcing, especially in relation to technical regression.

Finally, although this is strictly speaking weak evidence for the argument, it is an indication that the argument is defensible: note that in all of these discussions about collapse—whether it be from Greer in his discussion of its “catabolic” nature, Tainter and his arguments around diminishing returns, the HANDY model and its emphasis on social inequality, or Diamond’s focus on ecological problems—modern society always comes out looking bad, and every one of the authors recognize this. Tainter, for instance, argues that industrial society has already reached the point of diminishing returns, and Diamond regards collapse as such a real possibility that he felt compelled to give a handful of examples of societies that avoided it, pointing out what they did to make that possible. Clearly collapse could be a part of our future, and we ought to regard it seriously, even if it is politically taboo to do so.

B. Industry Could Not Be Rebuilt

Conversations about industrial collapse in the context of wildist politics follow a strict script: first, the non-wildist attempts to determine if the wildist is crazy; second, the non-wildist insists that the political goal is unfeasible; and third, the non-wildist, when shown that it is all too feasible, will say that it doesn’t matter, since humans are creators and will just start it all over again.

In many ways this last bit is irrelevant. If ending industry is feasible and morally desirable, then whether or not some future action will undo the moral good is a tangential consideration. Furthermore, even a little thought will make it obvious that rebuilding industry wouldn’t be immediately possible. That’s worth something.

But we can go further. If industrial society collapses, the most likely future will be the end of any industrial society ever. That is, although future kinds of complex societies are feasible, another industrial one would be impossible. And even in the case of other kinds of complex societies (that are more advanced than agricultural ones), humans would for centuries be unable to embark on such a project after industrial collapse.

Speaking to the later point, Wright (2004) warns that the difference between industrial collapse and past col-lapses is this civilization's global reach. In the past, the project of civilization continued after collapse because it was a distributed project—many different civilizations were developing across different geographies, so the end of one did not necessarily affect all the others. But the end of this civilization could mean the end of the civilizing project for centuries, since the repercussions would reach all parts of the globe, and since even many non-industrial nations depend heavily on the industrial economy.

Kaczynski (2010) also makes a useful difference between small-scale technology and organization-dependent technology. Small-scale technology includes spears, huts, small boats, and other such items that can be built by an individual or small group. But organization-dependent technology requires an amount of management and organization that usually implies layered technical development, making any technologies on the highest layer impossible without the preceding layers. He gives the example of refrigeration technology and then writes:

So it is clear that if the industrial system were once thoroughly broken down, refrigeration technology would quickly be lost. The same is true of other organization-dependent technology. And once this technology had been lost for a generation or so it would take centuries to rebuild it, just as it took centuries to build it the first time around. Surviving technical books would be few and scattered. An industrial society, if built from scratch without outside help, can only be built in a series of stages: You need tools to make tools to make tools to make tools A long process of economic development

and progress in social organization is required. And, even in the absence of an ideology opposed to technology, there is no reason to believe that anyone would be interested in rebuilding industrial society. The enthusiasm for "progress" is a phenomenon peculiar to the modern form of society, and it seems not to have existed prior to the 17th century or thereabouts.

Although he argues that small-scale technologies do not regress, or at least that he knows of no examples, Diamond (2005) gives numerous instances of regression in small-scale technologies, such as boat-building techniques. In other words, it is very much possible for industrial society to in some areas regress entirely to primitive technical levels.

But, as I said before, it's not just that it would take a long time to rebuild industry; at this point such a project would be impossible. The astronomer and mathematician Fred Hoyle (1964), who coined the term "Big Bang Theory," put it this way:

It has often been said that, if the human species fails to make a go of it here on Earth, some other species will take over the running. In the sense of developing high intelligence this is not correct. We have, or soon will have, exhausted the necessary physical prerequisites so far as this planet is concerned.

With coal gone, oil gone, high-grade metallic ores gone, no species however competent can make the long climb from primitive conditions to high-level technology. This is a one-shot affair. If we fail, this planetary system fails so far as intelligence is concerned.

The same will be true of other planetary systems. On each of them there will be one chance, and one chance only.

Hoyle was obviously not a wildist, and wished to preserve civilization, as most of the thinkers cited here do. But even with this bias in mind, he notes the fragility of the industrial project with surprising starkness: “this is a one-shot affair.” And he’s right. It’s not just that resources are depleting, which is with the right technology not always a pressing problem; a much bigger issue is that these resources are or are becoming accessible only with technologies that themselves require the resources. This is what sets up the self-reinforcing process of catabolic collapse Greer argued for, mentioned earlier. We’ve set fire to the very same ladder that got us to the rooftop.

To some extent, this applies to agricultural civilizations as well. Soil degradation is one of the more pressing environmental issues we are currently facing, and it has been exacerbated by the industrial techniques developed by the Green Revolution of the 60s and 70s. Much agriculture is only practicable on the land it uses now because of those industrial techniques, which rely heavily on oil, something that is not only running out, but is, for obvious reasons, geopolitically unfortunate. Should those geopolitical factors become more tenuous, as they have been doing for decades and are likely to continue to with the rise of ISIS, the consequences for agriculture could be severe; if industry began to collapse wholesale, the consequences for agriculture *would* be severe. And it’s not as though the soil would heal itself in a timely manner, so thorough has been the degradation.

C. If Past Revolutions Are Any Indication...

Of course, wildism goes beyond stating that collapse is the lesser of evils and advocates aiding the process as the most moral option available. Of course, because this is an entirely different proposal from past revolutionary efforts, sufficiently assessing its feasibility is impossible. However, if past revolutions are any indication, the wildist project is not out of the question.

Logically speaking, and not at all encouraging it, an anti-industrial reaction of the scale considered here would require a faction engaged in illegal activity aimed at dismantling industrial infrastructure—monkeywrenching on steroids. In past revolutions, isolated acts of violence have usually not been very successful. This is not true across the board, and in very significant cases it is not true at all, but as a general rule, isolated violence by a vanguard gets its individuals branded terrorists, easily separated from any base of support, and eradicated. Successful revolutions have overcome this by properly interacting with the tactical spectrum. Communists, for instance, relied heavily on the strike tactic, which often amounted to rioting in order to shut down industrial production to lend credence to whatever their demands were at the time.

Earth First! is a good example from the environmental movement. Rather than simply going out and sabotaging logging equipment and powerlines in the dead of

night, as the Bolt Weevils did before, Earth First! chapters would occupy forests as a group, and they included individuals both willing and unwilling to engage in illegal action (Lee, 1995). Then, at opportune times, some members occasionally went out in a forest they were protecting to spike the trees with nails that made it dangerous for loggers to carry on their work without a full survey of the area; or they would pour sand in the tanks of heavy equipment vehicles, delaying deforestation for a while.

That's not to say that some acts in the dead of night have not been helpful to revolutionary movements. Again an example comes from Earth First! Not too long ago, a group of individuals splintered off from Earth First! to form a group called the Earth Liberation Front, or ELF. It was mostly a left-wing group, and so is not entirely relevant to wildist efforts, but strategically they provoke some interesting questions. ELF members were known for arson. In particular, they used a cheaply made incendiary device that involved flammable fluid in a plastic jug, a sponge in the handle area, and a wick. This device was used for multiple actions against university labs, especially biotechnology labs, radio towers, and some other, less significant actions against multi-million dollar homes (not occupied) and the Vail ski resort in Colorado.

The ELF members never actually left Earth First!, and most of the cells have now been captured, sent to jail, or released after serving time. Since then, several movies and books have been written about the groups, and one of the most surprising details to come out of it was that many of the main members were very active participants in above-ground environmental organizations, like Greenpeace. Despite this, the FBI would almost certainly have never caught them were it not for the betrayal of one member, Jake Ferguson, who is now directly responsible for the arrest of the largest and most prolific ELF cell to date.

Despite the ELF arsons being committed in the darkness, they have received wide support. Whole portions of the environmental movement still repeatedly speak out in support of the ELF—not necessarily their actions of course, but of the message they hoped to send. This displays an incredibly skillful use of the tactical spectrum, and is undoubtedly part of the reason the cells were able to achieve what they did.

I do not suggest that people engaged in illegal actions should also be involved in above ground organizations. In fact, I do not suggest that people be involved in illegal actions at all. But the ELF does show how some hypo-thetical future effort might play out, given the right circumstances.

But in the context of history, Earth First! and the ELF are and were still rather weak movements. A more powerful and impressive movement came from Russia: the Bolsheviks. This is a group that at the beginning of the revolution had only 8,400 members total, and far fewer active ones, and it brought an entire country to its knees. What's more, they used tactics still quite relevant for revolutions taking place in industrial societies, as Selznick (1952) has aptly shown.

This level of organization would be more than sufficient for a revolution against industrial society, given other uncontrollable external factors, like economic turmoil or something of the sort. Assuming that these are in place, and assuming that a larger,

more legitimate movement is also in place (in the Bolshevik's case it was the labor movement), anti-industrialists would be able to orchestrate one or more major blows to the technical infrastructure sustaining the prevailing order.

D. Expanding the Scope of What Is Possible

In all honestly, the question of whether an anti-industrial reaction is possible is far less interesting and important than whether it is moral. Most of the time people don't see a reaction as feasible because they are bound by industrial moralities, but history shows that in times of great upheaval, people tend to lose their inhibitions and get swept up in a fervor. Revolutions are not the only examples: WWII's total war strategy also invoked the phenomenon, as did much of the civil rights movement, and many of the presidential campaigns after the Great Depression. And of course, the French and Russian Revolutions provide examples of people being swept up by revolutionary fervor and doing things they would otherwise have been too lethargic to do.

Furthermore, people believe and are motivated by the oddest and most demonstrably false ideologies. Most religions fit the bill nowadays, but they are a somewhat unfair example because of their ancient, ingrained nature. But Scientology, which has no ancient history, hosts some of the most absurd beliefs one can think of, yet motivates great swaths of people to berate the IRS to get the church out of tax investigations. And some black nationalists believe in ideologies about icemen, which reach a similar level of absurdity as Scientology. The problem clearly isn't getting people to believe things; much more pressing is making sure that the ideology you are popularizing is *true* and will *actually* deal with the problems people hear you giving voice to.

If we let go of politeness, we see that the possibilities for action, before constraining them with morality, are actually terrifying in their power.

Consider, for instance, that the internet is functional because of something called the Domain Name System (DNS). Periodically, though, DNS servers need to have their keys renewed, a hierarchical process that at the very top includes only seven keys, each held by a different individual, each individual a part of a distinct geographical territory, all of whom meet several times a year to renew the DNS keys (Ball, 2014). Without only seven keys, entire portions of the internet would be in disarray.

Or consider how fragile our physical infrastructure is. Multiple news stories have popped up in recent years of individuals who accidentally cut off portions of the internet to large geographical territories by damaging fiber optic cables. In one case, the damage was caused by an anchor being dragged along the ocean floor (Singel, 2008).

As another example, a report was recently issued naming just nine electric substations that would shut down all three power grids in the US, causing a blackout that could last more than a year (Smith, U.S. risks national blackout from small-scale attack, 2014). Not long before the report became known, some group orchestrated a

highly skilled attack on a California substation by shooting the radiators, causing the station's electronics to overheat and shut down (Smith, Assault on California power stations raises alarm potential for terrorism, 2014). No suspects have yet been identified.

Finally, people oftentimes criticize the idea of industrial collapse as a feasible goal because it would obviously cause at least some terrible things, which could motivate people to stop, or keep them from supporting the effort altogether. But this is blatantly untrue: if industrial communications infrastructure at that point is falling apart, then many populations of people may not even end up hearing about events on the other side of the world. The limit in this case is by no means a practical one.

Naturally, these examples likely inspire some revulsion (and some should). But that's just my point. I do not suggest that people engage in some of the actions above—and I do not just say that sarcastically—but I bring them up to make clear that feasibility is *not* what we should be talking about. Instead, we should be talking about what is moral, what we ought and ought not to do given our current conditions. Feasibility is far from our greatest problem. I'll consider some of those moral questions now.

V. Negative Consequences

In “The Foundations of Wildist Ethics” I already made the case for wildist morality, and in “Refuting the Apart-heid Alternative” I argued against one of the only seemingly viable alternatives to collapse as a way of fulfilling that morality. However, another way to attack collapse as an option worth pursuing is noting the consequences of it and asking, “Is this what you *really* want?” These arguments are powerful, and some of them ought to be deeply considered. (Others are just nonsense.) I've tried to pick out the most prescient here.

Keep in mind, though, that the wildist argument is not that collapse is on the whole a good thing in any absolute sense. At most we say that it is the best option available given our starting values. Furthermore, in “Refuting the Apartheid Alternative” I outlined one scenario likely if the technicians had their way, and the trade-offs it pre-sents are at least just as bad, if not worse. Unfortunately, we are in a time where any solution is going to have extremely distasteful elements. The point is to respond in a way that properly aligns with our values.

One last comment. In considering the consequences of collapse, we cannot imagine things to proceed in a simple way. For the most part, those involved in an anti-industrial reaction will neither be responsible for much of the turmoil that will be necessary for their effort to be viable, nor will they appear to be responsible for much of what they do. Part of what separates a revolutionary effort from a terroristic one is that a terroristic one believes itself to have more power than it does. It thinks in a simple, vulgar manner, believing that if the right people issue a direct hit in just the right way at

just the right time, revolution will ensue and the goal will be achieved. But a revolutionary effort is slower, more methodical, with a whole-system view. It realizes that action must take place across a broad base, and revolutionaries must necessarily have an experimental, “see-what-works” attitude just as surely as they must be committed to a single plan of action where appropriate. It is the difference between the Russian Nihilists, who planted bombs and committed assassinations, and the winning Communists, who orchestrated largescale strikes, engaged in violence at the far end of the tactical spectrum in only necessary and easily supportable instances, built broad-based coalitions, elicited the support of intelligentsia, and so forth. Wildists should attempt to engage in the latter class of radical action.

A. Nuclear Technology, Disease Centers, etc.

Perhaps one of the strongest arguments against collapse is the class of technologies that require constant maintenance, but that would in the case of failure have devastating or potentially devastating consequences. To be clear, there is no real solution to this problem, especially because it is so highly contingent on unpredictable future circumstances. Many responses are still worth considering if in the future they become more relevant to revolutionaries. For instance, perhaps in many cases a slow process of decommissioning these technologies is possible, and their trade-offs—preserving some technical infrastructure, for one—would be considered worth it. But for now such musing is speculative and a little unhinged. We would do better to focus on what our immediate actions should be, and we can be assured that it doesn’t cast us immediately into the moral quandary of having to figure out what to do with terrifying technical systems.

That said, the collapse of these technical systems would not by themselves be enough to discount the whole project of collapse. I say this tentatively, and am willing to back off on the strength of the statement with proper counter-argument, but for now it seems a justifiable position. Here’s the argument.

Of the class of technologies in question, only a handful would make a wildist reevaluate the political project of an anti-industrial reaction: disease centers and labs, nuclear reactors, various technologies associated with hightech physics experiments, and hightech weapons.

Out of these four, I do not regard the problem of nuclear technology as *particularly* dangerous—that is, it is no more dangerous than other problems that come up when considering collapse. This may seem counter-intuitive, and I have faced quite a bit of resistance from others in the environmentalist and conservationist movements for the opinion. But the data shows that although nuclear meltdown is by no means a good thing, it is more effective at decimating artifice than it is at decimating nature. For instance, the Chernobyl Exclusion Zone is in a surprisingly healthy state from the perspective of conservation biology, and only a few decades after the nuclear incident

(Deryabina, et al., 2015). Fukushima shows less promising results for wildlife, but it was very recent, and tests from shortly after the Chernobyl incident showed similar results. Again, the wildlife rebound in the Exclusion Zone has taken several decades.

Obviously this doesn't mean arguing *for* nuclear meltdown, nor does it mean that we should regard it as inconsequential or of minimal importance. But it is not the worst thing possible, and in fact functions as an argument for industrial collapse before it functions as an argument for the opposite. That is, nuclear meltdown for the most part affects a limited geographical area, whereas industry affects the entire planet and in extreme ways; meltdown is temporary, and after the initial disaster leaves time for healing, whereas industrial processes are perpetual; meltdown causes some damage to nature, but also damages industrial civilization and keeps it from being rebuilt, whereas industry destroys nature at a rapid pace while greatly reinforcing the architecture of civilization. As one professor put it, "We're not saying the radiation levels [in Chernobyl] are good for the animals; we know it damages their DNA, but human habitation and development of the land are worse for wildlife" (Wendle, 2015).

Of course, these arguments are not likely to be convincing, because they are so far removed from normal human perspective. It seems unfathomable, even heinous, to imply that there is a lesser of evils when the evils before us are so wretched. Unfortunately, however, this is the situation we are in, and choosing to do nothing is, in fact, a choice. Also, I ask that readers hark back to my arguments for normative scientific investigation in "The Foundations of Wildist Ethics" (especially section II.D.3). I point out that many of the questions facing us are of such great scale that we actually have no built in or intuitive ways of addressing them. This becomes especially clear, for example, in the case of moral reasoning toward large populations, and in some cases we may have to simply say that we don't know the answer, that there is no justifiable response, that in some cases we cannot proceed with surety but instead must "place our bets."

Because these technologies and the implications of their use or destruction are of such consequence, I can't give a definitive answer here. I do, however, encourage creating a culture within the reactionary cadres that does not accept flippant attitudes and is serious about the problems before us. A radical political effort gains its strength from its moral resolve, and one way to ensure failure is to spread the message that you simply want to see the world burn. The point is not to see the world burn; to the contrary, these discussions are born out of a deep and passionate love for wild nature and a disdain with the massive degradation that it has suffered. We humans are bound to make mistakes at some time or another, but keeping this core ethical imperative in mind will at the very least ensure that those kinds of mistakes won't be the norm of the anti-industrial reaction.

This mostly addresses the other three kinds of technologies mentioned above. Other aspects particular to one or more of them will be addressed in later sections—for instance, section VI.C below will address many problems particular to disease centers.

But I would like to point out that, once again, the problems associated with these technologies are at least as much an argument for collapse as they are an argument against it. For one thing, if their power is so devastating, then the continued existence of industrial society does nothing to change the inherent instability their very existence continues to cause. Recall, once again, that a technology can be used for bad just as surely as it can be used for good. And giving only a certain class of individuals the power to manage that technology is far from an adequate solution; indeed, history shows us that this merely sets the stage for a more terrible future disaster, one where the primary victims of the disaster have been disenfranchised of any significant power to resist.

Furthermore, the longer industry carries on, the more powerful and dangerous the technologies become. By waiting, we only put ourselves in a worse situation and, given the normalcy of collapse, likely push off a smaller disaster now for a much greater disaster later. Even now the technologies in question are mind-boggling. Some physics experiments, for instance, have an infinitesimal chance, but a chance nonetheless, of creating a black hole that could consume the universe. Now, you do not need to worry about this at all. The chance is really, really, small—less likely than every flying plane crashing in the same spot at this very moment—and in fact some other highly speculative theories suggest that the black holes would be innocuous. The point is simply that already we are at a technical level where talk about these things doesn't make one batshit crazy. Imagine the power of future technologies, and the consequences they could hold.

Finally, remember that even in the absence of fullblown collapse, some failures are inevitable. Disease centers, as has been mentioned, do not prevent error that could easily devolve into catastrophe. As technologies get more powerful, the presence of such errors becomes ever more serious.

B. Population

Conservation's great elephant in the room has always been population. There seems no good way to address the problem, and any civilized solution, with the possible exception of a market-based one, would rub up against basic civil liberties.

Furthermore, there is large-scale denial regarding the actual issues, even more so than the denial surrounding climate change. Many are convinced that population isn't even an issue, and even the most basic of Malthus' calculations—which are definitively true—have been rejected or ignored as doomsdaying. This is in part because of how violently the issues of population clash with prevailing progressivist values. But it is also because of the strategically abhorrent campaign against population that took place in the 70s. The primary campaigners utilized "crisis" rhetoric that comes so easily with discussions about population, and they dreamed up fantastical scenarios that they had only marginal evidence for. This motivated a huge discussion in the short term, but in

the long term the strategy was incredibly harmful, for when the fantastical scenarios failed to actualize, the “doomsdayer nitwit” stereotype became even more entrenched than before.

But population is a problem, and it is directly implicated in nearly every major environmental problem. The same goes for a subset of the population problem, namely, immigration. Still, I do not think that wildists should attempt to address the population problem.

First, any attempt to manage population will require technical infrastructure that we clearly don’t want to pre-serve.

Second, other attempts to deal with the population problem that do not require technical management would amount to mass murder. And not only would that be completely and utterly unethical, it would also hold people directly responsible for issues that they probably have only a marginal importance in creating. Although the relationship between demography and technical development is complex, a third world family with many children is clearly less of an issue than a technician helping develop agricultural techniques with biotechnology.

Third, although, again, the relationship between population and technology is not a one-to-one relationship, technology is the only way a land’s carrying capacity can be improved, so it greatly exacerbates the population problem. Addressing the technology problem, then, is sufficient.

But even if we only focus on the technology problem, there is an argument against collapse that goes like this: If technology is the only thing capable of sustaining such a large population, then by arguing for the collapse of that technology, you are also arguing for the deaths of billions of people.

Though there are some problems with the argument, for the most part it offers one of the strongest challenges to wildist politics, if it is not *the* strongest challenge. In fact, of the various arguments considered here, only three stand out to me as worth putting a great deal of thought into: the problem of technologies mentioned above, the reality of human fallibility (see section VII.C), and this problem of population. And though I will attempt to address the problem by situating it in real-life circumstances, a little voice in the back of my mind always suggests that I am merely covering up a rather simple problem with layers of unnecessary complexity—like the postmodernists do when they “complexify reductionist science.” Still, I think there are some important caveats to the simple equation of “human population minus technology equals mass death,” and only after they have been considered can we regard it a good faith argument.

First, conservationists are not alone in being at a loss regarding the problem of population. Studies in moral psychology indicate that every living human has trouble moralizing about large populations of people—perhaps even an inability to. As Churchland (2011) put it, “no one has the slightest idea how to compare the mild headache of five million against the broken legs of two, or the needs of one’s own two children against the needs of a hundred unrelated brain-damaged children in Serbia.”

The psychologist Paul Slovic (2007) has a famous experiment in this area of population ethics in which he told volunteers about a starving girl, measured their willingness to donate, and then told the same story to another group but with the added detail that millions of others were also starving. The second group gave around half as much money as the first. In fact, Slovic found that even adding just one more person would begin that process of “psychic numbing.”

How, then, have we overcome or attempted to overcome this process in the past? A good place to look is the history and ethics of war, to which the above findings are obviously relevant. Ethics of war is also particularly relevant to wildist politics because a revolution is essentially an act of war: it is a collective act of violence meant to force a political goal, and historically, even in the so-called “peaceful revolutions,” revolution has resulted in the death of many people.

Unfortunately, the ethics of war is a field in tumult (McMahan, 2012). The dominant responses are pacifism—an obviously unworkable response, and an especially civilized one—and “just war theory,” but not only has the latter been challenged in significant ways, it is facing many problems with the asymmetric dynamics of warfare instigated by new technical innovations, dynamics that wildists will clearly have to operate under. Furthermore, it is a largely Christian philosophy, so it is not applicable to wildism insofar as it has a progressivist bias. But perhaps we can at least salvage some thinking that has been done on particular issues.

For instance, warfare is traditionally conceived as a conflict between two classes of actors. In the wildist case, the war would primarily be between industrial technology and conservationists, which necessarily implicates technicians, states, and other actors involved in sustaining or protecting technical development. But in warfare, even if there are two primary classes in conflict, those uninterested or uninvolved in the conflict will necessarily pay a price. Traditionally this class is usually composed of civilians. In the wildist case, the question of population falls under a similar ethical banner.

Some of the provisions in a just war include the need for a clear goal, some kind of public declaration, the need to maintain a proportional response to the threat, and the general imperative to only attack those defined as combatants. Wildists clearly fulfill two of the requirements: their defined goal is the disruption of industrial society beyond repair; and they have publicly announced the beginnings of anti-industrial reaction. The question of proportionality is still pressing, and particularly difficult given the above findings in moral psychology, and the divide between “combatants” and “non-combatants” is obscured by both the particulars of the wildist ideology and the even more relevant turmoil caused by new technical conditions. In fact, the divide is one of the most pressing questions in the ethics of war today: whereas only about 10%-15% of those who died at the beginning of the twentieth century were civilians, about 50% of the deaths in WWII were civilians, and by the end of 2000 about 75% were (See, In an ethical war, whom can you fight?).

One way to address both of these questions has been the “doctrine of double effect,” which states that so long as the object of attack is a legitimate one, non-combatant

casualties are or can be considered justified. For instance, bombing an enemy military base is justified even if it means some civilians in surrounding areas suffer or die. There have been some challenges to the doctrine of double effect, and I do not necessarily suggest it, but there are few alternatives, and this speaks to the complexity of the issue before it speaks to the blanket immorality of it.

Two other issues must be considered. First, wildist morality is different from the various progressivist moralities, whether they be humanist, Christian, or nationalist ones. In particular, wildists place importance on the concept of *relations*, which is in some ways akin to the moral hierarchy set up by nationalist ethics, or the idea that protecting national citizens is more important than protecting civilians in other nations. Furthermore, discussions of proportionality will undoubtedly lead to different conclusions if the people discussing them are humanists rather than wildists.

Secondly, wildists will neither have enough power to carry out their reaction alone nor will they see events from a big-picture perspective, bound as they are to their own points of view. This is related to the difference noted above between a revolutionary politic and a terroristic one. Perhaps the critique being considered would be more relevant if terroristic strategies worked (which is a different question than whether terroristic *tactics* work). If wildists could as a definitive group carry out the actions necessary to disrupt industrial society beyond repair, then there is some argument that they would be directly responsible for the consequences. But wildists, embarking on an anti-industrial reaction, that is, a revolutionary effort, will have a more indirect impact, and their effort necessarily derives power from others. This is a good thing, since it is a hard practical limit on the amount of damage any one misguided individual or group could do. But it also means that in the context of on-the-ground action, there will be no one-to-one correlation between specific actions and their effects.

Now that all of that has been said, I must admit that I cannot properly respond to the problem of population, and I sincerely doubt that anyone, wildists and non-wildists alike, will be able to fare much better. In fact, a common response to our problems from the technician class is space travel. Outlandish as it sounds, astronomers like Martin Rees (2003), capitalists like Elon Musk (Anderson), and many others have strongly encouraged developing space travel technologies because they will allow the progressive project to continue if we screw up our time here on earth. But let that sink in. How many people do you think will make it onto those space ships?

Still, even though no response will be adequate, I consider a proper treatment of the ethics of revolution to be a pressing concern for wildists. This is such a comprehensive topic that another essay would be required, and, worry not, it is coming. For now, though, some ground rules are fairly obvious.

First, indiscriminate violence is morally abhorrent, unnecessary, and, even apart from all that, strategically un-sound. People—correctly—would not support a revolutionary effort that shows no concern for them. As a result, all wildist efforts should be specific and targeted, and in all possible cases should incite tension between the populace and industry or its protectors rather than the populace and conservationists.

Second, I again accent the importance of proper interaction with the tactical spectrum. Wildist efforts should primarily be concerned with building, linking, and radicalizing the spectrum. Although some direct involvement with monkeywrenching is logically necessary for some factions, the public face of the party should focus its effort on strengthening the bonds between moderate and radical elements, calling attention to the conditions of technical domination, and other such things.

Third, wildists are not trying to solve the problem of population; they are responding to the problem of industrial technology. This should incessantly be made clear.

Fourth, wildists should be required to give thoughtful attention to the problems noted here. Once again, the core ethical concern for wild nature should be primary, and emphasis should be placed on strict separation from those who just want to see the world burn. This is especially important given the disillusionment of various excluded classes and the pseudo-politic of many in those classes often expressing itself in the slogan “fuck everything.” “Civilization” is a term all-encompassing enough to take the place of “everything” in that slogan. Of course, these disillusioned elements are an important part of a revolution, but by no means should define it, and certainly should not be a part of party leadership.

C. Hospitals and Medicine

Medicine is the end-all, be-all argument of industrial society. I deal with this extensively in “The Foundations of Wildist Ethics,” where I argue that while the normative science of wildists is conservation, the normative science of humanists is clearly the modern field of medicine. Whereas conservation concerns itself with nature and wilderness, medicine concerns itself with health and wellbeing. In certain formulations these medical concerns are an ineradicable and necessary part of the human condition: we humans are concerned with those we love and are of course concerned with our survival, so we hope to mitigate the troubles inflaming those concerns or even to annihilate the obstacles inherent in our existence by healing our sick. The problem, then, isn’t medicine per se.

But modern medicine and civilized medicine more broadly has gone beyond this base concern, and pervasive in its ethics journals and its practice is the idea of progress—of *improving* human well-being by modifying nature accordingly. For instance, the editor for the *Journal of Medical Ethics*, when asked about designer babies, has said he supports it because we have a moral obligation to create “ethically better children” (Alleyne, 2012).

Indeed, in the realm of ideas, the great test of the conservationist challenge is whether or not it can successfully pave the way for its challenge to modern industrial medicine. Biotechnology is argued for on the basis that it improves human well-being, and for the great advances it will offer to medicine and agriculture. In fact, with the deterioration of soil caused by industrial agriculture, biotechnology is about the only

viable civilized solution; and with the advent of anti-microbial resistance, biotechnology will be the only thing to save practical medicine. Industry as a whole has greatly improved human ability to fight disease (DeBold & Friedman, 2015) and undoubtedly the collapse of industry will return to many people's daily life the constant fight with disease that pre-industrial peoples, though to a lesser extent primitive peoples, faced.

But more than any other argument employed by polemicists for industry, industrial medicine embodies the core reasons for conservationist revolt. One reason is obviously its progressivism. But its internal logic is also the same.

Consider, for instance, the fact that most diseases are exacerbated by civilization. As one article put it, "...a developing model of infectious diseases—AIDS, Ebola, West Nile, SARS, Lyme disease—[reveals that they] don't just happen. They are a result of things people do to nature." It goes on to explain, "Sixty percent of emerging infectious diseases that affect humans are zoonotic—they originate in animals. And more than two-thirds of those originate in wildlife" (Robbins, 2012). The famed science and nature writer David Quammen (2014; 2012) released a book about the very issue not too long ago entitled *Spillover*, a follow up of some of the same issues brought up in his book on Ebola. In fact, the ideas are gaining so much steam that a revisionist faction of the movement has formed called conservation medicine, which is, as is to be expected, more medicine than conservation.

And this is not just relevant to industrial civilization. The onset of agriculture, for instance, brought massive waves of disease that only later began to be quelled through management, cities, states, and so forth— quelled, that is, by civilization (Diamond, 1999). This isn't to say that primitive peoples did not suffer from diseases, but civilization did make things worse, and doesn't suffer from the consequences of its actions only because of a constant fight against the microbial barbarian hordes smashing against its walls. Quammen (1981), again, explains the consequences of civilized practices without these walls:

Clear the vegetation from the brink of a jungle waterhole, move in with tents and cattle and Jeeps, and the Anopheles gambiae, not normally native there, will arrive within a month, bringing malaria.

Cut the tall timber from five acres of rainforest, and species of infectious Aedes—which would otherwise live out their lives in the high forest canopy, passing yellow fever between monkeys—will literally fall on you, and begin biting before your chainsaw has cooled. Nurturing not only more species of snake and bird than anywhere on earth, but also more forms of disease-causing microbe, and more mosquitoes to carry them, tropical forests are elaborately booby-trapped against disruption.

The native forests peoples gradually acquired some immunity to these diseases, and their nondisruptive hunting-and-gathering economies minimized their exposure to mosquitoes that favored the canopy or disturbed ground. Meanwhile the occasional white interlopers, the agents of empire, remained vulnerable. West Africa in high colonial days became known as "the white man's grave."

In fact, most hunter/gatherers are neither struck by degenerative disorders or diseases to the degree industrial humans are, nor are they struck by many now-prominent mental health issues. One article explains, “There is increasing evidence that the resulting mismatch fosters ‘diseases of civilization’ that together cause 75 percent of all deaths in Western nations, but that are rare among persons whose lifeways reflect those of our preagricultural ancestors” (Eaton, Konner, & Shostak, 1988).

But of course this is not sufficient as a challenge to industry. As the field of conservation medicine has shown, merely pointing out that civilization exacerbates the problem of disease will only motivate progressivists to improve civilization. Instead, the process of progress itself has to be delegitimized.

I explain, for instance, in “The Foundations of Wildist Ethics” that because artificial intervention of natural processes through civilized technics is so greatly misaligned with those natural processes, civilized institutions and management schemes must then “fill in the gaps” to preserve its edifices. This is why, left to its own devices, artifice crumbles, and why civilized institutions like the police, surveillance systems, and industrial medicine are *necessary* to preserve the civilized way of life. I give the humorous example of pooping: a hunter/gatherer poops and it is dealt with naturally; a toilet, however, requires division of labor, infrastructure, police forces to protect that infrastructure at a certain level of complexity, etc. A civilization is this process magnified a thousandfold.

The most potent challenge to this is the value of wildness. For instance, in the case of human health, civilized institutions cause problems that through progress can only be quelled through artificial means: further modification of human bodies, the creation of artificial desires, etc. Of course, “artifice” does not make one impure, and no person would suggest the ridiculous idea that things need be totally natural. But if the *domination* of artifice is called into question and value is placed on less human and technical control, or more wildness, then no civilized solution can be proposed and maintain itself as legitimate.

Note the distinction between this approach and the one of many other anti-industrialists. The latter group sometimes explains that the same process of progress is what has historically lead to collapse, since, as Tainter points out, at some point the artificial energy required to maintain civilized institutions reaches the point of diminishing returns. Because civilization is nothing but a big bubble of artifice, when it pops all the consequences from which it is able to shield its constituents when it is strong come flooding in. Thus, in the case of disease we may be solving some problems now, but we court larger disaster later, as many have pointed out may be the case with anti-microbial resistance (World Health Organization, 2014).

Of course this is true, and it should be pointed out. But because it doesn’t get to the actual root of the problem (i.e., progress) it is susceptible to being derailed by discussions like whether or not collapse is inevitable, for if it is not then we need not worry about the bubble popping. Instead, in discussions about medical technology, we should challenge the most precious values used to justify it, and we should not argue

that medicine will or may, in the long run, betray its own values. Those aren't our values anyway.

D. Human Nature

As with the case of the negative consequences related to the collapse of industrial medicine, the negative consequences related to freed human nature are, rather than being a challenge to collapse, an exercise in coming to terms with the wildist morality and its own challenge to progressivism.

These negative (or “negative”) aspects of human nature are indeed a challenge to our current way of thinking. These include an astounding level of violence, infanticide, prejudice and xenophobia, cannibalism, natural pro-pensities toward psychopathy and criminal behavior (in some), and sexual dynamics out of line with in vogue feminist politics.

I have for the most part addressed these concerns already in “The Foundations of Wildist Ethics,” pp. 38–40. I strongly recommend that readers grab the first issue of *Hunter/Gatherer* and check it out. I wish only to remind skeptics that wildists do not wish to enforce a vision of human nature—such a thing would contradict the essence of our politics. Rather, the idea is that scientific investigation, particularly through sociobiology, has revealed and is revealing what human behaviors will flourish when the artificial restraints are loosened, the shackles of industry broken. It is akin to an ecosystem rebounding when industrial impact is lessened. Of course this means pretty things like, in some ecosystems, greenery and perhaps some cute animals. But it also means things that will eat you and being more naked before the power of natural disasters. The same can be expected for human nature: when it is allowed to flourish, we will see both cooperation and violence, the fluffy creatures and the vicious bears. The whole point of wildism is coming to terms with this complex reality that inspires awe, love, and ambivalence alike. Perhaps, we even say, the bears of human nature are needed.

VII. Alleged Discrepancies

A. Determinism, Free Will, and Radical Politics

It was said long ago that politics is the art of the possible. That does not suppress our initiative: since we do not know the future, we have only, after carefully weighing everything, to push in our direction. But that reminds us of the gravity of politics; it obliges us, instead of simply forcing our will, to take a look hard among the facts for the shape they should take.

—Merleau-Ponty

some claim that the wildist politic betrays its commitment to determinist materialism. i've already partially dealt with this problem in "Foundations," pp. 10–11, but some things ought to be said specifically in relation to an anti-industrial reaction.

First, if determinism invalidates a radical political effort, it invalidates doing anything. The argument is wellknown in philosophy as "the lazy argument." But any such argument creates several paradoxes. For instance, perhaps it was determined for you to become lazy, or perhaps your actions are part of the chain of causality that will create the world you want to see—which is perhaps why you even want to see that world.

These paradoxes are part of the reason i tentatively espouse a compatibilist notion of free will and regard dis-posing of the free will concept as irresponsible. At least as long as we are humans unmodified by technics, free will must remain with us. We can't truly get rid of it anyway, and even if we could we would be getting rid of a motivator and even a rational tool that has no better replacement.

second, "free will" as such can, in fact, be a rational tool. To a large degree, humans feel motivated to embark on certain actions because they believe them to be possible, and, in contrast to the lazy argument, are likely to embark on them even, and perhaps especially, when they are inevitable. Note that the communists, for instance, argued for revolution even though Marx believed the transition from agrarian to capitalist to communist societies to be an inevitable process. And we've all heard our friends resist investing in a project because they believed it to be impossible. Free will, then, and its collective incarnation as political effort, can properly be conceived of as a "prediction of what is inevitable."

We noted in section V.A that collapse is almost certainly inevitable in the long-term and likely inevitable in the short term (that is, before the end of the next century). We also know from history that many collapses or revolutions were due at least partially to human behavior, especially those of the revolutionaries. World War i, for instance, was ignited by a single assassination (even if the surrounding conditions provided the kindling). Thus, the wildist argument for an anti-industrial reaction can be seen as a prediction that a revolutionary effort plus a convergence of external, non-human forces will lead to collapse.

That said, i do not advocate rhetoric of inevitability. The lazy argument still sometimes holds sway, and i do not want people to avoid engaging in a reaction because they will believe it will happen without them. This is because, among other reasons, there is still some chance that determinism is wrong. And in any case, such rhetoric would turn discussions into an endless argument about unknowable empirical facts when discussion of morality is far more relevant. Again, the problem with the former (the facts are unknowable) is the exact reason we have the useful fiction of free will. It is best to focus on what kind of world is desirable and whether some movement toward that world is possible.

This is even truer when we consider that, even if it were shown that the conquest of industry is inevitable, I (and surely some others) do not know if I could engage

with it in a normal way. Of course, my interaction would be different than it is now, and I'm not sure if any movement would be possible in those circumstances. But because I so thoroughly disdain industry's destruction of wild nature, and because I so thoroughly love the wilder-ness, I cannot see myself ever espousing the world that is, simply because its victory is inevitable. I would, in other words, feel compelled to fight a losing fight, especially when the alternative would be so wretched. Perhaps this is my fate, and I am open to the likely possibility that many others do not share my convictions. But as it stands, I cannot find inevitability to be as relevant to the discussion as morality, and will continue to base my political endeavors primarily on what I feel I ought to do rather than what I think will be.

B. The Charge of Progressivism

Another "betrayal of your own beliefs" argument against wildism seems particularly strong, pointing out that wildists are incredibly critical of abstract blueprints, yet fail to apply the same critique to their reactionary pro-program. Therefore, wildists are actually progressive.

This argument has several problems. First, it misunderstands the technical meaning of "progressivism," which when completely distilled is only a normative claim that civilized modification of nature is good. Of course, there are associated beliefs that grant power to this claim, but most of them have fallen by the wayside. Still, the twenty-first century version of the mythology remains legitimate in many people's eyes because one as-sociated belief has *not* fallen by the wayside: the belief that humans can control the direction of progress.

A huge part of the wildist critique of progress consists of debunking this associated belief. No individual or group directs technical development (the backbone of civilizational development) nor can they. Furthermore, any effort to implement abstract blueprints on a society will inevitably fail. One can't dream up a society on paper and then try to make it work in the real world successfully. The arguments supporting these conclusions can be found in "Foundations," pp. 22–27.

They don't really apply to the idea of an anti-industrial reaction. For one thing, disrupting industry beyond repair is not equivalent to dreaming up the particulars of a society and then trying to make them so, as communists do, for instance. For another, the wildist reaction doesn't require maintaining control over nature, and is indeed the complete opposite. In other words, the critique of progress would only apply if we were trying to force everyone to be hunter/gatherers.

But the reason the critique of progress is true is because humans don't understand nature, "the world not made or controlled by them or their technical systems," to any degree necessary to direct progress, and they are not nearly powerful enough to do so in the context of a complex system like a society, which is far more susceptible to infrastructural factors like geography and demography. For instance, the reason industrial

medicine qualifies as progress is because it requires a constant fight against disease, a battle that we have to always modify because the other side is always changing. This is why we are now taken aback by the problem of anti-microbial resistance. Of course, progress, the civilized modification of nature, still happens, but it is not wholly or even to a large degree controlled by human reason.

Still, some reasons why this is so *do* apply to the wildist political effort, but rather than not applying those realities to our reaction, we've given them a great deal of thought. For instance, we recognize that a small group attempting to make a definable large change will ultimately only achieve that change because of added factors that are outside of their control. Thus, we must pay attention to economics and technical innovations and a host of other fields. We must also look closely at historical revolutionary or radical political efforts to see what circumstances led to change, so that we can try to discern general principles that seem to apply to each of them. None of this comes with the hubristic or ignorant assumption that we have the power to achieve what we want alone.

C. The Threat of Human Folly

Back when I was running *The Wildernist*, a student conservation magazine, I had the privilege of publishing an interview between Professor David Skrbina, who teaches a philosophy of technology class at the University of Michigan, and Dave Foreman, one of the founders of Earth First! In it, Foreman, an avid anti-industrialist with beliefs very similar to wildists, explained why he didn't support revolution. It's worth quoting a large excerpt here:

Foreman: *My fear is that revolutionaries nearly always become that which they revolt against. It doesn't turn out that good. I have a low opinion of human beings. I don't think they are capable of revolution. I think the most successful revolution that was really limited in scope was the American revolution, but even it has been fairly subverted by corporations and that type of thing.*

Skrbina: *Ok, but the technological system is different. You're not trying to take power, you simply want to bring it crashing down. And then whoever survives will continue again as huntergatherers.*

Foreman: *The thing I see is that nobody "revolted" against the Soviet system, but it collapsed because of its own internal contradictions. In many ways, the Soviet and western systems are based on industrialism and exploitation, and so it is just that the Soviets were more inefficient and incompetent, so they crashed first.*

Skrbina: *Is it fair to say you would support industrial collapse? Would you see that as a possible outcome?*

Foreman: *I think industrial collapse is going to happen. In the long term it is a positive thing. And then since it is inevitable, it is probably better for it to happen sooner rather than later.*

Skrbina: *So shouldn't you take some proactive action, to help it happen sooner rather than later?*

Foreman: *If you try to do that, might you not mess things up? I just don't trust us to be able to adequately do it. My misanthropy—my atheistic Calvinism—prevents me from thinking that any group of people, no matter how well meaning, how intelligent, how ethical, are capable of solving these overwhelming institutional problems of mass civilization.*

Skrbina: *So you're saying that the task is simply beyond our ability, and therefore we should not focus on it because we have no practical possibility of being an effective contributor to that—is that basically it? Instead we should focus on...what?*

Foreman: *My point is the system is going to come down, one way or another way, on its own. My task is keeping all the building blocks of future evolution that we can.*

Apart from the population question, Foreman's critique is the only one that gets me questioning this whole business of revolution. In fact, I whole-heartedly agree with his assessment that the American Revolution was the only one deserving of at least some praise, and my politics are deeply affected by the ideas that spurred it on. And as should be clear to anyone who has read both the *Federalist Papers* and my own writings, I have tried to integrate much of their wisdom into my political endeavors.

By far the most important piece of wisdom is the American revolutionaries' intense awareness of human nature, particularly the bad parts of it. Unfortunately, talk of human nature has gone out of vogue, so you don't see much of it in the political sphere anymore, but thankfully some of the more thoughtful wings of the conservative movement have brought it to the fore again, the Darwinian factions integrating recent findings in sociobiology, like wildists do. Regardless, ideas about human nature are important because, as Horowitz (2010) put it, "At the core of every political theory of a comprehensive character there is a theory of human nature."

Because of the American revolutionaries' willingness to recognize human folly, they produced men such as John Adams, who believed that both Thomas Jefferson and Alexander Hamilton were unfit to be politicians because their souls were so poisoned with ambition. Known for his cantankerousness and his biting insults, he specifically said about Hamilton that his projects "all arose from a superabundance of secretions which he could not find whores enough to draw off!" Perhaps not coincidentally, I can think of at least two individuals closely associated with The Wildist Institute who could easily be incarnations of Adam's difficult personality. And good thing, too.

The ideas floating around during the American Revolution also produced some of the most ingenious political innovations yet to show up, including the system of checks and balances, the US Constitution and the whole system for modifying it, and, at least in its original form, a federalist method of unifying states with widely diverging interests. Comparable are the wildist ideas of hard material limits on human technical endeavors. For instance, the whole reason our political project aims to end the industrial system is because, rather than placing naive faith in human capacity for self-restraint, it puts

a hard limit on the damage to wild nature actually possible. It is for a similar reason that we advocate the hunter/gatherer way of life as a moral ideal.

I also think constantly about the possible repercussions of revolution. In fact, my name, John Jacobi, comes from this very contemplation. When I was active in anarchist politics, I followed the normal convention of using a pseudonym, at least around my political associates. At first, being young, I was not too concerned with the implications of radical political efforts, and I picked a rather innocuous name with no deep meaning. I was also very much the same flippant person I warned against earlier—calling for revolution without truly knowing what it meant, espousing a pseudo-politic that was more about lashing out at a world I knew was at the root of my unease, but fundamentally ignorant about why, exactly, that was. But halfway through my time with the anarchists, I became more politically astute, or at least became aware again of the political astuteness I had lost in my juvenile fervor. I read about life in places shaken with political turmoil, watched films about revolutionary efforts gone wrong, cried late at night while reading memoirs of a young revolutionist who recounted some terrible acts she had committed in the heat of a revolutionary effort.

Out of this study, the French Revolution always stood out to me as particularly wretched. The Jacobins, the Ter-ror, the young flippant man named Robespierre. So I changed my name to Jacobi, avoiding the fuller Jacobin both because it didn't sound as nice and because a radical communist magazine by the same name had begun to pick up steam, and I didn't want to be associated with them. Still, it was close enough, and even now when I get asked about my name I am forced to reconcile my political imperative for revolution with the very real possibility that it might go wrong. Constantly I have to ask myself if the potential consequences are worth the risk.

As it stands, I believe they are. Recall earlier that people believe and are motivated by the silliest ideologies—talk of icemen or Thetans or parting the Red Sea. And with the growing numbers of excluded and bored classes, surely such an ideology could easily ignite their passions and bring about political turmoil. I've always contended that that part of revolution was the easiest anyway. Yet here I stand in the company of several others who place importance on *truth*, *prudence*, and *thoughtful radical-ism*. The culture is one concerned with actually dealing with the issues and addressing them in such a way that would not betray our own moral compasses, even if this means a slower start and even, potentially, a less effective end. Should this culture change at any point, I would not hesitate to leave, but at least so long as it is maintained, I do have a tentative faith that revolution is possible without too terrible an outcome.

Still, I am aware that even the most guarded effort is either doomed to fail or must let down its guard a bit for a chance at success. And I am aware that even the most self-restrained person now could easily become a tyrant later. Here I sympathize with Foreman and his skepticism of revolution.

I nevertheless engage in my current political efforts because they seem better than the alternatives. As I've said before, choosing to do nothing about the continued development of the industrial technical apparatus is, in fact, a choice, and the possible

futures I see for an unchallenged technical system are far worse than those I can imagine in one where it at least faces major obstacles on its path toward “progress.” My only real response, then, is to again encourage thoughtfulness on the part of the reactionary. Think about your actions, determine for yourself if you think the effort is worth it, and do not ever exclude your own evil tendencies from your critique.

D. The Charge of Humanism

Another argument suggesting that wildism betrays its own values says that revolution is a political imperative created only by humanist ethics and a concern for all of humanity. I assume that the suggested alternatives, which ostensibly care more for the individual and his relations, are along the lines of escape into the forest or small-group action. For example, the anarcho-primitivist Kevin Tucker argues that revolution is a civilized project and that anarcho-primitivists must engage in “primal war,” which is revolt similar to the kind indigenous people engaged in during the colonial era.

Of course, the suggested alternatives are impotent. Tucker, for instance, has no substantial argument against revolution, and there’s a reason all the indigenous efforts failed. Furthermore, he seems to advocate a terroristic strategy against industrial society, thinking that individuals are super-empowered enough that small-scale revolt would be sufficient to lead directly to the collapse of industrial society. In particular, he has advocated attacking the electric grid in his anarchist zine, *Species Traitor*. However, we have already reviewed the weaknesses of the terroristic strategy, even apart from the inherent moral problems. Furthermore, even if the strategy were hypothetically feasible, the possibility of failure would come at too great a price. If some of his anarcho-primitivist followers decided to engage in this “primal war” and failed, this would amount to nothing in terms of damage to industry and would greatly exacerbate the tension between the public and anti-industrialists. It could even elicit a crackdown that decimates the movement. Of course, anarchists have a tendency to make this mistake, as is apparent from the history of their movement in the early nineteenth and twentieth centuries, the precursor for modern terrorism.

And anyway, to call for revolution does not come out of a concern for all of humanity (or, rather, *equal* ethical concern for all of humanity). As I point out in “Relations and the Moral Circle,” it is perfectly possible to justify large-scale action on the basis of simple logical reasoning: I and my relations are affected; he and his relations are affected; they and their relations are affected; therefore, we form a broad-based coalition for more effective political action. Of course, this is an abstracted dynamic, for not everyone revolts on the basis of a revolutionary ideology, even many who profess to.

In reality, revolt has widely diverging causes, three of which I’ll note here. First, individuals who belong to an excluded class become dissatisfied with their condition and revolt under the name of the revolutionary ideology because it provides a means

of justification for their unrest and an explanation for their discontent. It does not matter whether or not changing circumstance, such as more comfortable conditions, would change their dissatisfaction, because they do not have access to those conditions anyway. This is why the promise of changing conditions (such as the idea of the American Dream) or quelled conditions (such as through sports or video games) must be attacked wherever it is untrue, so that the oppressed classes feel their own oppression. Although, as Hoffer (2011) points out, there is a delicate balance to consider, since if oppressed classes feel too downtrodden they will fail to revolt. They must therefore be aware of their unease and their inability to quell it but they cannot feel doomed.

Second, there is the member of an excluded class who may have a chance to escape into the elite position, but for whatever reason has a profound distaste for the elite way of life, its ideology, its domination. This individual revolts because of an actual belief in the revolutionary ideology and his moral conviction that the prevailing society is an illegitimate one. For instance, I am one of these individuals, capable as I am of rising from my early poverty in Alabama, given the opportunity to use college as a spring board, but unable to find the wherewithal to wade through the sludge of unethical and dreary conditions that define modern life.

Third, there are the select few of the elite classes who are born into the better of social conditions but who find themselves dissatisfied. Often this is from boredom, at least as useful as oppression in motivating political action, and arguably more, but sometimes and crucially an elite revolutionary truly believes in the cause. Like the excluded rebel who feels revulsion at bourgeois manners, this individual cannot find satisfaction in an empty life and aids the effort “from above.” These elites are in many cases the reason revolutionary efforts succeed.

Thus, rather than being a holy humanist cause, a revolution is a convergence of interests that strike upon a particular historical moment properly captured and channeled by a revolutionary ideology. These interests are disparate and may in many cases have nothing to do with the ideology itself. What is important is that the prevailing ideas direct political effort toward a defined target in a manner that will bring about a fundamental change in the society in question. This has been the true character of every revolution.

E. Duping the Masses?

The only truly serious attitude—serious because the danger of man’s destruction by propaganda is serious, serious because no other attitude is truly responsible and serious—is to show people the extreme effectiveness of the weapon used against them, to rouse them to defend themselves by making them aware of their frailty and their vulnerability, instead of soothing them with the worst illusion, that of a security that neither man’s nature nor the techniques of propaganda permit him to possess. It is merely convenient to realize that the side of freedom and truth for man has not yet

lost, but that it may well lose—and that in this game, propaganda is undoubtedly the most formidable power, acting only in one direction (toward the destruction of truth and freedom), no matter what the good intentions or the good will may be of those who manipulate it.

—Propaganda, *Jacques Ellul*

When first flirting with the idea of an anti-industrial reaction, I heard a handful of critiques incessantly, but one that came up nearly always from other conservationists and anti-industrialists was that a revolution necessarily entails the nasty aspects of politics we, it is presumed, oppose; that it necessarily involves lying to the masses to lead them or, rather, to exert power over them.

There are obviously some problems with this criticism. For one thing, as I've relentlessly made clear, wildists must make truth primary. There is a political imperative for this even apart from an *a priori* commitment that I am unwilling to let go of: when attempting to attain political goals, the truth is nearly always a better starting position. From there it is feasible that you may deceive, but at the very least it would make little sense to be espousing untruths in this text or any of the other public texts explaining wildism, since they elucidate the ideology at the core of wildist efforts. Once again, I do not wish to be duped by others, but just as important, I do not wish to be duped by myself.

Nevertheless, it is feasible and probably necessary to some extent to engage in untruths for the political goal itself. That is, wildists do not hope to spread an ideology and their goal is not to enlighten, except insofar as that task helps further the larger goal, which is, of course, disrupting industrial society beyond repair. And it is not necessary for all elements contributing to this effort to know what they are doing or why they are doing it. In fact, it is perfectly possible for completely ignorant elements to contribute greatly.

To a degree I do not think this is a problem, or at least it is an inescapable reality. No man achieved anything by requiring anyone who engaged with him to be fully enlightened before undertaking action. It is also simply im-possible to live in such a way. I am reminded of the extreme pacifists who regard walking on plants as a kind of violence, killing bugs a kind of murder. This approach to reality is anathema to wildism since it is disdainful of nature. Instead of imposing our abstract blueprints, then, we should situate ourselves fully in our material condition and proceed realistically from there. And realistically, some men are duller than others.

That said, the goal is not to spread ignorance either, and where possible the truth should be favored. This should, so far as I can see, include the majority of our political work. Lies are not only morally questionable in many circumstances; they are also unsustainable politically, and only beneficial when it comes to short term gains and the willingness to burn bridges or forsake the possibility of a future ally.

Furthermore, as Ellul points out in the quote initiating this section, one of the most effective tools in the hands of wildists is spreading truth and making men aware of their condition. For instance, I have found that many in-dividuals are not concerned with

biotechnology until they are reminded that the same technics designing baby faces can design baby minds. Only then do they become aware of its implications, and perhaps even motivated to do something about it.

And since the wildest political effort aims at restoring the wildness of nature, this means that obscurity and false doctrine would in the long run hurt the cause. Consider the work of Martin Seligman (Abramson, Seligman, & Teasdale, 1978). The psychologist once ran experiments on what he called “learned helplessness,” placing rats and dogs in various conditions, some of which they were able to escape, some of which were beyond their control. Over time, those in the latter group would develop symptoms similar to depression and despair in human beings, and they would eventually give up attempting to change their situation, even when placed again in a situation that they could easily—and demonstrably—escape. The only way to take the animals out of the stupor was to repeatedly show them that it was again in their ability to have power over their conditions. But without the outside help, they would have continued to wallow in their despair.

Many people do not believe revolution is possible, and a surprising number of people feel quite powerless to change anything. They do not vote, they respond to political problems only with irony and cynicism, and they avoid any earnest commitments as though it was their religious duty. And of course this is somewhat justified, for industrial man does not have much power over his life. But he certainly has more power than he thinks, and in a time of turmoil he will have much more than that. In those times we must be Seligman, demonstrating to those who have learned to be helpless that they need not be helpless any longer.

At one point in his text on propaganda, Ellul echoes the findings of Seligman, speaking of the man who suddenly finds the propaganda machine around him crumble or for whatever reason lose its stronghold over him. “[A] terrible silence...suddenly surrounds him,” Ellul writes, “he who permitted himself to be led, no longer knows where to go; and all around him he hears the violent clamor of other propagandas seeking to influence him.” Ellul then goes on to explain that the individual who loses propaganda that had since provided him such security will become “plunged into apathy [without any] way of getting out of it.” As a result, he either becomes absorbed into other propagandas which provide new security, or he “acquires a conviction of his [own] trustworthiness much more violent than before because for a while he has believed in his worth.”

There is, of course, the possibility that wildism will find itself becoming an alternative propaganda, at least more than it enlightens man to become as Jacob, wrestling with his stark material condition. In fact, that will almost certainly happen. But by ending the technical apparatus the very method of domination enabled by it becomes impossible, so I again find myself unbothered by this dynamic as a reality, seeing the critique instead a useful reminder to, as I mentioned before, remain aware of the potential terribleness of revolution, and to guard against it where possible.

That said, Ellul and many who agree with his critique argue that “technique” and “propaganda” can go “only in one direction.” But I think it is clear that this is untrue, and if taken seriously it reduces one to impotence just as surely as that absurd maxim, “you can’t use the master’s tools to take down the master’s house.” This is especially absurd when that is, in fact, exactly how you would take down the master’s house. Of course, Ellul himself came to this politically impotent conclusion. He was a pacifist and a Christian, so still a progressivist, and seemed uncomfortable with certain facts of reality, disdainful of them even. So he ended up advocating a non-violent revolution that he regarded as primarily spiritual, and he admitted himself that he thought it to be impossible. I suppose that if someone actually does see truth in Ellul’s point of view, then he is justified into joining the man in such a conclusion. But as someone who does not see that truth, it seems a very sad thing.

V III. A Sketch of the Wild Reaction

Undoubtedly, if modern tendencies have any elements of permanency in them, a great deal of the activity of the future will be devoted to the end of a greater understanding of the universe. Humanity, or its descendants, may well be much more occupied with purely scientific research and much less with the necessity of satisfying primarily physiological and psychological needs than it is at present. This character may stamp the whole of future development, so that machinery will be organized not for production but for discovery. Indeed, the great necessity for production either of food or other articles of consumption will disappear rapidly with the progress of dehumanization... [But] we shall have very sane reactionaries at all periods warning us to remain in the natural and primitive state of humanity...

—The World, the Flesh, and the Devil, *J.D. Bernal*

The counter-arguments rebutted, it is time to now demonstrate tangibly what the wildist reaction might be.

A more thorough treatment is due another time, but a sketch should be sufficient for now.

Absolutely our first step should be forming a party accepting any wildness-centered conservationists as members. This party would be a revolutionary one, and while its end goal, the disruption of industry beyond repair, should be explicit, its immediate goal should be accepting the role as the conscience of conservation. Time and time again I have written about two threats: the revisionists and the progressivists. The latter are no threat to conservation per se, but the former are a great one, and as time goes by their perversions threaten to break apart, distract, and altogether weaken the movement. Party members must work to delegitimize them in conservation organizations and other periphery groups, and they must do so through action more than words: accepting positions of leadership, positioning the narrative of wildness in front of the cameras when they are present, and so forth. Of course, our fight is not with the revi-

sionists except insofar as this is a necessary step toward the reaction, so they should not be fought just because. Thus, so long as a wildness-centered core is preserved and strong, they should simply be ignored.

Otherwise, the party's work is linking and building the tactical spectrum. Radicalizing will come later, since we first must make our case for revolution and spread it among periphery groups. The work cannot be one of an outsider pushing from outside, but an equal joining hands with another and coaxing him along, much like a boisterous friend does with a shy one. For now, then, linking and building is key. This means members must be directly involved with organizations on all parts of the spectrum and fulfilling two roles. The first is establishing open communication with organizations on other parts of the spectrum; and the second is encouraging tangible work that benefits not only the organization in question, but also the work of others on lesser ends of the spectrum. For instance, litigation by a group hoping to preserve a specific species should be done in such a way to benefit the broader plan of wildlands conservation in the same area. conversely, the group involved in the broader plan should be radical enough that any lesser acquiescence to its demands will aid species conservation. This is the same thing Earth First! did for the Sierra club, its radicalism allowing the Sierra club to make more appropriate demands, except this tactic will be employed to all places on the spectrum.

Building the spectrum will mostly mean instituting radical organizations. This must be done carefully, and on the part of party members legally. Of course, illegal actions are, once again, logically necessary, whether or not I condone them personally, but party members need not and should not be directly involved or knowledgeable of the specifics to link an organization suspected to be radical to other, more moderate, organizations. This is especially true in our first few years of work.

Being rewilders, members should focus on action pertaining to the rewilding program proposed by the Nature Needs Half campaign and the Wildlands Network (see Foreman 2004). Where possible, we should prefer work aiding this effort by, for instance, attempting to build the megalinkages. Moderate organizations should be encouraged to campaign, to litigate, and so forth. And radical organizations should not be encouraged to do any specific actions, except for maybe civil disobedience, but members would do well to turn their focus to the program. They might provide the necessary radical element to slow development in an area important to a megalinkage or a corridor. For instance, the current Earth First! organization, although now a progressivist one, may be benefitted by articles submitted to its journal or a presentation about the rewilding program at a Rendezvous.

The focus on the rewilding program also allows us to build the moral basis of our reactionary program and strengthen our resolve. If one thing has been made clear by this essay, it is that revolution is a tenuous and uncertain project, and such a modest first step ensures that even if we are wrong, we will be benefitting those things that we can undoubtedly support: more wildlands, bigger wildlands, more connected wildlands.

The party, a public, above-ground organization, should also present wildist ideas to the public incessantly, which also means they should require their own members to be presentable. Implicit in this is a focus on journalistic work. George Monbiot (2015) and, to an extent, Paul Kingsnorth (2011), are examples of conservationists already encouraging the rewilding program through journalism (they are not wildists, to my knowledge). It has greatly improved public awareness of the project and, more importantly, it is an extremely effective method of recruitment, which apart from operating as the conscience of conservation, must be the second initial focus of the party.

Note that the main orientation of the party is not toward the public, but the movement. Once again, the point is to be the conscience of conservation, presenting its distilled critique of progress, guarding against the revisionists, and fortifying the movement's infrastructure so that the capacity for effective action is improved. The public is important for this, but it is not necessary.

Those are our current tasks, but of course work must also be done within the party to outline future ones. This includes, for instance, outlining additional provisions to the rewilding program that make clear our take on its demands. Believing it to be impossible without the end of industry, we might add provisions like: ending road development with a focus on lands in the program, ending dam development and a list of a few dams to be dismantled, banning planes and drones from flying over core protected areas, deindustrialization in urban areas affecting the program, and other such things. Although we could of course simply state the end of industry, a specific list of demands is no threat to that being the implication, and it is more appealing psychologically to those reading it, or at least more understandable. Furthermore, it makes clear the reasons for the end of industry, and, most importantly, provides tangible benchmarks in our effort, so that we do not continue pursuing some undefined goal and revolt ourselves into exhaustion. The original Earth First! program could be a useful inspiration for this task (Foreman, 1981).

Another future task to consider is sorting out practical problems with the reaction. Where and to what degree should we utilize a network structure? What tasks would best be coordinated through the internet, and how might we teach our members how to use the internet securely? What other movements (e.g., the pro-privacy whistleblowing groups, the hackers) might we be able to link to our own while also contributing to theirs?

This is only a modest sketch, and may seem especially modest when placed against the backdrop of our lofty reactionary ends. But recall that most do not believe in revolution. Such small steps, then, are important for unlearning helplessness. Let's remind ourselves that we can be strong again.

IX. Conclusion

Various rebuttals to the anti-industrial reaction have been proposed, but most do not hold. Collapse is not only possible, but arguably likely, and past revolutions have demonstrated a level of organization that is more than sufficient for the wildist effort. Therefore, instead of focusing on feasibility, we should be much more concerned with morality. But the voiced moral rebuttals do not stand either. For instance, the contention that collapsing medical technology or flourishing human nature has negative consequences is a confused one; and the idea that a reaction is incompatible with the wildist ideology is a false one. Nevertheless, at least three worthwhile critiques stand.

The first is the difficult problem of complex technologies that cause disaster when they collapse. Nuclear is the most common example, but technologies involved in hitech physics experiments, disease labs, and weapons technologies are also relevant. Second is the problem of population, which we realize will always remain a problem, for progressivists just as much as wildists. And third is the very real threat of human folly, to which I respond that we should look to the wisdom of the American Revolutionaries. Still, these three issues are for now not enough to delegitimize an anti-industrial reaction, at least so far as wildness is our starting value.

This in mind, wildists may begin their first tasks of building and linking the tactical spectrum. This should be done by creating a party for wildness-centered conservationists with the task of being the conscience of conservation. This party will be a revolutionary one, and its goal of disrupting industry beyond repair must be explicit. It will preserve, direct, and fortify the conservation movement; it will present its message of revolution before the public; and it will lay the groundwork for future tasks as the movement itself becomes more confident. This is our present work, so let's get on with it.

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Misanthropy

John Jacobi, *The Wildist Institute*

Abstract—Progressivists sometimes charge that conservationists are misanthropes. In reality, progressivists are the real misanthropes, since they disdain human nature and seek to “improve” it into non-existence. As a result, they only consider “human” (and “humane”) those things that benefit civilized conditions, and use this as the framework by which to judge whether or not an ideology is misanthropic. What’s more, any actually misanthropic positions among ecocentrists is due precisely to the influence of progressivism, particularly utilitarian calculations made possible by its egalitarianism and indiscriminately altruistic approach to ethics. In the end, only wildism comes out being the non-misanthropic philosophy.

I. Introduction

A common jab directed against conservationists claims that they are misanthropes. The response to this has been outright denial to ironic affirmation. For instance, early in the history of Earth First! the group sold bumper stickers and t-shirts with the word, along with other cute slogans like “Malthus was right.”

The claims usually center around two recurring ideas or principles assumed by conservationists. First, conservationists sometimes argue that the human race is the problem, and that non-human nature would arguably be better off if humans disappeared. Associated in the minds of critics is the conservationist belief that a massive reduction in the human population is axiomatic to conservation. The population problem, however, is its own issue, and I do not address it in this essay.

But as for the misanthropy of some conservationists, after some thought we can discern that this is actually due to a progressivist philosophy, which is itself the true embodiment of misanthropy. In the end, then, the solution to non-misanthropic views and appreciating human nature is to dispose of progressivism and embrace the respect for nature and nature’s wildness that wildism entails.

II. Ecocentrism and Wildism

Because “ecocentrism” is somewhat amorphous, as are most concepts in deep ecology, wildism is arguably ecocentric and it certainly stems from and responds to the ecocentric tradition (see the introduction to “The Foundations of Wildist Ethics” and “Relations and the Moral Circle”). In fact, most of the reasons wildists avoid the term have not kept many prominent and unrepenting deep ecologists from keeping their definitive place in the tradition. For instance, Hettinger & Throop argue for a focus on wildness instead of life, *per se*, but both are foremost deep ecology philosophers.

Nevertheless, ecocentrism is usually associated with an expanded moral circle approach to ethics. That is, they hope to continue expanding the circle of altruism, which began with the band and is presently extended to all of humanity, so that it encompasses nature as well. There are many philosophical issues inherent in this position (“Relations and the Moral Circle”), but, notable for this essay, it also directly leads to misanthropic positions: disdain for natural human social relations, disdain for the existence of the human species, and anti-natalism, or disdain for natural human reproductive practices. But because wildism does not take the expanded moral circle approach, it is not misanthropic, and is, in fact, far less disdainful of humanity than even the progressivists are.

Two clarifications. First, “natural” does not mean “good” in the altruistic, philosophical sense. Instead, wildists argue that the narrative of progress, that nature can be made better with civilized, artificial modification and therefore should be, must be challenged. This is because in our attempt to challenge civilization’s material destruction, we necessarily need to challenge, at least among active wildists, its superstructural justifications.

But this challenge does not mean that artifice *per se* is sin or a taint on nature. As I’ve noted before, nature and artifice exist on a spectrum from wild to tame to domesticated to fully artificial, and all are *to some extent* a legitimate part of our world. Furthermore, artifice is an important element of the natural human condition, since humans have always engaged in making artifacts and artistic creations, so to destroy all artifice would require destroying human beings.

Thus, when we rail against artifice in relation to the myth of progress, we mean something very specific. It is of course possible to “progress” as far as that is just a general verb. You can progress from one end of a room to another, and it is possible to say that a piece of wood was made instrumentally better when it was sharpened. But the myth of progress is specifically referencing not just development or directionality in general, but movement from natural to artificial as an *imperative*. Progressivism isn’t just a statement that civilization is valuable or nice to have, but that it is morally good, and therefore that we are obligated to progress. In contrast, rewilding is about tearing down the idols of civilization and moving the world further toward wildness. It is also not borne from altruism, like progress, which brings us to our next clarification.

We would do well to distinguish between two kinds of morality¹: the altruistic and the axiological, or valuebased. The former in our natural condition extends mostly to our relations¹ (for evolutionary reasons). It is also defined by some irrational impulses and legitimates otherwise odd behaviors, like martyrdom. As I've said, humanism hopes to extend these practices to all of humanity and progressive ecocentrism hopes to extend them to all of nature.

But wildism is an axiological morality, which means it relies much more on moral reasoning, deriving conclusions from some base values, the most important of which is wildness. For instance, instead of arguing that we have altruistic obligations toward nature, we note that we value wildness, which in our current condition obviously produces the imperative to conserve and rewild. This also means that, whereas progressivists feel an altruistic imperative to artificially modify nature for the good of humanity, wildists rewild because of statements of value, which has little to do with altruism.

Finally, it is worth noting that some humanisms are axiological, usually based on a version of utilitarianism. See, for instance, Greene, 2013; Pinker, 2011; Singer, 1983; and Singer, 2000.

I. Progressivism's Misanthropy

Progressivism often claims that wildists are misanthropic because they do not regard humans as having special moral status by virtue of their humanity, or because they do not regard every human being as due equal moral consideration. However, these ideas reveal that it is the progressivists themselves who are misanthropic: they disdain the natural human and hope only to improve him, which in the long term amounts to his transformation into something else entirely. In the short term this amounts to the domination and suppression of his nature, the source of many of our current social problems.

Rubin has a particularly powerful critique of this point in his book, *The Eclipse of Man*, in which he critiques transhumanism, the next major ideology of progress. He notes, for instance, that transhumanism lacks grounding because it involves modifying the very desires that are supposed to be the measure by which we hold progress. This is because of the oft-forgotten fact that genetic engineering (for instance) does not just modify baby faces; it also modifies baby minds. As a result,

It becomes harder and harder for our authors to imagine what will be retained, hence where change will start from. And if the rate of change is accelerating, that simply means we are headed the more rapidly from one unknown to another, while the recognizable old standards for judging whether the changes are progressive are overthrown with our humanity.

The same applies for all previous civilizations. Cities did not just require managing ecosystems, but also called for managing human beings, which is why they birthed

¹ I define "morality" broadly, "the rules, self-imposed or collectively imposed, that govern behavior."

states, police forces, propaganda machines, artificial de-sires, institutional distractions, etc. Hunter/gatherers would not willingly choose to adopt a nine-to-five job, which is why things like the pacification process and the civilizing process were called for.

The most intellectually astute progressivists recognize this and argue that these things have nevertheless been good, allowing for the expulsion of many kinds of diseases, a drastic reduction in violence, longer life expectancies at birth, and many other things. They also usually recognize that these are *post hoc* justifications: humans did not decide to make the world less violent and then achieve this through technical development. Instead, overall technics developed autonomously—they evolved—and took humans beings along with them.

But wildists, and many humans, for that matter, are uneasy with the fact that modern society controls their natures to such a degree, and this is even taking into consideration that most human beings do not understand the sources of their unrest.

IV. Ecocentrism's Misanthropy

Ecocentrism is misanthropic when it is of the expanded moral circle approach, which is progressive. in

nomadic hunter/gatherer condition, an individual's relations amounted to the band and the ecosystems in which he lived. Relations are largely restricted by biological and other material factors. See, for instance, Dunbar's number (Dunbar, 1992). other words, misanthropy is the direct result of the very same philosophy that the progressivists who make the charge espouse.

For instance, ecocentrists sometimes dislike humanity because it is selfish rather than cooperative and altruistic, which they claim would allow the non-human world to flourish. This is the same as the humanist narrative, except extended. Of course, technically this attitude does not embody the *ideal* of progressivist solidarity, since it is ambivalent toward one group (humans) who are included within that ideal. But because it ascribes equal moral value to both humans and non-humans (usually expressed as "rights"), it allows for the possibility of martyrdom, which tellingly became prominent with the rise of another progressivist philosophy, Christianity, from which humanist ethics sprung. In other words, it allows for the utilitarian calculation that, since all suffering is equally bad, and since ending humanity would (according to the progressive ecocentrists) decrease overall suffering, the end of humanity is worth it. This is the same as saying that killing one person is better than killing five, a common humanist utilitarian thought experiment called "the trolley problem" (Greene, 2013). All this, plus martyrdom in this case relies on the philosophical belief that value can be objective (e.g., external to humans), which is not possible with a materialist analysis (see "Relations and the Moral Circle").

All the above applies to the anti-natalism of some ecocentrists, but this brings up an additional point. Both the expanded moral circle approach and anti-natalism are,

like other progressivisms, philosophies that try to implement reasoned abstractions onto nature in order to improve it for the sake of some body with equal moral value. The expanded circle has disdain for humanity's natural propensity to favor relations; anti-natalism has disdain for humanity's natural reproductive practices; etc. This is not wildism, but a renewed progressivism, one that could even become useful for changing economic and technical conditions (see "Refuting the Apartheid Alternative").

v. Conclusion

Although progressivists often like to claim that those in the conservation and environmentalist movements are misanthropes, the very same beliefs that compel them to make this claim actually reveal that *they* are misanthropes. These philosophical beliefs are also the reason some progressive ecocentrists advocate misanthropic positions, which reveals that it isn't conservation that is the problem, but progressivism. Wildists, in contrast, advocate the defense of nature, including human nature, against the revolutionary projects of the progressivists, who seek to "improve" all these things for the sake of their expanded circle of altruistic morality. As a result, wildist and wildness-centered conservationists are, in fact, the only notable challenge to progressivism's misanthropy.

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Ideology and Revisionism

John Jacobi, *The Wildist Institute*

Abstract—Ideology is a defined spectrum of beliefs that unite individuals with similar values and determines their approach to action, often even specifying some actions. Revisionism poses a threat to the effectiveness of ideology, however, because it weakens and degrades the unity of action that ideology makes possible, mostly by splitting the movement and sowing discord and confusion. This essay explains the particulars of these ideas and the seriousness of the revisionist threat, with a specific eye toward their meaning in the context of wildism. It also surveys some relevant revisionist ideologies.

I. Introduction

One of the main threats to conservation today is the threat of revisionism, from the perversions of the Anthropoceners to the confused character of the environmental justice movement. The phenomenon of re-visionism, however, can present a great threat to a movement, especially one that relies on ideology as strongly as wildism must. But in order to understand the phenomenon and the gravity of its threat, it is important to understand the meaning of ideology, its importance, and what, precisely, revisionism is.

II. From Egoism to Ideology

A. Clarifications Regarding Egoism

Two logical outcomes of a materialist analysis are positions that in philosophy are called “egoism” and “nihil-ism.” Nihilism is the understanding that there is no objective value in the world, and thus that all value is “imbued” by a valuer. Egoism is an extension of this understanding, the idea that humans act from their “self-interest.” Wildists are egoists, but very particular kinds of egoists, and since egoist philosophy is full of many kinds of patently false lines of reasoning, let me clarify.

There are two kinds of egoism: descriptive and prescriptive. The former understands egoism as the reality of the world, whether or not people choose to live with a conscious

understanding of it. The latter makes the egoist position a normative one. In general, wildist egoism is of the former variety, but it has repercussions for our normative claims.

Also, the definitions of “self-interest” in egoism differ widely, but we can be certain that the definition stemming from the idea of the “rational actor,” common in economics, is untrue, thanks mostly to cognitive science and evolutionary theory (Kahneman, 2011). Furthermore, “hard” versions of egoism claim that altruistic behavior is an illusion. This is also untrue, something we can again understand thanks to evolutionary theory, but also from simple observation of the world and the numerous examples of animals behaving altruistically. This is thanks to the fact that natural selection, in general, operates on the gene, not the organism, so as long as organism-level altruism benefits the gene’s fitness, the behavior will survive and propagate. This is why, for instance, some male spiders mate with females even though the females eat them afterwards (Dawkins, 1976). In the case of these kinds of altruism, however, the behavior still stems from what the organism himself wants, consciously or not, and not because of any objective, non-material force that compels him to as a moral obligation. “Self-interest,” then, is probably not the best term, but if we are to define it in accordance with these facts, we would have to say it means the wants and needs of the organism himself.¹

Finally, anyone interested in reading more about egoism should be aware that its principle theorist, Max Stirner, frequently fell into idealist (i.e., non-materialist) traps. For instance, he seemed to believe that merely becoming conscious of the egoistic and nihilistic nature of reality was a path to liberation, since it could compel the individual to act according to rules when he wanted to and no other time. He also, and perhaps as a result, frequently disregarded material factors that determine the individual’s condition, arguing that most of the individual’s bondage consists of “spooks” or illusions. But this completely disregards the material basis of many institutions that underpin the individual’s subjugation, like the state, police forces, and technical society in general. As a result, some of his conclusions, especially his ideas around the family and some forms of social organization, are faulty. The method, then, for discerning what is useful and what is trash in Stirner’s philosophy is to approach him with

should keep in mind the particular definition offered and not be surprised if another term is used at some later point.

“the cadres’ razor”—scientific materialism. The same applies to Nietzsche, Darwin, and others who investigated the ethical implications of materialism, but who nevertheless failed occasionally to accept those implications completely.

¹ Because “self-interest” is the only available terminology, I will continue to use it in quotes for the rest of the essay. However, readers

B. Egoism in Wildist Ethics

As made clear in “The Foundations of Wildist Ethics,” wildist ethical philosophy begins with a statement of the “intrinsic” value of wild nature. In a later essay (“Relations and the Moral Circle”) I clarify this position:

In “Foundations” I wrote that “intrinsic” means “non-instrumental” and “non-derivative” (p. 15). However, “non-instrumental” is not always strictly accurate. I used it for much the same reason I still sometimes speak of “free will”: the reality underlying what we perceive as free will is non-intuitive, and acting as though we have free will is still necessary for various reasons. Still, after further thought I have concluded that it poses no real risk to say that our valuing nature is in some ways instrumental, but not in the solely economic sense.

To say that nature has “intrinsic” value, then, is mostly a way of saying “here is a point at which further elaboration is unhelpful.” That is, we could say that I value nature because of a love of natural noise (compared to the industrial racket), because of aesthetic preference, because of my cravings for communion with animals to a greater degree than is possible in the city, because of my desire for purposeful, goal-oriented activity, or I could even say “simply because.” And then another person might name some other specific convergence of wants and needs that join to make him concerned with nature, the world maintained by the absence of human control. Elaboration on these points, however, is unhelpful, because the state of nature makes now the time to figure out the basis on which we can find political affinity. The starting point of this political project, the thing with non-derivative or intrinsic value, is nature.

From here, wildist’s normative claims are a logical extension of the consequences of valuing wildness in our current material condition. For instance, those who value wildness must in this time be concerned with conservation and rewilding. This is not a Christian prescription: there is no Divine force that commands the obligation. Instead, the obligation is a logical consequence of the wildist’s starting value (and the conditions in which he finds himself, of course).

C. Ideology as Coalition

It is of course legitimate for an individual to remain a lone actor, but this often reduces the individual’s effectiveness in achieving his goals. The trick for the egoist is to find a way to act collectively without subordinating himself permanently and to an unacceptable degree to those “interests” that are not his own. (It is, for practical reasons, impossible to avoid subordinating oneself at all times. For instance, we cannot always know whether another, perhaps trusted, individual’s decision is in our own “self-interest,” and taking the risk to trust them may nevertheless be useful overall. This is the nature of life.) Stirner called his own idea a “union of egoists.” In looking at

our available options, wildists argue that a skeletal ideology offers the basis for unified action.

Ideology is to the collective what the starting “intrinsic” value is to the individual: a practical limit at which further difference is irrelevant or unhelpful to explain. In other words, the point of the ideology is to unite a group “narrow enough to entail a politically discrete population... and not so broad as to be meaningless” (“The Foundations of Wildist Ethics,” p. 19).

Ideology is separate from organization and can in fact contain many different organizations. This is inevitable given the variety of human “interests.” In other words, while those at The Wildist Institute are involved primarily in the creation of a specific party-form of organization (a “combat party”), wildism does not exclude other forms of organization and logically requires them. (Consider, for instance, sleeper cadres that operate autonomously of the party.) This is why ideology is so important: it allows diverse forms of organization to unite under a broader coalition for more effective action. In order for this coalition to be preserved, however, *all* members must accept *all* core elements of the ideology.

Wildists, for example, are united by three core elements. First is *the scientific materialist worldview*, which influences all aspects of our analysis and is indispensable for cadre work (in fact, it is called “the cadres’ razor”). Although scientific materialism contains many abstract philosophical assumptions, and can in fact accommodate a spectrum of contradictory ones, wildists need not agree on these ultra-fundamental details, since their main emphasis is on unified action facilitated by ideology. Often this idea is shortened into the phrase, “Talk is everywhere, but rewild is verb.” Of course, this emphasis on specific and unified action is true much in the same way it is true in science, where individual scientists may believe in God personally, but where this doesn’t really affect their scientific work. Some Jewish groups put a similar emphasis on action before belief, arguing that Judaism only prescribes that the Jew perpetually grapple with the existence of God, whatever his conclusions at the time, but must reliably fulfill God’s commandments. For instance, in the *Tanakh* it is written, “They have forsaken me and not kept my Torah,” to which a Rabbinical commentary quips, “If only they had forsaken me and kept my Torah.” Of course, these Jews nevertheless regard the fundamentals of their ideology as important, and still regard certain kinds of revisionism a great threat. This dynamic within Judaism and science is akin to the dynamic within wildism.

Second, the core of wildism is its *critique of Progress*. Part of the work of invalidating the progressive mythology is pushing the empirical claim of technical autonomy (“Foundations of Wildist Ethics,” section III.C), but this is mostly a practical concern. People are less excited about technical evolution when they understand that they cannot direct it. The core of the wildist critique is a challenge to the normative claim of the mythology: that civilized modification of nature is morally good, and is therefore an obligation. In contrast, wildists advocate *wildness* as a core value, the most substantial challenge to progressivism possible.

Finally, wildists note that among those who value wildness, there is an imperative to *rewild*. This involves a spectrum of actions that range from the personal to the social, the moderate to the radical. The main work of The Wildist Institute in particular is coaxing wildness-centered elements further along the radical side of the spectrum in order to make possible an anti-industrial reaction, if objective, non-controllable factors make such a reaction possible. Wildism itself requires, as part of the imperative to rewild, the belief that a reaction is desirable and that paving the way for a reaction is an important element of any rewilding work. Much of the institute's work has been and continues to be explicating the reasons why this belief is a logical deduction given our current condition and our values.

These are of course only the explicit elements of the ideology, and there are undoubtedly unexamined, implicit elements that are important as well. One possible example is the cadre form of organization. But since organization is a much more practical question than ideology, and since it involves trade-offs that individuals may regard more or less acceptable given their dispositions and character, the question of organization is a topic for another time.

I. Revisionism

A. What is Revisionism?

Revisionism is the phenomenon whereby a hostile tendency modifies core elements of an ideology in order to make it more palatable to the hostile tendency, or in order to weaken the movement united by the ideology. In our case, this has occurred primarily with progressivist revisionism within the conservation movement.

The phenomenon of revisionism takes place in many political and ideological terrains. Taking again the examples of science and Judaism, the former has had to face creationist revisionism, or scientists attempting to show that the concept of God and sometimes biblical literalism are scientific concepts; and the latter has had to face many waves of revisionism, the most egregious being the so-called "Messianic Jews," who claim the Christian Jesus as the Jewish messiah.

The threat of revisionism lies not in different understandings of facts. For instance, a theory is not revisionist in relation to science if it proposes an alternative to prevailing evolutionary theory, although it may be revisionist in relation to the prevailing paradigm. In other words, while Copernicus was a revisionist in relation to the geocentric cosmological model, he was no revisionist in relation to scientific methodology, and indeed demonstrated that he followed that methodology more rigorously than his geocentric colleagues. The former kind of revisionism is no threat and can be healthy,

and only because of the vaguities of language can they be called the same name.² in conservation science, for instance, it is a good thing for someone to “revise” common methods of conservation in light of new facts.

instead of facts, revisionism is a threat in relation to values. For instance, creation “science” is revisionist because it betrays the epistemological values of parsimony, scope, accuracy, consistency, etc. Messianic “Judaism” is revisionist because its belief in the Christian Jesus modifies core values of Jewish doctrine by placing more emphasis on eschatological concerns, recalibrating the relationship between the Jewish and Gentile people, between Israel and Jews, etc. This obviously affects actions, since imperatives are created by a combination of values and conditions; but when values are modified, imperatives change, and unity of action is degraded.

B. A Survey of Revisionist Ideologies

Revisionist ideologies may qualify as such under several conditions. First, they may claim a different name but appear similar because of their refusal to also dispose of the discourse and major goals of the ideology. For instance, some anarchists, primitivists, and anti-civilizationists espouse similar goals as wildism but on the basis of progressivist values. As a result, the “leftism” that they rail against is the same “leftism” that the New Left rails against, namely, the Old Left. Instead of equating “leftism” with progressivist values, then, they argue that it is anything with the character of the Old (mostly Marxist) Left and its organizationalism, scientific analysis, and class reductionism. This is not so much a problem anymore, since wildists no longer use the terminology when “progressivism,” “opportunism,”³ and “humanism”⁴ adequately address the threats that “leftism” sought to cover. But for a long time this created some confusion.

To be clear, the primitivists *et al.* are not revisionists, and are instead totally separate ideologies (they are better described as confused humanists). However, they do present a threat of revisionism because some confused member of their ranks, or some stranger who is somewhat familiar with their writings, may attempt to integrate their progressive values into the wildist ideology.

This has already occurred, and it demonstrates another way an ideology may qualify as revisionist. Recently some followers of John Zerzan, the principle theorist of anarcho-primitivism, attempted to claim the name of “wildism” as their own and associate it

² In wildist technical terminology, however, the two kinds are not both referred to by the same name, and “revisionism” is reserved exclusively for the latter tendency

³ “Opportunism” is the tendency to take advantage of an opportunity regardless of the principle of it. Opportunists are common in academia and humanist movements on the political left, both because of an activist infrastructure left over from the 60s and looking desperately for a new source of revolt.

⁴ “Humanism” is the dominant progressivist ideology, united by the values of solidarity between all humans, equality for all humans, and

with the non-scientific field of ecopsychology, feminist ideas, and various other kinds of nonsense. They have since desisted, but we can expect similar attempts in the future.

Outside of obscure ideologies, the conservation movement as a whole has faced many revisionist attacks, the most blatant and dangerous of these being the ecomodernists, who I addressed in “Refuting the Apartheid Alternative.” They attempt to integrate progressive values by virtue of a single economic phenomenon found in a handful of commodities, something they call “decoupling.” On this basis, they argue for the acceleration of technical and economic development and the establishment of “island civilizations” so that the nature outside of those islands can flourish. Worse, they coopt the Rewilding Program devised by The Wildlands Network, failing to note who it was devised by and giving the impression that they themselves devised it; they argue for a revisionist concept of rewilding that includes de-extinction of species through biotechnology; and they use the label of conservation even though they are closely aligned with the Anthropoceners, who emphasize humanist moral concerns over conservationist ones. Similar tendencies of this sort have been found in the environmental justice movement (Wuerthner, Crist, & Butler, 2014).

Finally, a common form of revisionism waters down the radical nature of an ideology. In our case, this means de-emphasizing the importance of an anti-industrial reaction and instead emphasizing more personal, or moderate, forms of rewilding. Several revisionists of this type have occurred so far, but as it stands they are tangential and no serious threat.

C. The Threats of Revisionism and Their Solutions

Revisionist ideologies must be avoided because they confuse members and sympathizers, weaken the ideological coalition, and degrade unity of action. Thus, wildists must fiercely renounce revisionist ideologies, avoid revisionist influence, but most importantly to preserve the terrain on which wildism and conservation depend in order to enact their goals.

Our main battle is against the infrastructure of industrial society and by extension the technocrats and armed forces that develop, maintain, and protect it. Battles with revisionist ideologies must therefore be secondary, or even tertiary, or less, and only in relation to the overarching goal of disrupting industry beyond repair. For the most part, this involves guarding our ideological terrain against revisionism; so long as the value of wildness is

the integration of victimized classes. Left-wing movements (and the libertarians on the right) are commonly known for enforcing the humanist concern for victims, while right wing humanists often accept a more practical view that still favors the nation as an ethical reference point. Humanism was birthed from Christianity and has birthed animal rights ideologies, progressive ecocentrism, and transhumanism.

preserved within this terrain, revisionists can mostly be ignored. The process of guarding this terrain is called being the “conscience of conservation.”

IV. Conclusion

Ideologies are means by which self-conscious individuals enter into a coalition with other individuals on the basis of a core set of values and conclusions about those values. The ideology of wildism has three such broad elements: the scientific materialist worldview, the critique of progress, and the imperative to rewild with an eye toward political reaction.

Revisionists are those who attempt to use the name, discourse, or core elements of wildism with severe modification affecting its main values and deductions. So far we have seen revisionists in a few groups: the ecomodernists, some primitivist actors, the environmental justice advocates, and the Anthropoceners, among others.

In order to facilitate our goal of disrupting industry beyond repair, wildists must maintain their ideological terrain by guarding it against revisionist threats. otherwise, the ideological coalition will be weakened, members and sympathizers will be confused, unity of action will degrade. Guarding against these threats is what is meant by the saying that wildists should be the “conscience of conservation.”

Although the ideas outlined here are neat and tidy in the abstract, especially the idea of egoist individuals rationally joining a coalition, this is only an abstract model, and when applied to real life it will necessarily become messier. These questions all fall under the banner of “organization,” which wildists recognize comes with tradeoffs and a pragmatic approach, as well as a materialist approach, as always. In the future, then, we must start with these ideas on ideology and develop arguments for relevant trade-offs and specific organizational models.

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Technical Autonomy

John Jacobi, *The Wildist Institute*

Editor's Note: Some of this text has been taken verbatim from “The Foundations of Wildist Ethics” in *Hunter/Gatherer*, Volume 1, Number 1.

Abstract—Civilization’s justifying narrative has always been the myth of Progress, or the idea that civilized modification of nature is good and therefore a moral obligation. In our present time the dominant progressive narrative is a humanist one—that is, artifice is justified by the good or supposed good it does for humans. However, most people support Progress because of an associated myth that alleges humans can control the direction of Progress. Thus, when some individual or group questions technical development, most respond that technics have just been used improperly, and what we really need to do is add ethical direction. The myth of rational control rests on four faulty assumptions: (1) that human reason is sufficient; (2) that rational blueprints will be implemented properly or at all; (3) that the blueprints will go as planned; (4) that the blueprints won’t have unintended consequences. This article examines these assumptions and, showing they are false, outlines their implications for the myth of Progress.

I. Introduction

Progress” is the word used to indicate civilization’s dominant mythology: the civilized modification of nature is good and therefore a moral obligation. In terms of techno-industrial society, or late industrial society,¹ the dominant progressivist narrative is a humanist¹ one, so justifies civilized artifice by arguing that it is good for humans. At base, irrefutable critiques of Progress have to emphasize the value of wild nature—a normative challenge to progressivists’ normative claims. However, an associated myth that validates Progress in the minds of many is descriptive: humans believe and are told that they can direct Progress, that it is the result of their reason. If this

¹ “Techno-industrial society” or “late industrial society” (also referred to as “post-industrial society” or “the information age”) is the phase of industrial development that began roughly around WWII. It differs from the previous phase of industry in several respects, notably, its emphasis on information, its megalithic technologies, and its increased reliance on propaganda. For some general reasons why, see Hanlon, 2014; Beniger, 1989.

claim was shown to be false, fewer people would be enthused about technical development, since they often believe that it fails because of improper guidance and respond to failures by trying to get people with their own values in power, or by trying to enforce their values through social movements. They would also be less enthused because it means that humans are dominated by technics[210] just as much as non-human nature is.

Since the associated belief—the myth of rational control—is descriptive, it can be invalidated through scientific reasoning and empirical evidence. And it is indeed false, resting on four faulty premises:

1. It assumes that rational blueprints can be sufficient.
2. It assumes that rational blueprints, when sufficient, will be implemented properly or at all.
3. It assumes that rational blueprints, when implemented, will go as planned.
4. It assumes that rational blueprints, when they go as planned, will not have unintended consequences.

In reality, technics develop autonomously of any human being, group of human beings, and humanity as a whole. That is, technics *evolve*. For the purposes of this essay, the actual mechanisms by which technics evolve is irrelevant; a confluence of evidence indicates that it does so nonetheless, and that the mechanisms are merely a puzzle waiting for a solution. In fact, some scientists are already working on that puzzle. Here I only outline our knowledge of the theory of technical evolution so far in order to demonstrate that regardless of the mechanisms, a more practical view that still favors the nation as an ethical reference point. Humanism was birthed from Christianity and has birthed animal rights ideologies, progressive ecocentrism, and transhumanism.

II. The Four Faulty Premises

A. Rational Blueprints Aren't Sufficient

In order for the myth of rational control to be true, humans have to know enough to change society without too many uncontrollable, unintended consequences. But that is not the case. This critique includes knowledge on the individual, group, and species level—that is, it applies even to collective knowledge through, for instance, computing systems.

some of this is clear through abstract reasoning about the issue. If a system is devised so that it can properly understand and predict phenomena in a given society, any society that possesses it necessarily becomes more complex, and it then must devise a second system to understand and predict phenomena in “society plus the first system.” This is because the first system will itself affect the goings-on of a society and contribute more complexity. Thus, it is never possible to have absolute selfknowledge.

Of course, this does not mean that prediction is impossible, but there are practical limits. societies are complex systems, which means that miniscule differences in their starting conditions can result in drastic differences later on. Thus, predicting social phenomena is a lot like predicting the weather or the economy, which also deal with a complex system. And as everyone knows, weathermen and economists frequently make inaccurate predictions.

In other words, those who argue that technical progress can be good if only we had the proper institutions to direct it must explain how the group of people given authority to determine “good” will make their decisions. since they will be like weathermen, we can be sure that their predictions will almost only be accurate in the short term, not even considering “unknown unknowns” and unintended consequences. For instance, at the time cars or cellphones were invented, no one knew the far-reaching changes they were going to bring to society, and no one could have known. How, then, could any group of people have directed these inventions to ensure that their consequences were “good” ones? As a practical example for our current time, how would anyone go about properly predicting and assessing the consequences of biotechnics?

There are numerous examples supporting the position that no one actually can. For instance, a recent article en-titled “Why aren’t urban planners ready for driverless cars?” one planner was quoted as saying, “We don’t know what the hell to do about it. It’s like pondering the imponderable” (Jaffe, 2015). This *may* be fine when it comes to benign technical inventions, of course, but in our current world of massive technologies with far-reaching, global consequences this is unacceptable, and not what most would call “sufficient knowledge.”

Furthermore, it is impossible for humans even now to understand many technical systems on which industrial society depends. A common example is the stock market, almost 70% of which now depends on “black box trading” or “algo-trading.” Black box trading is a practice whereby algorithms do the actual trading between businesses and brokers. It is an almost entirely automated process, and very efficient. But nobody actually knows what algorithms are running the stock market. In fact, it is the job of some companies to go in, pick out algorithms, and give them cute names like “the knife” so that we can know what, precisely, is determining the outcome of your pension. This obviously comes with some problems. In May of 2010, an event now known as the Flash Crash of 2:45 occurred, during which 9% of the stock market just disappeared. To this day, no one knows exactly what happened. something similar occurred in 2015, and as a result stocks from PepsiCo, JP Morgan, and Ford Motor, among others, declined up to 20%. A 2013 article from *Nature* described this algorithm-run stock market as a “machine ecology beyond human response time” (Johnson, et al., 2013).

We also can’t forget that social systems consist of humans and are dependent on human behavior, other com-plex phenomena, and this introduces an inherent amount of instability that only decreases with more complex social systems. so consider that in 2010, when the AP Twitter account was hacked to announce that the White House had been attacked and Obama injured, the stock market suffered another flash crash

that resulted in a 130-point plunge in the Dow Jones Industrial Average (Matthews, 2013).

Perhaps if industrial societies were not yet dependent on these technical systems, advocates of rational control could make a stronger case for ethical direction of technical progress. However, our already-established dependence severely weakens this argument, since we've arguably reached a point where the practical knowledge required would not be sufficient for proper ethical direction.

Lest someone think that this only applies to the stock market, consider the example of airplane Traffic Alert Systems. One article (Arbeson) explains,

Despite the vastness of the sky, airplanes occasionally crash into each other. To avoid these catastrophes, the Traffic Alert and Collision Avoidance System (TCAS) was developed. TCAS alerts pilots to potential hazards, and tells them how to respond by using a series of complicated rules. In fact, this set of rules — developed over decades — is so complex, perhaps only a handful of individuals alive even understand it anymore.

In fact, even technical systems not composed of metal qualify as beyond our control, like bureaucracies. Who really understands the dynamics of a US government or a large, international NGO? Nobody, of course. That doesn't keep these things from operating, but it does mean that any attempt to direct them for "good" has to face possibly insurmountable practical problems.

Finally, humans can't hope to ever predict some technical developments. For instance, the moment an AI becomes as intelligent as a human is the moment it becomes more intelligent. After that, no one can predict or even understand what the AI will do; that is absolutely outside of our ability. This means that for AI and technical developments like it (e.g., biotech, nanotech, etc.), a large part of the "improvement" actually can't be judged as so until after the fact, and maybe not even then. For instance, if an AI (or a whole AI system on which industrial humans are dependent) becomes malicious, there may not be much we can do about it. Saying that we could just turn them off is like saying the monkeys could just turn us off because we keep destroying their habitats. Indeed, many from the technician class know this, yet pursue technical development regardless. For instance, Claude Shannon, the founder of information science, said, "I can visualize a time in the future when we will be to robots as dogs are to humans...[and] I'm rooting for the machines" (Liversidge, 1987).

B. Rational Blueprints Often Can't Be and Aren't Implemented Properly

Even if humans did know enough to direct technical progress, they often cannot or do not properly implement their plans.

1) Let's Play a Game

For instance, let's assume that directing technical development is possible in the context of a nation-state, which is really the highest level of control most people can argue for without proposing a universal government. In this case, if technics are just a tool in the hand of the "good" prevailing power, then they are just as much a tool in the hand of a "bad" prevailing power. And technics are difficult to control, some, like computer code, practically impossible. Short of a global government, and an extremely well managed one at that, we can be sure that at least some "bad" state actors will get ahold of technics that are quite powerful. And the real question is whether technics can reach a certain level of power that the risk of "bad" actors getting ahold of them simply isn't worth it. Nuclear proliferation was a major example of this for a long time, but newer technics make nuclear look like child's play. Biological weapons, nanotechnology, and artificial intelligence all present much graver threats. Few people realize how simple it is to build a biological weapon. If we consider that not even a global government could prevent terrorism, and if we consider that these technologies give a tremendous amount of power to rather small and organized groups, the answer we should tend toward becomes clear.

In fact, the actors in question don't even need to be "bad." Game theory and various other cooperation puzzles reveal that even "good" or neutral actors could unwittingly engage in behaviors that lead to their demise. The classic example is the tragedy of the commons, a puzzle in which actors use a given resource according to their own self-interest, but also in ways which deplete the resource for everyone using it. Several other puzzles, like the prisoner's dilemma or wars of attrition, illustrate that proper control over technical development is simply not possible, and things are bound to get out of control. Once again, this need not be true in an absolute sense. It is enough to note that technics are getting so powerful that even the threat of things getting out of hand is simply too much of a risk; and, of course, it invalidates many fantastical schemes for controlling Progress that some argue "ensures" that we can do good with technics.

2) Accidental Progress

Stemming from the fact that humans can't know enough to direct technical development, accidental inventions or chains of events also cause problems for implementing rational blueprints. Consider that many technics and scientific discoveries were invented or discovered by accident, including anesthesia, x-rays, dynamite, electromagnetism, ozone, radioactivity, and penicillin. Many times these accidental inventions or discoveries change the technical landscape profoundly, invalidating any previous blueprint or efforts to implement it. This is unavoidable; no scheme could overcome such a limitation.

3) Human Folly and Human Limits

Then there's the fact that humans simply aren't primarily rational creatures, so their attempts to implement blueprints are going to suffer consequences that stem from their inept wetware. Of course, this was far less of a problem in the Pleistocene environment under which our brains evolved, but in our modern, mismatched environments human reason suffers some serious setbacks that together are called "bounded rationality."

The psychologist Daniel Kahneman illustrated a series of such problems in his excellent book, *Thinking, Fast and Slow*. One example he gives recalls an experiment in which he and the psychologist Amos Tversky told participants about an imaginary character named Linda. Linda, the story went, was single, smart, and outspoken on the issues of discrimination and social justice. After explaining this, the two psychologists asked if it was more probable for Linda to be a bank teller or for Linda to be a bank teller who was active in the feminist movement. Of course, basic lessons in statistical probability would reveal that the first answer is the correct one. Only a subset of all bank tellers are feminist bank tellers, so adding the extra detail will necessarily decrease the probability. But most participants said the second answer was correct.

Another phenomenon Kahneman reports is called the "availability heuristic," which means that the easier something comes to mind, the more probable the human mind will judge it to be. For example, Kahneman and Tversky (1973) asked participants in one experiment to judge whether words that began with the letter k were more probable, or whether words with k as their third letter were more probable. Because we recall words by their onsets, words beginning with the letter k are easier to recall. Thus, the duo predicted, rightly, that participants would judge words beginning with k as more likely, even though the opposite is true. One could repeat this experiment using almost any letter.

The availability heuristic helps explain why people seem to fear things in a way that is totally incongruent with statistical probabilities. For example, death by falling furniture is much more likely than death by murder, but because it is easier to recall instances of murder, perhaps from the news or even novels, people fear it significantly more. This may explain why individuals in nations with extremely low crime rates but oversaturated with news media suffer from undull anxiety about crime.

These heuristics have implications for moral reasoning as well. In his book, Kahneman describes two kinds of systems in the human brain. System 1 is intuitive, fast thinking, and it utilizes various shortcuts in order to come to conclusions. For all its imperfections, System 1 can be surprisingly accurate, especially when making decisions closer to the kinds our Stone Age counterparts would have made. In contrast, System 2 is analytical, slow thinking, the part of the mind that humans use to write or do complicated math. Kahneman argues that the fast, intuitive system is more influential and that individuals often act on its conclusions without the analytical mind even knowing about it. But just imagine what this means for humans making split-second moral decisions with big consequences, like dropping a bomb or initiating a drone strike.

Or even just imagine what this means for humans who run large and ostensibly benign systems that might also require split-second decision-making, like nuclear facilities.

Finally, there are the most unsettling biological limitations of all, which also happen to be the ones that brush up against the topic of morality most directly. One of the most striking of these is our inability to reason about moral obligations to large populations. For example, Slovic (2007) once conducted an experiment in which he told volunteers about a starving girl, measured their willingness to donate, and then told the same story to another group but with the added detail that millions of others were also starving. The second group gave around half as much money as the first. In fact, Slovic found that even adding just one more person would begin the process of “psychic numbing.”

Slovic’s finding that humans have a hard time reasoning about large numbers of people is in some ways unsurprising. In fact, it is a hallmark problem of population ethics. Churchland (2011, p. 178) put it this way: “no one has the slightest idea how to compare the mild headache of five million against the broken legs of two, or the needs of one’s own two children against the needs of a hundred unrelated brain-damaged children in Serbia.” The evolutionary explanation for this is that humans have never had to deal with such large numbers of people, so conditions didn’t encourage the evolution of mental mechanisms that would allow us to do so intuitively. It may be that we can use Kahneman’s analytical System 2 to conquer the problem, but it may also be that our analytical mind isn’t equipped to deal with it at all. Whichever happens to be correct, it is clear that humans are unlikely to provide proper ethical direction to technical development.

C. Rational Blueprints Do Not Go As Planned

For three decades, we’ve sought to solve [these] problems...and the more the plans fail, the more the planners plan.

—Ronald Reagan

As is to be expected from a world where human knowledge is limited and human ability constrained, even when some individual or group attempts to implement their blueprints in all the right ways, their blueprints rarely go as planned.

1) Calendar Reform

Some great examples of this include numerous attempts at calendar reform. The Gregorian calendar is no-toriously inefficient, especially for industrial economic purposes. Indeed, the inefficiency has resulted in loss of large sums of money and several lives, motivating many to popularize calendars much more suited to their industrial purposes (99% Invisible, 2015). They have all failed. This includes the *Positivist calendar*, created by August Comte; the *Pax calendar*; the *International Fixed Calendar*; the

World Calendar; the *French Republican Calendar*; the *Invariable Calendar*; the *World Season Calendar*, created by Isaac Asimov; and the *Tranquility Calendar*. To give a sense of the scope of their failure, some of these were even proposals in international organizations like the League of Nations but nevertheless failed to be implemented.

2) Failed Utopias

City planning is also a field notorious for failed schemes. It's not that city planning doesn't work—it often does—but perhaps more than any other field it demonstrates how rational blueprints can work only when they are limited in scope and when they aid technical and economic developments already under way. For instance, most successful city planning projects focus on aesthetics and the general structure of a city, and even then usually only in cities where the economy is already functional. Attempts to build cities and then build an economy have to my knowledge always failed, and this is demonstrable especially in utopian schemes of over-zealous planners.

A famous example is Paolo Soleri's "Arcosanti," a city he designed from scratch in order to demonstrate the principles of "arcology," or ecologically-informed architecture, the dogma of modern "green planners." Arcosanti is an odd, futuristic city that, although capable of supporting around 5,000 humans, has only a population of around 80, mostly dreadlocked alternative-culture types. The Japanese corporation Shimizu tried to implement another arcological project in 2004, but it has similarly failed (Keller, 2015).

These examples reflect the similar and ubiquitous failure of utopian communities that became common in the U.S. in the 1800s. The Nashoba community, for instance, closed its doors within a year of its debut; and only months after the creation of New Harmony, one of the most famous utopian communities, various groups splintered off from each other and the project failed.

With all these examples, it should not surprise anyone that the most striking planning project of all was met with equally striking failure. I refer, of course, to communism. Harris (1992) explains, for instance, that Soviet communism failed precisely because its ideologically-derived social structure was not suited to infrastructural conditions, something communist dogma ignored. Whether or not Soviet communism equals real communism is irrelevant; the point is that the management scheme that *was* attempted failed, and for probably similar reasons that calendar reform, utopian cities, and ambitious city planning projects frequently fail as well: humans just aren't as powerful as they think.

3) Biosphere 2

One might, of course, argue that there are at least some cases where humans have knowledge and power enough to control some system. Indeed, humans have already attempted to gain such a level of knowledge and power in creating a now-infamous project known as “Biosphere 2.” And it too failed. Twice.

Biosphere 2 was an attempt by some scientists to create a totally controlled ecological system with five biomes roughly equal to most biomes on Earth. It was a highly popularized project, with implications for biologists, ecologists, and various technicians’ dreams of space colonization, because it offered, or was to supposed to offer, a way for scientists to carefully control variables and learn how, precisely, ecosystems work.

However, Biosphere 2 suffered from frenzied CO₂ levels that caused many species to die, including most vertebrates. Pest insects prospered, and some species killed off and dominated other species. The humans in-habiting the system ultimately had to leave. (And some scientists are still considering geo-engineering as a re-sponse to climate change!)

The second time around failed largely because of disputes between the scientists, compounded by alleged van-dalism by some of the more upset individuals. This may seem irrelevant, but it is in fact highly germane, since it reminds us to temper our planning schemes with greater awareness that it is humans coming up with and implementing them.

Tainter and Patzek (2012), in their book about the *Deepwater Horizon* oil spill, summarize all these points thusly:

The Deepwater Horizon was a normal accident, a system accident. Complex technologies have...ways of failing that humans cannot foresee. The probability of similar accidents may now be reduced, but it can be reduced to zero only when declining [energy returns] makes deep-sea production energetically unprofitable. It is fashionable to think that we will be able to produce renewable energies with gentler technologies, with simpler machines that produce less damage to the earth, the atmosphere, and people. We all hope so, but we must approach such technologies with a dose of realism and a long-term perspective

D. Rational Blueprints Always Have Unintended Consequences

The chief source of problems is solutions.

—Sevareid’s Law

Ultimately stemming from the fact that humans don’t know enough, even rational blueprints that are perfectly implemented always have unintended consequences.

Let's assume that industrial medicine, a highly successful industry by most accounts, was rationally implemented and not evolved. Even it suffers from profound unintended consequences like antimicrobial resistance, which is creating an increasingly dangerous situation. One might also note that medicine has itself caused medical problems. As one article puts it, "There is increasing evidence that the [mismatch between human biologies and civilized conditions] fosters 'diseases of civilization' that together cause 75 percent of all deaths in Western nations, but that are rare among persons whose lifeways reflect those of our preagricultural ancestors" (Eaton, Konner, & Shostak, 1988).

Or consider that most technical innovations supposed to decrease human work have actually increased it. For instance, cell phones and PCs, by making communication and several other business functions more efficient, did not decrease the workday; instead, the workday began bleeding into the home, often without wage compensation.

Or consider the related Jevon's Paradox, whereby increased efficiency in production will actually lead to more consumption, not less.

Tenner covers many of these unintended consequences in his book *Why Things Bite Back: Technology and the Revenge of Unintended Consequences*. He focuses especially on medicine, but also agriculture, sports, and office work. In the end one is thoroughly convinced

that unintended consequences are simply a part of technical development, especially because so many depend on the oddities of human behavior. He writes, for instance, "when a safety system encourages enough additional risk-taking that it helps cause accidents, that is a revenge effect." In the end, however, he falls into the trap most do: he proposes more "finesse" and "moderation" in developing and applying technology—a technical system to control the technical system! By now, however, it should be clear that such a thing is impossible.

I. An Alternative Model of Technical Development

One might wonder how technical development proceeds if humans don't control it. Luckily, the budding field of cultural evolution, as well as some old insights from Marx, Darwin, and Malthus, provide us with some paths for investigation. Within this field of cultural evolution is the specific problem of technical evolution, which holds that technics are not directed, but evolve, and the illusion that they require an intelligent designer is akin to the same illusion produced by complex biological systems.

As of yet there is no comprehensive theory of technical evolution. We do know, however, that it will involve a synthesis of at least two domains—cultural ecology and sociobiology—and that it will involve a resolution of the controversy between group selectionists and kin selectionists in evolutionary theory. What follows is a brief review of our current knowledge.

A. Cultural Materialism

The best theory in cultural ecology, by scientific standards, is Marvin Harris' "cultural materialism," a synthesis of the cultural evolutionism of Leslie White, the findings of Darwin, the scientific aspects of Marxist theory, and the demographic emphasis of Malthus. The most in-depth exposition of Harris' theory is in his book aptly entitled *Cultural Materialism: The Quest for a Science of Culture*, in which he describes the theory's epistemological foundations, its basic principles, and reasons why it prevails over the alternatives.

For our purposes, the most relevant part of the theory is his outline of the universal structure of society. He argues that cultures are composed of three components: an infrastructure, a structure, and a superstructure, each metaphorically stacked on top of each other, and each of the bottom layers probabilistically determining the character of those higher up.

The infrastructure is composed of two elements. The first, the mode of production, consists of the material technics and economics by which a society harnesses natural energy for efficient production of necessities, like food and energy. Common modes of production are hunting-and-gathering, pastoralism, agriculture, and industry. The second, the mode of reproduction, is the sexual and reproductive practices of a society, like birth control and infanticide. These two elements together, plus the given natural context of geography and ecology, make up the raw materials on which a society is built. As a result, no element of society can transcend these infrastructural limits, and in attempting to explain a certain culture, we should look to the infrastructure first. Jared Diamond's *Guns, Germs, and Steel* is one example of this approach.

The second level of society, the structure, is the pattern of social relationships within a given infrastructural context, meant to properly distribute, secure, and stabilize the use of the infrastructure's products. This includes things like certain economic institutions, divisions of labor, governments, NGOs, etc.

The final level of society, the superstructure, is the collective mythology of a culture—its science, its religion, its cultural narratives, and so forth. These secure an individual's commitment to the structure's way of managing resources, and they are, again, probabilistically determined by the structure and infrastructure.

The implications of the theory are what one would expect. Humans, for instance, have reduced agency, something that many have criticized Harris for, but which seems to be correct, regardless of how unsettling it is to some. Since superstructure is determined by lower levels, it cannot be a source of large-scale social change. That is, simply changing men's minds will do nothing if the actual structure of a society doesn't change, and a structure can't change if infrastructural limits don't allow it. There are feedback loops between each level, especially since the higher levels maintain the stability of human being's relationship to the lower levels, and affecting these feedback loops can determine the character and speed of social collapse. But overall humans are still very much at the whim of elements much more powerful than their own power and will. Fur-

thermore, because societies are complex systems, it is not always clear how feedback loops function, so the effects of an ideological social force on the structure and infrastructure are frequently unpredictable. This is why the determinism is “probabilistic.”

B. Sociobiology

One thing Harris got quite wrong was his position on human nature. He advocated a “blank slate” idea of nature, believing it to consist of only basic desires and believing that that primary method by which humans respond to their environment is through cultural adaptation. This idea was in vogue when he was devising his theories and is still quite strong among some academics. However, the cognitive revolution and the new science of sociobiology have demonstrated that the theory is wrong, and that human nature is actually not very blank at all (Pinker, 2002).

Often a broad argument employed by blank slatists is the “complexity” of human social life, something that they can’t accept is the result of “instinct” alone. But apart from the fact that sociobiology does not rest solely on the concept of “instincts,” this is a weak argument. Animals who it is generally agreed have only instincts are incredibly complex social creatures—ants, whales, dogs.

Then there’s the success of sociobiology in explaining *altruism* (Pinker, 2011; Wilson, 1975; Barkow, Cosmides, & Tooby, 1995; Dawkins, 1976), *cultural universals* (Pinker, 2002), *incest taboos* (Barkow, Cosmides, & Tooby, 1995; Shepher, 1971), *infanticide* (Daly & Wilson, 1988), *human violence* (Rice, 2013; Pinker, 2011; Wilson, 1975; Daly & Wilson, 1988), *rape* (Thornhill & Palmer, 2001), *facial expressions* as a form of social communication (Ekman, et al., 1987; Eibl-Eibesfeldt, 2007), etc., and in such a way as to yield fruitful and accurate predictions. This would be impossible if the theory was not very accurate itself. By all accounts, then, it has won, despite the controversy that met it at its birth (Alcock, 2003).

In fact, sociobiology is such a well-researched and established science that any synthesis between it and cultural ecology is likely to subsume cultural ecology than the other way around. Indeed, dual inheritance theory, also gene-culture evolution, is the most promising place for synthesis, and is based primarily on sociobiological insights. It argues that genetic and cultural evolution influence one another, the research possibly making our understanding of the aforementioned “feedback loops” more concrete than now. For more on dual inheritance, see Lumsden & Wilson, 2005 and the work of Boyd & Richerson.

C. Group Selection versus Kin Selection

One of the main hurdles for any synthesis is the conflict between kin selection theory and group selection theory. The former, which is the dominant view in the biological

sciences, holds that behaviors, like altruism, evolve because of “inclusive fitness,” or the fact that a behavior will dominate when it benefits genes of related creatures. Dawkins and an earlier Wilson famously espoused this theory in *The Selfish Gene* and *Sociobiology*, respectively. In fact, kin selection is now dominant because of a critique launched by a cadre of biologists including Dawkins, John Maynard Smith (1965), and G. C. Williams (1966), who argued that group selection was not only weak and confused, but unnecessary to explain available data.

Group selection theory argues that natural selection sometimes operates on the group, not only the individual, as kin selectionists argue. Although overthrown in the 60s, it has since returned in its modern incarnation as “multi-level selection theory” and boasts big names, like David Sloan Wilson and now one of the formerly fierce defenders of kin selection, Edward Wilson. The latter’s about-face has put him into public conflict with Richard Dawkins, but he has stood firmly by his view, and in a *Nature* article authored by two others, he laid out the reasons for his view, which elicited a negative response from more than 150 scientists.

Some have argued that the difference between the two theories may simply be semantic, not empirical, including one of the scientists who popularized the concept of inclusive fitness, W. D. Hamilton. This may be true in some simplistic sense, but the theories differ in one important

respect, namely, where they grant causal priority. Other differences, such as how the theories compare in simplicity and parsimony, also matter.

The conundrum is this: most of the work on cultural evolution and coevolution has been done on the basis of group selection theory. Luckily, because there is so much empirical overlap, kin selectionists need not dismiss all the work completely. They do, however, have more work set out before them.

Furthermore, it seems that at least some differences between kin selection and group selection are political. For instance, David Sloan Wilson, who has dedicated his life to defending group selection theory, unabashedly employs it in support of his progressivist politics, as has E. O. Wilson in his recent *The Social Conquest of Earth*. This greatly complicates the terrain any scientific view must master. The trick is to choose a theory regardless of political bias and do whatever work is necessary from there. Either way, the tension is one that needs to be resolved for any comprehensive theory.

D. Analogy and Example for Understanding

In order to understand the actual process of technical evolution, imagine human intention as the “motor” for much of the evolutionary process (although not all of it), and selection pressures that include more than and are more powerful than human intention as the steering wheel deciding the direction of collective human choices.

Consider this analogy. In a version of UNO I often play with my family on holidays, individuals keep a tally of how many points are in their hand after each round has

ended. When someone surpasses 500 points, the game ends, and the winner is the person with the least number of points. However, if someone hits 500 exactly, they go back to zero. Sometimes individuals end up with a number of points very close to 500, and they begin to think they can manage to keep just the right amount of points in their hand so that when someone else goes out, they will have 500 points exactly, go back to zero, and have a shot at winning again. The problem is that no matter how much skill and reason someone puts into trying to reach 500 exactly, there are still an enormous amount of factors that the person could never control, and that ultimately determine whether he will actually achieve his goal. Reason isn't enough. Cultural evolution works similarly.

Nia et al. (2015) provide a real example of this idea as applied to violin acoustics. They analyze 470 instruments across several centuries and note that the change of the shape of the “f-hole” on either side of the violin strings was “gradual—and consistent” (see Figure 2). They demonstrate that as each change provided superior sound, the creators replicated them at the expense of inferior designs. This occurred until the changes reached equilibrium with current f-shape. Note that the forces behind this change were not only or even predominantly human intention; instead, markets and physics were stronger determinants.

A final example: in a fascinating excerpt from *The Evolution of Everything*, Matt Ridley points out some trends in technical development occur with such regularity that humans control is unlikely to be the cause. Instead, Ridley writes, these regularities suggest that technics evolve:

...some scientists have begun to notice that cities themselves evolve in predictable ways. There is a spontaneous order in the way they grow and change. The most striking of these regularities is the ‘scaling’ that cities show — how their features change with size. For example, the number of petrol stations increases at a consistently slower rate than the population of the city. There are economies of scale, and this pattern is the same in every part of the world. The same is true of electrical networks. So it does not matter what the policy of the country, or the mayor, is. Cities will converge on the same patterns of growth wherever they are. In this they are very like bodies. A mouse burns more energy, per unit of body weight, than an elephant; a small city burns proportionately more motor fuel than a large one. Like cities, bodies get more efficient in their energy consumption the larger they grow. There is also a consistent 15 per cent saving on infrastructure cost per head for every doubling of a city’s population size.

The opposite is true of economic growth and innovation—the bigger the city, the faster these increase. Doubling the size of a city boosts income, wealth, number of patents, number of universities, number of creative people, all by approximately 15 per cent, regardless of where the city is. The scaling is, in the jargon, ‘superlinear’. Geoffrey West of the Santa Fe Institute, who discovered this phenomenon, calls cities ‘supercreative’. They generate a disproportionate share of human innovation; and the bigger they are, the more they generate. The reason for this is clear, at least in outline. Human beings innovate by combining and recombining ideas, and the larger and denser

the network, the more innovation occurs. Once again, notice that this is not policy. Indeed, nobody was aware of the supercreative effect of cities until very recently, so no policy-maker could aim for it. It's an evolutionary phenomenon.

IV. The Consequences of Technical Autonomy

When we see an animal behave differently in a zoo than in the wild, we reasonably attribute this behavior to the influence of the artificial environment, and very often there is an understanding that a caged animal is worse off than a wild one, or at least that caging animals is not a moral imperative. But when it comes to humans, this logic seems not to apply, often because people assume that technical development is fully an expression of human nature, that humans are optionally building the technical cages and then walking in them.

But technical autonomy invalidates this human exceptionalism. It is feasible, indeed much more probable, that humans are being caged, domesticated, and artificially dominated by technical environments just as much as wild animals are. Of course, progressivists argue that good things have come from this, like less violence overall and longer life expectancies. In fact, it is because civilization does these things that humanists argue for development and the civilizing process. But this would be like saying wild animals should be caged because most of them have longer life expectancies or because some of them become less violent (more lethargic) in captivity. In fact, many “self-actualizing” or “creative” endeavors industrial humans engage in from boredom have parallels for zoo animals, and animals that behave in such odd ways in zoos are said to have “zoochosis”—it isn't a good thing.

We might also note that to combat these odd behaviors, zookeepers often put out distractions like toys, food that takes a long time to eat, and other such things. This is oddly similar to the video games, sports, and television programs meant to distract modern man from his unease. And I'm sure we've all heard of the need for “more social programs” so that local youth don't “get themselves into trouble.” This is viewed as necessary, and of course it is if we are to preserve the city that is dependent on controllability.

To further extend the analogy to humans, which may or may not hold out as significant in actual research, we might note the similarity of odd behaviors in captive animals and industrial humans: self-mutilation, vomiting, over-grooming, increased stress, and abnormal sexual practices, just to name a few. And, just like humans, “the gorillas, badgers, giraffes, belugas, or wallabies on the other side of the glass are taking Valium, Prozac, or anti-psychotics to deal with their lives as display animals” (Smith L., 2014).

These findings make the field of sociobiology highly relevant, since it and its sister and daughter fields reveal human behavior in wild conditions, possibly also revealing the ways that behavior changes in civilized and especially industrial conditions. This

of course does not prescribe any moral view, but as the contrast between our wild and civilized conditions becomes clearer, the common value of *wildness* will likely become a core element of future moralities challenging technical development and progressivism.

V. Conclusion

Technical evolution is akin to biological evolution in that both purge from our minds the delusion of a rational creator guiding the process from above. In the case of biology this creator is God, of course; and in the case of culture, and more specifically technics, the creator is humankind.

I've presented several lines of evidence to support the fact that technical evolution is not only true, but necessarily true given material limits to human knowledge and ability. Humans can neither know enough to control technics, nor can or do they properly implement what they do know, nor do their implementations go as planned, nor do they ever implement plans without unintended side effects.

Unfortunately, we've yet to have a comprehensive alternative theory, but we do have several leads and quite a bit of groundwork covered. Mostly the present work is synthesizing the theoretical frameworks of cultural ecology and sociobiology and addressing the unresolved tension between kin selection and group selection theory.

The implications of technical autonomy are far-reaching, especially since they challenge the humanist argument that civilization is good for humans. This is not, of course, inherent in the empirical findings, but it is implicit since so many regard *naturalness* and *wildness* as desirable qualities, and they are consequently skeptical of attempts at domination through cages or domestication. As a result, it would be unsurprising to see a morality based around wildness become the dominant challenge to progressivism in upcoming years.

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Briefly Noted: Letters and Reviews

Who is involved in Hunter/Gatherer? — John Jacobi

Myra from Colorado writes, “I’m unsure of that status of wildism and *Hunter/Gatherer*. Although you write like it is a collective effort, it looks like you are one of the only people involved. Can you clarify this for me?”

I am, to date, the only person who has produced original content for *Hunter/Gatherer*. I knew this would be the case when I started the newsletter, since there are few wildists who speak English well enough to write in it, who write well in general, who like to write, or who would be willing to go public as wildists. In spite of this, I took on this project because there was an enormous need for theoretical, philosophical, and strategic literature within the budding wildist movement, and I believed I could fill that gap. As a result, right now I refer to *Hunter/Gatherer* as a newsletter, not a journal, and am open about the fact that it is mostly my own project. Still, I expect to put more effort into getting submissions from other folks by the time we reach volume two.

As for the movement as a whole, wildists are a quiet bunch, which is predictable given the repercussions of the ideology, but there are some active projects other than *Hunter/Gatherer*. Notably, *The Wildernist* is a public-facing conservation magazine that Jonah Howell has restarted (see below), and Jeremy Grolman runs both *Blog for Wild Nature* and a Facebook page entitled “Memes for Wild Nature.” Two other wildists hope to produce a podcast by the end of the summer.

The Wildernist is restarting — John Jacobi

I’m very happy to announce that my previous publication, *The Wildernist*, is restarting under the direction of another wildist, conservationist, and fellow student, Jonah Howell. You can read his editorial greeting by visiting the magazine homepage at www.thewildernist.org.

The Unterrified interviewed John Jacobi — John Jacobi

Although the wildist movement is a small one, it is loosely connected to a larger “anti-civilization” sentiment among political radicals. One such radical is Benett Freeman from Australia, who runs a podcast with his associate Entito Sevrano called *The Unterrified*. Freeman’s anticivilization sentiment is in no way a wildist one, but our conversation was mostly productive. He split it into three parts.

In the first I address some of my predictions regarding the future of technical development; wildist goals and strategy; the meaning of “wildness” and “naturalness” in wildist discourse; and escapism.

In the second I address the bad press some anarchists released about the wildist movement on anarchist-news.org; the different meanings of “ideology” utilized by self-proclaimed non-ideological activists and wildists; escapism, again; more on strategy and tactics; and materialism.

And in the third and final part, I address materialism and science again, a recurring hang-up various anti-civilization activists have against wildist theory; escapism again; the feasibility of an anti-industrial reaction; some clarifications regarding the purpose of The Wildist Institute; and some information I covered more thoroughly in the essay, “Technical Autonomy,” provided in this issue.

On the whole the podcast episodes demonstrate how my conversations usually go with other radicals, including the non-productive parts. Readers should know that given my previous interactions with Freeman, I expected a much less friendly conversation, however, so both I and he regard it a success. You can listen to the podcast by visiting www.theunterrified.com.

The Dark Mountain Project at www.dark-mountain.net — John Jacobi

I have been a long-time associate with people working on the Dark Mountain Project. Although I have by now concluded that it poses no material threat to industrial society, it has been highly successful at getting out anti-civilization ideas, and it does well in appealing to the irrational, emotive sides of our industrial despair, something wildists have proved to be deficient in communicating so far. I strongly recommend that readers pay attention to the writings that show up on the website, buy a few of the books, and, especially, read the *Uncivilisation* manifesto that started the whole thing.

Whither Leftism? — John Jacobi

Early in the development of the wildist ideology, I and others made frequent reference to “leftism.” Our use and understanding of the term came primarily from Kaczynski’s manifesto, *Industrial Society and Its Future* and some theories in cognitive and evolutionary psychology. However, current wildists no longer use the term, because it has always suffered from some serious problems. First of all, it is theoretically vague, encapsulating several distinct tendencies that are present even in many non-leftist movements. Second, it is alienating in a way that is not helpful, because many understand leftism to refer exclusively to the political left, when wildists actually meant for it to signify a certain set of values. And third, some associated but very, very different movements have come to use the term in a fashion that only confuses. I refer specifically to the anarcho-primitivists, who largely belong to and were birthed from the New Left, which derided the Old Left with the term “leftism” without giving up on the fundamental values. In general, they only use “leftism” to mean organizationalism, class

reductionism, an emphasis on ideology, and some other things. I explain these various meanings of the term in “A Sketch of Wildism in Contrast to Leftism,” published in *The Wildernist 2: First Steps*.

Current wildist discourse breaks the tendencies it referred to into two parts. The first is *opportunism*, or the tendency for some individuals to flock to mass movements because of their psychological needs, careers, or other reasons, but caring very little for the cause itself. This has been common on the left at least since the 60s, when a whole activist class was left wanting for revolt after many of its movements succeeded. However, it is a distinct phenomenon and can be found among non-leftist individuals as well.

The second tendency is *progressivism*, or a class of philosophies that argue for Progress in its various social, material, and technical forms. Progressivism includes many different ideologies like racial colonial narratives and Christianity, but its dominant form today is *humanism*, which we emphasize especially. Humanism was birthed from Christianity and is the basis for many other ideologies like transhumanism or philosophies underpinning animal rights. It replaced “leftism” as the means by which wildists indicate the dominant values of late, or techno-industrial, society: equality, indiscriminate sympathy for victims, and solidarity with all of humanity. In the main, humanism would be considered a left-wing philosophy, but most of civilization has seen a leftward drift in ideologies precisely because that is what technical conditions demand, so it is sometimes hard to distinguish the modern right from the modern left. This makes “humanism” a much more illustrative word; it is far less confusing for newcomers; and it allows wildists to avoid useless and distracting questions that come out of the term “leftism.”

Political versus Philosophical Nihilism — John Jacobi

I write in “Ideology and Revisionism” that philosophically wildism can be categorized as a nihilist philosophy and an egoist philosophy. However, a clarification is in order. Some brands of anarchism are now calling them-selves “egoist nihilists,” and while their egoism is sometimes something they hold in common with wildists, their nihilism usually is not. Egoist nihilists interpret “nihilism” to mean a disbelief in revolution rather than a philosophical position on objective values and morality. They are, therefore, two distinct things. Furthermore, although wildists can technically be classified as egoists, we almost always refer to ourselves only as wildists, because our egoism is very particular and bound to the core aspects of the wildist philosophy, and because “egoism” is associated with many political tendencies that have nothing to do with wildness, nature, and conservation. This is the same reason we disdain the label “anarchist.”

¹Interested readers might want to read “Take Back the Conservation Movement” for a more in-depth explanation of Foreman’s distinction between conservationists and resourcists. — Ed.

¹ V. Smil, “Global Energy: The Latest infatuations,” *American Scientist* 99, no. 3 (2011): 212–19.

²Updated version of March 2015. Copyright 2007, “Ultimo Reducto. English translation copyright 2015, John Jacobi.

[18]This has to be understood in reference to this text’s first publication date: 2007.

[19]This is only a general approximation of the psychology of leftism. One could make many distinctions in this respect, like for example, that it is not always the alienation produced by modern life that causes the psychological traits of leftism. Many leftists are simply psychologically weak by nature.

[21]Oversocialization: The excessive internalization of the values of an individual’s social environment, so that he is unable to violate them without feeling shame or remorse. It affects, to a greater or lesser extent, almost everyone, but especially those individuals who are more susceptible to the influences of their social environment. It is a common phenomenon in the current techno-industrial society (although not only in it) and it is especially abundant and intense in its leftist subsystems. It has a lot to do, for example, with notion of “politically correctness,” since what it permits is already that which is imposed.

²Mark Gelbart, “How recently did the jaguar (*Panthera onca*) roam Eastern North [https://markgelbart.wordpress.com/2012/09/26/how-recently-did-the-jaguar-panthera-onca-roam-eastern-north-america/][America?”] GeorgiaBeforePeople.

³[http://research.amnh.org/paleontology/perissodactyl/][“Perissodactyls,]]” American Museum of Natural History.

[25][]]million years ago. See Polly PD, “The Oligocene Epoch,” University of California Museum of Paleontology.

[26]The Great American Interchange was the mass exchange of biota that occurred upon linking of North and South America roughly 3 million years ago. See Larry G. Marshall, “Land Mammals of the Great American Interchange.”

[27]Marshall LG, et al., “Mammalian evolution and the great American interchange,” American Association for the Advancement of Science.

⁴[http://www.amnh.org/science/biodiversity/extinction/Day1/overkill/Bit1.html][“What is the Overkill Hypothesis?”] American Museum of Natural History.

⁵[http://www.tapirs.org/tapirs/bairds.html][“The World’s Tapirs—The Baird’s Tapir (*Tapirus bairdii*)”] Tapir Specialist Group.

[30]Of the four (possibly five) living species of tapir, the Malayan tapir (*Tapirus indicus*) is the only surviving species in the Old World, and is the largest species. See “The World’s [http://www.tapirs.org/tapirs/malay.html][Tapirs—The Malayan tapir (*Tapirus indicus*),]]” Tapir Specialist Group.

² Smil, “Global Energy: The Latest infatuations,” *American Scientist* 99, no. 3 (2011): 212–19.

³ J. Major, “1981 climate change Predictions Were Eerily Accurate,” io9 (16 Aug. 2012). <http://io9.com/5899907/1981-climate-change-predictions-were-eerily-accurate>.

⁴ Pilkey and Pilkey-Jarvis, *Useless Arithmetic: Why Environmental Scientists Can’t Predict the Future*, 101.

⁵ Pilkey and Pilkey-Jarvis, *Useless Arithmetic: Why Environmental Scientists Can’t Predict the Future*, 107.

⁶[<http://tapirconservation.org.br/about-us/>][“Tapirs: Keystone Species for Conservation,]” Lowland Tapir Conservation Initiative.

[32][<http://www.iucnredlist.org/details/21471/0>][“*Tapirus bairdii*,]” The IUCN Red List of Threatened Species.

[33]See “Interview with Dave Foreman,” The Wildernist. — Ed.

⁷[http://www.edgeofexistence.org/mammals/species_info.php?id=80][“Mountain Tapir,]” EDGE.

[35]Pronghorn antelope are not closely related to the true antelopes of Eurasia and Africa, but are referred to as antelopes due to their similar morphology, which is a result of convergent evolution. “Animals of the Greater Yellowstone Region,” Greater Yellowstone Resource Guide.

⁸See “Interview with Dave Foreman,” The Wildernist. — Ed.

⁹Orlando L, et al., “Ancient DNA Clarifies the Evolutionary History of American Late[<http://www.ncbi.nlm.nih.gov/pubmed/18398561>][Pleistocene Equids,]” Journal of Molecular Evolution.

On the other hand, Gaia theory has not been accepted by biologists and ecologists because even its general idea still has some real problems. It is teleological, tries to metaphorically explain many of the things evolutionary theory already explains, and better, and it argues for natural selection on a planetary level. See “Is Nature Really Motherly” by W. Ford Doolittle and “Kropotkin Was No Crackpot” by Stephen Jay Gould.

[39]See “The degradation of science under capitalism” by Adam Booth, and “Science[<http://www.amazon.com/Science-Private-Interest-Corrupted-Biomedical-dp/0742543714>][in the Private Interest: Has the Lure of Profits Corrupted Biomedical Research?]]” by Sheldon Krinsky. Also note how the rise of relativism in medical science jives nicely with industrial interests, as illustrated in the paper “The myth of objectivity: is medicine[<http://fampra.oxfordjournals.org/content/17/2/203.long>][moving towards a social constructivist medical paradigm?]] by Hamish J. Wilson.

[40]Dr. John Ioannidis has shown that “much of what medical researchers conclude in their studies is misleading, exaggerated, or flat-out wrong.” See “Lies, Damned Lies, and[<http://www.theatlantic.com/magazine/archive/2010/11/lies-damned-lies-and-medical-science/308269/>][Medical Science”]] by David H. Freedman.

⁶ C. Perrow, *Normal Accidents: Living With High-Risk Technologies* (Princeton, NJ: Princeton University Press, 1999), p. 28.

⁷ c. Sullivan and climateWire, “Human Population Growth creeps Back Up,” *Scientific American* (June 14, 2013). <http://www.scientificamerican.com/article.cfm?id=human-population-growth-creeps-back-up&print=true>.

⁸ E. M. Forster, “The Machine Stops” (1909) in *The Collected Tales of E. M. Forster* (New York: Modern Library, 1968), 14497.

⁹ W. Berry, *The Unsettling of America* (San Francisco: Sierra Club Books, 1977), 56.

[41]See “A Review of the Evidence for the Existence of Acupuncture Points and Meridi@@@ans” by David W. Ramey; “Does Acupuncture Work for Pain?” by Paul Ingraham; and “Do certain countries produce only positive results? A systematic review of controlled[<http://www.ncbi.nlm.nih.gov/pubmed/9551280>][trials”]] by A. Vickers et al.

[42]See “Far Out, Man. But Is It Quantum Physics?” by Dennis Overby and “Quantum[http://www.slate.com/articles/health_and_science/science/2014/05/quantum_consciousness_physics_and_neuroscience_do_not_explain_one_another.html]]and Consciousness Often Mean Nonsense”]] by Matthew R. Francis.

[43]From Wikipedia, 26 June 2015: “Before Present (BP) years is a time scale used mainly in geology and other scientific disciplines to specify when events in the past occurred. Because the present time changes, standard practice is to use 1 January 1950 as commencement date of the age scale, reflecting the fact that radiocarbon dating became practicable in the 1950s. The abbreviation BP, with the same meaning, has also been interpreted as Before Physics; that is, before nuclear weapons testing artificially altered the proportion of the carbon isotopes in the atmosphere, making dating after that time likely to be unreliable.”

[45]Wilson, Michael C., Leonard V. Hills, and Beth Shapiro. “Late Pleistocene northward-@@@dispersing *Bison antiquus* from the Bighill Creek Formation, Gallelli gravel pit, Alberta,[<http://cjes.geoscienceworld.org/content/45/7/827.full.pdf>][Canada, and the fate of *Bison occidentalis*.”]] *Canadian Journal of Earth Sciences* 45.7 (2008): 827–859.

[46]Bartram, William. *The Travels of William Bartram*. University of Georgia Press, 1998. For more writing by Mark Gelbart, visit his blog at [GeorgiaBeforePeople](http://GeorgiaBeforePeople.com).

[48][]2U.S. Fish & Wildlife, *A History of the Endangered Species Act of 1973*.

[49]*Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

[50]*Id.*

[51]U.S. Fish & Wildlife, *Black-Footed Ferret 5 Year Review* (Aug. 13, 2014).

[52]*Id.*

[53]Final ESA Listing Rule, 75 Fed. Reg. 8305.

[54]NOAA Fisheries, 2013 Stock Assessment Report Humpback Whale.

[55]Center for Biological Diversity, *Endangered Species Database* (2015).

[57]Section 4(a); 16 U.S.C. 1533(a).

[58][]12Section 4(b); U.S.C. 1533(b).

[59]ESA Section 9; 16 U.S.C. 1538.

[60]See *Seattle Audubon Society v. Sutherland*, No. 06–1608, WL 2220256 (W.D. Wash. 2007).

[61]ESA Section 7; 16 U.S.C. 1536.

[62][]16ESA Section 110; 16 U.S.C. 1540.

[66]C. R. Harington, “Pleistocene remains of the lion-like cat (*Panthera atrox*) from the Yukon[<http://www.nrcresearchpress.com/doi/abs/10.1139/e69-127>][Territory and northern Alaska,]]” *Canadian Journal of Earth Sciences*.

- [67] Ji H. Mazak, “Oldest Known Pantherine Skull and Evolution of the Tiger,” *PLOS One*.
- [68] Kristin Nowell, “Wild Cats,” IUCN/SSC Cat Specialist Group.
- [71] [<http://www.beringia.com/research/lion.html>] [“American Lion,”] Yukon Beringia Interpretive Center.
- [73] Joachim Burger, “Molecular phylogeny of the extinct cave lion *Panthera leo spelaea*,” *Molecular Phylogenetics and Evolution*.
- [74] [http://www.bradshawfoundation.com/chauvet/panel_of_the_lions.php] [“Panel of the Lions,”] Bradshaw Foundation.
- [76] R.S. Sommer, “Late Pleistocene and Holocene development of the felid fauna (Felidae) of Europe: a review,” *Journal of Zoology*.
- [77] [<http://web.archive.org/web/20090206173029/http://www.asiatic-lion.org/distrib.html>] [“Past and present distribution of the lion in North Africa and Southwest Asia,”] The Asiatic Lion Information Centre.
- [79] Brian Clark Howard, “Lions Approach Extinction in West Africa,” *National Geographic*.
- [80] [<http://www.livingwithlions.org/lion-poisoning.html>] [“Lion Poisoning—An Urgent Issue,”] Living with Lions.
- [81] [<http://animals.nationalgeographic.com/animals/big-cats-initiative/lion-decline-map/>] [“Declining Lions,”] National Geographic Big Cats Initiative.
- [82] [<http://animals.nationalgeographic.com/animals/big-cats-initiative/lion-decline-map/>] [“*Panthera leo*,”] IUCN Red List.
- [83] Clement Uwiringiyimana, “Rwanda brings lions back to safari park, plans for rhinos,” *Reuters*.
- [84] Meghan Dunn, “Transforming lion killers into Lion Guardians,” *CNN*.
- [85] Stacey D. Ostermann-Kelm, “Impacts of feral horses on a desert environment,” *BMC Ecology*.
- [86] Josh Donlan, “Pleistocene Rewilding: An Optimistic Agenda for Twenty-First Century” [http://advancedconservation.org/library/donlan_etal_2006.pdf] [Conservation,”] Advanced Conservation Strategies.
- [87] Stefanie Deinet, “Wildlife Comeback in Europe,” *Rewilding Europe*.
- [88] Martin W. Lewis, “Pleistocene Park: The Regeneration of the Mammoth Steppe?,” *GeoCurrents*.

Nothing is worse for sensitive wildlife than a road. Over the last few decades, studies in a variety of terrestrial and aquatic ecosystems have demonstrated that many of the most pervasive threats to biological diversity—habitat destruction and fragmentation, edge effects, exotic species invasions, pollution, and overhunting—are aggravated by roads. Roads have been implicated as mortality sinks for animals ranging from snakes to wolves; as displacement factors affecting animal distribution and movement patterns; as population fragmenting factors; as sources of sediments that clog streams and destroy fisheries; as sources of deleterious edge effects; and as access corridors

that encourage development, logging and poaching of rare plants and animals. Road-building in National Forests and other public lands threatens the existence of de facto wilderness and the species that depend on wilderness.

Despite heightened recognition (by informed people) of the harmful effects of roads, road density continues to increase in the US and other countries. Federal, state, and local transportation departments devote huge budgets to construction and upgrading of roads. Multinational lending institutions, such as the World Bank, finance roads into pristine rainforest, which usher in a flood of settlers who

[90]For founders' accounts of Earth First!, see *Confessions of an Eco-Warrior* by Dave Foreman and "Earth First!: A Founder's Story" by Howie Wolke.—Ed.

[92]Aldo Leopold, *A Sand County Almanac* (New York: Oxford University Press, 1949), p. ix.

[94]David Mech, "Returning the Wolf to Yellowstone," in Robert Keiter and Mark Boyce, eds., *The Greater Yellowstone Ecosystem* (New Haven: Yale University Press, 1991), p. 309.

[95]The following account comes from Alston Chase, *Playing God in Yellowstone* (San Diego: Harcourt Brace Jovanovich, 1987), pp. 19–30, 382.

[96]For an overview of this emphasis in ecology, see Donald Worster, "The Ecology of Order and Chaos," *Environmental Ethics Review* 14 (1990): 1–18.

[97]K. S. Shrader-Frechette and E. D. McCoy, *Method in Ecology* (New York: Cambridge University Press, 1993), pp. 65–67.

[98]Compare Gordon Orians, "Diversity, Stability and Maturity in Natural Ecosystems," W. H. van Dobben and R. H. Lowe-McConnell, eds., *Unifying Concepts in Ecology* (The Hague: Dr. W. Junk B. V. Publishers, 1975), pp. 139–50.

[99]See Worster, "The Ecology of Order," p. 41, quoting Odum.

[100]A number of U.S. environmental laws use concepts like balance and stability to define the goals they set for public policy. See Mark Sagoff, "Fact and Value in Ecological Science," *Environmental Ethics* 7 (1985): 101.

[101]Leopold, *Sand County Almanac*, p. 240.

[103]Holmes Rolston, III, *Conserving Natural Value* (New York: Columbia University Press, 1994), p. 78.

[105]For one development of this argument, see Kristin Shrader-Frechette "Ecological Theories and Ethical Imperatives," in William Shea and Beat Sitter, eds., *Scientists and Their Responsibility* (Canton, Mass.: Watson Publishing International, 1989).

[106]See Daniel Botkin, *Discordant Harmonies* (New York: Oxford University Press, 1990). In "Nonequilibrium Determinants of Biological Community Structure," *American Scientist* 82 (1994): 427, Seth Reice contends that "equilibrium is an unusual state for natural ecosystems the normal state of communities and ecosystems is to be recovering from the last disturbance. Natural systems are so frequently disturbed that equilibrium is rarely achieved."

[107]See the articles in S. T. A. Pickett and P. S. White, eds., *The Ecology of Natural Dis-turbance and Patch Dynamics* (Orlando: Academic Press, 1985), for examples of research in this area.

[108]Botkin, *Discordant Harmonies*, chap. 3

[111]Michael Soul, "The Social Siege of Nature," in Michael Soul and Gary Lease, eds., *Rein-venting Nature ?* (Washington, D.C.: Island Press, 1995), p. 143.

modern terrestrial communities existed in their present form 10,000 years ago." See Jablonski's "Extinction: A Paleontological Perspective," *Science* 253 (1991): 756. In a similar vein, Michael Soul suggests that historical "studies are undermining typological concepts of community composition, structure, dynamics, and organization by showing that existing species once constituted quite different groupings or communities." See Soul's, "The Onslaught of Alien Species, and Other Challenges in the Coming Decades," *Conservation Biology* 4 (1990): 234.

[113]J. Baird Callicott, "Do Deconstructive Ecology and Sociobiology Undermine Leopold's Land Ethic?" *Environmental Ethics* 18 (1996): 353–72.

[114]This fact does not show that there are no biotic communities, for properties essential to human community may not be necessary for biotic ones. Perhaps some communities need not be intentional ones. Or perhaps humans can see themselves as parts of biotic communities and provide the requisite intentionality. In any case, Callicott's insightful analogy between human and biotic communities is insufficient to make the case that biotic communities are robust enough to engender moral obligations to them.

[115]Callicott, "Deconstructive Ecology," p. 372.

[116]See Stuart Pimm, *The Balance of Nature?* (Chicago: University of Chicago Press, 1991) and Monica G. Turner et al., "A Revised Concept of Landscape Equilibrium: Disturbance and Stability on Scaled Landscapes," *Landscape Ecology* 8 (1993): 213–27. Frank Golley's informative *A History of the Ecosystem Concept in Ecology* (New Haven: Yale University Press, 1994) traces the development of ecosystem ecology and responds to some of the important challenges to it

[117]See Elizabeth Culotta, "Exploring Biodiversity's Benefits," *Science* 273 (1996): 1045–46.

[118]Charles Goodnight, "Experimental Studies of Community Evolution I: The Response at the Community Level," *Evolution* 44 (1990): 1614–24.

[119]David Ehrenfeld calls this emphasis a "fad." See "Ecosystem Health and Ecological Theories," in Robert Costanza, Bryan Norton, and Benjamin Haskell, eds., *Ecosystem Health* (Washington, D.C.: Island Press, 1992), p. 140. For another suggestion that the focus on instability is due to sociological factors, see P. Koetsier et al., "Rejecting Equilibrium Theory—A Cautionary Note," *Bulletin of the Ecology Society of America* 71 (1990): 229–30.

[120]See Soul, "The Social Siege of Nature," p. 160.

[121]Although a number of philosophers have appealed to wildness and the related notion of naturalness, there is no uniform agreement on its meaning or justification. See

Robert Elliot, "Extinction, Restoration, Naturalness," *Environmental Ethics* 16 (1994): 135–44, and "Faking Nature," *Inquiry* 25 (1982): 81–93; Eric Katz "The Big Lie: The Human Restoration of Nature," *Research in Philosophy and Technology* 12 (1992): 231–41, and "The Call of the Wild," *Environmental Ethics* 14 (1992): 265–73; and Holmes Rolston, III, *Environmental Ethics* (Philadelphia: Temple University Press, 1988), pp. 32–44, and *Conserving Natural Value*, pp. 19, 12–16, 72–73, 102, 184–92, 197–202, 223–28. Some philosophers interpret integrity in a way that seems to include wildness. See Laura Westra, *An Environmental Proposal for Ethics: The Principle of Integrity* (Lanham, Md.: Rowman & Littlefield, 1994). Mark Woods, "Rethinking Wilderness" (Ph.D. diss., Ann Arbor, Michigan, 1997), chap. 6, draws useful distinctions between kinds of wildness.

[123]Tom Birch discusses wildness as "otherness" in "The Incarceration of Wildness: Wilder-ness Areas as Prisons," *Environmental Ethics* 12 (1990): 3–26.

[126]Donald Worster, "The Nature We Have Lost," in *The Wealth of Nature* (New York: Oxford University Press, 1993), p. 6.

[127]According to Robert Elliot, "Extinction, Restoration, Naturalness," p. 138, "intensification of value occurs when the co-instantiation of value-adding properties yields more value than the sum of the values of the properties would if they were instantiated singly."

[128]Eugene Hargrove, "The Paradox of Humanity: Two Views of Biodiversity and Land-scapes," in Ke Chung Kim and Robert D. Weaver, eds., *Biodiversity and Land-scapes* (Cambridge: Cambridge University Press, 1994), p. 183.

[129]We thank Baird Callicott for forcefully drawing our attention to this criticism.

[130]David Orr, *Earth in Mind: On Education, Environment and the Human Prospect* (Washington, D.C.: Island Press, 1994), p. 131.

[131]We presume that one's warranted value judgments may be some distance from one's initial judgments, as in ideal observer accounts of value. See Tom Carson, *The Status of Morality* (Boston: D. Reidel Publishing, 1984).

[132]For the charge that wildness value is ethnocentric, see Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," *Environmental Ethics* 11 (1989): 71–83.

[133]See, for example, Anthony Weston, *Back to Earth* (Philadelphia: Temple University Press, 1994), pp. 130–32.

[134]See William Cronon's, "The Trouble with Wilderness," in William Cronon, ed., *Uncommon Ground: Toward Reinventing Nature* (New York: W. W. Norton & Company, 1995), p. 85.

[136]J. Baird Callicott, "The Wilderness Idea Revisited: The Sustainable Development Alter-native," *Environmental Professional* 13 (1991): 241.

[137]*Ibid.*, p. 240.

[138]For a discussion of how wildness in humans can be valuable, see Bill Throop, "Humans and[] the Value of the Wild," *Human Ecology Review* 3 (1996): 3–7.

[140]In “The Paradox of Humanity,” Eugene Hargrove points out the need for a more sophisticated view of the human/nature relationship than the simplistic views that either humans are,[[] or are not, a part of nature.

[141]Holmes Rolston, III, “The Wilderness Idea Reaffirmed,” *The Environmental Professional* 13 (1991): 370–71.

[142]Robin Attfield, “Rehabilitating Nature and Making Nature Habitable,” in Robin Attfield and Andrew Belsey, eds., *Philosophy and the Natural Environment* (New York: Cambridge University Press, 1994), p. 45.

[143]See Elliot’s “Faking Nature” and Katz’s “The Big Lie.”

[144]See, for example, Richard Sylvan’s “Mucking with Nature,” in Sylvan, *Against the Main Stream*, Discussion Papers in Environmental Philosophy, no. 21 (Canberra: Research School of Social Sciences, Australian National University, 1994).

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[151]Lakatos, I. (1978). The methodology of scientific research programmes.

[152]Sokal, A., & Bricmont, J. (2004). Defense of a modest scientific realism.

[154]Durkheim, E. (1895/1962). *The rules of the sociological method*. Glencoe, IL: Free Press.

[156]Halpbern states: “I cannot argue (in this book) that nature and nurture are inseparable and then... use different terms to refer to each class of variables. The... biological manifestations of sex are confounded with psychosocial variables... The use of different terms to label these two types of contributions to human existence seemed inappropriate in light of the biopsychosocial position I have taken.”

[157]Kropotkin, P. (2012). *Mutual aid: A factor of evolution*. Courier Corporation; see also Jacobi, J. (2015). *The revolutionary importance of science*.

[158]Kalow, W., Pinker, S., & Kalant, H. (1997). *Evolutionary psychology: An exchange*. NY Rev. Books; Pinker, S. (2003). *The blank slate: The modern denial of human nature*.

[161]Idem.

[163]Idem.

[164]Pinker, S. (2003). *The blank slate: The modern denial of human nature*.

[166]Denis Dutton gave a good overview of evolutionary aesthetics in his TED Talk “A Dar-@@@winian theory of beauty.”

[170][](2006), 22–24.

- [172] Department of Agriculture, “Monsanto Company Petition (07-CR191U) for Determination of Non-regulated Status of Event MON
- [175] *Nature* (16 Aug. 2013). doi:10.1038/nature.2013.13517; H.
- [177] *Am J. of Physics* 46 (1978): 876–88.
- [179] 24 Aug. 2013, p. A21.
- [182] *Environmentalism* (Lincoln, NE: University of Nebraska Press, 2012),
- [183] 3–30.
- [192] *Environmental Scientists Can’t Predict the Future* (New York: Columbia University Press, 2007).
- [195] *Ecologies* (Princeton, NJ: Princeton University Press, 1999); see also D. Ehrenfeld, “When Risk Assessment is Risky: Predicting the Effects of Technology” in *The Energy Reader: Overdevelopment and the Delusion of Endless Growth*, ed. T. Butler, D. Lerch, and
- [198] *Our Energy Dilemma*.

— Books —

Repent to the Primitive

John Jacobi

2017 John Jacobi

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Epigraph

The most merciful thing in the world, I think, is the inability of the human mind to correlate all its contents. We live on a placid island of ignorance in the midst of black seas of infinity, and it was not meant that we should voyage far. The sciences, each straining in its own direction, have hitherto harmed us little; but some day the piecing together of dissociated knowledge will open up such terrifying vistas of reality, and of our frightful position therein, that we shall either go mad from the revelation or flee from the deadly light into the peace and safety of a new dark age.

H. P. Lovecraft

Preface

Although the present form of the book only began two years ago, my work really started two years before, in 2013, when, homeless after high school, I involved myself in ecological and antimodern factions of anarchism.

During this time, I ran across an essay, “Industrial Society and Its Future,” and it had a profound effect on me. For the first time a text had expressed what I had been feeling, and it did so in a compelling, fresh way — appealing to me, since the only radical political arguments that I had heard up to that point lacked nuance, were steeped in faulty theory, and seemed to be solving nineteenth century problems rather than assessing problems of the contemporary world. But “Industrial Society and Its Future” was written by Ted Kaczynski, also known as the Unabomber, infamous for his 1978/1995 bombing campaign in the name of anti-industrial revolution. I was young and hot-headed enough for this not to bother me as much as it should have, but it still bothered me enough to wonder whether agreeing with the manifesto was a bad sign.

But then I read a *WIRED* essay “Why the Future Doesn’t Need Us,” a personal account of a wellrespected scientist and programmer, Bill Joy, experiencing the same dilemma. As Joy wrote, he “could easily have been the Unabomber’s next target,” yet he found “some merit” in the man’s arguments. Again and again I read similar accounts, and it strengthened my resolve to admit that the problems Kaczynski was concerned with were real. For example, conservative social theorist James Q. Wilson wrote in the *New York Times* that the manifesto was “a carefully reasoned, artfully written paper ... If it is the work of a mad-man, then the writings of many political philosophers — Jean Jacques Rousseau, Tom Paine, Karl Marx — are scarcely more sane.” Eventually, I decided that regardless of the man’s actions his ideas needed to be grappled with, an argument I lay out thoroughly in *Dark Mountain’s* “Ted Kaczynski and Why He Matters.”

So, I wrote the man. We exchanged a few letters until he broke from me because of some misunderstandings concerning restrictions on prison mail. But by the end I had learned enough of his current activity to carry on exploring the politic. I became moderately involved in Earth First!, a radical environmentalist organization that influenced Kaczynski; I researched the history of the ecology movement and its major figures; and, most importantly, I formed a coalition with some of Kaczynski’s political associates in Spain, Portugal, and Mexico.

The most important figure in the coalition was a Spaniard pseudonymously known as Ultimo Reducto (UR). UR was a lot like Kaczynski in some significant ways, which is eventually why I broke from him too. But he was an indispensable influence on my

ideological development. Apart from “Industrial Society and Its Future,” and a few texts from the early history of Earth First!, UR more than anyone or anything else helped me carefully, thoughtfully, and rigorously articulate a wild-centered philosophy.

Kaczynski’s associates, whom rival groups have pointedly called “the Apostles of Kaczynski,” had a twofold mission during the time I worked with them. First, they were, to put it simply, performing an exegesis of Kaczynski’s manifesto. For example, in “Industrial Society and Its Future” he writes:

94. By “freedom” we mean the opportunity to go through the power process, with real goals not the artificial goals of surrogate activities, and without interference, manipulation or supervision from anyone, especially from any large organization. Freedom means being in control (either as an individual or as a member of a small group) of the life-and-death issues of one’s existence: food, clothing, shelter and defense against whatever threats there may be in one’s environment. Freedom means having power; not the power to control other people but the power to control the circumstances of one’s own life. One does not have freedom if anyone else (especially a large organization) has power over one, no matter how benevolently, tolerantly and permissively that power may be exercised. It is important not to confuse freedom with mere permissiveness ...

But later, when Professor Skrbina worked with him to publish a collection of his writings, he added a postscript noting that some aspects of his manifesto were outdated or somewhat wrong. He specifically mentions his definition of freedom above:

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Ultimo Reducto has recently called attention to some flaws in my work, [some] serious

in the second and third sentences of paragraph 94 of ISAIF I wrote: [see above]. But obviously people have never had such control to more than a limited extent. They have not, for example, been able to control bad weather, which in certain circumstances can lead to starvation. So what kind and degree of control do people really need? At a minimum they need to be free of “interference, manipulation or supervision ... from any large organization,” as stated in the first sentence of paragraph 94. But if the second and third sentences meant no more than that, they would be redundant.

So there is a problem here in need of a solution. I’m not going to try to solve it now, however. For the present let it suffice to say that

ISAIF is by no means a final and definitive statement in the field that it covers. Maybe some day I or someone else will be able to offer a clearer and more accurate treatment of the same topics.

To resolve this problem, UR advocated dropping the term “freedom” completely and replacing it with the term “wildness.” Under his framework (not my own), there was capital-N “Nature,” all that is, the same way the physicists would use the word. Some of this Nature is dominated by humans or technics, called “artifice”; other aspects of Nature remain untrammelled by humans or technics, called “wild Nature.” UR argued that this framework was a better one to express the ideology, because “freedom” is too ambiguous: freedom from what, freedom to do what, and freedom for whom?

UR pointed out that Kaczynski already implicitly answered these questions in his manifesto.

183. But an ideology, in order to gain enthusiastic support, must have a positive ideal as well as a negative one; it must be for something as well as against something. The positive ideal that we propose is Nature. That is, wild nature: Those aspects of the functioning of the Earth and its living things that are independent of human management and free of human interference and control. And with wild nature we include human nature, by which we mean those aspects of the functioning of the human individual that are not subject to regulation by organized society but are products of chance, or free will, or God (depending on your religious or philosophical opinions).

184. Nature makes a perfect counter-ideal to technology for several reasons. Nature (that which is outside the power of the system) is the opposite of technology (which seeks to expand indefinitely the power of the system). Most people will agree that nature is beautiful; certainly it has tremendous popular appeal. The radical environmentalists already hold an ideology that exalts nature and opposes technology. It is not necessary for the sake of nature to set up some chimerical utopia or any new kind of social order. Nature takes care of itself: It was a spontaneous creation that existed long before any human society, and for countless centuries many different kinds of human societies coexisted with nature without doing it an excessive amount of damage. Only with the Industrial Revolution did the effect of human society on nature become really devastating. To relieve the pressure on nature it is not necessary to create a special kind of social system, it is only necessary to get rid of industrial society. Granted, this will not solve all problems. Industrial society has already done tremendous damage to nature and it will take a very long time for the scars to heal. Besides, even preindustrial societies can do significant damage to nature. Nevertheless, getting rid of industrial society will accomplish a great deal. It will relieve the worst of the pressure on nature so that the scars can begin to heal. It will remove the capacity of organized society to keep increasing its control over nature (including human nature). Whatever kind of society may exist after the demise of the industrial system, it is certain that most people will live close to nature, because in the absence of advanced technology there is no other way that people can live

And, generally speaking, local autonomy should tend to increase, because lack of advanced technology and rapid communications will limit the capacity of governments or other large organizations to control local communities.

And:

69. It is true that primitive man is powerless against some of the things that threaten him; disease for example But threats to

the modern individual tend to be man-made. They are not the results of chance but are imposed on him by other persons whose decisions he, as an individual, is unable to influence. Consequently he feels frustrated, humiliated and angry.

Here it becomes clearer what kind of freedom Kaczynski is talking about: the ability for nature, including man's nature, to function with relatively little domination from other men or their technical systems. In other words, he advocates *wildness*.

Point by point, UR et al. combed the same intellectual razor through the entire manifesto, eventually creating a glossary of theoretical terms like "progress," "progressivism," "humanism," "leftism," and "techno-industrial society." They also formalized the moral foundations of Kaczynski's critique by, intentionally or not, drawing on an age-old philosophical distinction between "natural" and "artificial" values. The specifics of the ideas are explained in UR's untranslated dialogue, entitled *Con Amigos Como Estos*, with a neo-Luddite group in Spain. Though all this seems pedantic, these distinctions are precisely why UR's work has been indispensable in helping me communicate a philosophically rigorous account of primitivism.

Kaczynski's associates' second task was translating ecoradical texts, especially Kaczynski's, into other languages. The Portuguese version of Kaczynski's manifesto finished up just as I had started corresponding with the group, which explains why the man requested a Portuguese-English dictionary from me several months before. But the Spanish version had been finished by UR long ago — and published right around the time that a terror group arose in Mexico: *Individualidades Tendiendo a lo Salvaje* (ITS).

At the time I had limited knowledge of the group. I knew only that they were heavily influenced by Ted Kaczynski, differing from him only in that they didn't espouse revolution, and that they had produced eight communiques, which I had read. This and the timing of their appearance suggested that ITS was a direct, though unintentional, product of Kaczynski and his associates' propaganda work. UR himself voiced these suspicions in his critique of ITS, written right around their fifth communique, and which marked a drastic change in their discourse, as one can observe by reading the sixth, seventh, and eighth communiques. Later, the suspicions were confirmed when ITS published their fullest critique of Kaczynski's revolutionary strategy to date, "*Algunas respuestas sobre el presente y NO del futuro*." They note that they were indeed influenced by UR and Kaczynski, and that they vigorously disagree with the idea of revolution, preferring instead to act now as terrorists. Only later would they explain the ideological foundations of this view, when they grew from a single terror cell to a terror network.

Kaczynski's associates, especially UR, are not fans of ITS, and they do not want to be connected to them. Indeed, UR seems to view ITS as a thorn in his side, not a tolerable splinter group. Nevertheless, I noticed that the eco-extremists continued to use language and terms that the associates had been using and that I had made known through my popularizing them on the internet: progressivist, humanist, etc. In fact, many of these terms would appear very soon after their first appearance online, although I didn't notice this until much later. I also became weary of UR. While brilliant, he is difficult to work with, sometimes naive, unnecessarily incendiary ... To illustrate, one might note that his critique of ITS — a terror group — began with a

note on their grammatical inconsistencies. And in his critiques of my own writings, he would take great, exaggerated issue with phrases like “more or less” because of their ambiguity. It was getting to be a bit much, and I felt I could be more effective as an autonomous actor. So I broke away with a few American associates to pursue my own projects, primarily a journal entitled *Hunter/Gatherer*. As this project developed a flavor distinct from Kaczynski’s brand of primitivism, we used new language and concepts that, to our surprise, ITS then used as well. It seemed that even after the split with UR, ITS was paying attention to us, which even now puts me in a precarious legal situation.

These events had visible effects on the forms my philosophy took. For instance, immediately after becoming convinced that Kaczynski’s core ideas were right, 17-year-old me was recklessly supportive of political violence. I remain firm in my opinion that political violence can be justifiable, but the opinions are tempered now. And during my time with Kaczynski’s political associates, I conceived of the philosophy in a classical revolutionary manner, attempting in many ways to emulate Marxists. This resulted in several absurdities apparent in my early writings for *Hunter/Gatherer*. Finally, while the vast majority of communiques by ITS contain nothing new or, worse, terrible innovations on original primitivist ideas, some of their critiques of Kaczynski and his associates struck me as sound, such as their polemics against revolutionary strategies. Their focus on animist spirituality was especially influential — not because it was right or compelling or even nuanced, but because it reminded me that even if philosophical rigor is necessary to speak and make sense, it is not sufficient to speak and move. While Kaczynski’s associates tried to focus on devising a doctrine, ITS reminded me that a more fruitful path was articulating a mythology.

Along this path, because of my initial experiences with Kaczynski and his writings, I found the doors to a world entirely invisible to me before. I had known that Kaczynski’s ideas were not original. He has admitted as much, writing that he sought only to appraise revolution as a serious option in response to many thinkers’ insights about modernity. But I did not know until university the extent to which the ideas permeated anthropology, literature, biology, philosophy, art. The “Pleistocene paradigm,” or the idea that human nature is essentially Paleolithic, was especially ubiquitous. Crucially, this revelation meant that when I advocated primitivism, I would not be confined to the reasoning, approaches, and ideas in the manifesto. More importantly, it meant that I now had a niche to fill: there was a desperate need for a book that combined primitivist insights from the various sciences and books and pieces of art, one whose author name wouldn’t pose a stumbling block because of murder. So for four years, I studied as many relevant sources as I could, bettering the language I used to express the philosophy and finally writing that book.

The philosophy as I have written it here seems to be, more or less, where I’ve settled. I am not yet entirely sure what the political implications might be, something I outline in a larger, forthcoming text, *From Conservation to Reaction*. I am sure, however, of this much: a great clash of wills is raging, and I am on the side of the wild.

The purpose of this book is twofold.

First, I hope to provide what is to my knowledge the first philosophical framework for primitivism. Primitivism is an old philosophy, but its advocates have hitherto failed to articulate a coherent vision in one place, deferring instead to an amalgam of diverse and contradictory texts that leave advocates impotent in more ways than one.

My views, I believe, are especially suited to this purpose, because many extant primitivists continually fight on highly contested terrains that only distract from more core issues. I, on the other hand, often hold the positions that the enemies in these battles take, thereby demonstrating that the philosophy does not necessarily depend as heavily on these issues as some believe. I am a materialist where many primitivists contest materialism as a worldview that reinforces technoscientific dominance — they opt for cosmologies like animism instead. I believe that rates of violence decline as civilizations progress where many primitivists believe this eternally damns the value of the primitive. I believe that the Pleistocene extinction event was at least in part caused by hunter/gatherers, which is rejected for the same reasons as before. I believe that values are subjective, while most, probably because it seems to lend weight to moral arguments, believe that the value of nature exists independently of human beings. And I emphatically do not believe that primitive peoples exemplified egalitarianism, peacefulness to animals, or intentional conservationism the way some primitivists, particularly anarcho-primitivists, believe they do.

Nevertheless, I remain a primitivist, and that is if nothing else useful to a philosophy continually marginalized because, somehow, its advocates keep tacking on evermore-obscure positions.

My second purpose in writing this book is to provide for those unfamiliar a coherent text explaining values that will only play a greater role in world politics as civilization enters its twenty-first century crises. This is as important for any contemporary person to do as it was for the Romans to learn of the barbarians; the colonists to learn of the savages; the states to learn of the anarchists. Artificial intelligence, biotechnology, climate change, antibiotic resistance, mass surveillance, the sixth mass extinction — all are rapidly taking center stage in world politics, and with them the scientists and engineers, whom the general public is coming to realize have an inordinate amount of control over the circumstances of modern life. Likely some form of antitechnology populism will soon replace what was once an anti-government populism; whereas the main objects of disdain were politicians, the new objects of disdain will be scientists and engineers, as well as technology itself.

Already we can see this sentiment in action. In the past few years we have seen TV shows about wilderness and outdoor-living, often with a tinge of anti-technological sentiment, skyrocket in popularity: *Mountain Men*, *Naked and Afraid*, *Duck Dynasty* ... Books like *Wild* by Cheryl Strayed or *A Walk in the Woods* by Bill Bryson push a similar message of freedom, a search for purpose and meaning, and spiritual renewal in a decadent, materialistic world. Complaints about ubiquitous technology are becoming popular as well. TV shows like *Black Mirror* convey a fundamental skepticism toward

the idea of technical progress, and books like *A Short History of Progress, Our Final Hour*, and so on, are all questioning, to various degrees, the technologies that dominate the modern world.

And it's pushing into the political arena. Environmentalist sentiments are popular today, and young people feel the need to address problems like climate change and the sixth mass extinction. But because of the way the problems are being ignored, sometimes by economic necessity, radicalization occurs easily among environmentalists. In fact, the FBI lists environmental terrorism, not Islamic terrorism, as the top domestic terrorism threat in the US.

All this is taking place on a stage that is largely being determined and shaped by the problems that define ecological thought. One headline in the *New York Times* states "Researchers Link Syrian Conflict to a Drought Made Worse by Climate Change." A headline in the *Guardian* reads "Global warming could create 150 million 'climate refugees' by 2050." And the WHO has issued increasingly urgent warnings concerning antimicrobial resistance, which could, combined with modern transportation systems and densely populated city living, cause a global pandemic, or at least a formidable one.

Clearly, primitivists are right about a lot, and unless someone offers a good challenge and alternative to their core ideas, the notion of "freedom in wild nature" is only going to continue attracting adherents. Dismissing the philosophy as crazy, marginal, beneath consideration is not going to work for much longer.

Acknowledgements

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Introduction

Man possesses a will with a drive to flourish. He cannot choose his will, neither is the will a totally blank slate on which nature and man inscribe desires. Rather, the primitive will is a landscape, and like a landscape the highs and lows of the terrain limit how, exactly, it can be modified. One *can* run a train through the mountain, and this comes with the benefit of more efficient travel; but it also destroys aspects of the mountain's ecology and degrades aesthetic values. In every similar situation, the task of man is to assess the trade-offs. Few if any cases are totally good or totally bad. The question is whether they are good enough.

Life in civilization demands from man more than his primitive will can give, so he has had to become civilized, tamed — though not quite domesticated. Nomadic hunter/gatherers have successfully entered civilization, but entry is a process of education and cultivation; the beliefs and behaviors of modern humans are not the product of the womb.

According to the progress narrative, the historical development of the civilizing process has been an upwardmoving line. And sophisticated progressivists note that the line is jagged: civilizations collapse, regression occurs, stagnation halts development. Still, the project has more or less continued, and in the process material conditions select for the most efficient methods of moral or behavioral cultivation. As these methods arise, the need for large-scale social transformations dissipates, and what was once a great cultural project is achieved through childhood education. Man before the Middle Ages lacked even the most basic of manners; man after could only conceive of the unmannered as savage.

But the civilizing process does not work perfectly. On the one hand, it has not reached everyone at the same level of efficiency. On the other, some possess particularly indomitable wills, resistant to methods that work well enough to sustain cultural mores, not well enough to fashion the specific individual in the required way. “There are some who can live without wild things,” Aldo Leopold writes, “and there are some who cannot.” The indomitable ones are those who cannot.

They are repeatedly present throughout history. We can see the Wild Will in native resistance to colonization; in the Maroons, slaves who escaped captivity to live in the jungles and the forests; the Sentinelese, who respond violently to any civilized excursion into their land. We can also see it in profoundly civilized peoples. In 1753, in the midst of a “going native” phenomenon among American colonists, Benjamin Franklin noted that white captives freed from Native hands did not wish to stay long:

Tho' ransomed by their friends, and treated with all imaginable tenderness to prevail with them to stay among the English ... in short time they become disgusted with our manner of life ... and take the first good opportunity of escaping again into the woods.

It goes on. John Muir, Henry David Thoreau, Hanshan, Geronimo, Ishi, William Kidd — again and again the Wild Will possesses individuals and places them in direct conflict with the surrounding civilized world. Something here is ineradicable, and even those who do not agree must contend with it.

This book provides one framework for doing so. I speak as one possessed, so I am prone — rather, jubilate in — polemics. I am no impartial observer. But I have spent several years carefully considering how to make these ideas most intelligible to those starting from radically different premises, and intend now to share the result.

The first three chapters outline the *whats* of my perspective before the *shoulds*. Possession comes with a calling, but a calling is only intelligible if understandings of reality are similar. A man called to preach against the evils of Satan is a lunatic to he who does not believe in Satan.

In “The Nature/Artifice Distinction” I give the different definitions of nature and, using what is in philosophy called a precisising technique, narrow down the definition to eradicate vagueness that is unacceptable when explaining ideas that demand so thorough justification.

In “Human Nature and the Will” I precise the definition of “human nature,” the definition of “will,” and I give my understanding of how morality works.

In “The Meaning of Progress” I, again using a precisising technique, define “progress,” explaining its core components and how any anti-progressive ideology could challenge them. A sufficient challenge, I argue, involves an argument against the future (“A Promised Future”), an argument against the moral unit of progress (“The Origin of Civility”), and an argument against domestication (“Repent to the Primitive”).

In “A Promised Future” I explain all the reasons the civilized project will likely fail, at least in the eyes of most people — this includes some humanists, industrial citizens, third world citizens, wild wills. The future of progress doesn't look bright for many people at all. Civilization tends toward collapse; future technical developments threaten to transgress humanist and liberal democratic values; and even if civilization doesn't collapse wholesale, its stronghold will soon be loosened in some regions largely due to problems it is creating for itself.

In “The Origin of Civility” I explain the process by which man is civilized, and the inefficiencies in that process that leave some men untrammelled by it.

Finally, in “Repent to the Primitive” I draw on all the definitions and analyses to express a personal articulation of the Wild Will, its ideals and values and challenges and tragedies. I explain the value of the wild; the significance of the nomadic hunter/gatherer and of wilderness; and the intricacies of the broader worldview, including responses to the strongest or most frequent criticisms.

The Nature/Artifice Distinction

1

Mill's *On Nature* long ago articulated two meanings of "nature." On the one hand, "nature" could mean everything that exists. If we are materialists we would say it is synonymous with the material world. This definition is popular in the physical sciences, because earlier in scientific history it was useful to distinguish between the domain of religion — the supernatural — with the domain of science — that which is detectable through human reason rather than Divine revelation. For clarity, I refer to this concept as "the Cosmos" or "the material world."

And I prefer the second definition of "nature": anything that is not made or controlled by humans or their technical systems. The contrast here is the artificial rather than the supernatural. This definition is most popular in the biological sciences, especially where those sciences overlap with conservation, because human influence has such profound effect on the field of study. Animal behaviors change when they are domesticated; different plants grow, and plants grow differently, next to roads; ecologies transform downstream from a dam.

Mill made an appropriate observation: neither meaning allows us to look to nature for the *oughts* and *shoulds* of our moralities. If this is what Rousseau meant when he said we must live "in accordance with Nature," then he made an error. For if nature is everything, then man can *only* live in accordance with it. And if nature precludes man, then man can *never* live in accordance with it.

This does not keep us from asserting that wild nature has value. Though nature cannot be the foundation of our morality, it can be relevant to it. Mill himself noted that nature in the second sense of the term is worth conserving:

Nor is there much satisfaction in contemplating the world with nothing left to the spontaneous activity of Nature; with every rood of land brought into cultivation which is capable of producing food for human beings; every flowering waste or nature pasture ploughed up; all quadrupeds or birds which are not domesticated for man's use exterminated as his rivals for food ...

Following Mill, I make no claim other than this: wild nature, that which is not made or controlled by man or his technical systems, has value, and that value must be appraised.

2

The nature/artifice distinction is descriptive, not normative. Something is not better because it is natural. Anyone from the most avid logger to the most avid conservationist could accept the nature/artifice distinction and impart different values onto each side. Plato wrote, “I am devoted to learning; landscapes and trees have nothing to teach me — only the people in the city can do that.” Under the nature/artifice distinction, he would root for the artificial.

3

The distinction is a spectrum as well as a dichotomy, like many wordpairs: good and bad, tall and short, loud and quiet. Because the distinctions are a matter of convention, their pure, abstract forms do not necessarily correspond to reality exactly, but this does not mean that they are any less useful in explaining aspects of reality. Tall people still exist even with the ambiguous space between tallness and shortness.

4

A man may be tall in a room of midgets but short in a room of giants; similarly, a garden may be natural in the city but unnatural or artificial in a wilderness area.

5

Nature as “that which is not made or controlled by man or his technics” does not mean that man himself is un-natural. It only means that all human behavior results in artifice.

Making a spear may be a natural impulse; the spear itself will always be artificial. Making art may be natural; the art, artificial.

An individual’s desires and behaviors can be artificial in cases where they are manufactured by man or his various technical systems. Elias’ *The Civilizing Process* explains how Church and education systems instilled in man artificial behaviors called “manners.” Today, advertising companies devise various techniques to feed into consumerism; and media manufactures consent.

Under this distinction, artifice is inherent in the human condition, so short of complete misanthropy, one cannot extol nature and denigrate artifice in all instances. The question is what degree of both is acceptable. More accurately, the question is one of *wildness*.

6

The quality of *wildness* determines where something is on the spectrum of naturalness and artificialness. For instance, an animal that has been caged immediately loses some degree of wildness, and as his body and mind change to a form suited to artificial conditions, he becomes progressively less wild. Artificial control tames the creature, even more domesticates it. Conversely, a domesticated animal population that has been freed from artificial influence, if it doesn't die off, would because of its newfound wildness transition to a feral and eventually entirely wild state. To give another example, consider a dam: a river ecosystem is not made significantly less natural by it at first, but as the ecosystem responds to the edifice, artificial influence becomes more apparent. On the other hand, once we remove the dam, the artificial influence will eventually wash out from the landscape, allowing us to say that it is in a more natural state.

My concern is the value not of nature, *per se*, but of wildness, with nature and artifice as indicators of its presence or absence. A society with minimal human control over nature would result in bigger wilderness, more primitive technics, and more abundant wildlife. A society with extensive human control over nature would result in little to no wilderness, techno-industrial infrastructure, and an extinction crisis, as it goes today.

7

A brief response to critics:

The postmodernists say that modern conceptions of nature and wilderness are recent concepts. Even if this were true in all ways claimed, it is unclear why this should have any bearing on whether or not we value nature and wilderness.

Some assert that “nature,” defined negatively, refers to nothing in particular, and may not exist at all. But we have many words that are defined negatively — secular, for instance — and that says nothing about their existence.

Some say that “nature” is an ambiguous concept. But the ambiguity of “nature” is not substantially different from the ambiguity in other moral concepts that we do not question. “Health” and “wellbeing,” for instance, are the goals of most medical practice, but the concepts are inexact. We call a person “loving” even if they hate sometimes. An honest person can carefully consider their words for tact or even tell small lies and still be considered honest.

McKibben's *The End of Nature* argues that few if any places on Earth are now free of artificial influence, thanks to powerful technics and global problems like climate change. He states,

If the waves crash up against the beach, eroding dunes and destroying homes, it is not the awesome power of Mother Nature. It is the awesome power of Mother Nature as

altered by the awesome power of man, who has overpowered in a century the processes that have been slowly evolving and changing of their own accord since the earth was born.

But he overstates his point. Human influence has clearly pervaded some of the darkest corners of the Earth, and it will take some time before that influence washes out, but just as clear are aspects of nature that humans have yet to make artificial. Hettinger points out that at the very least humans cannot be responsible for “the existence of sunlight, the photosynthetic capacity of plants, water, gravity, the chemical bonds between molecules, or, more generally, for the diversity of life on the planet.” He also points out that if naturalness is valuable and is decreasing, then “what remains [is] all the more precious,” not reason to abandon serious moral consideration of it.

And in any case, McKibben’s argument is most powerful if we assume that nature’s end is irrevocable; but it is not. The Chernobyl Wildlife Exclusion Zone has demonstrated that nature may rebound from human influence quite rapidly. Weisman’s *The World Without Us* gives many examples along these lines, noting how quickly residential areas would turn into forests or city infrastructure would collapse should human activity cease suddenly and completely. There is naturalness in the world yet.

8

The relevant questions, as Mill wrote, are ones of value. To what extent do we want to conserve nature against artificialization in an age where artificial influence can be so powerful? Do we want to change our genetic makeup with biotechnics? Is wilderness something we can do without? Are climate engineering proposals worth considering? These, the questions of the twenty-first century.

Human Nature and Will

1

Following the nature/artifice distinction, human nature consists of those parts of the human being that are not influenced by man or his technics. Breathing, walking on two legs, making tools, performing social favors, and so on are all natural human activity. By this definition an organism's nature is different from its behavior, psychology, or biology. Parts of each of these can be artificial, produced by techniques of social control. The same applies to innate tendencies: for example, the positive chemical response domesticated dogs have to humans is innate but artificial.

Some believe that "human nature" means "unchangeable." But under no meaning of the term is human nature unchangeable. This should be clearest in the case of the nature/artifice distinction, since it explicitly acknowledges that natural things can be made artificial.

It is also true for "biological," such as when humans became lactose tolerant from pastoralism, or when humans are engineered through medicine and biological technologies.

2

An individual's nature determines his values. From his perspective, he would say that his values come from his "will," his subjective experience of his inner nature. Note that will is not the same as spirit. It is nearly synonymous with the human biology, and thus his will can be made artificial just like biology can be made artificial. For example, while Phineas Gage was blasting rock for a railroad, a tamping iron shot through his brain. He survived the accident, but his behavior after was radically different. Dr. John Harlow writes:

The equilibrium or balance, so to speak, between his intellectual faculties and animal propensities, seems to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity (which was not previously his custom), manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires, at times pertinaciously obstinate, yet capricious and vacillating, devising many plans of future operations, which are no sooner arranged than they are abandoned in turn for others appearing more feasible. A child in his intellectual capacity and manifestations, he has the animal passions of a strong man. Previous to his injury,

although untrained in the schools, he possessed a wellbalanced mind, and was looked upon by those who knew him as a shrewd, smart business man, very energetic and persistent in executing all his plans of operation. In this regard his mind was radically changed, so decidedly that his friends and acquaintances said he was “no longer Gage.”

Because Phineas Gage’s biology transformed, his will transformed.

3

Hume’s is/ought problem holds. One cannot determine what ought to be simply from the way things are. One might say,

Premise: If one leaves the house unlocked while out, thieves will steal from the house.

Conclusion: One should not leave the house unlocked while out.

But there is no logical reason why a person should or should not do anything about the thieves. Morality can never be wholly empirically and rationally derived. Instead, moral attitudes are in large part due to sentiments and feelings. Regarding things we consider wrong, Hume writes, “You never can find [the vice], till you turn your reflexion into your own breast, and find a sentiment of disapprobation, which arises in you, towards this action.”

Morality, then, is a question of human nature. We might say that understanding moral evaluations is a function of a “moral sense,” an innate mechanism that allows us to assess morality in a similar way that our eyes allow us to assess hues. Like eyes, all moral senses have an underlying, universal structure, but where they diverge, where they “see” different things, individuals must either agree to disagree or find some way to resolve their fundamental differences.

I mean “morality” in the broad sense, “the rules that govern behavior.” Morality is not always imposed. If we are committed to our values, then in combination with certain conditions we commit to certain behaviors. It would make no sense for a person who values the wild to log the wilderness; for a person who values human life to indiscriminately murder.

4

The relativistic implications of the moral sense are not as terrible as might first be assumed. As Kaebnick writes in *Humans in Nature*, “If we are *committed to our commitments*, then we need not relinquish them just because somebody else disagrees with us.” Furthermore, this account of values adequately describes and explains the way moral reasoning occurs in the real world, by, for instance, making clear that appeals to the value of something are impotent among those who do not accept that value. In truth, even if moral value existed independently of a valuer, nothing about

an independent value would cause it to be enforced outside of normal social methods, like persuasion or force.

It is also quite clear that morality is *descriptively* relative. That is, whether or not we can abstract an objective moral system from our condition, or discover it through empirical investigation, the world as it stands contains individuals and groups who differ widely in their moral attitudes. Indeed, shared moral rules arise precisely because of differences in interests. The rules are a natural problem-solving technique. This means that they can be expected to solve some problems even if they are between two people or groups with incommensurable values, with moral senses that draw fundamentally different *oughts* from the *ises* before them. For example, The Wilderness Act has been supported both by groups who note the economic utility of natural resources and those who value wild landscapes intrinsically.

If all this is relativistic, then it is no more so than scientific investigation, since naturalism has similar implications for epistemology as it does for morality. Return to Hume's contention that moral attitudes are built from a basic moral sense that one either has or does not have; that moral attitudes cannot be derived through means other than this, e.g., through descriptive investigation. In a similar fashion, Hume argued that no one can fully justify their reliance on their senses, nor can they justify certain natural modes of human reasoning like induction or belief in causality. Since Hume, philosophers have further demonstrated that even aspects of science more complex than immediate sense experience rely on values, power, and logical leaps. If we accept all these arguments, our philosophical starting point for epistemology must be "radical skepticism," the idea that absolute knowledge is impossible, a position that Hume held. Yet even in spite of this position, Hume did not dismiss induction or sensory evidence, appealing to common sense by pointing out that we do have no choice but to interact with the world using the tools we have. This he called "mitigated skepticism." In the end it makes epistemology a question of human nature just as morality is.

Evolutionary theory therefore sheds light on why we tend to speak of morality in terms of "opinion" and descriptive investigation in terms of "fact": the disparity results from a difference in evolutionary restrictions on variability. In other words, some aspects of human nature will be more similar and consistent than others because of similar and consistent selection pressures. Things like sexuality, bodily functioning, basic *a priori* elements of human reasoning, and sensory experience have a basically universal shape. On the other hand, the distribution of moral attitudes is much more diverse. This is most obvious in the case of psychopathy, which tends to have a "low but stable" prevalence in a given population, a finding predicted by evolutionary game theory. So while the unity of human nature indicates some moral universals, universal norms that aren't strongly selected will have to be a result of compromise between different values, if compromise is possible. In other words, while communication, understanding, and moral argument are all possible, we can expect many moral differences between humans to remain intractable so long as we do not homogenize the human race biologically.

5

Our values are innate, but we are not in possession of all our values at birth. A child is not born with fully developed sexual organs and drives, but the form these take at puberty are still innate.

6

Morality can change with empirical evidence. Consider, for instance, a historical preservationist who argues strongly that a specific document should be preserved because of its historical value. If someone demonstrated that this document did not actually have the historical value the preservationist thought it had, then he would have to abandon his case for that document even if he does not abandon his core normative commitment to preservation.

Or consider an individual whose immediate feeling toward GMOs, now a popular symbol of artificial modification of nature, is repulsion, because of their artificialness. Suppose he suggests a moral principle (indefensible but hypothetical) that values nature and denigrates artifice in all cases.

From there it is possible to engage in moral reasoning. For instance, a rival attitude might (and does) argue that human beings have been engaging in genetic modification of sorts at least since the Neolithic. This unnaturalness is precisely what allowed for population growth, and the so-called “gene revolution” in agriculture is the only apparent means to sustain it through the twenty-first century. The argument is convincing to a person who values the benefits of agriculture and increased population; but those who do not hold similar values will have to resolve the conflict through other means, such as through force (e.g., protests) or compromise (e.g., labeling policies). Alternatively they might be convinced that although they value nature, they also value things like peace, and since the consequences of not using GMOs could mean an increase in future violence (because of resource issues), they may then accept that peace should be prioritized over naturalness.

7

To say that values come from human nature does not mean that the value is derived from human pleasure. Philosophical discourse usually contrasts pleasure with pain, but one can value pain or tragedy. And to say that the pain produces a sort of pleasure reduces the power of the distinction by obscuring it.

The confusion stems from a terrible habit to translate the Greek “*eudaimonia*” as “happiness” or “pleasure.” It more appropriately means “flourishing”; etymologically it is derived from “*eu*” (“good”) and “*daimon*” (“spirit”).

A will cannot escape its drive for flourishing; it does so until it is extinguished. Thus, flourishing is the object of every individual — human and non-human — with a will.

The ancients believed that the flourishing of the will depends on the human character, or *arete*, translated as “virtue.” Aristotle, for example, wrote that the will could achieve *eudaimonia* through “virtuous activity in accordance with reason.” The virtue they had in mind extended beyond moral considerations, including such things as beauty and health. In other words, the linking of *arete* and *eudaimonia* establishes a similar framework as the linking of nature and will, and on this I concur with the ancients.

On the role of reason, I diverge on subtle points. The ancients would through reason devise the best way man could achieve *eudaimonia*, but with his conditions as a given. They did not consider that the new conditions came with trade-offs that reason couldn’t solve, because they denied the impact man’s origins have on his civilized character, believing that man’s nature was much more malleable than it is. Aristotle believed that the mind was fashioned as characters on a “writing-tablet” that starts blank; Locke later echoed the idea with his “blank slate.”

The blank slate theory of human nature allowed ancients, and now allows moderns, to unapologetically advocate conditions drastically different than those of primitive man. For example, cultivating the virtues of beauty, health, and strength helped an athlete achieve *eudaimonia* as an athlete. Modern philosophy does similarly when it extols peaceful urges and condemns violent ones, an effort to achieve *eudaimonia* as an industrial man.

But the blank slate theory of human nature is false. Man’s origins have impacted his whole being. Thus, like Kabbalists who study creation, the original expression of God’s Will for the world, to discern how man’s sin de-grades that Will, through the study of our own origins we can discern the degradation of *eudaimonia* inherent to civilization.

The Meaning of Progress

1

To paraphrase Bury, the idea of progress is the belief that civilization has improved, is improving, and will improve the human condition. Note the three elements of this idea: first, better days lie ahead; second, what is considered humanity progresses as a single unit; and third, nature must be controlled and manufactured to improve the human condition. These are the three pillars of progress.

Note that standards for judging whether a development is good or bad are not built into the idea of progress. Such a thing would, in fact, be impossible, since progress itself determines the values that will be appropriate. Carr writes, “But I shall be content with the possibility of unlimited progress — or progress subject to no limits that we can or need envisage — towards goals which can be defined only as we advance towards them, and the validity of which can be verified only in a process of attaining them.” Thus, the standards for progress at any given time are usually determined by a civilization’s dominant ideology. Man did not rationally undertake industrialization because it would decrease rates of violence or create vast pockets of wealth, and that these things occurred are employed only as posthoc justifications, ideological arguments determined by physical infrastructure and meant to inspire loyalty to it.

Attacking standards of progress would therefore be an arduous and endless task, since the standards change at every new phase of development. However, it is possible to refute the grand narrative of progress by refuting some or all of the three pillars: one could refute the “will improve” part of the narrative by demonstrating that civilization cannot continue (the argument against the future); one could also demonstrate that the unit of progress, like the nation or humanity, is illegitimate (the argument against civility); or one could deny the imperative to modify nature (the argument against domestication).

2

We must keep distinct the colloquial meanings of “progress,” which can refer to occurrences as benign as walking from one point to another, and the precised definition of “progress,” which refers to a cultural narrative.

3

Some, like Dienstag, try to explain the Idea of progress as if its main problematic was that of time and time-consciousness: things “get better over time.” But, while the idea does breed a certain relationship with time, especially the future, it is fundamentally about technical development, the backbone of civilization and the only good measurement of progress. That the improved human condition could be undone by technical regression is a testament to this. It therefore makes no sense to say that anything can be progress depending on what one values: civilizational collapse would emphatically not be progress in the precise sense, since progress is inherently a polemic for the technical development of civilization. It is true that polemicists have sometimes argued that pre-civilized conditions contain a modicum of progress, such as the domestication of fire. However, we can appropriately limit the scope of the idea to civilization since the polemicist really only notes these developments for the way they set the stage for what he truly hopes to defend. As Tsanoff writes, “... the march of civilization can fairly be called the march of progress.”

A Promised Future

1

The first pillar of progress would, knocked down, not bring the entire house down with it. Reasonably one could support the project of civilization even if it were doomed to fail. Still, it is an important pillar to hack at.

The promise of a better tomorrow is what ties most men to civilization, little else. Abandoning these ties may not be a necessity when the promise is abandoned, but men will do so nonetheless.

And, at the least, the reasons for an uncertain future draw attention to the facts and objects of value civilization now marginalizes in the first place, so the argument against the future is if nothing else an indispensable didactic tool.

2

Any promises, any exact measurements of progress, are baseless, because beyond the three pillars all progressive values are baseless. Recall Carr — “goals which can be defined only as we advance towards them, and the validity of which can be verified only in a process of attaining them.” This is only a more flowery way of declaring that progress transgresses its own values. One moment, it preaches peace, because that is what it offers. Another moment, war. At the onset of the Industrial Revolution workers were promised leisure. In the technoindustrial age, intimate aspects of their daily existence are monetized — from friendships (through social media) to curiosity (through search engines). Because of personal devices the pulse of labor never dies, invading the worker even in his previously private domains. With the change, the ideal is no longer leisure; it is connection.

Because these values are shaped by material conditions and the structures built atop, rapid changes in these conditions amount to equally rapid changes in morality. The very means by which we measure “better” is a shifting goal post, rendering the whole concept of progress in some sense meaningless. Rubin writes in *The Eclipse of Man*:

It becomes harder and harder for our authors to imagine what will be retained, hence where change will start from. And if the rate of change is accelerating, that simply means we are headed the more rapidly from one unknown to another, while

the recognizable old standards for judging whether the changes are progressive are overthrown with our humanity.

Any effort to mitigate the problem by slowing progress will fail. A moratorium on technical fields like biological engineering holds only in a specified region. The research will simply go elsewhere. Even moratoriums sustained mostly through cultural inertia will eventually be broken, as we witnessed when Chinese scientists genetically modified human embryos. States, of course, have little incentive to let other states get ahead. The process is unstoppable, unless the technical base declines or collapses.

3

Progress will transgress — indeed, is transgressing — current values as it does all others. Consider a foundational premise of the Enlightenment: a government organized such that the people hold the power. At least, the people must hold enough power that they can reform or even revolt against a government that no longer represents the popular will. The *philosophes* and revolutionaries devised intricate systems toward this end: they pitted sections of government against each other; they ensured a right to bear arms; they instilled in popular consciousness a sense of entitlement that no other populace before had freely. And in the main, the systems worked.

Since then, however, technical development has proceeded at so rapid a pace that the balance of (raw) power is fully weighted on the side of the states. Nearly every great mind of the World War II generation recognized this as one of the nefarious implications of nuclear weaponry. Orwell said the atom bomb would probably “put an end to large-scale wars at the cost of prolonging indefinitely a ‘*peace that is no peace*.’” Oppenheimer said of it, “We have made a thing, a most terrible weapon, that has altered abruptly and profoundly the nature of the world ... a thing that by all standards of the world we grew up in is an evil thing. And by so doing ... we have raised again the question of whether science is good for man.” Yet problems of a similar caliber have only proliferated — chemical and biological weapons, automated warfare, information warfare, etc.

Consider the way information technics are now undermining democratic values. Mass surveillance is once again a topic of major public discussion, but we need not get into the specifics of whether mass surveillance has or has not directly thwarted terror attacks; or whether it is or is not effective for other ends. All that matters is that the technical capability for mass surveillance is now here. Any restrictions on the practice, then, are a matter of policy and self-restraint, and nothing more.

The difference between structural limits and policy limits is vast. When a government (for example) is materially or structurally unable to oppress its populace, its populace has true freedom, a guarantee of certain rights, privileges, or abilities. When technical development transcends those limits and the government is limited by policy only, the populace is merely permitted to carry on, and the problem becomes one of

human nature and folly. And the consequences of human error in our current — not even future — conditions leave too much room for disaster. Behavioral science and cognitive sciences, for example, can now subtly dominate intensely personal decision making, even inner psychological states. In 2014 a journal article in PNAS revealed that Facebook has allowed researchers to conduct experiments on users' newsfeeds without their consent. The experiment demonstrated the ability to affect users' moods by modifying posts on their newsfeeds, moods that would spread through a process called "emotional contagion." The potential abuses are obvious.

4

Those less than keen on my sympathies for technical determinism will insist that technics can be used for good, if only humans would use them that way. But if a technology can be used for either good or bad, then when the repercussions of the technology can be as extreme as those of, say, biotechnics or information technics, we are justified in at least asking if the risk is worth it. And given that the development of these technologies is almost certainly inevitable with the continued existence of their industrial base, arguing that their development is *not* worth it necessarily implicates the arguer in an anti-industrial politic.

5

Civilization must address threats in at least six major areas before the end of the century. Other threats exist, but most are couched in a long chain of hypotheticals, so I will ignore them. The six are: antibiotic resistance, artificial intelligence, climate change, biotechnology, information technology, and population growth.

The World Health Organization wrote of antibiotic resistance in its 2014 report, "this serious threat is no longer a prediction for the future, it is happening right now in every region of the world and has the potential to affect anyone, of any age, in any country. Antibiotic resistance — when bacteria change so antibiotics no longer work in people who need them to treat infections — is now a major threat to public health." Combined with densely populated cities and transportation systems, antibiotic resistance means, at the least, constant trouble at the level of the 2014 Ebola crisis. The only apparent ways to address the problem are to devise an alternative to antibiotics (which we do not have at the moment) or to devise public health systems that can mitigate crises when they occur. Both are enormous tasks.

The most pressing problems with artificial intelligence do not have to do with "the singularity" or a Matrix-like robot revolt, but with utter dependence on systems no longer controlled or even understood by humans. This, like antibiotic resistance, is a

problem now. One example comes from an article in *Aeon*, “Is Technology Making the World Indecipherable?”:

Despite the vastness of the sky, airplanes occasionally crash into each other. To avoid these catastrophes, the Traffic Alert and Collision Avoidance System (TCAS) was developed. TCAS alerts pilots to potential hazards, and tells them how to respond by using a series of complicated rules. In fact, this set of rules — developed over decades — is so complex, perhaps only a handful of individuals alive even understand it anymore.

The same thing is happening to society as a whole. In his talk, “How Algorithms Shape Our World,” Kevin Slavin pointed out that 70% of the stock market operates by algorithms that do the trading for brokers, but that no one truly understands (this is called “black box trading”). In fact, the sole duty of some is to examine the automated systems and pick out individual algorithms that run it. As a result, when something like the Flash Crash of 2:45 happens, that is, when 9% of the stock market simply disappears in seconds, no one can give an explanation. A 2013 article from *Nature* echoed this, the authors explaining that finance functions because of a “machine ecology beyond human response time.”

A side-effect of advances in artificial intelligence, widespread automation, probably will not result in permanent social tension, but it will certainly cause shortterm social tension. One study predicted that 47% percent of the workforce is slated for unemployment due to technical advances. Unemployment during the Great Depression reached only 25%. And while a common argument is that technical innovation has always provided more jobs, this has been true only in the long term. In the short term, rapid economic changes have led to quite a bit of instability, and this second wave of automation is occurring at a rapid enough rate for something comparable to happen. Self-driving cars, for instance, will cause immediate turmoil for one of the world’s largest industries, transportation. Potential solutions to the problem, such as increased immersion in the virtual world, are unappealing and come with all the problems attached to information technology generally.

Many studies have pointed out that climate change is already set to quickly and harshly impact a handful of major cities, among them Charleston, SC, Tampa, FL, New York, NY, and huge regions of New Jersey. These, the studies say, are inevitable casualties. Likewise, the IPCC report on climate change declared that prevention is no longer enough; civilization now needs to grapple with climate change by mitigating inevitable threats. No solution so far, not even complete transition to renewable energy, adequately addresses the threat.

Biotechnology intersects with several risks, but its most tangible negative consequences involve biological war-fare and genetic modification of life. Both have been practiced to some extent since the beginning of civilization, but the power of current technics, and the possibility of novel life-forms propagating autonomously, magnifies the threat into a global one. Furthermore, genetic modification of humans has special philosophical implications. If we accept that man is entirely, or even mostly, a material,

biological creature, then genetic modification will not just affect his appearances; it could also affect his mind. This development runs up against some of the most deeply-held human values, like autonomy, self-determination, and identity. It also holds the same potential for totalitarian abuse that information technologies do.

Information technology is a problem because of its totalitarian potential, like with biotechnology, and because of human dependency, like with artificial intelligence. Information warfare or unpredictable natural occurrences like solar flares could easily knock out large regions' electronics, leaving them without the basic infrastructure required to keep the large organizations that underpin civilization running.

And population growth is a problem not only for ecological reasons, but for social reasons as well. Regions set to have the most population growth over the next century are often among the poorest and in terrorist strongholds. And immigration, an inevitable consequence of so large an explosion, has repeatedly caused the same social stresses between left and right, citizens and immigrants.

6

Civilization would have a hard road ahead if its future held only one of the six major problems. In all likelihood, several of them will intersect over the next 50100 years. Martin Rees, in *Our Final Hour*, writes, correctly, I think, that by the end of the century we will have conquered the hurdles adequately, and in a way that ensures reasonable stability for the far future, or the project of civilization will have failed, and civilization will be in decline. He predicts we have a fifty-fifty shot.

If civilization is to make it, it will have to transition to cleaner energy rapidly; it may have to devise means of reversing damage already done; it will have to decentralize and distribute its technical systems to make them more resilient; and, crucially, it will have to overcome the problem of human nature, which, through problems like general discontentedness, terrorism, and prejudice (especially ethnic), cause relentless inefficiency.

7

The philosopher W.W. Bartley demonstrates the essential rejoinder of progressivism:

How can our lives and institutions be arranged ... to optimum examination, in order to counteract and eliminate as much error as possible.

Thus a general program is demanded: a program to develop methods and institutions that will contribute to the creation of such an environment. Such methods may be expected to be generally consistent with, but not restricted to or limited to, science.

Wealth and power disparities, ecological destruction, degrading mental or physical health ... ? Progress will

fix all that, say the neoliberals, say the Marxists, say the ecomodernists. But there is a problem with this faith: it overestimates human control over technical development. More regulatory systems cannot, therefore, be the only or even main solution to the six major problems.

8

We don't have sufficient knowledge to devise blueprints for complex systems. At the time cars or cellphones were invented, no one knew the far-reaching changes they were going to bring to society, and no one could have known. How, then, could any group of people have directed these inventions to ensure that their consequences were “good” ones?

Consider that many technologies and scientific discoveries were invented or discovered by accident, including anesthesia, x-rays, dynamite, electromagnetism, ozone, radioactivity, and penicillin. Many times these accidental inventions or discoveries change the technical landscape profoundly, invalidating any previous blueprint or efforts to implement it. This is unavoidable; no scheme could overcome such a limitation.

Part of the problem is that humans cannot or do not fully understand technical systems. Who really understands the dynamics of a corporation or the stock market? Nobody, of course. A CEO, for example, simply can't take into consideration all the consequences his decisions could have — on his image, on his profit, on his consumers, on his employees. Much of this has to do with the way human behavior is unpredictable. For example, in 2010, when the AP Twitter account was hacked to announce that the White House had been attacked and Obama injured, the stock market suffered another flash crash that resulted in a 130-point plunge in the Dow Jones Industrial Average. All this doesn't keep technical systems from running, but it does mean that any attempt to direct them for “good” has to face possibly insurmountable practical problems.

9

Blueprints for complex systems often ignore human irrationality. The psychologist Daniel Kahneman discerns two systems in our brains. System 1 is intuitive, fast thinking, and it utilizes various shortcuts in order to come to conclusions. For all its imperfections, System 1 can be surprisingly accurate, especially when making decisions closer to the kinds our Stone Age counterparts would have made. In contrast, System 2 is analytical, slow thinking, the part of the mind that humans use to write or do complicated math. Kahneman argues that the fast, intuitive system is more influential

and that individuals often come to or act on its conclusions without the analytical mind ever knowing about it.

The psychologists Kahneman and Tversky once told experimental participants about an imaginary character named Linda. Linda, the story went, was single, smart, and outspoken on the issues of discrimination and social justice. After explaining this, the two psychologists asked if it was more probable for Linda to be a bank teller or for Linda to be a bank teller who was active in the feminist movement. Of course, basic lessons in statistical probability would reveal that the first answer is the correct one. Only a subset of all bank tellers are feminist bank tellers, so adding the extra detail will necessarily decrease the probability. But most participants said the second answer was correct.

Another phenomenon Kahneman reports is called the “availability heuristic,” which means that the easier something comes to mind, the more probable the human mind will judge it to be. For example, Kahneman and Tversky asked participants in one experiment to judge whether words that began with the letter *k* were more probable, or whether words with *k* as their third letter were more probable. Because we recall words by their onsets, words beginning with the letter *k* are easier to recall. Thus, the duo predicted, rightly, that participants would judge words beginning with *k* as more likely, even though the opposite is true. One could repeat this experiment using almost any letter.

The availability heuristic helps explain why people seem to fear things in a way that is totally incongruent with statistical probabilities. For example, death by falling furniture is much more likely than death by murder, but because it is easier to recall instances of murder, perhaps from the news or even novels, people fear it significantly more. This may explain why individuals in nations with extremely low crime rates but oversaturated with news media suffer from undull anxiety about crime, so much so that it can create a whole electorate who actively fear wrongdoing against them by terrorists or gangs or lone murderers or scammers.

10

The Deepwater Horizon was a normal accident, a system accident. Complex technologies have ... ways of failing that humans cannot foresee. The probability of similar accidents may now be reduced, but it can be reduced to zero only when declining [energy returns] makes deep-sea production energetically unprofitable. It is fashionable to think that we will be able to produce renewable energies with gentler technologies, with simpler machines that produce less damage to the earth, the atmosphere, and people. We all hope so, but we must approach such technologies with a dose of realism and a longterm perspective.

— *Drilling Down*, Joseph Tainter and Tad Patzek

Blueprints for complex systems do not go as planned. For example, there have been numerous attempts at calendar reform. The Gregorian calendar is notoriously inefficient, especially for industrial economic purposes. Indeed, the inefficiency has resulted in loss of large sums of money and several lives, motivating many to popularize calendars much more suited to their industrial purposes. They have all failed. This includes the *Positivist calendar*, created by August Comte; the *Pax calendar*; the *International Fixed Calendar*; the *World Calendar*; the *French Republican Calendar*; the *Invariable Calendar*; the *World Season Calendar*, created by Isaac Asimov; and the *Tranquility Calendar*. Some of these were even proposals in international organizations like the League of Nations but nevertheless failed to be implemented.

Consider Paolo Soleri's "Arcosanti," a city he designed from scratch in order to demonstrate the principles of "arcology," or ecologically-informed architecture, the dogma of modern "green planners." Arcosanti is an odd, futuristic city that, although capable of supporting around 5,000 humans, has only a population of around 80, mostly dreadlocked alternative-culture types. The Japanese corporation Shimizu tried to implement another arcological project in 2004, but it has similarly failed.

These examples reflect the similar and ubiquitous failure of utopian communities that became common in the U.S. in the 1800s. The Nashoba community, for instance, closed its doors within a year of its debut; and only months after the creation of New Harmony, one of the most famous utopian communities, various groups splintered off from each other and the project failed.

Communism, the most striking planning project of all, was met with equally striking failure. Marvin Harris explains that Soviet communism failed precisely because its ideologically-derived social structure was not suited to infrastructural conditions, including ecology, something communist dogma ignored. Whether or not Soviet communism equals real communism is irrelevant; the point is that the management scheme that *was* attempted failed.

Human folly exacerbates the problem. In 2014 the Center for Disease Control accidentally sent live anthrax and deadly H5N1 samples to two different labs and a poultry lab, respectively. The same year, scientists at an NIH lab discovered nearly 330 unapproved vials of an array of deadly pathogens, including smallpox, dengue, and spotted fever, in a cold-storage room. Mistakes like these are unacceptable when the minimum requirements for disaster is so low.

One might, of course, argue that there are at least some cases where humans have knowledge and power enough to control some system. Indeed, humans have already attempted to gain such a level of knowledge and power in creating a now-infamous project known as "Biosphere 2." And it too failed — twice.

Biosphere 2 was an attempt by some scientists to create a totally controlled ecological system with five biomes. It was a highly popularized project, with implications for biologists, ecologists, and various technicians' dreams of space colonization, because it offered, or was to supposed to offer, a way for scientists to carefully control ecological variables and learn how, precisely, ecosystems work.

However, Biosphere 2 suffered from frenzied CO₂ levels that caused many species to die, including most vertebrates. Pest insects prospered, and some species killed off and dominated other species. The humans inhabiting the system ultimately had to leave.

The second time around failed largely because of disputes between the scientists, compounded by alleged vandalism by some of the more upset individuals. This may seem irrelevant, but it is in fact highly germane, since it reminds us to temper our planning schemes with greater awareness that it is humans coming up with and implementing them.

11

Rational blueprints always have unintended consequences. Consider that most technical innovations supposed to decrease human work have actually increased it. Cell phones and PCs, by making communication and several other business functions more efficient, did not decrease the workday; instead, the workday began bleeding into the home, often without wage compensation. Similarly, cars, among other things, fostered the isolation of suburbs and exacerbated pollution.

12

Schemes to implement rational blueprints often fail because they have a faulty understanding of technical development. Human energy and creativity may drive it, but forces greater than man determine the spectrum of possibilities.

In a version of UNO I often play with my family on holidays, individuals keep a tally of how many points are in their hand after each round has ended. When someone surpasses 500 points, the game ends, and the winner is the person with the least number of points. However, if someone hits 500 exactly, they go back to zero. Sometimes individuals end up with a number of points very close to 500, and they try to keep just the right amount of points in their hand so that when someone else goes out, they will have 500 points exactly, go back to zero, and have a shot at winning again. The problem is that no matter how much skill and reason someone puts into trying to reach 500 exactly, there are still an enormous amount of factors, like the chance distribution of cards, that the person could never control, and that ultimately determine whether he will actually achieve his goal; reason isn't enough. Cultural evolution works similarly.

Nia et al. provide a real example of this idea as applied to violin acoustics. They analyze 470 instruments across several centuries and note that the change of the shape of the "f-hole" on either side of the violin strings was "gradual — and consistent." They demonstrate that as each change provided superior sound, the creators replicated them at the expense of inferior designs. This occurred until the changes reached equilibrium

with current f-shape. Note that the forces behind this change were not only or even predominantly human intention; instead, markets and physics were stronger determinants.

A final example: in a fascinating excerpt from *The Evolution of Everything*, Matt Ridley points out some trends in technical development occur with such regularity that humans control is unlikely to be the cause. Instead, Ridley writes, these regularities suggest that technics evolve:

... some scientists have begun to notice that cities themselves evolve in predictable ways. There is a spontaneous order in the way they grow and change. The most striking of these regularities is the “scaling” that cities show — how their features change with size. For example, the number of petrol stations increases at a consistently slower rate than the population of the city. There are economies of scale, and this pattern is the same in every part of the world. The same is true of electrical networks. So it does not matter what the policy of the country, or the mayor, is. Cities will converge on the same patterns of growth wherever they are. In this they are very like bodies. A mouse burns more energy, per unit of body weight, than an elephant; a small city burns proportionately more motor fuel than a large one. Like cities, bodies get more efficient in their energy consumption the larger they grow. There is also a consistent 15 per cent saving on infrastructure cost per head for every doubling of a city’s population size.

The opposite is true of economic growth and innovation — the bigger the city, the faster these increase. Doubling the size of a city boosts income, wealth, number of patents, number of universities, number of creative people, all by approximately 15 per cent, regardless of where the city is. The scaling is, in the jargon, “superlinear.” Geoffrey West of the Santa Fe Institute, who discovered this phenomenon, calls cities “super-creative.” They generate a disproportionate share of human innovation; and the bigger they are, the more they generate. The reason for this is clear, at least in outline. Human beings innovate by combining and recombining ideas, and the larger and denser the network, the more innovation occurs. Once again, notice that this is not policy. Indeed, nobody was aware of the supercreative effect of cities until very recently, so no policymaker could aim for it. It’s an evolutionary phenomenon.

13

Consider a parable. A magician, through a great feat of sorcery, creates a golem that provides everything he needs. The catch? The magician must continually offer the golem his blood. The golem, who wants to survive and carry out its purpose, develops techniques that encourage the magician to keep giving the blood offerings, and eventually they become so efficient that when the golem stops providing, the magician cannot break away, and he lives in sickness and despair the rest of his life.

14

Humans have two potential futures if civilization succeeds. On the one hand, advanced technics could significantly lower the value of human labor and creativity, leaving them cheap and disposable material for economic production. It is probably impossible to predict how this would manifest materially, but in spirit it would probably look similar to the hard capitalism that characterized the early Industrial Revolution.

On the other hand, advanced technics could leave humans with a large amount of leisure time, to be filled with creative activity, entertainment, and drugs. But this sounds little better. At the least, human behavior will still have to be managed, perhaps to an even greater degree since older systems of obligation, like work, would not exist. Alienation from nature will probably still typify civil life. And the condition will be one of permissiveness rather than true autonomy.

Marshall Brain, the founder of HowStuffWorks, wrote a short story about these two futures that later became a cult classic. The story, entitled “Manna,” presents the two futures just given, the two consequences Brain predicts could ensue after achieving the technical ability to build a post-scarcity economy. Interestingly, in his utopia, the main character decides to live more or less primitively by his standards:

But with all of this technology available, I choose to live my life by setting time back 300 years and living a very simple, completely physical lifestyle. I grew my own food and built my own simple house with my own hands. I was able to be a kind grandfather to dozens of children in the village, to make clay pots in the sun and to grow flowers in my garden outside my bedroom window. I was as happy and fulfilled as I ever had been at any time in my entire life — my life was perfect, because it was exactly the way I wanted it to be.

The catch? The same character had a permanent implant in his brain connecting him to a computer-driven global consciousness. In short: surveillance, management, direction. In fact, in a society that can so efficiently modify man, the individual cannot even be sure that his satisfaction is manufactured, or if it is a true flourishing of his own will. Even in so simplistic a story, one that doesn’t properly examine the neurotic symptoms and harm to nature that stem from excessive wealth and boredom, the terribleness of the “good” future is clear.

15

In *Our Final Hour*, Rees, apart from outlining the hurdles we must overcome, suggests a safeguard for the project of civilization: advance space travel technologies so, in case of failure, a small group can carry on the project, potentially by colonizing other planets. Elon Musk has put forth essentially the same idea.

The poverty of a view that hopes to continue the very thing that will have destroyed so great a gift as earth is apparent. The idea also stands out as strikingly vile. Who, exactly, will be on that ship?

16

It seems our civilization is not unique, that civilizations as a whole have a propensity to collapse. Nearly every major work on civilizational collapse has agreed on this point. Joseph Tainter, in *The Collapse of Complex Societies*, argues that civilizations tend to collapse because of declining marginal productivity. Increased management requires energy input, and that energy has to come from somewhere. But the energy required to maintain the management systems may actually end up being a net loss and unsustainable. Farmers are quite productive when they begin on fertile land, but as they expand into harsher soil they struggle to keep productivity levels high. On how this relates to civilizational development overall, Bardi gives the following analogy:

Think of yourself swimming in the sea. Physics says that you should float, but you need to expend some energy to maintain a homeostatic condition in which your head stays above the water. Now, suppose that your feet get entangled with something heavy. Then, physics says that you should sink. Yet, you can expend more energy, swim harder, and still keep your head above the water — again it is homeostasis. But, if nothing changes, at some moment you'll run out of energy, you get tired and you can't keep homeostasis any more. At this point, physics takes over and you sink, and you drown.

Tainter demonstrates that this even applies to intellectual, i.e., scientific, progress. He ends his book with a warning that modern society shows all the major signs of a declining civilization.

Jared Diamond, in *Collapse*, suggests that civilizations collapse primarily because of ecological problems and resource issues. It is a different model than Tainter's, but Diamond similarly believes that our civilization is in a precarious place. He lists, for example, twelve environmental problems facing the world today, eight of which have historically contributed to civilizational collapse, an additional four of which are entirely new threats.

17

If industrial civilization collapsed, it probably could not be rebuilt. Civilization would exist again, of course, but industry appears to be a one-shot affair. The astronomer Fred Hoyle, exaggerating slightly, writes:

It has often been said that, if the human species fails to make a go of it here on Earth, some other species will take over the running. In the sense of developing high

intelligence this is not correct. We have, or soon will have, exhausted the necessary physical prerequisites so far as this planet is concerned. With coal gone, oil gone, high-grade metallic ores gone, no species however competent can make the long climb from primitive conditions to high-level technology. This is a one-shot affair. If we fail, this planetary system fails so far as intelligence is concerned. The same will be true of other planetary systems. On each of them there will be one chance, and one chance only.

But even if Hoyle is incorrect, and through some path unknown to us now a future generation was able to re-build industry, it would take thousands of years. Technology today depends on levels of complexity that must proceed in chronological stages. Solar panels, for example rely on transportation infrastructure, mining, and a regulated division of labor.

Knowledge of how we achieved these things before may help us progress more quickly, but there are also insurmountable material and economic limits. For example, much of the world's land is not arable, and some of the land in use today is only productive because of industrial technics developed during the agricultural revolution in the 60s, technics heavily dependent on oil. Without the systems that sustain agriculture in those areas, agricultural civilization cannot exist there. And some resources required for industrial progress, like coal, simply aren't feasibly accessible anymore. Tainter writes:

... major jumps in population, at around A.D. 1300, 1600, and in the late eighteenth century, each led to intensification in agriculture and industry. As the land in the late Middle Ages was increasingly deforested to provide fuel and agricultural space for a growing population, basic heating, cooking, and manufacturing needs could no longer be met by burning wood. A shift to reliance on coal began, gradually and with apparent reluctance. Coal was definitely a fuel source of secondary desirability, being more costly to obtain and distribute than wood, as well as being dirty and polluting. Coal was more restricted in its spatial distribution than wood, so that a whole new, costly distribution system had to be developed. Mining of coal from the ground was more costly than obtaining a quantity of wood equivalent in heating value, and became even more costly as the most accessible reserves of this fuel were depleted. Mines had to be sunk ever deeper, until groundwater flooding became a serious problem.

Today, most easily accessible coal reserves are completely depleted.

Beyond material limits, most, who are exploited by rather than benefit from industry, would probably not view it as desirable. Though today citizens of first-world nations live physically comfortable lives, their lives are sustained by the more wretched lives of the rest of the world. "Civilization ... has operated two ways," Paine writes, "to make one part of society more affluent, and the other more wretched, than would have been the lot of either in a natural state." This may not be a problem forever, especially if civilization achieves something akin to a post-scarcity future, but such a future is unlikely.

Even industrial man, from the same primitive starting point, would not want to go through the phases required to reach the industrial stage of development. Consider the case of two societies in New Zealand, the Maori and the Moriori. Both are now believed to have originated out of the same, ur-Maori society after some individuals who become the Moriori people settled on the Chatham Islands in the 16th century. Largely due to a chief named Nunuku-whenua, the Moriori had a strict tradition of solving inter-tribal conflict peacefully and ad-vocating a variant of passive resistance; war, cannibalism, and killing were completely outlawed. They also re-nounced their parent society's agricultural mode of subsistence, relying heavily on hunting and gathering, and they controlled their population growth by castrating some male infants, so their impact on the non-human environment around them was minimal. In the meantime, the Maori continued to live agriculturally and de-veloped into a populated, complex, hierarchical, and violent society. Eventually,

an Australian seal-hunting ship visiting the Chathams en route to New Zealand brought news to New Zealand of islands where "there is an abundance of sea and shell-fish; the lakes swarm with eels; and it is a land of the karaka berry ... The inhabitants are very numerous, but they do not understand how to fight, and have no weapons." That news was enough to induce 900 Maori to sail to the Chathams.

Then,

... over the course of the next few days, they killed hundreds of Moriori, cooked and ate many of the bodies, and enslaved all the others, killing most of them too over the next few years as it suited their whim. A Moriori survivor recalled, "[The Maori] commenced to kill us like sheep ... [We] were terrified, fled to the bush, concealed ourselves in holes underground, and in any place to escape our enemies. It was of no avail; we were discovered and eaten-men, women, and children indiscriminately." A Maori conqueror explains,

"We took possession ... in accordance with our customs and we caught all the people. Not one escaped. Some ran away from us, these we killed, and others we killed-but what of that? It was in accordance with our custom."

Additionally, something similar to colonization and the Trans-Atlantic Slave Trade would have to occur once again. In *Capitalism and Slavery* Eric Williams noted that global chattel slavery enabled the industrial revolution by financing it, extracting resources so they could be accumulated at sites of production, and exporting products through infrastructure that slavery helped sustain. Though a future system would have to function differently because material conditions would be different (e.g., resources have already been assembled in some areas at the expense of others), human nature makes coercion and violence inherent to any similar project of production. It is hard to get a man to willingly change his traditional way of life; even harder when his new life is going into mines.

Increased civilizational complexity in response to existential threats presents a problem: it makes complex societies less attractive for the classes who have to pick up the tab. For instance, when the Roman Empire increased the size of its military and bureaucratic structures, it raised taxes on the peasants, who, when they couldn't pay the taxes, abandoned their lands. In response the Empire debased its currency, deferring its problems to the future, and used money it had already accumulated, the pot slowly diminishing. Of course, it eventually collapsed as a result. For many these facts are enough to motivate a search for new values.

No matter what one's analysis, this search is for some irrefutably rational. Even if a global collapse is not in our future, localized collapses and general economic turmoil are inevitable. Examples like Syria and Somalia make this clear even in the present.

This underlines a fundamental lesson from the history of civilizational collapse: the fixes to these issues are unlikely to benefit the masses. Indeed, often the same who are worst affected will be taxed, killed, or marginal-ized by solutions. And even among those who do not face an imminent physical threat, there is a large faction discontented with life in industrial society. In an op-ed for *The New York Times*, Brooks compares this to the discontent colonists felt around the time many of them abandoned their way of life for Native societies, a trend that occurred well into the 18th century. "It wouldn't surprise me," he wrote, "if the big change in the coming decades [will be] ... more people making the modern equivalent of the Native American leap."

The Origin of Civility

1

Hume made a distinction between “natural” and “artificial” values. Natural virtues are those that arise in humans without a high amount of influence from human systems — they do not require indoctrination, education, or any kind of system of production. Such virtues include, according to Hume, compassion, courage, friendship, parental devotion, and so forth.

Artificial virtues, on the other hand, depend on social systems and must be produced through schooling or some other method of acculturation, and they include such things as justice, allegiance to a large social body, chastity and modesty, and the moral rules governing state-based organization, such as respect for sovereignty, property rights, or borders.

Note, however, that Hume is not arguing that artificial virtues are completely contrived. Rather, they must be derived from the natural materials we have to work with. He writes, for example, that “though justice be artificial, the sense of its morality is natural.” Elsewhere he writes that natural virtues are “augmented by a new artifice, and ... the public instructions of politicians, and the private education of parents, contribute to the giving us a sense of honour and duty in the strict regulation of our actions.” In this sense, artificial virtues are cultivated from human nature much in the same way agricultural products are cultivated from the land.

2

Although the analogy is illustrative, one important difference separates being civilized from being domesticated: the latter is a genetic change. But the domain of culture is largely phenotypic, so it is much more flexible and can be modified without changes to an organism’s genotype. Of course artificial conditions can still impact an organism’s evolution, but cultural evolution has gone at too fast a rate for its impact to go beyond trivial things. Humans are still, on the whole, biologically the same as their hunter/gatherer counterparts.

3

In *The History of European Morals* Lecky noted:

The moral unity to be expected in different ages is not a unity of standard, or of acts, but a unity of tendency ... At one time the benevolent affections embrace merely the family, soon the circle expanding includes first a class, then a nation, then a coalition of nations, then all humanity, and finally, its influence is felt in the dealings of man with the animal world.

This tendency is a logical consequence of technical development, which expands, and, during expansion, ab-sorbs peoples and their cultures. Since a society with constant inner conflict would operate inefficiently, the material conditions select for social manners that promote unity between the absorbed cultures. This is usually not a pretty process, as is demonstrated by ethnic conflict being one of the main sources of instability for the nation-state system established after WWII.

4

The tendency for the moral circle to expand with technical development requires a civilizing process, since in natural conditions man usually confines his altruism to 40 or so people. One might assume that altruism is naturally limited to 40 or so people because only 40 or so people were around, but the limitations are to a large extent biological. The reasons for this are complex.

The field of sociobiology was borne out of a central question plaguing the theory of natural selection since Dar-win devised it: why are organisms altruistic? Eventually, evolutionary biologists explained the phenomenon with the concept of *inclusive fitness*. Natural selection, they argued, does not operate primarily on the species or even the organism, but on the gene, whose one “desire” is to propagate itself. It often does this through the organism. Put colloquially, one might say that the chicken is just the egg’s way of making another egg.

Understanding natural selection this way makes altruism significantly less mysterious. When evolution is understood as competition between organisms, each organism has a strong incentive to kill most others, who constitute a threat to survival. But under the new framework, the genes themselves are waging brutal war, which seemingly paradoxically expresses itself as altruism at the level of the organism.

The key is that some organisms share genes, so they would better ensure these genes’ survival if they cooperate in some contexts. This is the origin of social behaviors. But the evolutionary trick is limited: after a certain degree of separation in relatedness, the organism no longer benefits its genes by acting altruistic. Thus, the altruism selected by this process only evolves if it benefits close or immediately-extended family. For example, if one group does not murder its uncles, and the other does, the mortality of the second group will make its genes less likely to propagate and survive.

Of course, natural selection isn't a conscious process; it doesn't design. It just happens. So behaviors that evolve under the selection pressure of inclusive fitness do not have to work perfectly, only *well enough*. For example, a woman may be more likely to act altruistically toward her child because of biological cues signaling the baby is hers; but the same cues might in unusual circumstances work for a foreign baby. So long as the net gain to fitness is better than no biological cues at all, the cues will remain.

Social behaviors also evolve from *reciprocal altruism*. This is a phenomenon whereby an organism temporarily reduces its own fitness to benefit another, with the expectation that the favor will be returned. For example, a group of monkeys may develop the behavior of mutual grooming, allowing them to eradicate other-wise hard-to-reach bugs and improving their overall fitness.

But two limits prevent this phenomenon from extending far. First, reciprocal altruism will only arise when cheaters, or those who don't return the favor, can be detected. This is because, as game theory demonstrates, a group of purely altruistic beings who do not cease being altruistic toward a cheater will be ruined rather quickly, depleted of resources. To avoid this, evolution selects for organisms that withhold resources from or otherwise punish a cheater, either eliminating the problem or incentivizing him to cooperate. Sociobiological experiments confirm that instinctive cheater detection mechanisms do exist in many observed social behaviors.

The cheater-detection requirement imposes a second limitation: organisms will only evolve reciprocally altruistic behaviors in circumstances where the individual receiving the favor will have ample, repeated opportunities to return it. Thus, even reciprocal altruism only selects for social behaviors that favor relations.

Once again, although evolutionary theory explains the reasons for certain behaviors, it does not ensure that the behaviors will always express themselves in the "intended" way. Thus, conditions in one environment may produce a behavior that will be detrimental in other environments. And suitable artificial pressure, or particularly unusual environmental pressure, can tweak the behaviors, though usually not change or repress them completely.

Furthermore, we cannot assume that reciprocal altruism will always be the best strategy for a given social behavior. When natural selection favors reciprocal altruism over pure self-interestedness, it is because, as with monkeys, altruism enhances overall fitness. Otherwise self-interested behavior will be selected for.

There is a final limitation to human solidarity: these behaviors stem from physical changes in the organism, and the form these take impose limits. For example, in primates social behavior is directly affected by the size of the neocortex, which the scientist Robin Dunbar found limited human beings to approximately 150 stable, close relationships. After this point, group cohesiveness can only be maintained through more restrictive rules or norms. And in hunting/gathering conditions a number that large was unlikely because it would require a high amount of time devoted to social grooming, time that the society in question couldn't often afford.

Because human social behavior is limited, we can reasonably predict that moral decisions will be more clearcut in small-group contexts, but more ambiguous or difficult when our Paleolithic morals confront modern conditions. The evidence seems to bear this out. For example, humans have a very difficult time making moral decisions concerning large groups, a well-known problem in population ethics. Patricia Churchland put it this way: “no one has the slightest idea how to compare the mild headache of five million against the broken legs of two, or the needs of one’s own two children against the needs of a hundred unrelated brain-damaged children in Serbia.”

Consider an experiment by the psychologist Paul Slovic during which he told volunteers about a starving girl, and measured their willingness to donate money. He then told the same story to another group but with the added detail that millions of others were also starving. The second group only gave around half as much money as the first. In fact, Slovic found that even adding just one more person would begin the process of “psychic numbing.”

But in modern conditions, this kind of numbing is morally unacceptable, and decisions must be made that affect large populations. A large group can only maintain its cohesiveness and strength if its members maintain their solidarity, even if the solidarity is only behavioral or institutional (e.g., through charities or NGOs). Artificial modification therefore becomes an absolute necessity for the society.

On the other hand, natural human behavior is clearly prejudiced toward in-groups. To test this idea, social psychologist Henri Tajfel once split experimental participants into groups based on a coin flip and then asked them to appraise a piece of art in a style none had seen before. Tajfel found that, in spite of the group membership’s irrelevance and arbitrary nature, participants “liked the members of their own group better and they rated members of their in-group as more likely to have pleasant personalities.” And the biases affect behavior. In a number of studies, experimenters divide their subjects into arbitrary groups and tell them to allocate objects of value, like money or points, to other subjects, who are identified only by a number and group membership. Participants give more than would be expected if they were purely self-interested, but they have an undeniable tendency to allocate more resources to members of their in-group.

So we must distinguish between mutualism in the natural state of man, which we will call *solidarity*, with mutualism in the civilized state of man, which we will call *civility*. Civility must be cultivated from solidarity according to the demands of civilization, and, as civilization gets larger, so does the sphere of moral consideration.

6

Norbert Elias writes about a historical example of moral cultivation in the first volume of his magnum opus, *The Civilizing Process*. Elias argues that, instead of simply adopting European social mores, the people of the Middle Ages underwent a long period of education that shaped their behavior through shame, guilt, disgust, and other such feelings.

For instance, Elias reviews several etiquette manuals and points out that commands now reserved for children were being issued, regularly, to adults. People of the Middle Ages had to be told not to defecate on staircases and curtains, not to defecate in front of women, not to touch their privates in public, not to greet someone who is relieving themselves, not to examine their handkerchief after blowing into it, not to use various pieces of public fabric as handkerchiefs, not to use their eating spoon to serve food, not to offer food that they have bitten into, not to stir sauce with their fingers

...

Beyond direct instruction, European society also developed taboos around sex, defecation, and urination; they passed laws; and they made non-compliance of cosmic importance by employing Christian dogma. In other words, the European “second nature” developed only through multiple, interlocking systems and over a long period of time.

Elias argues that instilling a second nature into Europeans became necessary because right around the same time the patchwork of feudal territories, chiefdoms, and cities were being consolidated into much larger state-based societies. Nowadays, with states and their systems of education already established, a large-scale social transformation is unnecessary, and citizens usually go through the same processes of education in their youth.

7

Today the dominant ideology of global civilization is humanism, the belief that humans belong to a single moral community in which they each have equal standing.

“Dominant” is measured by power, not numbers. The majority of the world population still holds traditional values, like belief in a strong family, ethnic loyalty, and continuing tradition. Where these have been disrupted by colonialism they assume a particularly modern aroma, but the values are traditional nonetheless. Still, some of the most powerful organizations, and those which have the most ability to shape global civilization, preach humanist values: the United Nations, NGOs, many large religious orders, universities, most transnational corporations ... Note, however, that these organizations are not stably dominant; their project to add another layer of moral cultivation to civilization is an ongoing one.

Despite its name, humanism has tension with human nature. It is not interested in humans as they are, only humans as they can be fashioned. For example, to humanists,

social problems are often caused by humans not being cooperative enough within the social system. Their solution, then, is to change the humans rather than the society.

8

Radical environmentalist philosophy has traditionally tried to extend rather than reject the humanist project. We will call the philosophy *progressive ecocentrism*, or the idea that non-humans have equal standing too. It is not quite the same as animal rights ideologies, which hope to extend the moral circle only to a subset of animals, usually those believed to be sentient. Ecocentrism goes even further, including non-sentient animals, nonanimals, whole ecosystems, and even the entire biosphere.

This moral circle approach has some interesting consequences. For example, ecocentrists can feasibly be against industrial society because, on the whole, it causes more suffering than wellbeing. This position is not as easily supported by humanism because, unlike humanism, ecocentrism includes the suffering of nonhumans into its calculations. For the same reason, ecocentrists can often be outwardly misanthropic. It allows for the utilitarian calculation that, since all suffering is equally bad, and since ending humanity would (according to some progressive ecocentrists) decrease overall suffering, the end of humanity is worth it. This is comparable to saying that killing one person is better than killing five.

But these are only potentials, ones that have been taken, but potentials only nonetheless. Ecocentrism usually does not go hand-in-hand with strict antiindustrial politics or misanthropy. In the main, ecocentrists wish to radically transform society such that it decreases its impact on the natural world and includes the standing of non-humans into its social systems. This does not necessarily mean, say, that animals could sue; only that their interests *as wild animals* are considered, perhaps by establishing wilderness areas. To not do this, to reaffirm only the value of the human, is what ecocentrists call “anthropocentrism.”

The philosophy, however, is inconsistent. Whereas it measures non-human wellbeing by a standard of wildness, it does not do so for human wellbeing. Instead, humans are supposed to reaffirm civility between all human beings, thereby legitimizing the systems and infrastructure that inculcated that civility; and they are supposed to go still further by extending their moral behavior toward non-humans, thereby legitimizing new systems and infrastructure. Man as wild animal himself — unconsidered.

9

On how altruism evolved from inclusive fitness can be extended beyond relations, Pinker writes:

The cognitive twist is that the recognition of kin among humans depends on environmental cues that other humans can manipulate. Thus people are also altruistic toward their adoptive relatives, and toward a variety of fictive kin such as brothers in arms, fraternities and sororities, occupational and religious brotherhoods, crime families, fatherlands, and mother countries. These faux-

families may be created by metaphors, simulacra of family experiences, myths of common descent or common flesh, and other illusions of kinship. None of this wasteful ritualizing and mythologizing would be necessary if “the group” were an elementary cognitive intuition which triggered instinctive loyalty. Instead that loyalty is instinctively triggered by those with whom we are likely to share genes, and extended to others through various manipulations.

On how reciprocal altruism can be extended beyond relations, Pinker writes:

One cognitive twist on this formula is that humans are language-using creatures who need not discriminate reciprocators from exploiters only by direct personal experience, but can also ask around and find out their reputation for reciprocating with or exploiting others. This in turn creates incentives to establish and exaggerate one’s reputation (a feature of human psychology that has been extensively documented by social psychologists), and to attempt to see through such exaggerations in others. And one way to credibly establish one’s reputation as an altruist in the probing eyes of skeptics is to *be* an altruist, that is, to commit oneself to altruism (and, indirectly, its potential returns in the long run, at the expense of personal sacrifices in the short run). A third twist is that reciprocity, like nepotism, is driven not by infallible knowledge but by probabilistic cues. This means that people may extend favors to other people with whom they will never in fact interact with again, as long as the situation is representative of ones in which they *may* interact with them again.

10

Consider the way commercials about African poverty exploit natural tendencies to extend cooperative behavior. It is normal to respond to a desperate child with sadness. And it usually makes sense to aid the desperate, even bureaucratically. But *guilt*, of the kind the sinful experience, is an unnecessary feeling. Aid has only been made an obligation because large organizations need it to be. Corporations survive off of the social connection, whose trade and consumption are their profit and labor. Governments run more efficiently if they use the powerful incentives of the social instincts to manage behavior. In the same way that farmers cultivate more land for better yields, cultural institutions must build new social connections for cultural cultivation.

They sustain these connections with psychological manipulation. Aid commercials are so effective because young, vulnerable animals, including humans, have (biologically) evolved cute facial features for the exact purpose of eliciting tenderness. Organizations in turn (culturally) evolve techniques of social control that most efficiently

shape human nature for civil purposes, like those above. As the number of organizations interested in a certain behavior increases, so too do moral precepts that better assure it. And ethicists, uninformed or unenthusiastic about human origins, mistake current moral intuitions for actual insights into human nature, declaring humanism the morality of reason. Resultingly, modern man does not simply hurt when he can't or doesn't act on empathy, and sometimes he is not struck with empathy at all — but always he feels guilt.

In *Civilization and Its Discontents* Freud echoed these ideas. He also noticed the tendency of civilization to expand the sphere of moral consideration as it grows, writing, “Civilization is a process ... whose purpose is to combine single human individuals, and after that families, then races, peoples and nations, into one great unity, the unity of mankind.”

But he throws a wrench into the whole thing. Freud's central thesis was that human nature contains some biologically innate drives that need to develop without artificial interference but that are contrary to the project of civilization. So, he writes, civilization sublimates or represses them for its own stability, and this leaves the individual in a neurotic, guilty state that can only be avoided with escape from civilized institutions. Freud writes that his intention is:

... to represent the sense of guilt as the most important problem in the development of civ-

ilization and to show that the price we pay for our advance in civilization is a loss of happiness through the heightening of the sense of guilt.

11

Civility is instilled or sustained through means other than expanding the moral circle. When cooperative behaviors cannot be induced through familial metaphor, or otherwise, governments and corporations will use psychological tricks to induce compliance. Many of these are well known and relatively harmless. For example, in some countries citizens are automatically organ donors and have to opt out, increasing the number of organ donors. Other methods are a little more nefarious.

Population management techniques, for example, are an essential part of civilization, both for mass events and heavily populated areas. For example, universities around the 1960s often designed confusing floorplans for new buildings to prevent vandalism among protesters. Metal studs on short cement walls prevent skateboarding. City planners sometimes specify that benches be divided by armrests so people cannot lay on them, or that bench seats tilt forward slightly to encourage people not to stay long. Municipal governments have figured out that only a few design elements, like large windows on buildings near sidewalks, low landscaping, and gapped fences, will deter crime by creating the illusion of surveillance.

In a similar vein, advertising employs behavioral psychology to determine which jingles will stay in consumers' heads the longest or which brand images will translate to the most buys. This kind of manipulation is also used in physical spaces. For example, in well-designed stores, tiles will get smaller where there are products the store especially wants to sell, because it creates the illusion that the shopping buggy is going faster and causes customers to slow down.

Or, consider this insight on gas pump design by Lisa Margonelli:

Nobody gets up in the morning and thinks, "Wow! I'm going to go buy some three-carbon-to-12-carbon molecules to put in my tank and drive happily to work." No, they think, "Ugh. I have to go buy gas. I'm so an-gry about it. The oil companies are ripping me off. They set the prices, and I don't even know. I am helpless over this." And this is what happens to us at the gas pump — and actually, gas pumps are specifically designed to diffuse that anger. You might notice that many gas pumps ... are designed to look like ATMs. I've talked to engineers. That's specifically to diffuse our anger, because supposedly we feel good about ATMs.

Elsewhere she explains that profits did go up after the redesign.

12

The structure of modern society is unique in its psychological damage because it employs a multiplicity of interlocking, autonomous systems of control, much more than did pre-modern kingdoms and religious orders.

The problem reveals itself through a simple thought experiment: what aspect of your daily routine doesn't make somebody money? Very little, probably. And in trade there is an incentive to colonize every aspect of the consumer's life that will turn a greater profit or increase efficiency. Google wants your attention; the university, your time; work, your labor. More, the story of technoindustrial development since WWII demonstrates a process of constant expansion, constant and total colonization at an awe-inducing speed. Previously private domains, like social relationships, are now directed by technicians at social media companies and the incantations of their behavioral sciences. The individual, as a result, is left in an anxious state, pulled in many directions and sucked of independence and creativity, or dazed and confused into a stupor until the end of his day, when he finds himself drained of any energy to exert for his own will.

Being pulled at all sides by obligations and rules and psychological manipulation has a negative impact. The need for autonomy from these is so crucial that even relieving individuals of a few of the burdens has a positive effect on their wellbeing. For example, when patients are carefully attended to, health declines; but when the patients have the ability to control even small aspects of their life, the effect reverses. Prisons that allow prisoners to reposition furniture and TVs see fewer revolts and health problems.

And individuals in homeless shelters that allow their residents to choose their food and bed are more likely to find an apartment or get a job.

13

The consequences of rejecting the wild are apparent in non-human animals. The biologist John B. Calhoun documented some of the effects in a study that would later be the inspiration for *The Rats of NIMH*. The experiment centered around a roomy box containing several mice that Calhoun hoped to breed about 5,000 others from. He provided the critters with nearly everything one would expect them to need to live fulfilling lives, including sufficient food and water, climate control, and comfortable living quarters. However, the population never exceeded 150, much lower than his target; they developed aggressive behaviors; and instead of normal burrowing, they rolled dirt into balls for no apparent reason.

Calhoun repeated the experiment with some modifications several times, but each time he encountered another array of negative consequences. For example, one of the rat populations doubled every two months, growing so rapidly that social conventions, like those around mating, stopped working properly. They also exhibited abnormal aggressive behaviors, even toward their offspring, and they spent most of their time grooming, sleeping, and eating instead of engaging in normal social activity. After only two years, the population col-lapsed, and with it the mouse utopia.

In his paper, Calhoun draws many parallels with human society and muses on potential solutions to the problems. Although he never settles on one exactly, he put the most emphasis on increasing abstract creative space to satisfy innate needs for creation and autonomy — abstract spaces that now exist in the form of information technologies, and that have been taken to their logical conclusion in fictional commentaries like *The Matrix*.

Zookeepers also repeatedly encounter captive animals with a wide array of behaviors that look uncannily similar to depression or anxiety in humans, a phenomenon known as “zoochosis.” Animals suffering zoochosis will pace in their cages, self-harm, intentionally puke, or become randomly aggressive. Like with humans, these behaviors can be managed by providing entertainment or by making normal tasks slightly more difficult than they need to be. For example, zookeepers might place food in a toy that the animal has to figure out how to open before he eats. Zoo animals also receive regular doses of antidepressant and anti-anxiety medication, like Xanax and Prozac. In fact, it is not often talked about, but most animals behind the zoo glass are on medication of the sort.

Humans display symptoms comparable to caged animals. This should be unsurprising. A gorilla and a rat display unique symptoms to being tamed or domesticated, but the overall impact is fairly similar, and they don't differ too much from each other. Man is an animal. He is not so separated from the others that he wouldn't have a comparable response.

For example, individuals living in urban areas have an increased risk of psychosis and urbanity exacerbates symptoms in those already diagnosed with a psychotic disorder. A twin in an urban area is more likely to receive a mental health diagnosis than a twin in a rural area. Drug use is quite common in times of rapid urbanization, indicating that the process has significant, negative psychological effects. And while in already developed cities drug use varies, diagnosed mental disorders increase at a rate faster than would be predicted based on the increased population alone.

Or consider the case of the Oji-Cree. Up until the 1960s, the Oji-Cree people of the Hudson Bay maintained their indigenous way of life even while in contact with modern society. But then the 60s hit, and industrial techniques took a stronger hold. With this transition came many of the benefits of civilization: the Oji-Cree now no longer work as hard to build transportation technologies and winter is not as difficult or deadly. But, as one writer explains:

... in the main, the Oji-Cree story is not a happy one. Since the arrival of new technologies, the population has suffered a massive increase in morbid obesity, heart disease, and Type 2 diabetes. Social problems are rampant: idleness, alcoholism, drug addiction, and suicide have reached some of the highest levels on earth. Diabetes, in particular, has become so common (affecting forty per cent of the population) that researchers think that many children, after exposure in the womb, are born with an increased predisposition to the disease. Childhood obesity is widespread, and ten-year-olds sometimes appear middle-aged. Recently, the Chief of a small Oji-Cree community estimated that half of his adult population was addicted to OxyContin or other painkillers.

Of course, the symptoms are not confined to the Oji-Cree. In fact, most are widespread problems in industrial societies, and evolutionary psychologists have come up with a few explanations for them. Diabetes and obesity, for example, are probably common because in evolutionary history, sugar was hard to come by but a necessary nutrient, so humans evolved a special taste for it; but this only causes health problems in sugar-rich modern societies, which also include corporations who exploit the human sweet-tooth for profit.

Conversely, most hunter/gatherers are neither struck by degenerative disorders or diseases to the degree industrial humans are, nor are they struck by many now prominent mental health issues. One article in *The American Journal of Medicine* explains, "There is increasing evidence that the ... mismatch [between our hunter/gatherer biology and civilized conditions] fosters 'diseases of civilization' that together cause 75

percent of all deaths in Western nations, but that are rare among persons whose life-ways reflect those of our preagricultural ancestors.”

15

I wish to speak a word for Nature, for absolute freedom and wildness, as contrasted with a freedom and culture merely civil — to regard man as an inhabitant, or a part and parcel of Nature, rather than a member of society.

— Thoreau

Man is linked to nature by virtue of their joint material condition. This is not an obvious fact to many, and the fight for acceptance and recognition of it has a long history. Darwin, for instance, in a world gripped by Christianity, initially avoided applying evolution to humans, and it took Thomas Huxley’s bellicose manner for the issue to be brought forward publicly in the man’s famous debate with a bishop (of course). Later, Huxley’s *Evidence as to Man’s Place in Nature* and Darwin’s *The Descent of Man* further established that human beings are animals and subject to evolutionary processes as much as any other living creature.

When Jane Goodall reported on apes using tools in a time when tool use was considered unique to humans, the anthropologist Louis Leakey said, “Now we must redefine ‘tool,’ redefine ‘man,’ or accept chimpanzees as humans.”

E.O. Wilson, when he suggested that humans are indeed subject to the processes of evolution, had water poured on his head by an upset activist and suffered profound backlash from many academics. This was more than 100 years after *Descent of Man*. Similarly, Paul Ekman, when presenting his findings that a core set of facial expressions are universal among humans (and so probably biological in origin) found himself interrupted by a prominent anthropologist in the audience, who stood up and demanded that Ekman not be allowed to continue because his views were fascist.

The greatest thing humans have to learn about their condition, then, is not what makes them separate from the rest of the material world, but what tethers them to it.

Caging and taming wild animals is widely considered repulsive. Their captive lives exist along a spectrum. On one end, their physical conditions are worse than in the wild, especially at zoos or circuses. And except in cases of regulation, this will always remain a secondary concern to profit and efficiency. On the other hand, their physical conditions can be comfortable, but they develop neuroses and exhibit signs of boredom, depression, or anxiety; their social behaviors change; their mating patterns differ. It is easy to see how both ends are less than ideal for the animal, and similar to the divide between the third and first worlds among humans.

The supposed benefits of civilization, like longer life expectancy and greater peacefulness, do not distinguish man. Captive non-humans sometimes live longer in captivity, or they are more lethargic, and therefore more peaceful. But how odd it would be to suggest that a lion’s peacefulness dignifies his cage!

Repent to the Primitive

1

... as the weapon became more and more effective, man imposed more and more limitations on himself as the animal's rival in order to leave it free to practice its wily defenses, in order to avoid making the prey and the hunter excessively unequal, as if passing beyond a certain limit in that relationship might annihilate the essential character of the hunt, transforming it into pure killing and destruction. Hence the confrontation between man and animal has a precise boundary beyond which hunting ceases to be hunting, just at the point where man lets loose his immense technical superiority — that is, rational superiority — over the animal.

— *Meditations on Hunting*, Jose Ortega y Gasset

A world completely dominated by human and technical power: nearly everyone agrees it is undesirable. Domestication has limits. But why? The negative approach argues that one limits domestication because of human folly, error, vice; the destructive impulses of technical development; and the limits of human reason and power. The affirmative approach upholds what the world is without human power, the wild world.

Ecomodernists, for example, claim that wilderness is compatible with civilization. A negative approach would attack this idea by pointing out human folly, destruction inherent to technics, and limits to human reason and power.

But, more important, ecomodernists have missed the point. Civilization *is not worthy* of preservation. The wild will does not ask for wilderness because he wants a few nature reserves that look aesthetically similar to nature in the Pleistocene; he asks for wilderness because he wants the wild.

2

I wish to appraise the value of the wild. I do not embrace misanthropy, denigrating artifice in all cases. But the world should be much wilder than now, and the justifications for cultivating wildness and destroying what it sustains, especially those few areas where wildness still reigns, strike me as false, repugnant, or forceless.

But to appraise the wild before the masses of men is a quest fraught with limits. The moral terrain is harsh and tenuous. If our values spring forth from the will, I am powerless against a will that cares nothing for what I eulogize. At best, my words can find those already convinced, providing them a new individual's perspective and

approach; or they can give a conscious expression of the unease many individuals feel but cannot articulate.

3

A trope in primitivist politics is the notion of return: return to the primitive, return to simplicity, return to the land. But too often the language is botched, ironically, by the idols of progress. “Return” is seen as a nostalgic call for a lost Eden, leaving open the obvious rebuttal that that great garden’s gates are still guarded by an angel wielding a fiery sword.

This is a simple linguistic misunderstanding. “Return” does not, in fact, only have meaning in the context of something lost to history. The something can merely be lost spatially or spiritually, both of which are the case here.

The Hebrew word “*teshuvah*” provides an analogous case of ambiguity. It, like its English counterpart, can be understood as either “return” or “repent”; but, unlike its English counterpart, the overwhelming connotation rests on the latter meaning. The Jews, then, perform *teshuvah* when they turn their face from the world’s idols and back toward the light of God, who, though invisible to them, was never lost.

The primitive has never been lost to us, not yet. Though civilized, man is not domesticated. And in this lies the origin of the intractable wild will.

4

The success of the civilizing process has been uneven. Looking at history, material progress can only be conceived as a broad trend picked out of an upward-moving but jagged line. In the present, progress is ongoing: it has not touched everywhere and has not had the same effect on everyone. A clear cause is irregular access to civilizing institutions. For example, the less educated commit more crimes.

It also has to do with differences in personal disposition. The mass of industrial humanity lives on the uneasy border between happiness and anxiety with modernity. But some are utterly discontent, and, if they can identify the source of their unease, they rebel against or refuse to participate in civilization. These are the individuals who cannot live without wild things, and, like Leopold, I write, primarily, for them.

Though the mass is discontent enough to be convinced that civilization ought to be rejected, at least temporarily, they lack the will to do anything about it, and an expectation of conversion is a superfluous use of energy. But throughout history there have been individuals with indomitable spirits, with wild wills, who, often independently, reject a myopic orientation toward the future, reject civility, reject domestication, and live under the edicts of nature rather than the edicts of man.

For instance, in 1785 a group of freed and runaway slaves and white indentured servants settled in a wilderness area now known as Indianapolis. Peter Wilson writes:

They mingled with Pawnee indians and took up a nomadic life modeled on that of local hunter-gatherer tribes. Led by a “king” and “queen,” Ben and Jennie Ishmael ... , they were known as fine artisans, musicians and dancers, abstainers from alcohol, practitioners of polygamy, non-Christian, and racially integrated By about 1810 they had es

tablished a cycle of travel that took them annually from Indianapolis (where their village gradually became a city slum) through a triangle formed by the hamlets of Morocco and Mecca in Indiana and Mahomet in Illinois ...

Later “official” white pioneers detested the Ishmaels, and apparently the feeling was mutual. From about 1890 comes this description of an elder: “He is an anarchist of course, and he has the instinctive, envious dislike so characteristic of his people, of anyone in a better condition than himself.” ...

The observer continues: “He abused the law, the courts; the rich, factories — everything.” The elder stated that “the police should be hanged”; he was ready, he said, to burn the institutions of society. “I am better than any man that wears store clothes.”

Over half a century later, John Muir, a pivotal figure in the wilderness movement, echoed the same ideas. Muir spent much of his time in the wilderness that still existed in the U.S., camping primitively, often without much more than a few blankets and a knapsack. He was a prolific writer, in his essays extolling the value of the wild, rebuking the materialism of American society, and advocating for the creation of a wilderness reserve system. He writes:

Thousands of tired, nerve-shaken, overcivilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity ...

5

Some value wildness because of the physical world that results from wild conditions — nature; some value wildness in itself. In the first case, wildness is instrumentally valuable because it sustains biodiversity, recreational areas, or aesthetically pleasing landscapes. In the second case, my own position, wildness is valuable even if it does not provide biodiversity and aesthetically pleasing landscapes. And nature as it happens to be under the wild is valuable because it is where one can commune with wildness.

To say that nature is instrumental in this way does not desacralize it. Though wildness is valuable apart from any particular thing it sustains, it is inextricably bound with other natural values such that they cannot be separated save conceptually.

For example, the physical state of nature under the wild, rather than under man, is relevant, because man cannot mimic wild states exactly. This is obvious, for example, in the case of Biosphere II.

6

Wildness is valuable, but so are happiness, traditions, and family. The question is always, To what degree? The answer cannot be exact, because wills are different. Some may value so fragile a wildness that they could argue for roads and electricity covering the earth; but this is clearly not what I appraise. An ideal fixes the problem by drawing close those who truly relate to the values in the same way, vice versa. A man who gives Thomas Jefferson as his ideal politician reveals a lot about himself.

The primitivist ideal is dually Paleolithic: wilderness, in the case of non-human nature, and nomadic hunting/gathering for man. Two sides of the same coin.

Note that the ideal is unlike ideals in political philosophies, in that it is not a blueprint to impose. Rather, by the very nature of wildness, it is an ideal that arises as one resists imposed blueprints. The socialist ideal would not be socialist unless the society functioned a specific way. Rewilding, however, is concerned only that whatever functioning evolves does so outside of civilization. In some societies this might mean violence, in others it might mean peace; in some it might mean hierarchy, in others it might mean stark egalitarianism.

I employ the Paleolithic ideals much in the same way that conservationists employ benchmarks, a term in conservation science for turning points in man's relationship with nature, such as the transition to agriculture, European colonization, the onset of the Industrial Revolution, and the first use of nuclear bombs. Though imperfect, not all of these benchmarks are arbitrary. For example, that the transition to agriculture fundamentally transformed human-nature interactions is undeniable.

Note that the concept has two mutually exclusive uses. On the one hand, those who are concerned primarily with biodiversity often use historical benchmarks to determine what is natural. For example, an idea in classical conservation work considered the state of ecosystems prior to European colonization as the natural state that conservationists should attempt to preserve. However, this is an incoherent use of benchmarks for the ethic of wildness. Although influential, the idea of ecosystem stability is not consistently true or applicable. Consequently, restoring levels of wildness does not necessarily restore ecosystems to a "stable state" that can be seen in some previous historical period. We might therefore use benchmarks not as points on a historical timeline, but as rough measures of potential human impact. Rather than simply advocating "nature in the Pleistocene," it would be more accurate to bookend the benchmark at the beginning and end of hunting/gathering.

Historical states of nature are still relevant. The science of ecosystem stability is consistent enough for historical time periods to function as rough indicators of what ecosystems might look like should some level of wildness be restored. As Angermeier writes, though "ecosystems are too poorly understood to allow precise measurement of all human effects," they do "have functional and evolutionary limits and natural ranges of variation, which provide a basis for [an] objective assessment ... " Nevertheless, these limits have changed through geologic history, and human effects such as climate

change and extreme rates of extinction signal that the limits may again be shifting permanently.

7

The wilderness movement has accumulated a myriad of arguments in favor of physical wilderness preservation. We ought to distinguish which ones are instrumental, meant to convince those who start from other values, and those which stem from the wilderness ethic.

To argue that wilderness protection puts invaluable economic resources on reserve is not actually convincing to the core of the wilderness movement, but it has occasionally been useful to activists seeking to broaden political support. It is a way of striking a deal with individuals who hold values incommensurable with wilderness. The same applies to wilderness as a reserve of scientific biological data, a space for recreational activity, or a source of national pride. Again, the arguments are true, politically useful, and should not be abandoned; but they do not illustrate the wilderness ethic.

Wilderness is valuable because it contains the ecological building blocks necessary for nature to run itself. Wilderness is wilderness dignified; thus the losses of wilderness are the losses of wilderness to an exemplary degree. In the context of wild nature, nature provides the necessary components for survival. Humans do not need to subordinate themselves to large organizations and technical systems in order to exercise their wills. But when humans modify nature, they must keep up the process of perpetual modification, because the rest of the natural system has not evolved to function in that state. Artificial labor must fill in the gaps. For example, without any human intervention, natural processes deal with animal feces. But a toilet requires entire technical systems of human labor, waste disposal, state management, and so forth. The plumbing is convenient, this is true, but at the cost of great overhead, necessary policing, and further modification of nature. A civilization is the same kind of problem magnified a thousandfold.

Some arguments for wilderness do not exactly overlap with the value of wilderness, but the distinction is less obvious than, say, the economic resources argument. For example, evidence suggests that wilderness experiences are good for mental health. This is relevant, but only because it is indicative of human animality. Ultimately the source of the wild will is biological. Man would not have it if he did not evolve in conjunction with the rest of the natural world, and if the mismatch between civilized conditions and the primitive will did not reduce his primitive well-being. But health is not what the wild will desires, *per se*, only a consequence.

Aesthetic arguments for wilderness are just as complex. Aesthetic value does not seem to differ much from moral value. And wilderness is a specific kind of moral value: less like the golden rule and more like astonishment, or awe, before God. Hettinger and Throop write, echoing Mill:

People rightfully value the existence of a realm not significantly under human control — the weather, the seasons, the mountains, and the seas. This is one reason why the idea of humans as planetary managers is so objectionable to many. Consider a world in which human beings determine when it rains, when spring comes, how the tides run, and where mountains rise. The surprise and awe we feel at the workings of spontaneous nature would be replaced by appraisal of the decisions of these managers. Our wonder at the mystery of these phenomena would not survive such management. People value being a part of a world not of their own making. Valuing the wild acknowledges that limits to human mastery and domination of the world are imperative.

Humans also need to be able to confront, honor, and celebrate the “other.” In an increasingly secular society, “Nature” takes on the role of the other. Humans need to be able to feel small in comparison with something nonhuman which is of great value. Confronting the other helps humans to cultivate a proper sense of humility. Many people find the other powerfully in parts of nature that do not bend to our will and where the nonhuman carries on in relative autonomy, unfolding on its own.

In other words, wildness is an aesthetic, moral, and spiritual value, but it is first of all spiritual. And aesthetics, too, seems to derive its force from the Divine, or the Sublime, or the Numinous, or whatever one wishes to call it. Burke, for instance, writes:

The passion caused by the great and sublime in nature ... is Astonishment; and astonishment is that state of the soul, in which all its motions are suspended, with some degree of horror. In this case the mind is so entirely filled with its object, that it cannot entertain any other.

8

My focus on the hunter/gatherer is based on a tradition in political philosophy that considers the natural state of man before moving on to an analysis of the civilized state of man. This is the tradition of Hobbes, Rousseau, Locke, Hume, Paine ... The latter writes explicitly, “To understand what the state of society ought to be, it is necessary to have some idea of the natural and primitive state of man.” In other words, the nomadic hunter/gatherer ideal has pedagogical utility because of its stark contrast with civil life, but whereas the previous philosophers used the hunter/gatherer to justify progress, primitivists use the hunter/gatherer to rebuke the idols of civilization.

Note that the focus is not on the ins and outs of the hunter/gatherer way of life, but on the limits the hunting/gathering mode of production imposes on artifice. To be a primitivist, one does not have to believe all that hunter/gatherers believed; to see the world as they saw it; to revive indigenous rituals; to adopt their hairstyles and dress. If one lives like a hunter/gatherer in a zoo, one has not achieved what the ideal signifies to the wild will.

However, just as Paleolithic levels of biodiversity signify what Paleolithic levels of wildness would produce, the ways of life in hunter/gatherer communities indicate what

human nature defaults to in wild conditions. Consider a fantastical scenario where all industry collapsed overnight. Psychology has demonstrated that animistic thinking probably arose as an evolutionary shortcut for understanding the world: because evolution would not have endowed man with innate knowledge of germ theory, animating the world with spirits gave humans a framework for understanding why, e.g., they shouldn't touch the person with a ghastly skin disease — and that did the trick well enough to keep them alive to reproductive age. So should industry collapse, humans will not suddenly all become animists, but the belief systems in regions unamenable to agriculture will likely develop animistic elements naturally.

This process is comparable to the way a river ecosystem rebounds after a dam removal. Slowly, because of the removal of the artificial impediment, wild processes take over again. But, crucially, it is impossible to achieve the same thing with the dam still there. Say we want to keep the dam but also possess the scientific knowledge and technical power to make the ecosystem exist in the same physical state as the rebounded, postdam ecosystem. What we have achieved amounts only to aesthetics because the end result lacks the crucial quality of wildness, which was presumably the core concern in the first place.

Thus, forcing an animistic worldview onto a modern human feels much like forcing a river ecosystem into a wild-like state artificially but without any actual rewilding. To rewild, the artificial impediments must be re-moved, and we must wait. There are, unfortunately, no shortcuts. Echoing this sentiment, Paul Kingsnorth, a co-founder of the Dark Mountain Project, points out that extinct species are gone forever; that lost wilderness will not be renewed in time for this generation; that most modern humans have been permanently deprived of many aspects of natural human interaction. We should continue to conserve and rewild, he says, but given the magnitude of our losses, we might need to do it in sackcloth and with ashes on our faces.

One might wonder how useful a nomadic hunter/gatherer ideal is if modern man can't usually fulfill it. But the ideal is not something to be fulfilled. Its purpose beyond the pedagogical is solely to bring together those who relate to the value of wildness in the same way, that is, to communicate the breadth of their grievances.

9

Do you *really* want to live in premodern conditions? the progressive humanists ask, perhaps pointing out a handful of problems besetting premodern and third world societies. It is *the* question, but the utter presumptuousness makes it particularly enraging. Inexorably, the humanist follows by demanding a chain of justifications while he, couched in the privilege of the dominant ideology, does not examine the weaknesses of his own assumptions.

So let us begin with *the* question for the humanist. Why do humanists believe that every human should have equal moral standing? Related, what about a human grants him that standing?

Singer writes in *The Expanding Circle* that reason provides us with the ability to expand the moral privilege we usually grant to our natural social groups outward, toward humanity or the nation or, maybe, the biosphere. But what is it about reason that demonstrates that we should expand the circle outward? Singer writes:

A dog may growl at one stranger and wag her tail at another without having to justify the apparent discrimination; but a human being cannot so easily get away with different ethical judgments in apparently identical situations. If someone tells us that she may take the nuts another member of the tribe has gathered, but no one may take her nuts, she can be asked why the two cases are different. To answer, she must give a reason. Not just any reason, either. In a dispute between members of a cohesive group of reasoning beings, the demand for a reason is a demand for a justification that can be accepted by the group as a whole. Thus the reason offered must be disinterested, at least to the extent of being equally acceptable to all.

Singer justifies this approach with Hume, who wrote that a man making moral judgements must:

depart from his private and particular situation and must choose a point of view common to him with others; he must move some universal principle of the human frame and touch a string to which all mankind have an accord and symphony.

But Hume was not arguing that this is how ethical judgements can be assured as good, only that it is how they must be made if they are to hold sway. In other words, even if a moral principle is popularly held, it may be a bad moral principle, and, in any case, it may not be held by all. The sciences of human social behavior demonstrate that the urge to expand the moral circle doesn't come naturally. Instead the obligation is produced and reinforced by technical progress. The humanist could certainly say that he is nevertheless committed to expanding the circle, knowing full well that the commitment has been manufactured into him. But this essentially leaves man with a choice of gods: wild nature, or the idols of progress?

10

One might be disposed to dismiss the humanist critique by pointing out that various ills besetting most pre-modern societies are absent, or in fundamentally different form, in nomadic hunter/gatherer societies. But, as is often the case in primitivism, this confuses the ideal for a blueprint. In the process of rewilding we will not immediately adopt the condition of the nomadic hunter/gatherer, just as a dam removal does not immediately restore the naturalness of a river. So if primitivists are serious about rewilding, they must be able to contend with the results at each step in the process.

11

Here I cannot respond to every premodern ill the humanist takes great issue with — higher rates of violence, low life expectancy at birth, fewer medical technologies, etc. They are notable criticisms, but each requires special attention, and all are secondary to the core of the primitivist philosophy. But some general considerations apply to each.

For one thing, primitivism is not a solution to all of man's ills. Unchained from civilization, individuals will still draw blood against thorns, will still fight and kill, will still feel the shadow of existential dread. But consider a madman who finds a hammer and cannot control his irresistible urge to bash and smash and trash everything he sees. It compounds his madness and consumes him. What man of grace would not gently pry the hammer from the lunatic's hands, even if it does not cure his fundamental madness?

Secondly, for each problem, we must ask whether the consequences are worth the benefits. Humanists point to evidence that citizens in industrial nations often have a much lower chance of being victims of a crime. But by itself this does little to advance the conversation we should be having. Imagine a nation in which it is practically impossible to commit any significant crime. What would this require? Is it a world we want to live in? Can't we ask the same question about our current situation?

Finally, many of the problems humanists have with premodern life are sideshows, and as a critique against primitivism they cannot stand alone. For could I not name many ills associated with civilization's domination of nature, most of them several orders more impactful than any problems humans could have merely among themselves? I cannot help but note the ills of climate change, rapidly increasing population growth, the threats of genetic engineering, the impacts of roads, the massively increased rates of extinction, and the fundamental unrest of all human beings, and then I cannot help but challenge any individual to come up with an

approach to these problems that does not in some ways have unsettling implications. Clearly, this is impossible, and in a reasoned assessment of what we can do from where we stand, we would do well to admit that we are, unfortunately, in a time where the best we can hope for is the least damage done — and this is no fault of the primitivists.

12

It is no measure of health to be well-adjusted to a sick society
— Krishnamurti

As with the religious prologues of humanism — Christianity, Islam, Confucianism — humanist guilt has the unfortunate side-effect of producing excruciatingly pious people. The pious of Judaism were the Pharisees and Sadducees; but the Pharisees and Sadducees of today include society's most highly socialized elements — professors,

students, scientists, corporate elites, executives of international bodies — in short, the technician class.

A study on the concept of “microaggressions” on college campuses illustrates their piety well. It found that a number of new structural conditions defining the university are producing a “victimhood culture” that relies heavily on moral language, victimhood identity, and garnering massive peer support for real or perceived offenses. These conditions include pervasive and easily-accessible authority figures; fewer options for autonomous problem-solving, like dueling; reliance on large peer groups for support because of alienation from traditional social groups like the family; and settings where equality is nearly the norm, highly valued, and therefore extremely taboo to violate. The end result is a crop of individuals who defer to authorities and moral support from masses rather than those who address their problems autonomously. This is often called being “well-adjusted,” but it is no different than taming a horse.

Consider the way many university students and professors react to minor offenses to equality with overrighteous vigor. For example, in 2015 Yale professor Erika Christakis responded to a mass email asking students not to wear culturally appropriate costumes. She wrote:

I don’t wish to trivialize genuine concerns about cultural and personal representation, and other challenges to our lived experience in a plural community. I know that many decent people have proposed guidelines on Halloween costumes from a spirit of avoiding hurt and offense. I laud those goals, in theory, as most of us do. But in practice, I wonder if we should reflect more transparently, as a community, on the consequences of an institutional (which is to say: bureaucratic and administrative) exercise of implied control over college students.

Controversy ignited. Students held mass protests, and in a video recording of Erika Christakis’ husband talking to one of the crowds, some students can be seen crying and screaming at the professor because he could not remember their names, and because he would not apologize for his views. When he offered to agree to disagree, the students pressed him still further to comply to their extreme version of humanist morality.

Piety is an important means of enforcing and sustaining civility. Consider Ellul’s insights, as communicated by Daniel Bois:

One of the ironies of propaganda to work is that its population must be educated

So the more educated you become, the less aware you are that you are a victim of propaganda and the more you are ready to spread your ideology to others who will in turn reinforce you and be reinforced by you in a horizontal process. Leaders aren’t telling you what to think (directly), you are being told by your peers what to think and you pass along this information to others to inform them what to think. Then when this ideology has reached a substantial portion of the population, you demand the leaders to comply and they reluctantly do so (which was their intention 30 to 40 years previously, but they won’t tell you this). This is the essence of what Ellul says

...

Ironically, some of the most pious profess to be against capitalism, industry, or progress. This is especially true after WWII, when the Nazis and the Bomb demonstrated that moral and technical progress are not inextricably linked. Vietnam, the 60s, and the Cold War only exacerbated the ensuing disillusionment. Many on the far left found difficulty with the historical account of progress, since they cannot easily say that the world they live in is good when it was built by and, in some respects, continues to be sustained by the blood and labor of Africans, natives, non-human life, and the third world. For all these reasons, a particular kind of humanist, the regressive humanist, professes to be against society — and often he appears to be.

Note that piety can harm society even if its overall effect is beneficial. The vandalism and missed class that re-sulted from the Yale controversy, for example, was both economically and socially inefficient.

But this is not always the case: sometimes riots can force a society to pay immediate attention to problems that it would have otherwise ignored to its detriment. In this way the usually negative side-effects of piety instigate a social self-correction process. For example, the riots in Ferguson, Missouri were clearly a result of inefficient material conditions in the area. Much of America still operates because of the vestiges of racial hierarchies, left over from Jim Crow and the Trans-Atlantic Slave Trade. But unlike those times, racial hierarchies are no longer required for economic production; wages and integration, economically possible because of technical advances, are a more efficient route.

The Ferguson rioters were not necessarily asking for economic and technical development; they were simply acting on their discontent. In fact, in many cases average people don't care much for corporate or government solutions to their problems, preferring instead to be left alone to work it out for themselves. But the riots, as they do, drew in all sorts of activists with various causes and pious ideologies to quell revolt with accommodations like economic development or a "national conversation."

Regressive humanists will insist that corporate and governmental accommodations are breadcrumbs, nothing more; that corporations and governments actually have no interest in achieving the moral ideals of equality and justice. But this view operates on a confused analysis of social progress, which is evolutionary. Of course civilized institutions are not going to eradicate racial bias where it still sustains them. And of course civilized institutions are not going to exert more energy quelling the revolt than they need to; if this means half-baked solutions that nevertheless stop the property damage and violence, they will go with half-baked solutions. But the effect overall is a gradual movement toward humanist social values (as with, e.g., the labor movements at the dawn of the Industrial Revolution). By acting in a way they consciously perceive as rebellious, the pious actually advance society.

All this is to point out that there is an intrinsic problem with regressive humanist ideologies: one cannot effectively resist a society based on that society's own values. The pious will and do find that their projects to abolish aspects of the industrial system in the name of a less racist, less patriarchal, more cooperative, more egalitarian society

will always be set back when industrial societies, retaining their allegedly inadequate institutions, accede to the demands. In other words, humanist piety will never be able to motivate a true rejection of progress because at base, it is unwittingly an embrace of it.

13

Aristotle believed that for man to flourish, he must engage in the *polis*, or political community — one that he equated with the Greek city-state. Following the same logic, I argue that for man to flourish, he must have a *fellowship*.

The center of the nomadic hunter/gatherer's fellowship is the band, which functions very much like a friend group, but with higher stakes. For example, bands have a more pronounced emphasis on shared tradition, status within the group, rules about food distribution, regulation of conflict between members, etc. They usually consist of a high number of blood relations, but this need not be the case, and some evidence suggests that relatives were actually scattered throughout neighboring bands. Like friend groups, decisions are made anarchically, natural leaders taking their place but regulated by gossip, force, social norms. Leaders also have a fundamental inability to dominate other fellows, who do not depend on them for survival the way modern man depends on the state for survival.

With the onset of civilization, fellowships began to break down, their members yoked to artificial communities, even more extensively in recent centuries. Ellul explains:

... a systematic campaign was waged against all natural groups, under the guise of a defense of the rights of the individual; for example, the guilds, the communes, and federalism were attacked, this last by the Girondists. There was to be no liberty

of groups, only that of the individual. There was likewise a struggle to undermine the family. Revolutionary laws governing

divorce, inheritance, and paternal authority were disastrous for the family unit, to the benefit of the individual. And these effects were permanent, in spite of temporary setbacks. Society was already atomized and would be atomized more and more. The individual remained the sole sociological unit, but, far from assuring him freedom, this fact provoked the worst kind of slavery.

The atomization we have been discussing conferred on society the greatest possible plasticity — a decisive condition for *technique*. The breakup of social groups engendered the enormous displacement of people at the beginning of the nineteenth century and resulted in the concentration of population demanded by modern *technique*. To uproot men from their surroundings, from the rural districts and from family and friends, in order to crowd them into cities still too small for them; to squeeze thousands into unfit lodgings and unhealthy places of work; to create a whole new environment within the framework of a new human condition (it is too often overlooked that the proletariat is the creation of the industrial machine) — all this was possible only when the individual

was completely isolated. It was conceivable only when he literally had no environment, no family, and was not part of a group able to resist economic pressure; when he had almost no way of life left.

Such is the influence of social plasticity. Without it, no technical evolution is possible. For the individual in an atomized society, only the state was left: the state was the highest authority and it became omnipotent as well.

Today, movements toward multiculturalism achieve the same thing that Ellul described, but to serve the needs of globalized civilization: removing the individual from fellowships, yoking him to artificial community.

Thus, industrial man lacks a fellowship or possesses only a degraded one. Outside of traditional communities, the strongest extant fellowships are those whose conditions, usually ones of tragedy, put men outside the bounds of civility: gangs, junky houses, bands of outlaws, crews of pirates.

For example, the homeless are often forced to live outside the bounds of the state because of drug use or family problems or criminal records. But the social networks that arise have some interesting qualities. When I was homeless, the norm was that if two people did not get along, we did not invite them both to the hobo fire. If someone wronged someone else, we solved it through social pressure, exile, or physical violence, though the latter was regulated (for example, harm that required extensive medical attention was usually not allowed). We regulated individual social statuses through gossip, much in the same way Boehm found hunter/gatherers do:

... Boehm found that all of these societies had sanctions to deal with deviants, free riders, and bullies ... The sanctioning process begins with gossip as an exchange of evaluative information about who is doing their fair share and who isn't, who can be trusted and who cannot, who is a good and reliable member of the group and who is a slacker, cheater, liar, or worse. Gossip permits the group to form a consensus about the deviant that can lead to a collective decision about what to do about him.

We also shared food, cigarettes, and information about the area. Some of the homeless were disabled. One woman, for example, was in a wheelchair. On days when she could not, her best friends would push the wheelchair for her. They often spent days like this, sharing what they had with each other when together.

There wasn't a widespread feeling of unity with the human race, except when individuals were heavily integrated into Christian communities. The fellowship was the primary moral community, and it was prioritized over strangers. Furthermore, the most disruptive elements of our lives were, by far, institutional ones: the police, the homeless shelters, the businesses. Thus, even when fellows wronged each other, they agreed to solve the problems outside of these institutional bounds; snitching was strictly prohibited.

Imagine what these sorts of social behaviors would amount to if they were not operating within the tragic conditions of drug use, mental problems, or criminal records; or without the constant disruptions from government and business. Something rather

desirable might arise. The question, for the primitivist, is to what extent this is possible, and to what extent he can achieve it in his own life.

14

Those who say that nature dominates man just as much as civilization dominates man have missed the point, succeeding in little more than setting themselves up for nihilism, for how can an individual resist domination on all fronts, by everything? The point is that there is a difference between the domination of nature and the domination of civilization. The tragedy of a natural disaster is different from the tragedy of a bomb; an animal who dies neurotic, flabby, and dependent in a zoo lacks a certain dignity possessed by an animal who dies at the hands of a predator.

In *After Virtue* Alasdair MacIntyre recognizes a difference between “man-as-he-happens-to-be” and “man-as-he-could-be-if-he-realized-his-*telos*.” “*Telos*” here is a concept borrowed from the ancient philosophers, meaning “end” or “purpose.” MacIntyre believed that the role of ethics is to move man from the first, untutored condition to the second. This is the meaning of a good life.

Convinced enough of contemporary materialism, the idea of a *telos* does not sit well with me. Man’s nature is not necessarily his purpose. Of course, in some senses *telos* is compatible with modern biology. A lion who walks on two legs contradicts, in some fundamental ways, his nature, his “purpose,” so to speak. But if this intuition is all that *telos* can capture, then we must dispose of it because, in most other respects, it inhibits understanding. For example, biologist Ernst Mayr points out that evolutionary adaptedness “is an *a posteriori* result rather than an *a priori* goal-seeking.” That is, evolution, understood through a materialist lens, does not imbue its products with some purpose the way a watch is imbued with purpose.

But even absent the concept of *telos*, MacIntyre says something useful. We are creatures imbued with a nature and will, with an ineradicable urge to flourish. But in our movement toward “man-as-he-could-be,” we have an option of tutors: wild nature, or civilization?

Contrast a week in Disneyland with a week in the wilderness. In the wilderness man is subordinate to nature — the weather, wild animals, the soil — a condition that forces him to build up from the bare facts of existence. His quest for food, shelter, and solidarity is not easy, but it imbues his life with purpose and keeps superfluous sources of stress at bay. He makes, hunts, and collects what he needs, sometimes a little more for band-members who will one day return the favor. Death is not something he can ignore, and though painful he and his society cope with ritual and collective myth-making. Struggle teaches him to be confident in his abilities to exist in the world, lowering his tolerance for subjugation by other men.

In Disneyland the object is pleasure and entertainment. The individual wakes up and, his fundamental needs fulfilled, experiences that distinctly modern feeling of *bore-*

dom: What do I do today? he asks. Purposelessness abounds. His experience is a baptism in wealth extracted from people and places left dry. His pleasure results from a willing suspension of disbelief: if the illusion of spontaneity is shattered, his memories are left shattered as well. His joy is managed. Smells and sounds evoke place and time that isn't there. Shops are air-conditioned below room temperature to sell sweatshirts. Pavement is dark to attract heat and deter crowds. And if there is a death — corporate panic. This is no collective ritual; the frenetic pacing is solely about loss of profit. On the other hand, if any part of the park malfunctions, still, timid crowds wait like sheep to be told what to do. It is the height of civility.

The fundamental question is this: Which life do you will?

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