Maximum Jailbreak

Benedict Singleton

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> The greatest escape of them all is about to blow the future apart.
> —*Escape from New York* (John Carpenter, 1981), original theatrical movie trailer

Space travel produced some of the defining images of the twentieth century. Sputnik, Apollo, the spacesuit, the NASA logo and the toy-like outline of the space shuttle, liftoffs with all their countdown drama, and the peaceful image of the earth like a mica fleck against coal black; the weird underwater quality of footage shot in low gravity, a motionless flag on the Moon. These images were capable of captivating a global audience, an effect enhanced by the setup of the so-called Space Race as a kind of decades-long international sports day. But then it seemed to stall. The workaday job of going to low earth orbit carried on, of course, in the uncharismatic shape of comsat maintenance and low-key experiments on the International Space Station, but the kinds of images capable of casting space travel as the definitive *project of our age* in the popular imagination seemed to run out of steam; the last image capable of eliciting fascination was maybe the crumbling arch of smoke hung over Cape Canaveral in the wake of the disappeared *Challenger*, which understandably nixed enthusiasm for the enterprise as a whole. (Not to mention the onerous investigations into the triangulation of tax dollars to expected gains to acceptable risk that followed it.)

Now, though, it seems that the action just went underground for a while, a brief retreat to regroup and reassess. The military-industrial complex that spawned these images has converted into something better described as a security-entertainment matrix, and grand strategy—"a space program"—has been swapped out for diverse tactics. The Mars rover Curiosity attracts droves of followers to its Twitter feed (as of May Day, 2013: 1,338,794), where they can pick up the latest alien landscape pics and chirpy infobites. Billionaire Denis Tito recently announced plan to send a middle-aged couple on a long lover's jaunt into orbit around Mars, a sitcom premise pitched by an alcoholic screenwriter, eyes gleaming like his last dime. Mars One goes further, beginning open auditions for the one-way reality TV show trip to the planet it's named after.

Showing slightly less stocking-top to the public eye, companies like Virgin Galactic focus their efforts on courting the insanely wealthy with a voyage-of-a-lifetime space tourist brochure, and Planetary Resources reveal diagrams of robotic asteroid capture mechanisms alongside spreadsheets of kilo-to-dollar launch cost ratios and rare-metal market price projections, scripted for an audience of investors keen to back its plan: a gold rush at the vertical frontier. Launch technologies themselves cheapen further, China and India get in on the space game (kindling predictable resurgence of space defense talk in the countries with a more established foothold), and perhaps strangest of all, enthusiasm for the most technological of projects finds a way to creep into the enemy camp: diehard environmentalists start to opine that if we're going to perforate these "planetary boundaries" as we clearly are (not to mention the threat of asteroids, supervolcanos, and other inestimable contingencies), another planet might be a good hedge of our bets.

A new sense of the proximity of the overhead vastness is the order of the day. All these developments are intriguing ones, backed by pretty robust arguments, and the fact that they're not really in competition—they all more or less click together like Tetris blocks—strengthens the case of any and all considerably. But the motivations behind all these admittedly variegated projects aren't things we didn't hear in the last century: space for profit, the advance of science, entertainment dollars, national pride, collective defense, and so on. It's an open question whether we can conceive of some genuinely new ideas about how all this might transpire differently, how our conceptions of these massive sociotechnical projects might shift, how space might force us to rethink the terrestrial mundane rather than being an epic stage set onto which earthbound concerns can be exported intact. We can begin to sketch one such alternative position by rewinding history to the work of one of the prime movers behind twentieth-century extraterrestrial ambitions, who worked to articulate the case for getting off-planet well before even fixed-wing flight. We're not looking to resurrect an original, purified take on what all this might mean. We're simply for a handy place to restart.

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Moscow, the late 1880s: as he's done for decades now, Nikolai Fedorov spends his evenings writing the essays that will eventually be gathered together as *The Philosophy*

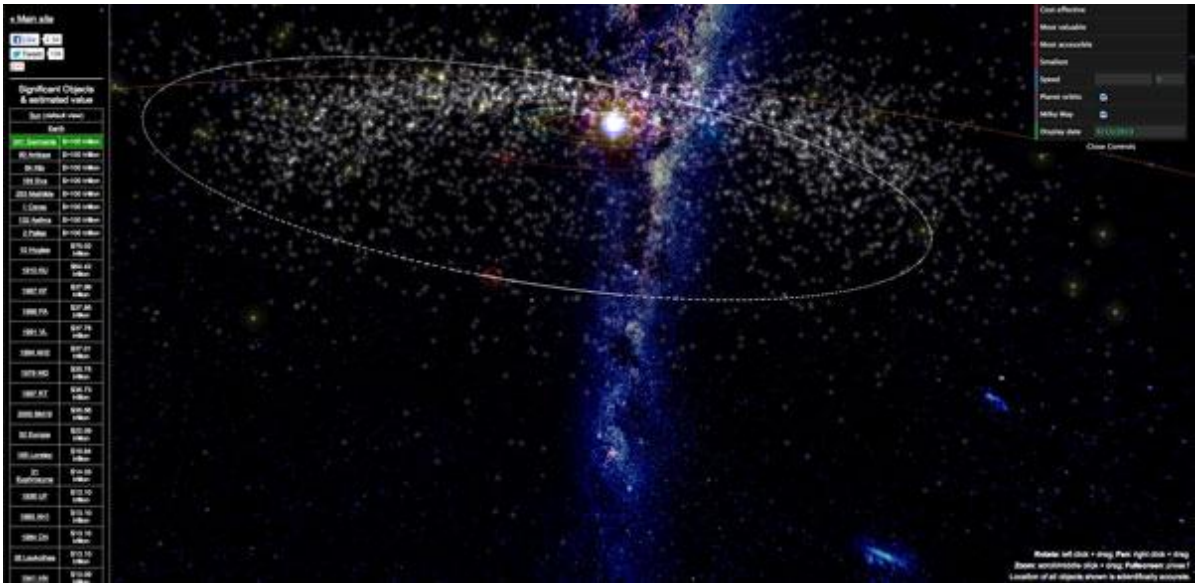


Image from Asterank, a company that specializes in maintaining "a scientific and economic database of over 600,000 asteroids," of the orbit of 241 Germania, valued at around $100 trillion in raw materials.

of the Common Task. Fedorov was born the illegitimate son of a minor prince, and by trade he is a librarian; before taking to the stacks, he was a schoolteacher. He is reputed by those few who know him to be kindly if a little stern, and remarkably ascetic: he eats little, rarely and nothing sweet; he doesn't even wear a coat in winter. In all, he cuts an unlikely father figure for the Space Race. But it's in *The Common Task* that we find the first systematic program and rationale for permanent human settlement off-world, and a direct line can be drawn between it and the development of extraplanetary travel some decades later.

The Common Task is an unforgiving work, not because its prose is inaccessible—quite the reverse—but because of its uncompromising single-mindedness of purpose. As historian George Young puts it, Fedorov was "a thinker with one idea," but for all that "his idea was extremely complex and comprehensive."[1] This idea was the "common task" the book's title, the articulation of a plan for the entire human race, a project that can readily be sloganed as *storm the heavens* and *conquer death.*

Let's begin with the second point first, which is in some sense the more fundamental. Fedorov understood the single common nemesis of all human beings to be death, and that getting rid of it could serve as a common rallying point around which all human beings could agree. Death in the literal sense, of course—death as experienced (if that's really the appropriate word) by individuals; but also as exhibited in the disappearance

[1] George M. Young, *The Russian Cosmists: The Esoteric Futurism of Nikolai Fedorov and His Followers* (Oxford: Oxford University Press, 2012), 49.

of cultures and the downfall of civilizations, and indeed more generally still: death as the operation of the forces of "blind nature" against which organic life was pitched as a struggle in and against darkness. Nature shows up as the force of *necessity*, one that confines and eventually overwhelms human beings (as all life). It is characterized by total indifference; indeed, it is the acme of such. Devoid of consciousness, it does not "know best," nor is it "cruel"; if it inadvertently plays the role of tutor, it is in how to stave it off awhile, no more than that.

Fedorov has no time for proclamations that human beings must "love Nature." This was, to him, the characteristic indulgence of those he contemptuously described as "the learned"—an elite who could spend their time singing Nature's praises, because their everyday lives were substantially insulated from it, by precisely the kinds of technology—from agriculture to medicine—that act to counter the "natural." Out in the field—literally as well as figuratively—no such niceties prevail. This does not mean Fedorov promoted a project of "overcoming" nature, in the sense of "destroying" or even "dominating" it. He is aware that the same processes that lay waste to life are deeply implicated in life itself, even if—in the later words of a Fedorov acolyte, the economist Sergei Bulgakov—"life seems a sort of accident, an oversight or indulgence on the part of death."[2] His mission is instead to convert or transform the natural, to *bring reason* to it, carving out a larger and more hospitable environment for life.

This is a deeply technological project, an extension of what already—as above—acts to mitigate nature, although he refused to affix the term "progress" to his perspective. Progress, in the sense of the production of more machines of greater complexity, was in itself not enough. Indeed, espousing it was dangerous, a disordered, warping process that did not enhance the living, but further degraded us. Against *progress* Fedorov pitches *duty*, a rationalist commitment against death. This is certainly an autocratic affair, one in which "the contradiction between the reflective and instinctive"—where the instinctive is the operation of blind natural forces through man, and the reflective is the means by which it might be checked and rerouted in a more productive direction—would be decided in favor of the reasonable.[3] The pursuit of sex, for instance, was for Fedorov a crass diversion of effort, the submission to unexamined impulse. A more rational base on which to build people into collectives, he felt, was *kinship*, and it's no surprise, perhaps, that Fedorov's characterization of rational duty is a *filial* duty, impassioned but firmly chaste. This dutiful sense of kinship would outmode and supersede, he hoped, easily deviated social forms like democracy.[4] The whole task of social organization would alter: beginning with the creation of synthetic wombs, and later entire synthetic bodies, the task of producing and organizing human society would exceed its impulsive origins and be replaced by a rationalist schema of collective direction control; efforts to prolong life to the point of immortality, a *completed project of*

[2] Bulgakov, *The Philosophy of Economy* (New Haven, CT: Yale University Press, 2000), 68.

[3] Nikolai Fedorov, *What Was Man Created For? The Philosophy of the Common Task* (London: Honeyglen Publishing, 1990), 59.

[4] On Fedorov's leanings in this direction, see Young, *The Russian Cosmists*.

medicine, would be entwined into this transformation of basic human functions, finding its ultimate filial duty in the eventual recreation of every human being who ever lived. This is Fedorov as he is still best known: a curious prophet not only of human immortality, but of the resurrection of the dead.

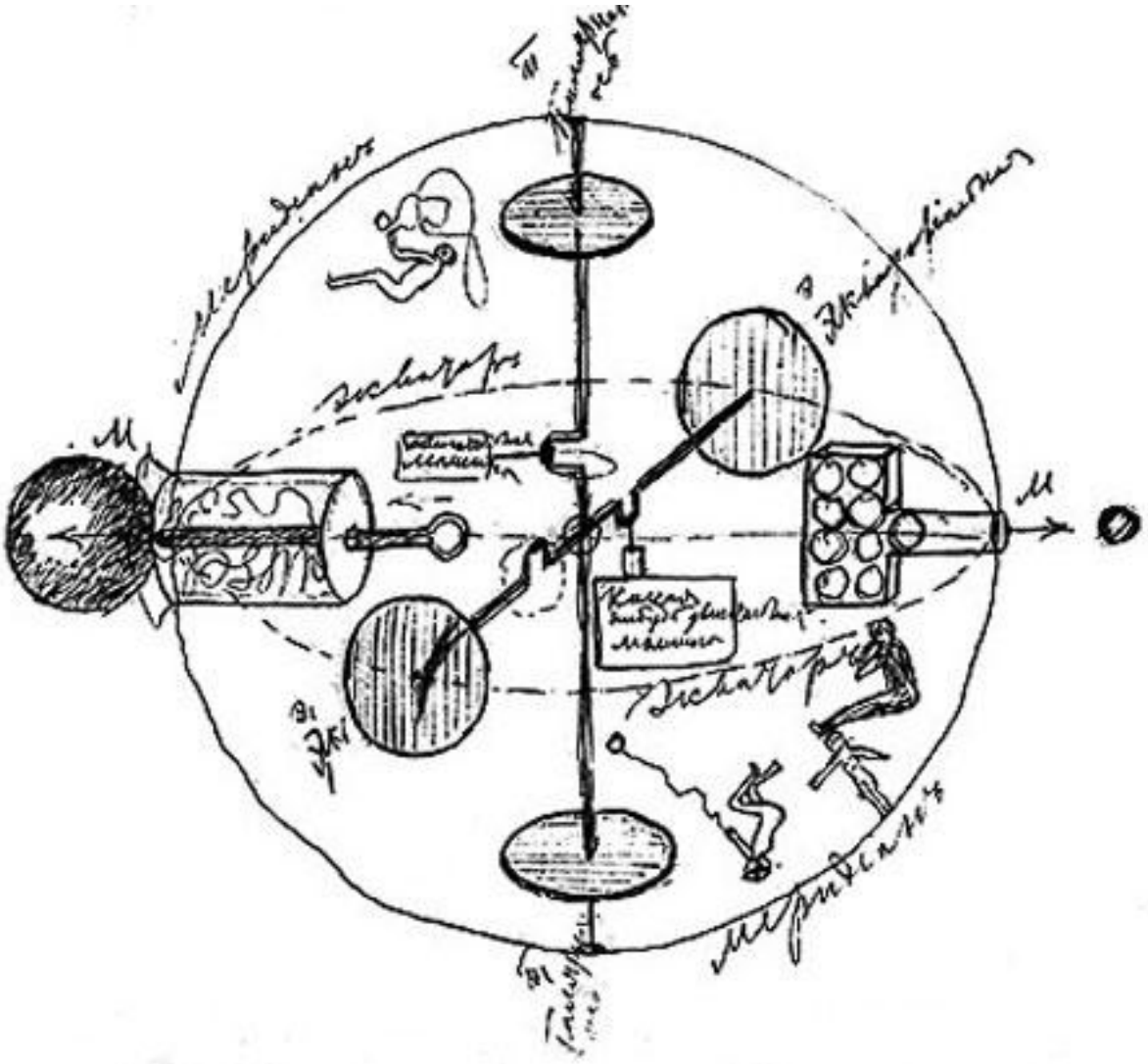
But his project extended further, and inevitably upwards, not least because an enlarging human race would require more room to expand. Freedom from death would extend to freedom from the earth itself, in quite practical terms. Technologies must loosen the grip of gravity, not eradicating it per se but meaning we would no longer be forced to obey it without question, no longer subject to its *necessity*. Epic and unexpected, the creativity of Fedorov's vision extended to its detail:

> He speculated that someday, by erecting giant cones on the earth's surface, people might be able to control the earth's electromagnetic field in such a way as to turn the whole planet into a spaceship under human control. We would no longer have to slavishly orbit our sun but could freely steer our planet wherever we wished, as, in the phrase he used as early as the 1870s, "captain and crew of spaceship earth."[5]

This complex of ideas, which by the 1900s had been dubbed "cosmism," was capable of inspiring peculiar devotion in the few who were exposed to it. (In fact, as Fedorov showed little interest in publication, it's largely through the action of his scattered acolytes that these ideas reached the presses at all, appearing here and there in anonymous or pseudonymous forms in small circulars during Fedorov's lifetime (often to his fury) and only posthumously finding wider release.) In the first case, some of the titanic literary figures in Russia at the time (Tolstoy and Dostoevsky among them) were transfixed by Fedorov's imaginary range, and also by his weirdly revitalized and visionary Christianity that they hoped might head off the anarchistic and communistic movements taking shape. This strange religiosity attracted all kinds of odd followers. The austerity of Fedorov's denunciation of sex, democracy, and an emerging consumerism appealed to all kinds of occultists and mystics, especially those playing with scientizing their beliefs even as they wanted to work their way into politics, particularly given that his project explicitly entailed that "mythical, symbolic actions," from praying for rain to the Christian doctrine of resurrection, "would be replaced by actual, effective ones," with "science as a method."[6]

But this scientific impetus, such that "political and cultural problems become physical or astrophysical,"[7] found a readier home in the atheist and scientific-Promethean bent of post-revolutionary Russia (even if Fedorov's habit of quoting the Bible made it hardly an effortless fit). It incited—to pick one example—the work of Vladimir Vernadsky, who developed the concept of the "biosphere," and whose astrophysical take on

[5] Young, *The Russian Cosmists*, 79.
[6] Fedorov, *What Was Man Created For?*, 56.
[7] Ibid., 43.



Draft drawing by Konstanin Tsiolkovsky of a spaceship interior, believed to be the first human representation of weightlessness, 1878.

earthly history included seeing human beings and other terrestrial creatures as "ambulant geology." In a foreshadowing of our contemporary concept of the Anthropocene, Vernadsky noted that human reason, expressed though design, had approached the status of a significant planetary geological force by the end of the nineteenth century. More directly, and without doubt the most obvious instance of technoscientific influence, *The Common Task* played a central role in the formation of cosmonautics. Chief among the devotees of Fedorov's thought was his protégé, Konstantin Tsiolkovski, a frequent visitor to Fedorov's library as a teenager, who was to go on to configure the mathematical basis for space travel, from a series of vital rocketry equations to the calculation of optimal ascent, descent, and orbital trajectories for spacecraft; and who put these to use in the design of the first multistage booster rockets, an extraordinary technological innovation that stood among many others in his work, including designs for airlocks and moon bases.

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It seems obvious that we are confined in space to the surface of the earth, and in time to the length of a life. Fedorov's imaginative achievement revolves around refusing to mistake the ubiquity of these constraints—for all the great hold they exert—as inescapable necessities we have no choice but to accept. Those who point to the huge expanse of the earth and the whole terrestrial history of life—this is nothing but myopia, squalid provincialism. In isolated form, this is the *characteristic gesture* of cosmism, what we might call the "cosmist impulse": to consider the earth a *trap*, and to understand the common project of philosophy, economics, and design as being *the formulation of means to escape from it*: to conceive a jailbreak at the maximum possible scale, a heist in which we steal ourselves from the vault.

This redescription of Fedorov's work lets us reconfigure cosmism in unexpected ways. In particular, it foregrounds the salience of *design* for our endeavor. This isn't simply because the cosmist impulse clearly invokes a technological program in which design is implicated. If we're more concerned with escape as *an actual physical event* rather than *escapism* (a retreat into an inner psychological bunker, individual or collective), then, as Fedorov was quite aware, our plots demand a kind of material scaffolding—various aeronautical technologies, to give the obvious example. He quotes, approvingly and with frequency, the developments of his time in artillery, ballooning, enormous construction projects, and medicine, and he demands the larger projects he glimpses within them be radicalized.

But the connection with design that we'll draw here is more direct, if not immediately more obvious. That is, this talk of traps and escape from them speaks to a very old understanding of the construction of traps as the very paradigm of what, today, we call design. This is an association largely forgotten even by the time of Fedorov's writing, but one which applied anew begins to twist and accelerate both this ancient tradition and Fedorov's cosmism into something new. A tradition which, if we situate Fedorov's work within it, changes both this tradition and cosmism ...

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What does design have to do with traps? It's certainly an association that's emerged, apparently independently, in many times and places. The connection lies not so much in the overt function of hunting or domestic traps—as means to secure food, eliminate pests, and so on—but in what the construction of traps reveals about how humans go about making things more generally.[8] In his essay "Vogel's Net," a short and striking speculation on how a hunting trap might be understood if taken out of the woods or the corner of the granary (so to speak) and placed in a gallery, anthropologist Alfred Gell draws out the ominous intentions encoded in its physical structure: "We read in it the mind of its author," and a "model of its victim"—and more particularly the way that that model "subtly and abstractly represent[s] parameters of the animal's natural behavior, subverted in order to entrap it"; hunting traps are "lethal parodies" of their prey's behavior.[9]

In this, the maker of the trap is "a technician of instinct and appetite," determining the trajectories already at play in the environment and twisting them in new directions.[10] The trap may involve the application of force in both its construction and operation, but it has the characteristic of applying this force with sophistication, which obtains in the way that this force is highly considered to *leverage* environmental tendencies that already exist. A human would be lucky to catch most other mammals unaided, but this can be redressed by an indirect strategy that makes use of their observed disposition—their inclination to eat certain kinds of food, in the example of bait; or how a good snare kills through desperation, strangling the target as it tries to escape.

The intelligence at work in the construction of the trap is most aptly described as *cunning*, and it extends to activities that we can broadly describe as "technical" more generally. Many are the observers who have seen in this the paradigm of *craft* more broadly writ, the ability to coax effects *from* the world, rather than imposing effects *on* it by the application of force alone. Following the grain of wood, knowing the melting points of various ores, the toughening of metal through its tempering: all these are not domineering strategies, exactly, but situations "in which the intelligence attempts to make contact with an object by confronting it in the guise of a rival, as it were, combining connivance and opposition."[11] Incredibly improbable phenomena—like the ability of a person to use a lever to lift a boulder—flow from an environment arranged *just so, and* is a collaboration of all its parts. And so it is that Jean-Pierre Vernant describes artifacts as "traps set at points where nature allowed itself to be overcome."[12]

[8] See Benedict Singleton, "Subtle Empires," *Design Ecologies* Vol. 1, No. 2 (2011).

[9] Gell, *Art and Agency: An Anthropological Theory* (London: Clarendon Press, 1998), 200–01.

[10] Lewis Hyde, *Trickster Makes This World* (Edinburgh: Canongate, 1998).

[11] Marcel Detienne & Jean-Pierre Vernant, *Cunning Intelligence in Greek Culture and Society* (Chicago: University of Chicago Press, 1991), 6.

[12] Vernant, *Myth and Thought Among the Greeks* (New York: Zone Books, 2006), 313.

They remind us, too, that to trap something—*contra* what might be intuitively inferred by the example of the hunting trap—is to arrange the behaviour of, but not necessarily demolish or otherwise unrecognisably transform, its target.

This form of craft, which merges with craftiness (and comprises the historical connection between the two words), weds design to the operation of courtly intrigues, daring military stratagems, and outbreaks of entrepreneurial success[13]: all instances of the successful navigation of ambiguous and shifting environments, in which are demonstrated the ability to elicit extraordinary effects from unpromising materials through oblique strategies and precisely timed action, allowing the weak to prevail over the physically stronger.[14]

As the reader may have already noted, these are just as much instances of *escape* as they are of *setting traps*. The two pivot around each other, displaying a curious reversibility. It's a knowledge of traps and how they function that enables one most easily to undo a trap that one is in: a talent for escape is predicated on the same intelligence that goes into entrapment—indeed, in the example of the traps that people set for each other, it's clear that—as Hyde puts it—"nothing counters cunning but more cunning."[15] To outfox is to think more broadly, to find the crack in the scheme, to stick a knife into it, and to lever it open for new use. Freighting the environment with a counter-plot is the best device for escaping the machinations in which one is embroiled: a conversion of constraints into new opportunities for free action, technological development as a kind of *Hydean accelerationism*. As Zhuangzi wrote sometime around 475 BC,

> In taking precautions against thieves who cut open satchels, search bags, and break open boxes, people are sure to cord and fasten them well, and to employ strong bonds and clasps; and in this they are ordinarily said to show their wisdom. When a great thief comes, however, he shoulders the box, lifts up the satchel, carries off the bag, and runs away with them, afraid only that the cords, bonds, and clasps may not be secure; and in this case what was called the wisdom (of the owners) proves to be nothing but a collecting of the things for the great thief.

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That there must be some things that no creature can elude ... and that they must be discovered, recognized or observed are integral to our sense of ourselves, and the ways in which we question who we are. When a constraint can be described as something else—when the earth becomes round so we can't fall off it, when the notion of sin is

[13] Detienne & Vernant, *Cunning Intelligence in Greek Culture and Society*.

[14] See Singleton, "Subtle Empires"; and Singleton, *On Craft and Being Crafty: Human Behaviour as the Object of Design* (PhD thesis, Northumbria University, forthcoming 2013).

[15] Hyde, *Trickster Makes This World*, 20.

Submarine escape training tower, Ford Island, Pearl Harbour, where trainee submariners learn to suppress instinctive behaviours through repeated rehearsal of escapes from the 100’ water column.

seen to be a devious form of social control, and so on—we change our place in the world.[16]

As an event in this alternative history of design, cosmism arrives as a kind of absolutization of its basic principles into a project of *generalized escapology*. It is a tendency dimly glimpsed in every individual act of design, extrapolated as far as possible. If design is a hustle, then cosmism is the long con—or perhaps more precisely, the most extravagant gesture of *lengthening* the hustle into a con: not simply an aggregation of hustles—a chain of coin-tricks, each self-sufficient, without bearing on the next—but a process of nesting them into a cultivated scheme or expanding plot, so that each gambit paves the way for the next.[17]

This opens a vista of new reference points—aesthetic as much as political or philosophical—in which to set the kinds of wildly ambitious sociotechnical schemes of which the space travel is an iconic example. We might not be able to tell, as yet, what the consequences of this might be—what it might mean to conceive of, say, a well-established human outpost on Mars, where adults teach their children about the relation of the New World to the Old, through a history that stacks Harry Houdini and Frank Abignale among the astrophysicists and Apollo teams: an alternative set of footholds for an ascent into the dark.

But there is a twist that we *can* anticipate, a further consequence of relocating cosmism within the ambit of this history. Fedorov's cosmism is a project, ultimately, of *freedom*, commissioning an assault by practical reason on the things that bind us, irrespective of their historical ubiquity; the perception that a life subjected to $1g$ gravity is inevitable is among the casualties already listed. The conception of the world as a field of nested traps renders this vision of freedom *quantitative*, a series of practical achievements, proceeding by degree—we are free of this, and then of this, and then of this, new end points emerging rather than an *a priori* finish line at which, on breaking the ribbon, we can at last rest easy, luxuriating in a genuine liberty. It's questionable how compatible *other* long-term goals, like those that Fedorov foresaw in the colonization of the universe, are with this perspective, other than as (comparatively) short-term horizons on which to affix one's eyes in the course of acceleration. But this is perhaps a minor modification.

Much worse is that in Fedorov's work—as in the decayed fractions of his thought that show up when travel beyond the margins of the earth's gravity well is figured as an opportunity for profit, for entertainment, or for humanitarian resource—the line is drawn at undermining the sacred figure of Man. "Death is a property, a condition," Fedorov wrote, "but not a quality without which man ceases to be *what he is and what he ought to be*."[18]

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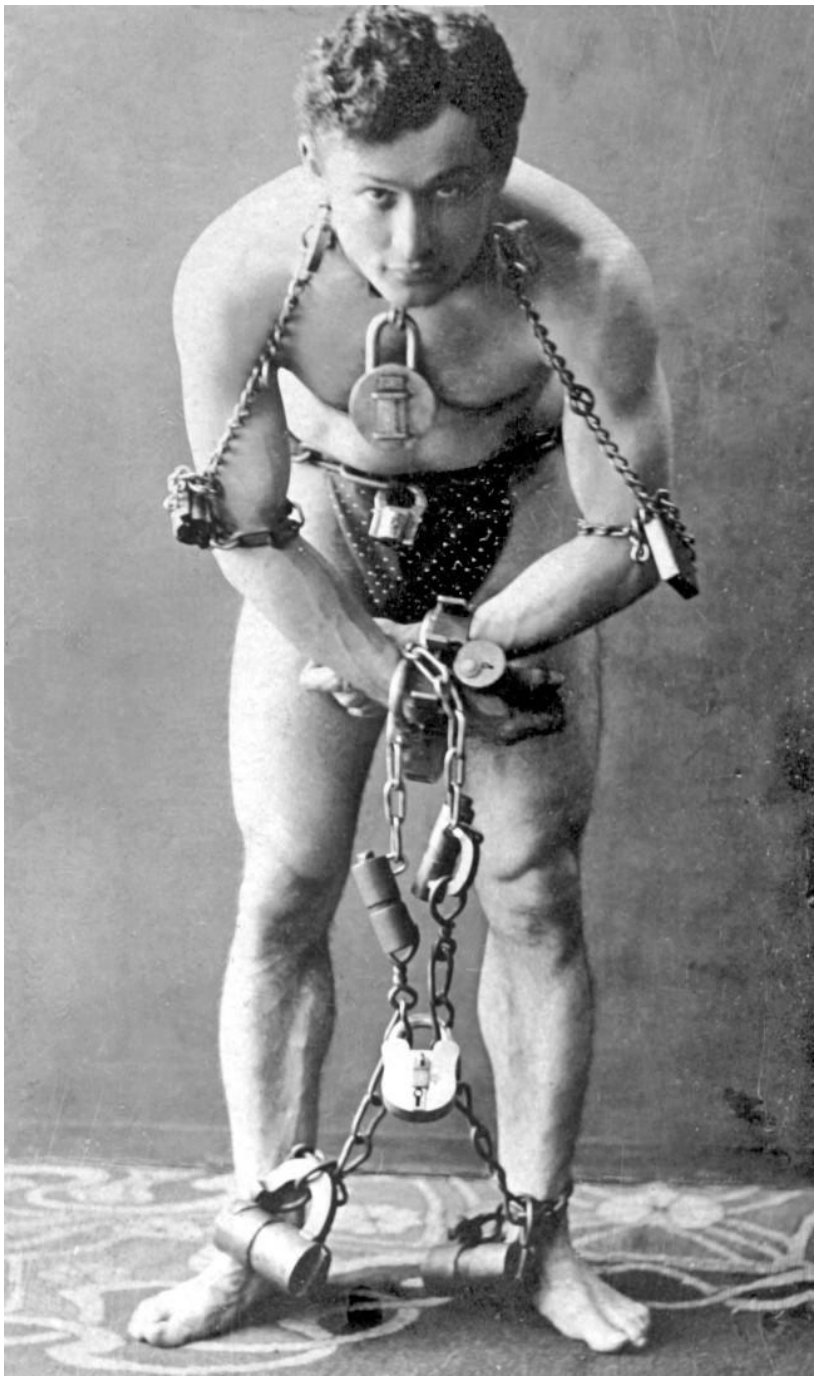
[16] Adam Phillips, *Houdini's Box: On the Arts of Escape* (London: Faber & Faber, 2001), 29.

[17] See Singleton, "The Long Con," *Design Ecologies*, Vol. 3, No. 2 (forthcoming 2013).

[18] Fedorov, quoted in Young, *The Russian Cosmists*, 47.



A Harry Houdini press shot, dated from 1899.

In a new or renewed cosmism, this position is untenable. As we've already seen, the same kind of intelligence is at work in setting and escaping traps. Indeed, in order to be free of a trap, it's of less use to the trapped to decide upon some holy condition of freedom than to understand how one is implicated in the mechanism of one's entrapment. To engage in the former is mere *escapism*, as we've noted. The designation of this limit as sacrosanct is alien to the very logic of traps and of escaping them, to its abstract insurrectionary force. The unnerving aspect of this project is not, however, located in the specifics of what it is of which we are free, which is to some extent reconcilable with the Fedorovian project. It's contained instead in the corrosive quality of the intelligence that must be put to work. This is an intelligence founded in what Gregoire Chamayou dubs "a physics rather than a theology of power," although "mechanics" might be a term more apt than "physics."[19]

To explain: if setting and escaping from a trap implement the same logic, to be prey is an education in how predation operates. "In order to anticipate the reactions of his pursuers," Chamayou writes, "the hunted man has to learn to interpret his own actions from the point of view of the predator ... : seeing himself in the third person, considering, with respect to each of his acts, how they might be used against him. This anxiety can later be transformed into reasoning."[20] So it is that the mark begins to understand the operations of the con-artist, and the process of flipping the game can begin. This process tutors a view of oneself as in part an *object*, and converts this knowledge into an active resource. No wonder, then, that "[s]laves in the French colonies had a word for it: escaping one's master was called 'stealing one's own corpse.'"[21] This creates a pernicious stowaway in any humanist cosmist project of freedom. "Thinking," writes Ray Brassier, "has interests that do not coincide with those of living; indeed, they can and have been pitted against the latter," a statement never more true than here.[22]

Cosmism accelerates design until its project of insubordination becomes more clearly visible. What is revealed is the irreducibility of design to stated motivations of capital interest, social progress or scientific advance, in place of a programme of incursions across any and all borders, violations of every truce, an insurrection not only against gravity but also human beings, a process by which sociotechnical structures are taken hostage by precisely what they make possible, a process of *ungrounding* in more ways than the most obvious. This is the genuine injection of the offworld into terrestrial affairs, in which through progressive alienation freedom stacks up in the longest of cons.

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[19] Chamayou, *Manhunts: A Philosophical History* (Princeton, NJ: Princeton University Press, 2012), 15.

[20] Ibid., 70.

[21] Ibid., 63.

[22] Brassier, *Nihil Unbound: Enlightenment and Extinction* (London: Palgrave MacMillan, 2007), xi.

creates designed schemes, narrative architectures, legal fictions and economic plots. This essay continues their work on relocating design in relation to political intrigues, criminal stratagems and other forms of artifice, and is the first part of a larger project developing new visions of space travel and science fiction through objects, film and texts.

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