

Sea shells, women's blood and an Andean bioclimatology of water (Seminar)

entanglements between humans and water beings

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Professor Denise Arnold is an Anglo-Bolivian anthropologist, she's been a senior research fellow research professor at Beck, university of London, as well as now an honorary research fellow at UCL.

The last time the Denise spoke at RAG some years ago, it was particularly on the woven textiles of the Andes. She's a great scholar of the Andes, and she has really covered herself in glory by getting a badge of honor from annoying Donald Trump because the book produced by her, and other scholars on Andean textiles has been blamed by Trump for making museums and Andean textiles accessible to people.

So, this is an asthma, this is a book that should be burned according to Trump. So we regard Denise as a celebrity who's, who's, really making her mark with her research of great importance.

Andean textiles, oral tradition, nonverbal systems of communication, new approaches to Andy and iconography.

Denise's author of many, books on these subjects she's going to be telling us today, about bio climatology, it is a new discipline of great importance.

Following up Harry Jenkinson's talk last week on, this is talking about how our bodies, particularly the bodies of initiate boys and girls may affect climate and inter and be in relation with climate.

So I'm gonna hand over to Denise.

Thank you very much Camilla, and thank you Chris for the invitation, and drag for the inspiration over the years as well.

I wonder how many people here are anthropologists? Are you all anthropologists? Not, not all of you.

I was gonna say field work is quite difficult because, you ask a lot of stupid questions.

If you ask stupid questions, you get stupid answers.

If you ask really blurry, badly expressed questions, you get blurry, badly expressed answers and while all this is happening, you are seeing rituals and other things and you know that something very important's going on, but you just don't know what the question is at all. So it's like the holy grail.

You're seeing all these things and you just, you don't know what's happening and this paper is a bit like that.

It's reflections after the event, with many years experience thinking, oh, that's what they were doing so it jumps from the lowlands to the highlands and it goes through different themes, and it brings in archeological themes, historical themes with ethnography.

So I'm breaking a lot of the rules as I go along.

What I'm trying to do here is to describe the mutual inter relations between people and water in the Andes in a way that it avoids a focus from a kind of human supremacy point of view and I'm also curious about how andan actually do things like relating to water a lot of anthropology now is which descriptions and, and so on and so on, and very heavy theoretical arguments.

But when you ask yourself how do they actually go through that and understand it, how do they get to the knowledge of that in something else? and in civilizations have long had to pay attention to water procurement in order to manage their land for agricultural and herding because of the unpredictable pattern of rainfall and fluctuating agricultural yields, whether through building terracing and irrigation canals, water security and management through storage, retention and infiltration structures, including aqueducts and by controlling aquifers and the anthropogenic wetlands called bfi and populations linked water in their social world together in their architectonic practices.

Next through street canals in sco, in orient Tambo or pon in underground sounding channels in Chavin and tiko or the sounding platforms in the Pisco Valley aligned with local mountains where performing dance groups might have thought summon thunder.

They've discovered recently these platforms and their hollow, so if you dance on them, it's very echoy and they, that echo goes right through the mountains and they think that they were calling thunder The iners tamed water flow by carving intermittent zig sags or U shapes like you see here in their irrigation cha channels to slow down to rental rain flow, water governance molded and political and ritual systems and the ways of documenting these in KIPP's, weavings and other writing systems like the Kiu boards.

So in this region, learning about aquatic phenomena early on in life is vital.

my interest then is how to trace the bodily aspect of learning about water in a contemporary setting in the south central Andes in childhood and adolescence and then between the generations and compare these practices to similar learning processes in other regions and suggest they have precursors in the archeological and historical record that we've just seen.

In my experience, andan perceive the category of water from a sentient point of view as opposed to our abstract modernist discourse.

The Bolivian archeologist Juan Villanueva shows how in our European ideas influenced by ancient Greece.

Water was one of the four fixed elements of the world along with earth, fire and air.

However, for andan populations, water's rewarding in progress.

Not fixed, but one, an element that changes form constantly.

Water also requires human intervention in its care through a mutuality of action.

The Imas used this verb I we were senior and the sea suffix there indicates this way of interrelating mutually.

Andy and Animist ontologists recognize that humans and water flow are not separate but constituted through a dynamic relationality.

To work with water, one must negotiate share and dialogue between humans, non-human beings and non-human elements.

This relationality draws these other beings into this aquatic world.

Karen Barard prefers to view such encounters as interactions within particular phenomena such as water where the limits and properties of each element or being are

not fixed and inherent, but the actual result of these shifting relationality in her book meeting the universe halfway, I dunno whether any of you have read that, but it's a fascinating book about science but she really makes you appreciate that, we're trained to see a static world, but really it's just unfolding in front of us and we can learn to appreciate that Rutger Brolin's course.

These relational groupings assemblages.

Another approach though to understanding the processes of learning these patterns of relationality is Tim Ingold's exploration, alternative ways of educating the attention of the young to create habits that can lead to correspondences between the human and other denizens of our world.

These correspondences are not achieved by passing on a set of social behaviors associated with social, political, or ritual knowledge.

They seem to involve instead an active way of embodying knowledge about water and taking responsibility for the ongoing practical application of this knowledge.

Early studies in the anthropology of climate already described how local populations followed the seasons ritually with a focus on water and the rains and how some material elements, how they had their bodily counterparts.

Now bioclimatology is an emerging field of inquiry and it proposes that human bodily practices and regional knowledge of non-human and more than human beings, including water beings, are immersed in a much wider assemblage of forces, elements, relations, distances, and flows in their totality.

These constitute what Anna Sing calls the reproductive sociality of all the elements engaged in interspecies interdependency.

So it's a common process of forming and reproducing the world.

My own starting point for understanding these ideas draws on my reflections about female rights of passage about as a way of learning about water.

This led me to remember how women from the marker and I use of kaka chaka in the Bivian highlands, where a done field work with my husband related their flow of menstrual blood or of amniotic fluid during childbirth to the rainy season and hence to these wider hydrological cycles.

Luisa Elvira and Juan ATO writing about the Mui people of the Peruvian lowlands come to a similar conclusion that a female cosmo climatology directs their bodily practices and knowledges towards water.

Maori women at their first menstruation learn to take responsibility for their bodily practices to ensure the continuity of the alternation between the dry season and the rainy season or the cold season called with which they compare and orient their menstrual periods.

Bede mentioned in previous work how other rhythms of female blood flow open and close the human cycle of gestation and potion.

So these studies highlight how women's behavior towards water in both the highlands and the lowlands around the time of their blood flow is a human response through

a learned bodily ability that helps engender the overall health of the wide world, including that of bodies of water.

Such interdependencies are not surprising considering that some 80% of the earth's surface as well as of human bodies are made up of this element but have been in the main unknown outside indigenous communities might this imply that the world is materialized differently through these entangled practices and the interdependencies they help create.

In fact, these South American practices of bio or cosmo climatology complement recent medical research mainly in the USA and Japan showing how the nature of women's menstrual periods changes seasonally during the course of the year, a heightened Eastern period occurring during the heat of summer and a greater menstrual blood flow during the cold of winter or the rainy season.

Their medical advice now recommends women to realign their bodies with these wider rhythms in order to relate better to their menstrual cycles.

A key moment when female adolescents learn to articulate their own blood flow with the flow of water in the wider world and with a gamut of water beings occurs at the ceremonies that mark a girl's first menstruation coming of age.

In parallel they occur at ceremonies that mark the bloodletting of adolescent boys when they learn about hunting game, game animals and other male concerns. During these rituals, gendered adolescents learn an interdependence and respect for water, establish relations with water beings and practice equivalences between their own bloodletting and water flow.

Learning this association between menstrual blood and water is practiced throughout the Americas.

Nieto in their recent essay described the life experience of the Mui wise woman of Teresa regarding this knowledge among the Euro of California and the USA.

The women call their menstrual period moon time and learn how the earth too has a moon time.

Other Andean practitioners, wrestling, Baldy, Yassi and others describe how their rites of passage were occasions for learning this human responsibility.

These accounts privilege, a politics of water management enacted by females and grounded in a woman's body.

It's not so much about assuming stewardship over these water beings as taking care of them, identifying corporally with them and interacting with them as water kin.

Women in Chuka, this is my field site, like those elsewhere, relate their menstrual periods to phases of the moon.

They say that their blood flow coincides mainly with the dark of the moon, but at other times with full moon as herders, they consider the period of blood flow to be the most fertile and the period shortly after blood flow has ceased to be the ideal time to become pregnant.

Ress does not figure in their calculations.

This implies some degree of synchronized periodicity, although there are no rituals I know of to confirm this.

The generalized nature of these practices to relate blood flow with seasonal phenomena suggests there might have been a common evolutionary advantage.

In an evolutionary sense, lunar tidal rhythms as environmental oscillations would've affected water beings living nearby as well as early humans living in waterscape environments.

Chris cites how such influences could have enabled early hominid females to synchronize their periods.

Then as female menstrual periodicity became more attuned to tidal flows and lunar cycles, so women would've become aware of their close bodily relationship to water, both in monthly cycles and in the wider oscillations between the rainy and dry seasons.

Much further afield.

Camilla with Ian Watts cites how among the cozen groups in Southern Africa in recent times, the correct observance of ocular rituals was said to attract fertilizing female rains.

Whereas incorrect rituals could bring destructive male rain COIs.

An ideology noted the weather affecting forces of uterine fluids, birth and menstrual blood and girls coming outta menstrual seclusion had to dance in the rain to become fertile.

Are these ideas just flung together, coincidences, passing evolutionary moments? My impression is that there are relations between the female body.

Menstrual blood and weather phenomena have been overlooked in this evolutionary context.

Just a glance at the exhaustive collection of living aminian tales in the four volumes of levies, OSIS mythology shows they're full of such illusions.

So what kinds of interdependency of andan developed with water? Evidently it involved lots of water beings.

One vinueva highlights this in images of animals and other aquatic phenomena from the andan civilization of tiwanaku from 400 BC to a thousand AD where water was already perceived as something endowed with agency and will, which had to be created appeased and fed.

These images reveal snake-like felines lurking in the lakeside region.

There's the gray mountain cat on the left there, the t***y as the owner of Hailstones and their dark ring clouds the schools of fish on the right here at the bottom of the lakes, the rattling snakes that water the fields and the deer like animals raised by the mountains themselves in with this black and red in the middle here this other perspective reveals an entanglement of water, animals, materials, places and people where fresh waters are a part of the rains and saline waters are part of the sea.

Evidently this wider pattern of hydrological interrelations between a mountain environment and the distant sea was perceived in terms of cycles of interdependence between these aquatic elements.

Historical and contemporary descriptions of this seasonal cycling of water are similar.

This watery circuit tends to follow the sun's path from east to west in the sky.

This is an old drawing by drawn Earls of 1976, but recent scholars have done more sophisticated drawings like this one rain clouds are held to rise from the high mountain peaks generated in part by sacrificial offerings there.

These release the rains and the runoff fills water holes, streams and rivers to water the mountain sites and fields.

The flow descends gradually to the Pacific Ocean macha.

The western horizon of this ocean marks the place of sunset and its desert coastline has long been the ideal burial place of the dead.

Now the water returns in darkness by the underworld and the dark cloud constellations of the milky way to emerge in mountain lakes and springs.

In this cosmology, both the ocean depths and the interior of the earth are dark aquatic domains, aka in where the ocean depths are comparable to the celestial firmament in colonial iara vocabularies.

Both are Lara dark blue or la kapu a term related to mouth laca the same understanding continues today.

The water then flows back into this world via mountain lakes and springs considered as openings or eyes laira between the sky world, this world and the inner world into which and from which animals, birds, and other water beings appear.

This idea can be traced back to tiwan a thousand years ago and probably long before it can be expressed in cloth.

Andrea Heckman shows how the Cher designs these large rbu rmbu, express this lake with the flowers growing by the side of it and the Cher designs.

These are called kocher designs from the sang gati region near Cusco expressed this hydrological cycle in kaka.

Two ideas about water and its different manifestations invoke many kinds of water beings with which humans strike up interpersonal relationships.

These include the Serenas and mermaids that lure men to their watery places, especially waterfalls, but which also inspire young men musically and help tone their musical instruments and inspire young women's voices.

In song, other water beings are the here Michael, who there are men dressed up as these here spirits of new vegetative growth dressed in red and green who dance on the riverbanks during the rainy season and then there are all the water animals around Lake Lake tco.

Wildcats, the t***y guard.

The water springs yet are the water beings are the monstrous, which walia a serpent figure crossed with a feline with a long tail like a dragon and fire coming out through its mouth, which rises from the mountains around the lake, then sails overhead to land in the lake itself.

The people of Kaka identify multiple elements in their water scapes and you can see the vocabulary here in Imara.

There in the mountain springs or eyes between the worlds glaciers high on the mountainside, snow, ice and hail, fog and mist, light clouds or shadowy rain clouds, raining downpours or just drizzle rivers and streams.

The lakes and lagoons formed when water washes down the hills or reemerges there and they include sub soil humidity in the buried wetlands where alpacas graze other aquatic phenomena are rainbows, lightning and thunder and the expressions of water in the rights of passage of adolescence of both genders.

A matter mara vocabularies of the early 17th century still differentiate between these distinct kinds of water.

The arrival of the rains was referred to as ri small rain, similar to a dance.

Karisa was a storm and ha rain, although this term also indicated aspects of sexuality as if sexual flows were showers of the body.

In these terms, the imar root K indicates an accumulation of elements such as water in Kata lake, whereas the lu suffix indicates something fluid as in hallu rain seawater is manifested materially by the presence of the bright red seashell spon princip in ritual offerings to mount shrines.

Spon was a motor of the wider hydrological cycle.

A mountain offerings still includes spon shell today in this wider setting, these blood red shells harvested from the sea and associated by andan civilizations over centuries with the moon and the tides, the winds and with male and above all female blood became a key ritual focus for the human control of water security over this ample territory with its unstable pattern of waterfall.

Ongoing bio climatological relations between humans blood flow and spon are evident in Inca sacrificial practices and in their rights of passage.

Spon remains have been found in Inca high altitude sanctuaries together with human sacrifices mainly of children or adolescents.

Inca interest in the relations between humans and hydrological cycles was probably directed at the expansion of maze cultivation.

Groups of Incas were walked hundreds of miles to perform such sacrifices on mountain peaks.

Many higher than 6,000 meters above sea level sacrificial mummies were preserved in the permafrost at these sites and interpretations about them combine archeological and forensic work there with colonial accounts, legal documents, and those by Spanish priests, mainly about the kapaa great offering sacrificial ceremonies.

The enactment of this ritual on the El Palomo near the Chile Argentine border occurred just meters from the I glacier, the source of the macho river affluence that descend towards the valley of the same name.

This close tie with glacial waters in the highest watersheds suggests that the right could imply a request for water resources to renew animal and human populations.

The excavation of high altitude shrines has found objects buried with the sacrificial victims, which include metal and spon figurines of humans and came lids as well as spondylosis collars.

El Orta proposes that these figurines express the Inca origin myth.

Female miniature figurines often wear two tupu pins to hold their garments from here between which is a red cord that bears spon elements.

However, a spon collar buried on Mount Luco on the chili Argentine border surrounds two male figurines in a row of camelo figures.

The colors wooden cord includes human hair and holds 13 pieces of carved spon perhaps corresponding to a lunar year.

Such pieces are also called Kocher Lake in the Quechua of southern Peru.

The boy on mount aka kawa in western Argentina wears the spon necklace with precious stones.

So again, spondylosis has both male and female connotations In relation to males, the use of either metal or spon in the camelo figurines might have alluded to their procreative power as compared to the fecundity of females, the mainly adolescent sacrifices on these mountain sites as well as the designs of the figurines suggest they may have referred to initiated young men and women.

So I turn to Inca initiation rituals to shed light on this preoccupation with offering spondylosis to mountain shrines spon offerings.

Figure in historical accounts of Inca rights of passage when adolescent men learn to hunt animals and participate in act of war.

Acts of war accompanied by moments of male bloodletting as a counterpart to female blood flow Colonial chronicler, Molina, Moua, Kabul and so on relate how during the male initiation rituals called wa boys became warriors practicing in ritual battles with their opposite moty and hunters of wild animals released on certain hillsides for them to catch with slings and spears.

The term wara actually refers to a woven loin cloth, but means warfare in the language of lowland ani where similar rituals are said to have been influenced by the inker or vice versa.

The boys' rituals started around the summer solstice feast in December.

Once the boys had achieved hunter warrior status, they had their ears pierced by the Inca himself to become inco nobles, the orhan or big ears in another bloodletting aspect of these initiation rituals and they had their hair cut and their nails clipped.

The young men then received gifts of specially woven breach cloths the water.

Later in the rituals they were given out outfits of more breach cloths, tunic over mantle and headdresses accompanied by stuffs of office and woven bags and in reciprocity for the presentation of the water loin cloth, the young men offered spondylosis together with gold, silver, and Guinea pigs to those mountain shrines called wa.

The girls' initiation rituals held around April were called Kiko chiko.

Kiko in chua means menstruation.

Since the bright coincided with the girls' meki like young men in their bloodletting rights, young women with their own blood flow were in their moment of flowering ra.

They were advised on how to live and obey their parents in the so-called Ku Kuna means giving advice and alludes to the transformation of the young woman as she blossoms into adulthood and the possibility of marriage.

There were opportunities for engaging with the young men initiates towards the end of these rites.

This part of the ritual is a reminder of Alto's observation of how such advice giving in the contemporary lowlands reinforces the girls' responsibility to be attentive to their new bodily state and how this awareness has wider connotations within the cycles of water flow.

In andan cosmology, like the young men in their own ceremony, the young women had their hair sworn.

They learned to weave garments with particular designs and to make corn beer.

unlike the young men, they received tributary garments which included a dress, a mantle, and a headdress.

Evidence that they were learning about water can be ascertained from the textiles found with the victims on these high altitude shrines.

I analyze elsewhere how in the Kapa kta rituals of human sacrifice, the victims often wore garments that present an aesthetics that emphasizes the color red often associated today with the rainbow.

This is also the case in the garments worn by the miniature figurines interred with them.

You can see that here in the mantles in the belt to the right of that figure on the left and in the headdress, some of the headdresses again here in this mantle, the zigzagging designs of these garments with their stars, flowers, or seed motives on the cusps seem to illustrate certain water beings.

Different scholars see in them the amaru double-headed serpent as lightning and the Milky Way.

These designs were probably woven as part of the girl's initiation ceremonies as they were in similar ceremonies elsewhere.

Although some of the miniature male tunics found in the shrines also have snake-like designs like this one here, which you can see he's wearing in that miniature The reiterations of this double-headed serpent design associated with the rains in many of these Inca garments suggest that the menstruating young women who underwent initiation were developing their relationship with water, with water beings, and with the rainy season that brought fertility to the world as were the young men in their new warrior status.

This potential for growth is confirmed in the associated designs of ice seeds on the zigzag cusps, which today refer to springs as they probably did in the past.

You can see that same zigzag here with the eyes on the corners.

Historical studies assert that there were gender differences in the kinds of water linked to men and women, men being associated with heavy rainfall accompanied by thunder and lightning, and women with softer rainfall.

Similar ideas about menstrual blood and water occur among the contemporary Pru, the Isha, the kina and other lowland groups.

Jaguar woman, when adolescent females learn to weave or paint their bodies with animal designs as emblems of their transformation into boa constrictors or free lines and remember that they referred to an Inca presence in the region.

So my reading of this data on Inca rights of passage is twofold.

Firstly, that young female initiates learn to relate themselves bodily with a world of water and water beings and to express this knowledge practically and intellectually through their work and designs.

Furthermore, that a woman's relationship with water beings such as snakes in the rainbow in her own process of metamorphosis defines the necessity for her subsequent period of menstrual seclusion, her special diet of maize and May's beer to make her fat and beautiful and her future possibility of creating life.

In parallel, this learning process in the young men's rites of passage was directed that their skill and luck in the more violent activities of hunting and warfare and in male bloodletting in these and other practices.

Secondly, that regarding the different kinds of water linked to men and women, young women could have been more concerned with the water flow down from the highlands via the rain clouds, streams and rivers to the Pacific Ocean to return via the Milky Way and the springs on the hillsides.

Whereas for men, this relationship to water seems to have been more associated with hunting lightning and thunder and their obligation to sacrifice animals for offerings and let their own blood.

This bodily knowledge about water flows and its ritual enactment is evident in recent research on the NASCAR lines, which suggests that these were drawn over aquifers in the coastal desert to guide processions along them.

Contemporary rituals in kaka continue to make these connections between human bodies, blood flow, the cycling of water, lunar rhythms and spon shell offerings, drawing on their in past pre-adolescent children in the whole region.

Learn to keen loudly to bring on the rains during the novena prayers in December and January when the Elu authorities take them to high mountains to enact rituals that take over past acts of sacrifice and reification and many activities of formal schooling also concern the rains.

An instance of ing Gods educating the attention of children towards water occurs during a school ritual.

In early August when the earth used to be plowed for the first sowing before climate change made this impractical, it coincides.

Nowadays with Boli National Day on the 6th of August, a part of the ritual is celebrated in the school grounds, which according to the social memory of the place, served as an Inca waste station or Tambo and reenacts.

This memory of the Inca state and the common's obligations towards it.

As warriors and stewards of water, the school becomes jaua uta, a house of battle and the ritual, a rite of passage that emphasizes ways of moving between places associated with water flow in a serpentine form.

Like the great Andan Amaru, A first parade begins on the night of August the fifth on a flat area east of the school near the spring called Al, where the water comes out with nationalist and military overtones.

The participants shouting commemoration of their great indigenous heroes, Gloria Tupac, Qatari, Gloria Bar Caar, and of the Kaku Chaka victories in regional warfare long lived the kaku checkers and down with the limes and ku, their enemies, a troop of musicians playing pine pipes and a loud drum lead.

The parade followed by schoolchildren in their different age groups.

Starting with the oldest in the recent past, each child carried a pa lantam with the colors of the Bolivian flag, red, yellow, and green behind them in the serpentine parade come the mothers carrying their babies.

The parade marches towards the school entering through the front gate and then circles the flagpole afterwards.

The participants watch a series of skits by the children on the school of platform.

The next morning on August the sixth, a similar parade occurs, but this time led by the parents.

It marches from the opposite direction to the west at the site of a second spring, OMA Hollanda where the water enters in the shadow of the community's guardian mountain, which you can see here behind the procession passes the old Tambo site, which is now just a mound, then enters the school grounds, circles the flag pool, and then performs a march past in front of the school and communal dignitaries on the school platform.

I'm here on the right, it's wall covered with national flags and shields all in the shadow of the school's guardian mountain and other ritual sites.

They paraded doing goosestep like Bolivian soldiers.

After the parade, the groups divide up and the ilu authorities serve food and drink to the teachers and dignitaries.

The feasting was followed by Nez round of libations by these authorities gathered around a small offering pit just in front of the school platform.

Their verbal content revealed that the flagpole with his pyramid shaped base served as a replica of an Inca nu.

These were platforms built throughout the empire to observe at the beginning of August, the perfect alignment of the sun at Sinneth and the moon at Nadia.

Before the annual opening of the ground and the coming of the reigns, the libations of Bali beer on in this case offered to the flagpole, alluded to the Inca past.

While other offerings such as dog's canine interred, there were perhaps substitutes for the sacrifices of the past.

We learned that the two parades from their different origin places replicated the cycling of water in the regional cosmology.

The two sites embodying places where water ascends to the firmament and then descends into the dark underworld.

So the school ritual is directed at human participation in these flows of water.

The children were learning to do this in a makeshift military setting to embody this knowledge and energize the flow.

Meanwhile, the guiding musicians focused on the circulation of breath and wind to generate the colors of the new crops.

But as the rite took place in the dry season, these elements were still trapped in the pan pipe tubes as were the coming rains.

The school children's bodies embodied these tubes in the process of accumulating water, which meanwhile promoted their own growth expressed in the figure of a serpent.

The collective subject in serpentine form expressed the energy flow released by the pan pipes that proceeded from the serpent's tail with the women and their babies via the children's age grades towards the mature men playing instruments at the serpent's head.

This morphological ploy permitted the parents to educate the children's attention towards the timely arrival of the rains. A couple of months later, unlike us who just cede our own ritual responsibility to wait for water to the states and governments in whose territories we live.

Another initiative to promote this cycling of water occurs at the contemporary ritual of marking the animals called *ilpa*, usually held at carnival in February.

Also related by the participants to the Inca occupation of the area.

In the ritual association or onto Genesis between women and female animals, yammers and now sheep and men and male animals.

Each group undergoes parallel rites of passage that concern their mutual coming of age marked by blood flow. During the ritual of the female sheep or *yamas* have their ears marked to generate this blood flow and then, then dawned with wool earrings, the animal with the greatest blood flow is considered the most fertile and the female animals are considered the equivalent of binocular girls whose bloodshed is comparable to that of childbirth.

Girls too have their ears pierced, but this occurs nowadays when they're still children.

When male animals are marked, the bloodshed is compared to that a battle like the Inca girls.

These young adolescent girls once their menstrual cycle begins, learn to introduce aesthetics focused on the color red into their weavings to express that they are now fertile and ready to marry.

They can now weave this color in their shores.

The Wai in the wide plain pumper and the extensive design area called Salta.

This red and design area is specifically called the Techstars blood wpa Like the Inca girls.

Two, these adolescents learn to weave zig sags with stars, seeds, or flowers in their interstices as images of the Milky Way with its river of stars and river of water in the dark cloud constellations there concurrently they learn how the great black Yammer constellation, the mother of all yamas, is the source of their earthly herds and of the reigns through the myths they hear and the songs to the animals.

They learn to perform as a vital part of the ritual once they inherit their own herd animals.

In parallel, they learn how their own menstrual blood is equivalent to the rainy season of the virgin Earth when the soil runs red during her time of year, during their monthly.

Can you explain that? Well just say a bit more about, this is a mother Yammer with a number of ly cord and she's feeding her young here.

These are herders coming behind and these are dark yammers dark spots In the Milky Way. They're the dark cloud constellations in the Milky Way that you see in the southern hemisphere.

This is a giant condor.

There are lots of other animals that you can see, marked here, the goat kids.

but they're very, very clear.

I anyway of you that have worked in the south know this, but most Of us haven't. We need to be Spoon fed.

but yes, I mean it's this, this is the Yama, the mother, the great mother Yama, UA that's supposed to be the mother of all yammers and the interesting thing is that there's this procession of particularly the group of Yammers and it comes down to the horizon at the end of the year when, the rainy season, the heavy rainy season starts during their monthly blood flow.

Teenage girls still carry out most activities but are advised to go accompanied when they're herding in the hills.

The blood flow does not make them ashamed.

They simply wipe away with a foot any blood dribbling down a leg.

However, they become more disciplined with regard to their bodily state and they must now accomplish the cultural norms and taboos concerning female blood flow.

This means that they can no longer go near fields of growing crops when their blood is flowing as the plants could shrivel.

But these taboos also signal that they're inheriting a body of female knowledge passed down from their ancestors, which interrelates different aspects of the body to their cosmology and which they learn to replicate in their weavings.

This includes their observation of the body of the Cel celestial black Shema who swells with the waters she has absorbed from the earth during the dry season.

In talking about this embodied knowledge they gained from, participant participating in these rituals, older women such as Donya Maria Aan, explained how their ancestors returned at death to these dark lakes and stars in the Milky Way.

But how young Limas emerged from these lakes in a new cycle of life.

She added that the dark Li Yammer figures in the Milky Way, especially the great female yama, came down to earth every December to give birth to the earthly herds and that her amniotic fluid and birthing blood brought on the heavy rains.

She compared this dramatic flow of rainwater to the menstrual period of the great sky Yama.

So Kaka women learn what Astrid Neman is cause the Ont logic of Amniotics.

They learn it's the very basis of their being and that their emergence and interrelation with this watery gestational habitat characterize their passage through life.

It's also an autobiographical documentation that women are doing right the way through from their childhood up through adolescence into old age.

The people of Kaku chaka enact the main ritual to ensure the continuity of these vital ties between female blood, the reigns and the regeneration of the Yama herds as yet other water beings.

Every three years when a family makes offerings of spon pieces or powdered to their high mountain guardian called Ri, the offerings take place in the context of the animal marking ceremony.

After devouring the meat of a sacrificed male animal at the feast, the bones are collected together by a wise one and the male members of the family take the whole reconstituted skeleton up the mountain and they bury it in a pit on the side of the mountain together with a spondylosis and other ritual ingredients.

They included yama fetus or two and a whole mixture of things from cinnamon to all kinds of other things, little twigs water bottles.

They take these offerings at night at the dark of the moon and after burying them there, they leave with caution.

As the mountain's guardian, the guardian mountain's herd or a mountain cat or some other feline will come to debar the offerings.

Over the following months, these offerings decompose into feted emanations which transform into rain clouds and then rain that will nourish new green pastures which feed the herd animals and clothe them in plentiful layers of fleece and fat that will in turn feed the humans living under the mountain's care.

This whole sequence, I just made this kind of caricature, which I think you might have seen in the past, where you've got this offering pit with the skeletal bones and then you cover it over with COA leaves.

You are making a new covering.

It's a human participation in the ritual to to regenerate, to resurrect the dead animal back into life.

you put red flowers on, they're different flowers for different animals. Skeletons, Reconstituted and taken up to the mountain.

It's so the meat be resurrected. Yes and then you cover it all over and then there are these emanations and it forms the rain clouds and then the rain comes down and then you've got all your pastures and everything.

the wise ones who carry out the offerings say that the blood red spon offered in the family pit relates to blood flow and sacrifice and specifically to rain clouds.

So the spon offering would signal the first part of this cycling of life through water flow from the high mountains down gradually to the sea.

The ritual use of spon triggering all the other water flows.

So to conclude, I dunno whether you've noticed, but indigenous societies criticize our western understanding of climate change and the Anthropocene, the slow activism and narrative ecologies of the fling ish first nations of the USA in defense of the glaciers in their territories challenge the monocultural land-based imagery of the western position closer to where I work.

Dan Rosen GR and others present meso and South American case studies that challenge our hegemonic narrative in which current anthropogenic conditions are assumed to be the result of a lack of human interventions in the world.

This epistemological and ontological framing of humanity is the main geological force and the sole locus of agency and personhood fails precisely because many other beings are involved in all of this.

Like Anna Sing says, we're dealing with a wider social universe in which humans constitute only one of several decisive agents and this is very different from the modernist decentering of humanity and the decoupling of agency and personhood in these western debates that empties social and ritual life from any sense of intentionality.

So the South American experiences I explore here support this challenge to recapture the interdependency between humans and other than humans through a careful attention to learning and intentionality, to enable the formation of worlds otherwise, that these are the worlds that are not just terror centric but engaged with water and we have to learn to live with these other water beings and all of this is reflected in the language people use about it and the speaker's point of view and it took me a long time to get there because you see these things, it's just not a part of our education.

So it's there before our eyes, but we don't see it until we become more susceptible.

Thank you.

The Ted K Archive

Denise Y. Arnold

Sea shells, women's blood and an Andean bioclimatology of water (Seminar)
entanglements between humans and water beings

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