
Animal Enrichment and The VivoArts School for Transgenic Aesthetics Ltd.

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The VivoArts School for Transgenic Aesthetics Ltd. (VASTAL) was formed in 2009. Vivoarts, as I have been defining it, “is an umbrella term, [that] may help us sort the full range of aesthetic and social concerns faced while considering the question of life in art. Simply defined, what I call Vivoarts is any artistic production that has a living component embedded in it at the time of its exhibition” (Zaretsky 2005). The school was opened as both an artistic gesture and in order to make hands-on biotechnology labs more accessible to the public. During the following year, VASTAL publically held living-art performance labs with accompanying Unstill Life Studies (ULS) lectures. VASTAL public labs educate through the use of life as an artistic medium to analyze the aesthetics of transgenic technologies in both non-humans and humans alike. VASTAL was formed in order to aid in public comprehension of the project of hereditary control.

What is a transgenic organism? Transgenic organisms are different than wild type organisms. Transgenic organisms are organisms that have foreign DNA inserted into their genome. This means one or more genes from a different organism (i.e. animal, bacteria, plant, fungus or virus) has been added, through some tricks of modern

molecular biology, into the nucleus every one of the organism's cells. Transgenic organisms are walking around with non-spontaneous expressible molecules in their bodies, minds (if they have minds) and the genetic material that goes on to make their children. Sometimes referred to as hybrids, cyborgs or chimeras, transgenic organisms are an interspecies mix of DNA, a targeted collage of two or more organisms. The most important thing to remember is that their alteration is permanent and inheritable. That means that their kids and their grandkids have the same difference that they do. (Zaretsky 2005)

The politics and responsibilities of life (the need to wriggle and consume) bind material and being simultaneously to metabolism and vice. This results in a more nuanced analytical understanding of the ethical, libidinal and social implications of new reproductive technologies and their accompanying hereditary attenuators. This is due in no small part to the experiential effect of hands-on artistic lab work. By underscoring the use of life for artistic, as opposed to scientific research purposes, the case study and its accompanying theoretical explorations are meant to interrogate relations between bioethics and the current aesthetics of the engineering of human and non-human life. In relation to VASTAL, the aesthetic, theoretical and ethical questions related to live biotechnology art labs as performance pedagogy are referred to as Unstill Life Studies (ULS).

Art for Non-humans Lab

The VASTAL Ethology and Art for Non-Humans: Enrichment Arts Lab was held in the Theatrum Anatomicum, de Waag, Amsterdam and concluded with a visit to Koen Vanmechelen's solo exhibition *The Cosmopolitan Chicken Project* at the Muziekgebouw in Amsterdam, November 17, 2009. In conjunction with the hands-on studio lab, VASTAL-ULS lectures were held, during the lab, by Kees van Oers (avian ethologist) and Koen Vanmechelen (artistic chicken breeder).

All Vivoarts labs are hands-on labs sharing lab skills with the untrained. The difference between a technical scientific learning session and a Vivo-artistic laboratory approach is mostly qualitative. While engaging in the techniques, we also deal with the relational issues surrounding this type of process: pain, death, responsibility, curiosity, the meddlesome sadism of a personal genetic footprint/signature/graffiti, risk assessment between foreign species and the ecosphere, etc. The assumption is that informed opinions on present-day and near-future bioethical conundrums are more readily coaxed out of non-biologists through a hands-on approach. Access to comprehension can be cathartic but it can also inform critique from a position of experience. This is the Vivoarts mode of hands-on Do It Yourself (DIY) bioethics public laboratory.

One of the conceptual goals of ULS is meant to aid the public in understanding the socio-cultural and ecological reverberations that gene insertion into living systems might bring into our lifeworld experience. Utilizing a genomic palette, the potential range of expression represents a wide and varied canvas. Public comprehension of the process of transgenesis through hands-on experience, including the relationship between safety, aesthetics, and responsibility, is implicit in this field. A great diversity of commentary is encouraged through this pastiche of ideologies. Ecology, bioinformatics, ethology, embryology, gastronomy, cell biology and physiology intermingle in ULS. Current advances in the technologies of germline genetic enhancement may lead our species future into another round of ill-fated historical shame. Without a radically open understanding of comparative genomic diversity, evolutionary uncertainty and acceptable aesthetic breadth, we may end up “enhanced” without the celebratory relish implied by the repro-genetic arts. Couched in terms of anti-anthropocentric posthumanism, VASTAL and ULS critique naïve libertarian transhumanism while encouraging explorations of subaltern a-human identity. Beyond the medical and staid aesthetics of neurasthenic scientism, let us chart the enigma of life.

Engineering Critical Bioethics

There is a reconfiguring going on in the critical bioethics community that veers away from pragmatic readings in ethics. Policy makers focus on what should and should not be done to balance preservation of dominant ideologies by timing the release of shockingly different technologies. Avoiding the philosophical tendency towards grand schema, critical bioethics brings the angle of questioning into the realm of: who are we, what are we in, and how does that make it difficult to decide where we might go with all this? In "The Bioethics of Metadesign," the concluding chapter of his book *Biomedica*, Eugene Thacker spells out the differences between philosophical, applied and critical bioethics. "If emerging biotechnologies are transforming our basic notions of 'body,' 'nature,' and the 'human,' then it follows that a bioethics capable of accommodating such transformations would itself have to be adaptable and flexible. And this might very well entail a critique of the philosophical foundations of applied bioethics." (Thacker 2004: 176).

His critique is intentionally amorphous and ungrounded, revealing ontological discrepancies and the edges, fault lines and incongruities in the arguments of knowledge presumption. "Critique is not merely the 'negative' work that is necessarily done, so that subsequent 'positive' resolution may follow. Critique is a generative practice at precisely the moment of negativity; it therefore provides openings, pathways, and alternatives that were previously foreclosed by the structure of a discourse" (2004: 178). Running along similar tropes, *Bioethics in the Age of New Media* by Joanna Zylińska, displays an appreciation for a world where the radical alterity of being is configured into bioethics in a non-normative sense. In reference to *The Swan*, a radical make over television show, wherein the contestants vie for plastic surgical attenuations on the path of competitive, "real-world" styled beauty, Zylińska readily admits, "...there may be something rather frustrating about a bioethics that refuses to evaluate the morality of the actions in which the producers, participants, and audiences of the radical make over

show...are engaged" (Zylinska 2009: 123). This is a harbinger of future pop possibilities as intentional genetic modification of the human genome become standardized for market consumption.

These days the idea of a mass movement toward eugenics is countered by many who support "enhancement" with an admonishment of the history of eugenics and any future "collective program" (2009: 74) of human engineering. In contrast, to be down with a worthy program is to insure the wonders of neo-liberal economic "freedom," as market-driven, individual choice (reproduction being personal and a parenting act of volition). Implicit in this subterfuge is informed decision making and purchase power. This is the Yuppie Eugenics option. In "Yuppie Genetics - Creating a world of genetic haves and have-nots," Ruth Hubbard and Stewart Newman, from the Council for Responsible Genetics, analyze the difference between state and global eugenics policies (past and present). They read the present day emphasis on consumer driven genetic counselling as a superiority complex, a *fascism of one*.

What was once a preventative choice has become a pro-active entitlement, exacerbated by the sense prevailing among current elites that one has the right to control all aspects of one's life and shape them by buying and periodically upgrading the best that technology has to offer, be it a computer, a car, or a child. (Hubbard and Newman 2002)

Enter Spinoza - Ethics Is in the Asking

What the above arguments all have in common is that they are about humans, human culture and human rights. Returning to critical bioethics, to the enigmatic preponderance of the human, as a concept and focus, Zylinska makes some propositions:

I want to suggest that it is performativity at the ontological level of life (manifested in raising questions such as, What is life? What counts as human life? How are the boundaries of the human

established and maintained? Is the distinction between humans, animals, and machines solid or arbitrary? Are differences between species a matter of grade or kind?). (2009: 159)

Thacker asks:

From the perspective of critique, we can ask seemingly naïve questions here: Why only subjects, and why only human subjects? Are there nonhumans involved, are there relationships other than agency involved? Why general rules? ... If ethics is a practice, what is the role of unaccountable contingencies? What, indeed, is 'practice' and how is it different from a rule or a guideline? (2004: 180).

Benedict (Baruch) de Spinoza favours a philosophical ethic, which still challenges presumptions today. Eugene Thacker contrasts Spinoza's *Ethics* to both conservative and tactical political voices:

In this sense, both, "official" groups, such as the President's Council on Bioethics, and unofficial groups, such as bioactivist organizations, are taken as bioethics. They share the commonality of applying moral principles to a range of biomedical and biotechnological contexts ... conservative or radical ... Although conservative groups like the President's Council may stand in opposite bioactivist groups, and although the economic interests of corporations may oppose both, the common understanding between them all is that bioethics is fundamentally a moral issue, a matter of deliberating good and evil. (2004: 189-90)

Spinoza has an alternative system for assessing these issues. Writing in the mid-to-late 17th century, Spinoza's philosophy emphasizes the decentering, distancing and even removal of the human subject from ethical debate. The *Ethics* of Spinoza are based on a radical anti-anthropocentrism, dismissive of identity as anything but temporary form. After a canvas of Spinoza's *Ethics* we will look at Deleuze's version of Spinoza's thought, which emphasizes an "ethics without morality," an ethics that is an "ethology," a "typology of immanent modes of existence," a practice of "nonsubjective affects" (2004: 189-190).

The Infinite Need Not to Judge

For Spinoza, by acknowledging god's [1] absolute will, there is no room for moral contradiction in the acts and actions of bodies, "... since if things had been produced in any other fashion another nature would have had to be assigned to Him, different from that which the consideration of the most perfect Being compels us to assign Him" (Spinoza 1952: 367-68). Positing god as absolutely infinite, beyond time, unchanging and perfect Spinoza emphasizes the essential monotheism beyond the human tendency towards cults of personality. Spinoza decimates morality as a practice that god could not even entertain, as there is nothing outside or independent of the all one infinite. This leaves the dichotomous banter of crust dwelling, chest beaters in their swamp of segregated ideation. Spinoza asks which manifest acts cannot be human folly, ignorance, self-importance and greedy subterfuge?

But all these prejudices which I here undertake to point out depend on this solely: That it is commonly supposed that all things in nature, like men, work to some end; and indeed it is thought to be certain that God Himself directs all things to some sure end, for it is said that God has made all things for man, and man that he may worship God. This therefore I will investigate by inquiring, firstly, why so many rest in this prejudice, and why all are so naturally inclined to embrace it? I shall then show its falsity and, finally, the manner in which there have arisen from it prejudices concerning good and evil, merit and sin, praise and blame, order and disorder, beauty and deformity, and so forth. (1952: 369)

Spinoza analyses the deluded gymnastics of orderly separations of things and their nature in the face of infinite modes affecting nerves but stemming from an entirely other than human ethics. From his arguments, it follows that those organisms,

...ignorant of things and their nature, firmly believe an order to be in things; for when things are so placed that, if they are represented to us through the senses, we can easily imagine them, and consequently easily remember them, we call them well arranged; but if they are not placed so we can imagine and remember them, we call them badly arranged or confused. Moreover, since those things are more especially pleasing to us which we can easily imagine, men prefer order to confusion, as if order were something in nature apart from our own imagination... (1952: 371)

Spinoza posits that the set composed of allness is an infinite collection of thoughts and actions of nonhuman existence, some active and some representing the realm of the possible but not in an authoritative position. Spinoza rejects as a common weakness the proposition that the extended thinking thing of totality is to be imagined as a king (1952: 374). Infinity is not a patriarch. This would be a case of identification with the oppressor formulated in the imaginations of those in need of attention, albeit often negative in its faux human-centric importance. These needs for personality from the mysteries are unending, where even an abusive demagogue is a version of the personal. For Spinoza, a human-shaped or reflective god is opposed to the joyful passion of being an independent facet of the infinite. Of all things to come up against the anthropomorphizing of the vast universals: a call to good feelings?

Deleuze's Spinoza

French philosopher Gilles Deleuze reinterprets Spinoza's ethics in his book *Spinoza: Practical Philosophy*. In a display of pantheistic materialism, Deleuze's version of Spinoza posits an affirmative amoral universality as a replacement for empires and laws based on good and evil. As a diagnosis of structures which block the project of affirming life as just so many instances of more or less perfect ok-nesses, Deleuze writes:

In his own way of living and thinking, Spinoza projects an image of the positive, affirmative life, which stands in opposition to the

semblances that men are content with. Not only are they content with the latter, they feel a hatred of life, they feel ashamed of it; a humanity bent on self-destruction, multiplying the cults of death, bringing about a union of the tyrant and the slave, the priest, the judge, and the soldier, always busy running life into the ground, mutilating it, killing it outright or by degrees, overlaying it or suffocating it with laws, properties, duties, empires – this is what Spinoza diagnoses in the world, this betrayal of the universe and of mankind. (Deleuze 1988: 12)

For Deleuze, Spinoza allows humans to perceive instantiation as mere facets on the continuum of the stardust we are comprised of. “The bad occurs when extensive parts that belong to us in a relation are caused by external factors to enter into other relations; or when we meet with an affection that exceeds our capacity for being affected. In this event, we say that our relation is decomposed, or that our capacity for being affected is destroyed” (1988: 41). The emphasis on “affect” is an aesthetics of embodiment and eventual non-existence -- negative relational disembodiment -- is also an ethics based on aesthetics without self-reflection. Both dangerous and “realistic,” Zylinska and Thacker ruminate on the Deleuzian Spinozic, anti-Cartesian ethics as another way to comprehend the extended body of biotechnological alterity without moral prejudice.

Zylinska’s Deleuze’s Spinoza

Zylinska is using Deleuze’s Spinoza to read how and why bioart is interrogating the politics of living. The artists of biology, be they “high” artists in the open (open source or open reading frame) or unintentional, outsider artists of the lab (scientists), subvert the tidy avoidance of the issues of bodily difference. All mutants are potentially good in affect and relationality. All mutants are, at the least, alive with difference. “That is to say, when morality is seen as too oppressive, too compromised or too outdated, but its proponents are not prepared to analyze the philosophical and ideological conditions of this situation, it tends to go ‘underground’ and turn into its ugly twin, moralism”

(2009: 153). As opposed to media hype about bioart as terrifically terrifying, Zylinska thinks that bioart has the potential to “enact a more radical politics and ethics of life-as-we-perhaps-don’t-know-it-yet” (2009:159). This would be a strange thing to attribute to infertility technicians, genetic counselors and gene therapy experimental designers as bioartists who “allow for these bioethical and biopolitical issues and concerns to circulate in a particular ‘poetic’ language...” (2009: 158). She writes, they are the real creatives, capable of being, “actively and purposely engaged in the construction and circulation of alternative narratives about life” (2009: 158).

Artificial Life (AL) Is Not Life Art: Agamben’s Deleuze’s von Uexküll

Contained in Giorgio Agamben’s book *The Open: Man and Animal* is an analysis of Gilles Deleuze’s weirding of Jacob von Uexküll’s study of ethological behavior. By emphasizing the subjective and phenomenological aspects of species perceptual difference, Agamben’s Deleuzian von Uexküllism sees non-human worlding “in an absolutely nonanthropomorphic way” (Agamben 2004: 39-40) as a problem of semiotics, potentially fascist (2004: 42-43) [2] and even musically interpretive ecological dance.

When classical science saw a single world that comprised within it all living species hierarchically ordered from the most elementary forms up to the higher organisms, Uexküll instead proposes an infinite variety of perceptual worlds that, though they are uncommunicating and reciprocally exclusive, are all equally perfect and linked together as if in a giant musical score... (2004: 40)

Today's ethology can be gotten the gist of as: living while involuntarily decaying, loving and destroying, parasitizing, genetically drifting and generally gallivanting. This is not easily reduced to a technological unconscious. Whatever a lifeform is inborn with, it is not code or software, but slime folded into a yoga of time: a feeling and unstable yet responsive body. The attempt to give the genome a linguistic turn (turning flesh to word) was lame enough, but the hyped

up synthetic biology concept of modeling life on the integrated circuit gets a retro grade. The mistaking of all this gooey for Artificial Life (AL), Artificial Intelligence (AI), Virtual Reality (VR), genetic algorithms, bioinformatics or web traffic is a reaction formation against the chaos of bodily heterogeneity. Though the AL patterns produced are lovely and life-like, it is the industrial analogy that needs a haptic repacking.

In order to rationalize this leap from computer-generated art to art that involves the manipulation of biological life, the proponents of such a narrative take the view that biological life is all about the code; that the artists and the work involved with biological art deal with the 'code' of life. One can speculate that the combination of genotype and the need for cohesive narrative leads to ignoring the complexity of the different levels of engagement with life. (Zurr 2009: 145)

Biosensors and Radio Frequency Identity (RFID) data gathering technologies emulate phenomenological experience, not the other way around. The being of slime molds and condors [3], [4], is not a simulation even if their internal experience is qualitatively alone and somewhat never penetrable. [5] There are dangerous sociopolitical and aesthetic choices being made for non-human and human enrichment design based on screen life bias. [6] We are all already stuck in cybernetic versions of houses or parks or captive-breeding programs for species rehabilitation (e.g., suburbia, the global park system [7] and online dating). The conversion physiology into information processing adds to the prevention of new world rewilding. [8]

Ethology and Art for Non-Humans: Enrichment Arts Lab

The VASTAL Ethology and Art for Non-Humans: Enrichment Arts Lab was held in the Theatrum Anatomicum, de Waag, Amsterdam and concluded with a visit to Koen Vanmechelen's solo exhibition *The Cosmopolitan Chicken Project* at the Muziekgebouw, Amsterdam, November 17, 2009. During the hands-on studio

lab, our guests of mention, Kees van Oers and Koen Vanmechelen gave public VASTAL-ULS lectures.

The Enrichment Arts Lab is based on the premise that an understanding of designing animal enrichment devices might also help human participants appreciate the similarities and the differences between all organisms living (AOL). Enrichment is a practice of increasing the quality of life for animals outside of their natural environment. From the simple concept of enrichment a wide variety of ideas can arise. Animal enrichment is a design process that may alleviate some of the burdens of being in the space of captivity on a daily basis. Animal enrichment is also a novel way to understand animal behavior and reveal the complexity of animal consciousness. The lab uses ethology, the science of animal behavior, to design appropriate art for chosen non-humans. Review of ethological concepts, philosophies, field based practices as well as the critical history of ethology are meant to aid in enrichment device design and application. In this particular VASTAL Ethology and Art for Non-Humans: Enrichment Arts Lab, the emphasis was on avian ethology. [9]

But, a second purpose of this lab is to open the field of enrichment to all non-humans instead of limiting it to animals. The study of ethology as a tool to develop art for non-humans provides interested participants with time to explore the potential of continuity, present in AOL while at the same time, studying the specific cognitive and perceptual lifeworlds of distinct non-humans. Often enrichment programs are centered in zoos, but enrichment arenas include: livestock environments, laboratory research animal housing rehabilitation centers for wayward animals, pet training and toy administration arenas and places like jails, refugee camps, workplaces and entertainment venues (Poole 1998: 83-97). This gives to us all organisms to consider worthy of enrichment in the world. Therefore, Art for non-humans is a partnership between non-humans being researched by other non-humans. [10] "It is particularly important that the intelligence of the species relying on senses that human observers are unable to

appreciate (tactile vibrissae, ultrasonic hearing, and a sense of smell) should not be underestimated" (1998: 92). By exploring ethological data on non-human perceptual worlds, the intention is to open novel avenues of study towards innovative comprehension of the sensual limits that determine different organismic experience as well as their behaviors, cultures and personalities.

Goals

Our major goal is to make art for a non-human audience. Our work is innovative as we intend to improve designs and methods of expressing art for non-humans by ethological, relational, experiential and aesthetic communication with trans-species in captivity. In particular, we are interested in those animals showing signs of behavioural disturbance, cultural alienation and neurotic personality disorders. The reasoning behind this emphasis is that we would like to underscore the similarities, differences, power relations and mutualisms between humans, non-humans and posthumans all read as particular cases of non-humans.

Materials

Two pads of archival quality paper

Color pastels

Fixative

Bird toys

Varieties of bird food

Rubber chicken

Cat toy (ball with bells inside)

Pink synthetic nest

Live chickens

Humans willing to lie down and talk to live chickens in a variety of languages

Methods

Kees van Oers, avian ethologist and Koen Vanmechelen the avian breeder artist joined the other lab participants in conceptual animal enrichment device design using traditional drawing materials. The inclusion of the scientist and the famous artistic chicken breeder brought breadth to the discussion. Their experienced interactions with birds helped us understand the way the birds might respond to various creative enrichment devices. After think-tanking on paper for an hour, we walked to Koen Vanmechelen's solo exhibition *The Cosmopolitan Chicken Project* at the Muziekgebouw, bearing gifts and experimental devices for the live chickens installed. For the lab, we drew conceptual devices:

For free living non-humans
To give captive non-humans control
For other senses, not our own

The devices were meant to:

Elicit play
Simulate control of the environment by the animals
Reduce stress
Show animal individuality
Show animal group dynamics
Show animal problem solving
Show quality and integrity of animal consciousness
Show enrichment of a particular animal personality
Elicit sexual exuberance

The impetus of this lab is to insure the safety and emotionally therapeutic value of an enrichment device. By talking through some of our ideas and actions, we focused on the responsibility to thoroughly research any beings to be enriched, before designing and actuating an enrichment device. Our students were taught

various research methodologies towards comprehending another organism's priorities, preferences and perceptions. After talking about the concepts we had drawn, we discussed how our conceptual devices might be received by actual, non-anthropomorphized avian beings.

An impromptu artist and scientist 'expert' avian enrichment oversight group was formed on the spot. We talked about how to gauge or assess the effectiveness of our contributions as non-scientists. We distinguished anthropocentrism from anthropomorphism and tried to keep from practicing either to any excess. We made sure that we reached a consensus before presenting the chicken gifts. Our collaborations were not grievously detrimental and were determined by our group to be "appropriate enough" for chicken well-being. We then bridged the gap. We gave gifts, enrichment attempts and performances to Koen Vanmechelen's chickens; on live display in a nearby solo art exhibition. Our initial offerings were somewhat spontaneous yet tame. Most of these trans-species enrichment devices were fashioned from pet store purchases, safe and geared towards avian perceptual life. Many food gifts were gingerly hung from the wire fencing of the containment chicken coops. One of our conceptual enrichment artworks on paper was offered for their non-human critique. Eventually, the group performed an attempt at interspecies communication with the chickens.

Actual enrichment technology is not very developed as a practice. The concept is new and due to general underfunding, the administration of professional enrichment is usually spare, both technologically and aesthetically. This problem of "what to do" as a body, to a body, for a body and with a body in relation to the world of living beings is meant to be amplified and left hanging as an artistic production for the purpose of conveying a dilemma. [11] It is presumed that the stimulation of debate is based on the opening up of radical de-categorization. The lab is meant as a primer to open up the way we think about the lives of

others, leaving those involved with more informed and wider questions than they had before the experience.

This lab was also a guide to assist the participants in becoming aware of how much of our cultural landscape is actually behavioral training entertainment built to make our containment seem more inviting. Enrichment devices are figured into gross national products as acceptable extras towards an economy of voluntary submission: television, organized sports, spectacular wars, cheap fast food and the intermittent reward of the occasional winning lottery ticket. Perhaps, the decentering of human exceptionalism comes from the other side, not as benevolent interspecies practitioners of “the white man’s burden,” [12] but as an analysis of why we sub-humans are showing signs of behavioral stress. This frames all human beinghood as a scrutinized, trained primate subset of non-human organismness. Stuck in a culture of containment, the symptoms of living in a maze of regimes, forced into all sorts of joys – both tepid and tame, aware that work is made to keep us busy and that play is canned to keep us lightly engaged, enrichment arts are a way of uncovering our own acculturated, lived propaganda.

Additional intentions of the lab were:

To make art for a non-human audience. To spread an odd understanding of ethology in its complicated relationship between behaviour, culture, personality (psychology) and philosophy (i.e., animal studies or Deleuze’s ethology). To aid in public understanding of the similarities, differences and possible power relations between humans, non-humans and posthumans as non-humans. To be considerate in caring for captive non-humans. To take an active and hands-on tactical stance on these issues while aiding in the comprehension of the potential for pedantic politics and the physical and emotional responsibilities of non-human enrichment. To gain access to some non-humans and to inquire through trans-species communication as to their aesthetic preferences and methods of expressing of art critique. To wonder at human culture and personality through

the lens of assessing human needs as if we were just another non-human in captivity, showing signs of alienation.

Discussion

Investigating ethology and art for non-humans, art for all phyla and art for AOL, discussion is primarily on what we can do to familiarize ourselves and positively add to a non-human perceptual and experiential world. Although anti-anthropocentrism is a global theme running through all of our labs, it is the art for non-humans lab that converts life as a media into contact with and gifts for other life as the medium of artistic expression. Unfortunately, the stewardship involved in taking the role of enrichment provider assumes that behavioural service leadership is the best tactic for a non-human's benefit. Often actual enrichment specialists are called upon to develop toys or provide novel versions of work for a non-human due to a perceived need for therapeutic relief. In zoos and other holding containers, un-enriched, stressed non-humans are perceived by human spectators as unhappy, pacing, even exhibiting the neurotic behaviour of a captive being. A repetitive environment without facets or interest often leads non-humans towards self-destructive behaviour. If this just comes down to training captive non-humans to act "naturalistically" for human spectators, then how is enrichment anything but anthropocentric? What else can non-human enrichment hope to achieve beyond allaying alienation in captive organisms showing signs of stress?

Maps of the Wild

There are interdisciplinary possibilities between theoretical animal studies and the two pertinent science based studies of animal needs: ethology and wildlife habitat restoration. Interestingly "wildlife" is all-organismic and inclusive of anything but urban and suburban, non-human, eco-systemic organisms. But in actuality, the concept of wildness can be applied to all living, nesting and

nibbling niches, as there is no habitat outside of the wild. And, in ethology, there seems to be a tacit agreement that the study of animal perceptual universe is not limited to animals. In this case, the term animal can include the study of the non-human if you are willing to research their behaviours, personalities and/or cultures.

Ethology of Non-humans

If ethology is the study of living organismic behaviour in the field of the wild and, as intimated, there is no life that lives off the map of the wild, then, assuming we accept the term “animal in the wild” to have a fluid definition allowing us to equate the title “animal” to all non-humans, it follows that domesticated humans are also animal non-humans in the wild. We are with our presumed selves where we all wildly are now. Our distinct knowledge of our own animalness should not only limit anthropocentrism but limit animal-centrism as well, in favor of organism-centrism or AOL inclusive ULS. [13] Many ethologists agree. [14] Recent ethological studies have been using a variety of animal behavior analysis techniques to study insects, fungi and cephalopods under the rubric of ethology. Ethologists advise zookeepers on how to keep wild organisms in captivity with the widest breadth of behavioral authenticity available in a “natural” environment. Some ethologists even use animal behavior studies to assess human beings. It is assumed this is to encourage the widest breadth of behavioral authenticity available to humans in a “natural” environment of voluntary subservience, the wilds of domesticity.

People had succeeded in diminishing themselves through a collaboration of ethics and genetics. They have domesticated themselves and have committed themselves to a breeding program aimed at pet-like accommodation. From this insight springs Zarathustra’s specific criticism of humanism as a denial of the false harmlessness with which the modern good man surrounds himself. (Sloterdijk 2009: 22)

This is the problem of assuming the stance of civil kindness, often attributed to deeper understanding of the plight of the alienated and the endangered, as a non-aggressive pose. As we know from the difficult history of kind-cruelties in the human exhibition, assumption of benevolence as a result of comprehension may not be assumed.

Rewilding Strikes a Balance

In the arts, and the larger world, performance of applied stewardship and concepts of rewilding have credence in the ecological equation. According to Dave Foreman, co-founder of Earth First, if we are going to have a green imagination for the future, we are going to have to keep in mind not just other ecosystems but the actual landmass that we need to give back to make fully-flared biomes. The future of biodiversity relies on abundant open spaces. In a non-anthropocentric utopian ethical and aesthetic future we will need to give back one-third to two-thirds of the landmass that we have domesticated. The extensive crust area that has been put under industrial utilization needs to be rehabilitated into vast wild spaces for non-humans and their ecological components of planetary metabolism. These spaces and being denizens are not just preserved as a resource reservoir but are worthy of biophilic freedoms and shared existence maximizations.

Even though in Foreman's view, we are not the stewards of the world, we can provide space for the large carnivores that Foreman's book, *Rewilding North America: A Vision for Conservation in the 21st Century*, refers to as "keystone species" (Foreman 2004: 119). Large and predatory non-human mammals are seen as keystone supports for any ecological renewal of future wildlands due to their sophisticated food chain balancing technics and their role as reminders of the awesomeness of large untamables loose on striated and fecund lines of flight.

Continental scale conservation is the enlargement and broadening of all parks and future park planning. The Wildlands Project is being undertaken to connect parks with green corridors internationally across the US-Mexican border and across the US-Canadian border so large carnivores (e.g. wolves, bear, big cats, etc.) can have room for their habitat standards. This insistence on the international element is important for both the organisms who don't know about mapped inventions of national space divisions and for the global fertile integrity which socially habituated imaginations often disrupt.

Currently in progress, the Wildlands Project is hoping to prevent further mass extinction and stabilize vast tracts of land by re-establishing carnivores to control the food chain. At present mostly gun-toting, human hunters who are left to control deer, moose and other game populations whereas Foreman suggests that this is actually the ecologically sound role we should re-relegate to keystone species. Forman is interested in strictly protected areas with low to no roads and minimal human access which conservation biologists call "core areas" (2004: 169). Resilient diversity spaces should be restored and maintained until the area is able to maintain itself. Interestingly, Foreman asks us to envision a world without large carnivores, where "nature seems somehow incomplete, truncated, overly tame. Human opportunities to attain humility are reduced" (2004: 129). Eventually, wildlife corridors could traverse major cities and the architecture of wide-swathed, urban, carnivorous, keystone species, migration corridors could be designed and implemented with input and other help from those urbanites most prepared to advise on new naturalism in architecture: nudists, zookeepers and inner-city youth.

Scientific Non-human Personality Studies

Working animal behaviour studies into more subjective states, a sort of continental ethology, mostly altruistic ethologists ponder the evolution of personality in octopi. Author Charles Siebert documents a 1993 paper from the

Journal of Comparative Psychology, by Seattle Aquarium staff scientist Roland Anderson and University of Lethbridge psychologist Jennifer Mather, which made non-human history. The journal article entitled “Personalities of Octopuses” was not only the first-ever documentation of “personality in invertebrates,” Siebert writes. “It was the first time in anyone’s memory that the term ‘personality’ had been applied to a nonhuman in a major psychology journal” (Seibert 2006: 50).

It is fair to say that anyone with any amount of quality time spent interacting with animals would concur: animals have personality. Now we have repeatable proof that personality is not just for humans anymore. “In the years since Anderson and Mather’s original paper,” Siebert continues, “a whole new field of research has emerged known simply as “animal personality.” Through close and repeated observations of different species in a variety of group settings and circumstances, scientists are finding that our own behavioural traits exist in varying degrees and dimensions among creatures across all the branches of life’s tree” (2006: 51).

The study of animal behavior has even bled over into entomological personality studies. “In her current research at [UC] Davis, Judy Stamps, a professor of biology and animal behavior, has seen how early experience effects habitat selection in drosophila, better known to you and me as the common fruitfly” (2006: 55). Seibert explains, by comparing early fruit fly childhood experience and drosophila personality, Professor Stamps has found that “Fruit flies born and raised on a plum, for example, will seek out the next plum to settle on, as will the offspring they raise there: a ‘no place like home’ impulse. But in the course of their research Stamps and her students have also encountered everything from overly shy, timorous flies, to bold trailblazers, to downright feisty and ultimately self-defeating bullies” (2006: 55).

Enrichment and Non-human Alienation

Viewed from a posthuman, neocolonial position, these creatures include partial-humans, which is to say supposed humans or transgenic transhumans that are somehow deprived of their natural rites and are showing signs of unrest, anxiety or neurosis. If we look at human culture as encroachment upon the environs of all organismic life, then those encroached upon includes the less than human homo sapiens: the global impoverished, the incarcerated, the institutionalized, those in alienated work schemas or even all non-feral prisoners of cultural mores. This process of becoming aware of lack, scars and bad trips calls for enrichment in the very barren housing provided for those held in authoritarian storage architectures. Tactically, it is perhaps authority as a conceptual practice in actual spaces that is in dire need of alternative enrichment devices to help gird commons destructive behaviours and reduce global stress.

Therefore, contemporary insight into enrichment practice is meant to veer our participants towards a decentering of human exceptionalism. Ranging from captive animals to transgenic experimental organisms to genetically modified, human suburbanites, the cyborg, posthuman visionary question is: How can we enrich the lives of organisms living under patent and legally considered mere variables towards efficient industrial productivity? We can see that the decentered debate on design of enrichment devices for non-human alienation inculcates Homo sapiens [15] under the rubric of non-humans. We conclude that enrichment is an emulation, which redoubles the constraint of confinement.

If pedantic enrichment shores up suburban regimes of complacency, is there another kind of enrichment that might offer realpolitik to captive life? SPK, The Socialist Patients' Collective [16] lead by Dr. Wolfgang Huber is an interesting example of empowered non-human angst beyond sublimation of social diseases, psychic illness or emotional plague. [17] Perhaps as bodies, all bodies show allegiance to those subjected to body alterity and to those able to choose; to

channel communiqués from the avowed, alienated captives to the inured, ignoble and disavowed captive warders.

Notes

[1] A disclaimer on the resistance to the use of the word “god.” Although, your author identifies as being a pantheist (animist), an agnostic and predominantly an atheist, we do tend to reject even the use of the word god in press, especially under the rubric of your author’s pen and without catcalls and Bronx cheers to round out the equation. But, your humble author has found that allowing Spinoza’s use of the word god and hearing out the severely monotheistic philosophy of Spinoza’s *Ethics* is palatable due to the waste he lays to other prejudices and preconceptions which may need equal erasure. We succumb to the word god in Spinoza’s *Ethics* for the confusion it wreaks, the amorality intended and the hilarious position it puts human cultural crutches in. But this is a temporary allowance and I refuse to capitalize this improper noun.

[2] The problem of Umwelt and Lebensraum, or perception in living space, is a problem of resolution. The globe is a vital space, but so is a nationalist- or population-based habitat. In this way, genocidal outpourings can be linked to historical ecology and become normalized in the name of biodeterminism. For this, studies into multispecies inter-perceptual ethology are suggested.

[3] Mention of condors wouldn’t be complete without some links to help us think about the potential art of retrofitting power lines to prevent condor electrocutions. See for example, Arizona Game and Fish Department, “California Condor Recovery.” http://www.azgfd.gov/w_c/california_condor.shtml (accessed January 10, 2011).

[4] See for example, Partners in Flight / Compañeros en Vuelo / Partenaires d'Envol (PIF), "A Fine Line for Birds: A Guide to Bird Collisions at Power Lines" <http://www.fws.gov/birds/documents/powerlines.pdf> (accessed January 10, 2011).

[5] See Heideggerian undisclosability in Agamben's *The Open: Man and Animal*. 71.

[6] I find reference to avatars dangerously eugenic in this area of showcased biopolitics. Bioart often does not necessarily grant dignity to those non-humans used for creative interpretation of complex life world relations. But, I would hope that we could at least talk about "how unlike" digital media is to bio-mediated flesh hacking.

[7] Though I support conservation, the park cultures of institutions like The Sierra Club or the World Conservation Society have an inbred seriousness tied to public relations aura preservation that, in my experience, denies a certain life preserving humorosity.

[8] For more on rewilding, see: Wildlands Network. "Creating Landscapes for Life: Humans Need highways, Wildlife Needs Wildways©." <http://www.twp.org/wildways> (accessed January 10, 2011).

[9] Dr. Kees van Oers version of ethology is couched in the terminology of hard science yet it focusus on personality and individual differences in terms of behavioral fitness. The history of the Netherlands wending of ethology (in some ways attributed to the clarity of Frans de Waal) has allowed for alien, phenomenological and posthuman concepts to drift into scientism's domain, such as: population specific non-human sociology, interspecies or transpecies communication and organismic personality (all individuality - flexible, rigid, striated, bold, off the locus, etc.) as vital for evolution.

[10] Often the non-human being researched is the enrichment designer or the bare human in need of life enrichment both of whom, it can be posited, are ourselves non-human (as posthumans) in a “poor in the world” environment (for example, captives of nation-states under international monetary bread and circus zoo management).

[11] The fashion of a drag king styled as a big hairy, queer bear, or the shimmering strut of a preteen enveloped in a sharkskin zoot-suit can easily be compared to the origin of beards, shoulders and hips which are both inherited fashion and accentuated versions of other animal traits (i.e., iridescence of fish, bold stature of large carnivores, etc.). Our anatomy (neurological as well as skeletal, muscular, etc.) is partially inherited fashion with all the kitsch, cliché and outdated trends which fashion’s petulance implies. See George L. Hersey, *The Evolution of Allure: Sexual Selection from the Medici Venus to the Incredible Hulk*. Cambridge MA: MIT Press, 1996.

[12] “To wait in heavy harness, On fluttered folk and wild—Your new-caught, sullen peoples, Half-devil and half-child” (Rudyard Kipling, “The White Man’s Burden,” *McClure’s*, February 1899: 12.

[13] This is not to alienate those who identify as animists by making an artificial line between the aberrant forces of reproductive life and the supposed material universe of dead rocks and physical forces that move them. There is a quiet contingent of protein biochemists who focus on crystallography and are convinced that crystals are alive. The sun, the moon, a toothbrush and a high tension wire: these are all possible life forces unbeknownst and therefore credible persons for another discussion.

[14] For example, see: Seibert, Charles. “The Animal Self.” *New York Times Magazine*. January 22, 2006: 51.

[15] Are we not cogs in need of something beyond pseudo life?

[16] For more on the Socialist Patients' Collective, see: Vague, Tom. *Televisionaries: The Red Army Faction Story, 1963-1993*. 2nd ed. San Francisco: AK Press, 1994.

[17] The term 'emotional plague' is in reference to Wilhelm Reich's *The Murder of Christ. Volume One: The Emotional Plague of Mankind*. New York: Noonday Press, 1953.

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