

Paradoxical Bodies: Animal Human and Machine Hybrids

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Abstract

Many age old assumptions and practices are coming into question, long held views about nature, human nature, about the definition of life are being re-examined and in many cases abandoned in what has been termed, the emerging BioTech Century^[1]. The proliferation of new technologies and media, advances in biotechnologies and genetic engineering are provoking a re-examination of the constitution of the terms “nature”, “human” and “machine”. Subsequently, the re-examination of these “essential” categories are likewise reshaping notions of self, society and other, and provoking some new and potent configurations of what constitutes life. One boundary to be breached in addition to organism/machine is the distinction between animal/human. Current developments in biotechnologies - xenotransplantation, mictochimerism – suggest that biology does matter and that the machine/human coupling is expanding into the machine/human/animal hybrid. In this paper I would like to explore a more thoughtful awareness of the complicated connections between bodies -human, animal, machine, and material bodies. I will look at some early examples of human-animal hybrids and then discuss an interactive and kinetic sculptural art project entitled Pelt (Bestiary) that explores some of these ideas. In Pelt (Bestiary) I wanted to give digital technology back its pelt. To bring the bestial and the messiness of the world back into the realm of digital technology; to continue my work in grounding the digital experience in the material realm.

Paradoxical Bodies: Animal Human and Machine Hybrids

The proliferation of new technologies and media, advances in biotechnologies, and recent work in ecology and materialism are provoking a re-examination of the constitution of the terms “nature”, “human” and “machine”. Subsequently, the re-examination of these “essential” categories are likewise reshaping notions of self, society and other to include other non-human forces. For some this has been cause for a re-entrenchment of Cartesian or humanist ideals and a re-inscription of familiar cultural narratives in these new domains. But new technologies and media also have the potential to challenge traditional assumptions in interesting and unique ways and to provoke some new and potent

configurations.

One of these new configurations come from the fields of Artificial Life. Artificial Life is a term assuming a new importance in light of research in emergent, intelligent behaviour among complex systems, networks and machines. Artificial Life advocates for an evolutionary, materially based, context driven model, a model that understands intelligence from the perspective of systems that are physically embodied in the world: in other words, in complex and changing environments.

This model, often termed “bottom up”, is a strategic term and differs significantly from the hierarchical approach of traditional or classical Artificial Intelligence which focuses on the idea of representation of the world rather than action in the world. Artificial Life’s approach of situated, adaptive, reactive and embodied systems provides a unique model that takes into account and responds to the post-millennial climate of accelerating technological change and its attendant social and political change, while raising provocative questions around issues of representation, simulation, and the uncanny persistence of antiquated cultural narratives in these new fields, narratives of transcendence, of the separation and privileging of mind over matter. Based in keen observation of animal and human perceptions, actions and cognition, it represents a new model for approaching art and life that is not human-centred nor anthropocentric. This concept of emergence - of behaviours emerging out of their own accord based on simple rules and interactions in a dynamic environment counters the model of the discrete, sovereign body. The Western notion of the individual who functions as a discrete entity, contained by the impermeable boundaries of the skin. In this view, as Margrit Shildrick states, “the body is reduced to the status of personal property, to be modified at will: cut up; supplemented by prostheses; or have its part replace by organic material from other bodies.”[2]

All of these questions have the potential to challenge the humanist litany of dualities and the view of a technological telos – technological research as an inevitable, evolutionary march forward. The French philosopher Michel Serres suggests that humanity should make a new nature contract to replace the old outdated social contract. As many scientists are increasingly becoming farmers and bio materials and reproductive technologies are creating new hybrids, perhaps a new contract could be one of integration rather than subjugation[3]. It is interesting to note that the cow and

the pig are among the animals most compatible with human beings for transplants and gene transfer technology. For example, the porcine heart valves commonly used in humans - surgeons have been able to transplant heart valves from pigs into patients for more than two decades. Made from the animal tissue of specially bred pigs, the prosthetic valve is mounted on a sewing ring made of metal or plastic, sheathed in a knit fabric (usually Dacron or poly-tetra-fluor-ethylene), which is sewn into the orifice of the natural valve. Another area is xenotransplantation that is the transfer of living cells, tissues and/or organs from non human animal species into humans.

In this paper I am trying to explore a more thoughtful awareness of the complicated connections between bodies - human, animal, machine, and material bodies. For political theorist, Jane Bennett, agency emerges as the effect of arbitrary configurations of human and non-human forces. She suggests that agency is distributed and not the sole domain of humans and asks us to consider the vitality of non-human forms[4]. I will speak about an ongoing project that I have been working on entitled, *Pelt* (*Bestiary*), that touches on some of these ideas.

Representations of aberrational human forms are common to all cultures and all historical periods. But excessive bodily hair as the iconographic convention of otherness is specific to European culture. While notions of the 'monstrous peoples' have been perpetuated from classical times through the Middle Ages – both Herodotus in his *Historia*, 5th Century BC and Augustine in *Alexandrine Legends* describe the species in detail, but prior to the 12th century, no accounts exist that describe these wild or monstrous men as covered with hair. The wild man remains a European invention, essentially conforming to the inner nature of Western culture. Hairiness is the visual cipher bestowed unto the wild man.

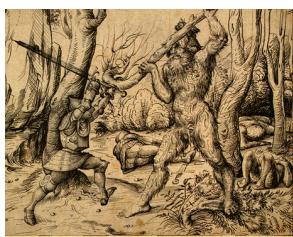


Fig 1. *The Flight in the Forest*, c 1500, Hans Burgkmair
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Typically the wild men were social outcasts, agents of evil, savagery, representative of the 'other'. The wild man is a mythic creation literary and artistic invention who differed from man mainly in his thick coat of hair that left only his hands and feet and face exposed with female breasts. The wild man served as a counterpoint to accepted norms and standards of conduct

in society, and was considered aberrant and a symbol of suppressed sexuality. The Wild Man represented the uncivilized in fearful, physical reality. He was the embodiment of Medieval fear and his terrifying nature made him the focus of a wide range of anxieties and the scapegoat for unexplained calamities and quirks of nature, everything from failed crops to premature deaths. In this image, *The Fight in the Forest* by Hans Burgkmair, the Wild man is depicted covered in hair.



Fig 2. *Moors and Wild Men in Battle*, c 1431
©www.mfa.org

And in the 15th century German Tapestry, *Wild Men and Moors*, we see a double 'othering'. In this series of tapestries the wild men are depicted as serving the 'good', a rare depiction, by killing animals and humans, in this case, the Moors (in the middle ages this meant Muslims of Arabic and Berber descent).

Hair is a unique material, existing simultaneously inside and outside of the body, a liminal site between the internal and external, the private and public realms, a material that is both alive and dead (alive inside the body and dead outside of it). It is an inescapable reminder of our animal nature and highlights the often conflicted responses we have to that association. In the West, hair has historically been associated with the primitive, the inferior, the bestial and the highly sexual



Fig. 3 *The Assumption of Mary*, c 1490-92, Tilman Riemenschneider ©National Bayerisches Museum

In this beautiful medieval limewood sculpture of the Assumption of Mary Magdalene (c1490-92) by Tilman Riemenschneider, we see the penitent prostitute's

legs completely covered with a soft down of hair, meticulously carved in the hard wood. An abundance of hair is also connected with physical and sexual prowess concurrent with intellectual and spiritual deficiencies. An Elizabethan proverb, "Bush natural, more hair than wit," suggesting that an abundance of hair is an indicator of stupidity. Later, a 10th century study by Giovanni Battista Moraglia compared the bodily hair of prostitutes with other women. He came to his conclusion that both very thick body hair and more than the usual amount of down on the face were indicators of sexuality[5]. And in Angela Carter's compelling story, "The Tiger's Bride", she highlights the erotic element of hair. In this contemporary retelling of the fairy tale Beauty and the Beast, hair is linked to sexual awakening. Beauty's return to the Beast in this version can be interpreted as Beauty's self conscious acknowledgement of her desire as a sexual being.

He dragged himself closer and closer to me, until I felt the harsh velvet of his head against my hand, then a tongue, abrasive as sandpaper. 'He will lick the skin off me!' And each stroke of this tongue ripped off skin shining hairs. My earrings turned back to water and trickled down my shoulder; I shrugged the drops off my beautiful fur. [6]

Contrarily, contemporary science fiction tends to depict the cyborg – the hybrid of the machine and the human – as hard, hairless, dry bodies.



Fig. 5. Child Robot, Hiroshi Ishigurothe, 2011
© Ars ELectionica

In contrast, contemporary robot prototypes offers another approach. (I am not sure which one is more frightening.) This four foot 4' child robot with a bio-mimetic body, built by Hiroshi Ishigurothe at Osaka University in Japan is also still firmly rooted in the human as model for life. As does the Geminoid F, a life like female robot, also created by Ishigurothe at the Osaka University. (And clearly not just any human but a young, fit, idealized female).



Fig. 6. Geminoid F, Hiroshi Ishigurothe, 2015
© Getty Images



Fig. 7 Pelt (Bestiary), Ingrid Bachmann 2012-14
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In the project, Pelt (Bestiary) I wanted to explore the potential of a new hybrid life form. I have often had the sense that technology is naked, that is has drifted from its animal roots. In Pelt (Bestiary) I wanted to give digital technology back its pelt. To bring the bestial and the messiness of the world back into the realm of digital technology; to continue my work in grounding the digital experience in the material realm. It involved the creation of textile and other material surfaces that change their form in response to external stimuli. This stimulus includes touch, proximity, movement, temperature, or sound. The project is similar to one's "hair standing on end". When humans become excited or frightened, the arrector pilo muscle at the base of each hair follicle contracts, resulting in the hairs on the body quite literally stand straight up. . In this project I want to give technology back its pelt, to reintroduce the animal, the bestial back into technology, to explore the disruption of boundaries between human/animal/machine to create new hybrids and problemmatize the cultural and historical distinctions



Fig. 8 Pelt (Bestiary), Ingrid Bachmann 2008-12
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between animal/human/machine. It consists of six still, kinetic and interactive sculptures. Some react to human presence, some ignore human presence and others move of their own accord. On the walls, are large scale portraits, drawn in charcoal of the beasts. We look at them, they look at themselves and each other.



Fig. 8 Pelt (Bestiary), Ingrid Bachmann 2008-12
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Their surface is made of a tufted neo-prene rubber, a surface that I hoped would be simultaneously attracting and repellent. A surface that mimics natural fur or hair, but one that is clearly synthetic.

After years of working with interactive media I became I wanted to see how subtle I could make interactive and kinetic works and yet have them still be engaging. I became tired of the spectacle, the one-liner action-reaction dynamic of interactivity. I have always been interested in the idea of tender or even pathetic technology, to use technology for ends that are not productive in the usual sense of the word.

I am currently working on the next generation of the beasts, they will be more hybrid in material, have more autonomous movement, and may be partially dependent on mechanical aids. Automatons that are not at our (human) service. I wanted to generate a more thoughtful awareness of the complicated connections between bodies human, animal, and machine bodies. Janet Bennett theorizes a vital materiality that runs through and across both human and non-human bodies.

What are the consequences if we acknowledge that agency emerges as the ad hoc reactions and configurations of human and nonhuman forces? Perhaps by acknowledging this idea of distributed agency - agency that is not the sole purvey of humans, - we might develop a more responsible and ecological politics.

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