Augmented Simulacra: conditioning the post-digital body

Bill Hill
Jacksonville University
Jacksonville, FL USA
whill@ju.edu

Abstract
This body of work explores the transformation of the human body, both physically and mentally as increased reliance upon electronic technology forces conditions of artificial that replace the “natural”. This Fundamental shift in stimuli becomes a tipping point in evolution.

Keywords
Evolution, Artificial Selection, Interactive Installation, Telepresence.

Post-Body
From the beginning of human existence there has been an innate desire to control and shape both our world and ourselves. The construction of primitive tools from bone has accelerated into a dramatic shift in the evolutionary process of the human species. As the tool making species increases its reliance upon its own constructs, many residual effects work to alter its progress. Throughout time there is, and arguably always will be a universal struggle for existence, but in today’s technological society the factors that dictate survival have shifted to a rupture point where the velocity of human modification of the environment is out pacing our evolutionary adaptation. The basis for natural selection put forth by Charles Darwin, states that ‘through competition, generations of a species will transform or adapt itself with those qualities’. By the simplest of genetic distortion, the ‘fittest’ will survive longer, enabling them to reproduce more often and hence contribute more of their genetic character to the species as a whole. Today, however, due to the increased reliance upon electronic technology and biomechanical engineering, the gene pool itself is shifting in a contradictory direction. The traits once considered assets for survival are now obstacles. As technology further augments the ‘natural’ with the artificial, the more the ‘weaker’ traits of the species will prevail, further perpetuating the reliance upon the artificial for increased productivity. The tools the human species makes in turn make them. Contemporary adaptation is increasingly transformed into an artificial process driven by a social collective, which seeks survival through technology.

The tools created to control the environment are now controlling us, both in how we individually function and collectively as a species. Genetic alterations are shaping our species by this very technology. Those who cannot exist or reproduce naturally are now, through the advent of technological means, living longer and reproducing more. The natural genes, which enabled their dependency upon technology is being passed through generations in an increasing abundance fostering a deeper reliance upon the artificial. Systematic cultural design is transforming the interface we use to know the world, while internally the mind is processing and absorbing a world not based upon natural stimuli passing through the body, but understanding itself from the artificial.

Biomechanical technology seeks to alter the physical body through artificial selection. From the advent of external limbs through the recent development of genetic engineering, a progressive restructuring of the physical body is occurring. Almost all cultures, both past and present, practice some from of body modification. The oldest human remains found to date, the five thousand year old mumified body of a man frozen in the ice of what is now the Italian Alps, had tattoos. However palatable the current trends of body modifications are, the future offers more exaggerated displacements of the current body image, encouraging a deeper rift between the natural and the artificial.

As an artist, I am concerned with the impact technology has over our collective development and how it further embeds itself inside of us. The notion of socially directed body modification dates back thousands of years, the Greek “super-anatomical” sculptures helped to invent the ideal form, the 19th century development of moving pictures illustrated the behavior and movement of that form, but it wasn’t until the technological development of “X-Rays” that the real notion of the body changed. Today, through physical examination and reliance upon machines, we can communicate directly with the body. What the patient know is untrustworthy; what the machine knows is reliable, and those machines are shifting.

Technology is not just a tool. It is information, in that it shapes how we think and in the absence of an alternative reality (i.e. nature) what we think about and know.

Black Lung, (figure 1) an interactive sculpture, responds directly to the technological restructuring of the body. This piece consists of a compressor and a motor driven valve system, which allows the artifice to simulate a working lung in the human body. Additionally, a motion detector is added to the compressor to emphasize the need for social approval in order for the machinery to successfully augment the body. This motion detector is hooked solely to the
compressor so that without the reinforcement of an audience (the masses) the machinery continues to control the physical body but grinds away unproductively. The single lung expands and contracts inside a human rib cage, pointing to the simplification of the current biological system. The entire work is mounted to the exterior of a steel box, a sign of the industrial revolution. The body becomes the skin of the machine controlled unknowingly by a passive community.

The metal box acts as an artistic reference to the pedestal of “High” art, which seeks to elevate the work from the grounding of functionality. Here the use of steel is a direct reference to the manmade alloy that serves as armor to protect the body, but ironically is functioning inversely. Similarly the organs of the body are presented outside and exposed along side the gears of the machine that is controlling the body; nothing is hidden. Aside from the literal interpretation of the need for machine to control the body and the need for other to control the machine, this work seeks to examine the very need of a body at all in a post digital world. Conceptually, Black Lung refers to pneumoconiosis developed from inhalation of coal dust that destroys the body’s ability to regulation oxygen; the natural is harvested to the increased reliance on the processed. The individual is disrupted to provide for the collective, the destruction of the one body for the machine.

Conversely, Belay (figure 2) consists of 21 handholds attached to a wall that is 24 feet in height. Positioned at the top corner of the wall is an organically suspended sculpture with a video viewer. There is a direct reference to the human anatomy through the abstraction of the esophagus form and the video loop with resembles the view of an endoscope inserted down the throat.

Using mechanical spring contacts that compress with weight the piece tracks the users progress and rate of ascent, which then sets the frame rate of the video once all holds, have been used. Conceptually this work examines the parallel structure of control placed on exploration. Whether it is the biological investigation of the human body or the human exploration of the natural world, both are limited by the constructs of the system.

In examining the physical and social aspect of interaction, this piece seeks to engage the audience through a direct and overt methodology. Simultaneously it seeks to look inside the body both physically and emotionally with a direct reference to physicality and biology.

As our collective culture and our physical bodies coalesce with technology there is an essential and traumatic remapping of our physical and psychological networks. These electronic works are concerned with the transformation of the human species, specifically its biological components and it behavioral characteristics. This transformation or evolution is an environmental reaction to the manifestations of science and technology. These works examine the need to address the physical body and how the action of users needs to be interconnected with the interface and content of an interactive piece. From the development of opaque sculptural input devices to the use of transparent technologies these interactive works seeks to examine the process of conditioning users; their predetermined interaction and the physicality of computing.

Electronic technology not only invades and alters the body but it fundamentally reforms the cognitive process of the mind. As the computer becomes more integrated with the developing mind, especially as an interface with knowledge, it shapes not only our understanding, but also ourselves. We are becoming a hybrid of the machines we use. By its very nature, Machines replace the activity done by humans, to displace the labor and the interaction with the natural. Additionally, in an effort for immortality, we develop machines to foster an illusion that our body and mind are separate. But when the receptors of knowing
change so do our understanding and we can never return to Plato’s cave. This not only impacts the function of the body, but the environment in which the human interacts and knows.

Michael Foucault, in his text *The Order of Things*, refers to these spaces that disrupt conventions of order as “heterotopia”. Heterotopic sites seem familiar, as they are subsumed within a society’s conventional ordering system that links them to other sites, yet they are unfamiliar in that they simultaneously contradict the premises by which these relationships are sustained. Therefore the complexity of these machines destabilize the seemingly straightforward transcription of real space and create not only an inverted but parallel space. We know ourselves and our word thru mediated experiences with a disrupted reality, or to use Foucault’s word an *aemulatio*; the idea that patterns of resemblance can occur between things despite the spatial distance separating them: “There is something in emulation of the reflection of the mirror: it is the means whereby things scattered through the universe can answer one another.” Of course, the problem is which is the reflection and which the reality? Foucault responds by stating that “emulation is a sort of natural kinship existing in things; it arises from a fold in being, two sides of which stand immediately opposite to one another.” As a result, multiple ‘realities’ are juxtaposed. It is even more intriguing to consider the mediate experience as unique sites in which the fictive space of utopias and the real space of heterotopias converge. The “mirror” is a utopia in the sense that it projects a virtual space behind its surface, a space in which the observer is misperceived as being present. Conversely, the mediate space is also heterotopic due to the oblique manner in which it affirms the observer’s position in real space: “it makes this place that I occupy at the moment when I look at myself in the glass at once absolutely real, connected with all the space that surrounds it, and absolutely unreal, since in order to be perceived it has to pass through this virtual point which is over there.”

In our contemporary post-industrial information society the machine is not only eliminating the human factor in the work environment but is affecting communicative behavior and interpersonal relationships. Virtual interaction is generating a nomadic citizen increasingly identified with abstract and distant symbols offered by electronic culture. *Nomadic Dominion* is a projected immersive interactive environment, with a mixture of photo-based panoramas and computer generated environments and objects. Users wearing red/blue stereo glyph glasses navigate through a hyper-real simulated world using didgeridoos to guide them.

Nomadic Dominion (figure 3) is using telepresence to allow a person to feel as if they were present, to give the appearance of being present. It is focusing on the environment as a metaphor for the artificial dependency, which is inherent in our species. We tend to force external changes rather than internal. The land is modified. As soon as we put down roots and begin agriculture we start the process of modification. This environment is the predecessor of virtual reality. We don’t follow food; we manufacture it. We edge our lawns, plant crops in rows, reroute rivers, and use pesticides, all to reshape the natural into the artificial.

As Eduardo Kac states in his article on *Telepresence Art*, “at its best, interactive art implies less stress on form (composition) and more emphasis on behavior (choice, action), negotiation of meanings, and the foregrounding of the public who, now transformed into "participants," acquire a prominent and active role in shaping their own field of experiences. The role of the artist in interactive art is not to encode messages unidirectionally but to define the parameters of the open-ended context in which experiences will unfold.”

While Foucault challenges the mediated space as an alternate structure that stand in binary opposition to the “real”, Jacques Lacan finds the reflective other as both external and affirming. In his theory of the mirror stage, a child encountering a mirror realizes that he or she has an external appearance. From a psychoanalytical perspective prior to this recognition the “I” of identity is a primordial form, but afterward it is objectified in the dialectic of identification with the other. From here language works to restore them into one universal subject. At this moment in a child’s development, they recognize themselves as a uni-
ified image, as a whole self. Once this occurs the child will no longer see the reflection as projected other, but rather it projects consciousness into the image and transforms it into “self”. Arguably this is one of the first independent actions of a child, while still nursing, unable to walk, and prior to language; they place consciousness into an external image that they control and see it as perfection. Later this ideal will add tension to the self as something that can never be matched, a fiction to be lived up to, while creating a desire to be whole with the other. Although we sometimes feel alienated from our “self” we see in the reflection a unified whole.

Contemporary reflections of self and the other are mass-produced and distributed through various projected means along an electronic umbilical cord feeding our conscious and subconscious selves. The blending of this artifice within the make up of the self is wholly infused with identity and is widespread. This is evident in the pervasive use of social media and digital recordings to document ones tangible existence through virtual means, #selfie. But it also transfers into mass consciousness as the ideal is mass-produced and disseminated into a world where the physical is becoming increasingly blurred into a virtual understanding of self. We are increasingly faced with an integrated dialectic that conflicts with traditional views of identity and relies upon simulated projections detached from and isolated in time and space.

As Émile Littré once stated “Whoever fakes an illness can simply stay in bed and make everyone believe he is ill. Whoever simulates an illness produces in himself some of the symptoms.” Art of the new media can be seen in binary approaches with the human body; robotic in the sense of augmenting or replacing the action of the physical or telepresent in the sense of bypassing the physical receptors. In both they strive to construct symptoms though a simulation of something that can no longer be considered real.

Similarly The UnCultured Pearl (figure 4) is an interactive video that has a direct one to one relationship with the viewer. Using a video-tracking camera mounted on the ceiling. The work tracks the users proximity to the video screen. As the user approaches the screen the figure treading water on the screen submerges. The closer the viewer comes to the screen the deeper the virtual figure descends.

Conversely, as the viewer moves away from the screen the virtual swimmer ascends to take another breath. Conceptually this work examines the parallel structure of control placed on exploration. Whether it is the biological investigation of the human body or the human exploration of the natural world, both are limited by the constructs of the system. Using the metaphor of a Bow and Arrow, the more one pulls inward, the further out they can thrust themselves. Here the audience is forcing the figure to submerge while at the same time they come closer to examine the details. Time slows to a stand still as the two are at the closest points. This submerged figure acts as a digital mirror of the collective self.

Here the work is less about the developing the illusion of an open-ended experience, but to restore a Brechtian perspective in the audience and reconnect to the limitations of both simulation and the body. Building upon this physical interaction, the work explores the transcendental spectacle that is secondary improvisational theatre. The audience is both participant and performer creating a secondary performance for others. Similar to the early flaneur, who would stroll down avenues people watching or gazing at merchandise of a consumer dream world but today’s digital world shifts the purpose and function of the body.

References

5. Ibid

Author Biography

Bill Hill is a tenured Associate Professor of Intermedia. He served as Dean of the College of Fine Arts at Jacksonville University for 9 years and has 20 years of teaching experience. He holds a Master of Fine Arts degree in Electronic Intermedia from the University of Florida. His artwork has been exhibited internationally at festivals, galleries and museums, including Siggraph’s Annual International Conference. His work has been published in numerous periodicals and newspapers including Computer Arts, Exposure and Leonardo, in addition to the book entitled “Art, Technology, Consciousness: Mind @ Large”. Presentations on his work have been given at national and international conferences including Siggraph, College Art Association, International Conference on Computer, Communication and Control Technologies, and Consciousness Reframed.