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Species Art? The Theme of « Technology as Species » in the Work of Electronic Artists

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For Judith BUTLER the body is the materialization of the norms with which the subject identifies in order to constitute him/herself. But it also corresponds to that which exceeds these norms, to the extent that it is this element which never completely conformed to the norms which it materializes. To put it differently, the body fails to be the linguistic or visual sign which describes it, it is incapable, in a culture where the dominant sexual organization is heterosexual, to reproduce, for instance, the « masculine » or the « feminine » which it seeks, by necessity or obligation. This means that the body re-signifies, re-constitutes the signs which it is supposed to reproduce in the moment when it materializes them.

This failure to imitate the norm makes evident the performative dimension of language and for BUTLER as for PHELAN (the two theorists cross paths here) it is here that the condition for a possibility of change resides. Thus, for PHELAN, if the function of representation is to reproduce the referent, performance is a representation without the possibility of reproduction⁸. This definition of performance is an elaboration of the one developed by John Langshaw AUSTIN in his book *How to do things with words* (1962), in which he establishes the famous opposition between constative and performative statements. On the linguistic level the constative statement is one that describes things in the world, while the performative statement endows language with a particular power ; « saying » something in fact corresponds to « doing » (instead of describing) that which is said. The performative simultaneously becomes the act to which it refers, as in « I promise », « I authorize you », which is a promise, an authorization as such.

In video, one can thus speak of a performance of the body (and not just simply a representation) when the image is what « makes » the body, that is to say when it produces the body, makes it act. Several years ago Jean-Paul FARGIER spoke of the « frame beings » of video⁹. He was not mistaken : that these bodies are ghostlike is of no matter since their effects are real, as in THÉZÉ's *Mnemonic interferences* and KUNTZEL's *La desserte*, where the image becomes the expanded body either of the spectator in front of the image, or the woman represented in the image, in a sort of breathing or living memory. The body in video is in a way an empty signifier, which is powerful enough, thanks to its performative character, to produce an active reception by the subject, whose corporeality is put into question, even if the signifier fails to produce that which it promises to produce. *Interférences* and *La desserte*, moreover, integrate this failure, since here the truth of the body is always, through the materialization-dematerialization process of the image, about to disappear in order to be otherwise re-actualized. This is where, according to BUTLER, one localizes the possibility of what she calls the « futurity » of the body. The failure, the obviousness of the sign « body », is that which is opened up on its contingency, re-identification and re-interpretation.

In following an ethics which joins an aesthetics of video, BUTLER argues in the end run that the new images must allow for the infinite diversity of the body's re-actualizations, to which the inactuality of the subject is linked in relation to the signs which it seeks but fails to materialize. This diversity is part of a logic of connection, to the extent that it disturbs the unity of the subject which is constituted by exclusion of the other¹⁰, and also to the extent that the materiality of video is always confused (in varying degrees, and more less manifestly) with the body it represents. The distance which separates language, video and the body is never certain. This confusion introduces a doubt on the plenitude of what we see ; it is perhaps at this precise moment that the image, according to DIDI-HUBERMAN's formulation, is beginning to look at us¹¹, and thereby destabilizing us. •

¹ Giorgio AGAMBEN, *The Coming Community* (*La comunità che viene*, 1990), translated by Michael HARDT, Minneapolis, University of Minnesota Press, coll. « Theories out of Bounds », vol.1, 1993, p. 44.

² Mary Ann DOAN, « Veiling Over Desire: Close-ups of the Woman », in Richard FELDSTEIN and Judith ROOF, eds., *Feminism and Psychoanalysis*, Ithaca, Cornell University Press, 1989, p. 105-141.

³ Ibid., p. 135.

⁴ see Laurence LOUPPE, « Intermittences du corps », in Thierry Kuntzel, Paris, Galerie nationale du Jeu de Paume, 1993.

⁵ Peggy PHELAN, *Unmarked. The Politics of Performance*, New York, Routledge, 1993, p. 2-3.

⁶ Ibid., p. 26.

⁷ Judith BUTLER, *Bodies that Matter: On the discursive Limits of « Sex »*, New York, Routledge, 1993.8. Phelan, p. 3.

⁸ PHELAN, p. 3.

⁹ Jean-Paul FARGIER, « Deuxième séance : la fiction vidéo entre le cinéma et la télévision », in C.A.C., ed. *Actes du colloque vidéo, fictio et cie. 2^e Manifestation internationale de Montbéliard*, Paris VII, 1984, p. 27-30.

¹⁰ BUTLER, p.103.

¹¹ see George DIDI-HUBERMAN, *Ce que nous voyons, ce qui nous regarde*, Paris, Les Éditions de Minuit, 1992.

Translated from French by Bernard SCHÜTZE

SPECIES ART ?

Mary Anne FARAH

In my continuing research on the significance of electronic interactivity to the relationship between the art object and the viewer, I have noticed that several electronic artists are creating work that embodies the theme of *technologies as a species*.

Technologies Mimic Living Forms

The title alone of Toronto artist David ROKEBY's interactive set up — « Very Nervous System » — used in various art installations and performances around the world¹, implies that the electronic sensors of technologies indicate the existence of an autonomous nervous system analogous to the biologically-based nervous systems of advanced species. The early works of Nam June PAIK which superimpose body parts with technologies — such as *TV Bra for Living Sculpture* (1967) and *TV Penis*² — may indicate that technologies have superseded the limits of the nervous system and are acquiring human form. In his later series *Family of Robots* (1986), PAIK broadened this theme to imply the complete infiltration and replacement of the entire human body with technologies³. Works like this offer, among others, two interpretations : the human form is becoming « technologized » and/or technologies are mimicking the human species.

Family Portrait (1993) relates to PAIK's *Family of Robots*. However, in this work, Montreal electronic artist Luc COURCHESNE explores the issue of information exchange between humans and machines within a social context ; participants can dialogue with machine — dependent personalities which are « aware » of each other⁴. Using this work as a springboard, one can ask whether this suggested « awareness » implies a distinct consciousness or socialization potential of machines.

More like PAIK's robotic works, Australian artist STELARC openly associates technologies with human form through performances like *The Third Hand* (1981+). His oeuvre suggests the inability of the body to cope with modern demands and implies that technologies are materializing as cancerous electronic growths through their echoing of human form. STELARC's perception of the capacity of technologies to change human behaviour and physiology are expressed when he re-

lays, as Marshall McLUHAN did in 1964⁵, that the continuity of the human species may be jeopardized :

Through its success in making technology, gathering information and unplugging itself from the planet, the body has created new evolutionary pressures which threaten the survival of the human species... Although imploding, miniaturized technology reintegrates and amplifies the individual, it disintegrates the species⁶.

If the dominance of technologies threatens the continuance of the human body as it now functions, what does the future hold for the human form ? STELARC claims that the morphology of the body will diversify to deal with the changing demands associated with long term technological use. STELARC proposes that the final result will be the emergence of newly diversified physical forms and the surpassing (or disintegration) of the traditional bodies we presently inhabit :

... just as the splitting of the atom unleashed enormous energies, so the splitting of the human species by imploding technology will generate tremendous biological potential, resulting in an enriched and energizing diversity of the human phylum⁷.

Aside from infrequent texts like Jerry MANDER's *Four Arguments for the Elimination of Television*, it is the layperson's belief that technologies, like television, do not threaten the existence of the body, but serve as independent tools for human use. Hence, their operation and integration is continued with full force. With this consideration, they are not regarded as mere outgrowths of human form or creativity, but are a population unto themselves.

Technologies Reproduce

If one entertains the idea that technologies behave as distinct populations, how do they possess behaviours similar to life forms ; how are their characteristics indicative of living species⁸ ? We can recognize that the demand for technologies to ingest electrical energy is similar to the demand for living forms to ingest food. As a result they also produce waste products : radioactive wastes, toner cartridges, carbon monoxide fumes, etc. However, the work of some electronic artists suggests that technologies have gone as far as mimicking the advanced species-specific behaviour of reproduction. In 1988 Canadian artists Norman WHITE and Laura KIKAUKA presented *Them Fuckin' Robots* to an audience who watched two separately created two robots have intercourse. WHITE stated :

Laura KIKAUKA and I each built an electro-mechanical sex machine (hers, female ; mine, male)... We then brought these two machines together for a public performance. The male machine responds to the magnetic fields generated by the female circuits, thereby increasing its rate of breathing and moving its limbs, simultaneously charging a capacitor to electric « orgasm »⁹.

Related to their reproductive potential, technologies possess species-indicative population patterns, evidenced through their manufacturing and evolutionary cycles. From the assumption that technologies are created to mimic human behaviour, and, given the knowledge that populations function inter-dependently, ecologically-based population statistics may one day seriously involve studying the human/technology inter-species relationship.

New York based artist Perry HOBBERMAN has created a work suggesting the theme of the accumulative population densities of technologies. *Faraday's Garden* (1993) involves an impressive array of domestic and office appliances that are electronically linked to the footpath of participants. As one proceeds into the electronic garden, the weight of each step triggers the switches of the appliances on the surrounding shelves. The substantial number of technologies used in this piece, ranging from slide and film projectors to can openers, blenders, clocks and radios, whir with activity aside each participant. Perry HOBBERMAN says, « Our appliances are coveted and exploited when new, discarded and forgotten when obsolete. We maintain a kind of amnesia about these machines as each is replaced by newer, more effective models¹⁰. »

Technologies Evolve

As HOBBERMAN explains, newer machines are created to respond to stricter performance demands. DARWIN stated that when environmental conditions change within an ecological system, natural selection weeds out less adapted individuals and allows more genetically advantaged individuals to reproduce¹¹. Yet, biological evolution is often slow — incomparable to the alarmingly high turn-over rate that is visible with the development of technologies¹². Nevertheless, it can be speculated that the recurring manufacturing cycles of technologies indicate an evolutionary similarity to that of living species.

To manage this phenomenon conceptually, it is believed that there is an urgency for the human body to evolve or « catch-up ». This has been expressed in works like STELARC's performance *Handwriting* (May 22, 1982, Maki Gallery, Tokyo). With his third arm prosthesis operating, STELARC composed the word « evolution » with his three upper « limbs » simultaneously on a blackboard. STELARC's concern with the theme of evolution is revealed as he often asserts that the human body is obsolete. His usage of *The Third Arm* to suggest the necessary direction of the human species is relayed directly when he states, « When we attach or implant prosthetic devices to prolong a person's life, we also create the potential to modify the future evolution of the human species »¹³.

A Parasitic Relationship ?

There exist many types of relationships between species in the study of biology, for example, parasitic and symbiotic. Initially, technologies may be determined to exist symbiotically with humans, indicating a mutually beneficial relationship. However, once the environmental and physiological damages of various technologies is considered, the relationship between humans and technologies may be interpreted as quasi-parasitic more than symbiotic. The process of the biological infection of humans by viruses provides an enlightening analogy for the speculation that technologies parasite the human species. The analogy that technologies mimic the behaviours of viruses challenges the role and ultimate fate of the human race.

On an aesthetic level only, an examination of « T-even phages », a specific group of viruses, reveals that their twenty-sided heads, coiled tube shafts and extendable mechanical arms are similar to advanced pieces of technology, a lunar module or a syringe, for example¹⁴. When writing about his electronic art, artist Norman WHITE relays, « Turning to the biological level of complication, we would be told that the « lower » organisms exhibit a mechanistic sort of behaviour¹⁵. » This « on/off » mechanistic behaviour is indicated by the inert state of viruses during non-reproductive phases. Although viruses do not ingest food, move, breathe, excrete, they replicate when they come in contact with a host. In the same way, we consider technologies inert, made of lifeless, inorganic materials. Like viruses, technologies replicate at an alarming rate and humans can be viewed as the energetic force behind their proliferation¹⁶. A British physicist, Dr. Stephen HAWKING, illustrates this point with the example of man-made computer viruses where « a computer virus fits the definition of a living system even though it has no metabolism of its own. Instead... it uses the metabolism of a host computer and is parasitic »¹⁷.

An examination of the life cycle of the typical virus leads to a parallel between the parasitic reproduction cycle of viruses and technologies. The life cycle of viruses necessitates that a virus penetrates a compatible host cell. In his writing, STELARC's philosophies unknowingly confirms the virus-like penetration of technologies into the human body :

Technology begins as an external, explosive phenomena away from the body, proliferating in and modifying its environment. This phase culminates with technology encircling, assaulting and finally regulating the body's rhythms¹⁸.

The analogy of « virus entering host » may be applied to STELARC's 1994 performance of *Stomach Sculpture*. For this performance, he created and attempted to swallow a minute technological sculpture that included an illuminating light bulb and expendable mechanical arms. Manoeuvred down his oesophagus, this sculpture can be read as mimicking the role of the virus-like technologies within the human host.

It can be argued that the quality that has rendered humans evolutionarily advantaged over other species is their ability to make tools. It is this « tool-making drive » that has allowed the human species to survive despite its physical mediocrities. This instinct may be interpreted as an internal virus whose DNA program dictates tool production. Norman WHITE's artistic philosophy confirms this assessment :

There has evolved into man's mental nature an insidious quirk which has caused him to become constantly restless, bored with accepted values, images, definitions and such... One shares the growing belief that man's inventiveness has been the primary means by which he has achieved his own downfall. Our inventions have widely spoiled our world, and have led us into the most unhealthy, unfulfilling sorts of activity¹⁹.

This conviction has motivated WHITE to create electronic art that often expresses the futility of technologies, opposing its highly esteemed norm. One of the earliest electronic works exhibited in Canada, WHITE's *State of the Art* (1974), gets its name from this preoccupation. In this piece, WHITE wired electronic circuitry to flash one row of lights at a time, creating an undulating effect that coincides with the sounds emitted by nearby speakers. The work contradicts frequent promises of technology to provide a superior environment ; instead, it basks in its own uselessness and offers little aesthetic reward²⁰. The use of technological materials in WHITE's work may imply a disappointment in the promises of technologies, challenging popular opinion that technologies are created to meet the supposed needs of society.

Viewed collectively, the work of some electronic artists indicates that not only can technologies be viewed as McLuhan-esque extensions of the body²¹, but they also possess distinct species-like behaviours. In some ways, the similarities of the reproductive patterns of viruses to that of technologies may indicate a threat to high-tech human populations. On the other hand, the virus-like nature of technologies may not be external but integral to the human body, having its origins deep within the human instinct of « tool-making ». Being a characteristic of humans, this internal program may indicate the eventual replacement of the human species by a more resilient, « techno-adapted » species. Are some electronic artists visionaries by their ability to collectively, even unconsciously, warn us of this emerging techno-species ? If so, the future holds the answer as to whether or not humans will live in peaceful co-existence with techno-beings or face their ultimate failure. ●

¹ Mary Anne FARAH, « Machines in the Garden: Interactive Video Art — Bringing Video to Life », *Parallelogramme*, vol. 18 (4), 1993, p. 48-54, and, Mary Anne FARAH, « Telematic Performance Loops Toronto and Quebec », *Fuse*, vol. 17 (1), Fall 1993, 41-42.

² *TV Bra* was premiered by PAIK and cellist Charlotte MOORMAN on May 17, 1969 at the Howard Wise Gallery, New York. *TV Penis* premiered during a performance by Stuart Craig WOOD on June 29, 1972 at the Kitchen, Mercer Arts Centre, New York.

³ See Wulf HERZOGENRATH, *Nam June Paik Video Works — 1963-88*, London, Hayward Gallery, Southbank Centre, 1988, p. 36. PAIK also created a human-modelled technological artwork in 1964 titled *K-456*.

⁴ Luc Courchesne — *Interactive Portraits*, National Gallery of Canada, Ottawa, 1993.

⁵ Marshall McLuhan, *Understanding Media-The Extensions of Man*, McGraw-Hill, New York, 1964, p. 70-71.

⁶ STELARC and James P. PAFFRATH, « The Splitting of the Human Species », *The Obsolete Body*, Davis, California, J.P. Publications, 1984, p. 74.

⁷ STELARC and PAFFRATH, p. 74.

⁸ Contemporary vocabulary usage reveals that humans already treat some technologies as though they were alive ; in the same way that living organisms do, computers become « infected by viruses » that endanger their « health ».

⁹ Norman WHITE, « Description of Sixteen Selected Works », distributed to the author April, 1994.

¹⁰ Ginette MAJOR and Hervé FISCHER, *Images du Futur 93*, 14 Mai — 19 Sept, Montréal : Cité des Arts et des Nouvelles Technologies, p. 19.

¹¹ Charles DARWIN, *The Origin of Species*, New York, The New American Library, 1958.

¹² Although the body's immune system can be argued to deal with foreign particles in a relatively fast, pseudo-evolutionary manner, at a macro level the human morphology has not changed its physical shape for hundreds of years.

¹³ STELARC and PAFFRATH, *Strategies and Trajectories*, p. 45.

¹⁴ Ronald M. ATLAS, *Microbiology — Fundamentals and Applications*, New York, MacMillan Publishing Company, 1984, pp. 288, 290.

¹⁵ Norman WHITE, *Norman White*, Vancouver, The Vancouver Art Gallery, 1975, p. 5.

¹⁶ McLuhan stated : « Man appears as the reproductive organ of the technological world. » McLuhan, p. 112.

¹⁷ « Computer Virus a Life Form ? » *Globe & Mail*, August 3, 1994, p. 1.

¹⁸ STELARC, « Triggering an Evolutionary Dialectic », *Obsolete Body : Suspensions : Stelarc*, p. 65.

¹⁹ WHITE, p. 5.

²⁰ WHITE, p. 5.

²¹ McLuhan, p. 71.

CHANGE IT OR KILL ME

Stephen SARRAZIN

Of the nearly five hundred channels that promise Cable TV in America, more than half of them will be showing « real » TV : archives, history, portraits, tourism and travelogues, as well as home shopping, weather and direct theme channels, etc. Moreover, « channel surfing » already permits access to the image banks if one possesses the necessary hardware : in addition to PBS, we find The Discovery Channel, The Learning Channel, The Life and Health Network, Arts & Entertainment, QVC C-Span, which diffuse American Congressional hearings and assist in court trials. CNN and MTV still figure among the top channels on the global scale by inventing within the scope of their thematic mandate new forms of television production ; hybrids issuing forth from their respective identities and from their numerical technological capabilities. For example, at the beginning of 1995, CNN broadcast one part of the O. J. SIMPSON trial and the investiture of Newt GINGRICH, the new Speaker of the House of Representatives, who from now on sits on the right side of Vice-President Al GORE. During the same week, CNN broadcast a daily program titled *Talk Back Live*, with GINGRICH or a representative for O. J. SIMPSON, in which the public interrogated the invited guest, in the studio on camera, by telephone, fax machine, or via the compuserve network. The exchanges could equally be transacted through tele-conferencing. Within the framework of the program, CNN not only created scoops, but