Dancing with the Virtual Dervish : Virtual Bodies

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The hybridization of the body and the incorporation of new technologies into the body itself has given rise to situations that can be qualified as grotesque. In the body, the technological problematic, the immaterial, light and virtual side, with as its image the angel, and the material, heavy and mechanical side, with as its image the monster. The comparison between the art of the machine and technology as a relationship, unlike the immaterial approach with its appeal to the disembodied virtual, is based on the materiality of the body in its prosthetic couplings with technology. The proposition here is to examine the monstrous and grotesque side of the prosthetic alliance between the body and technology, with all the impure mixtures and heteroclitic combinations that it may give rise to.

In the context of the grotesque it is almost always the body which suffers all sorts of alterations, distortions and exaggerations, with the objective of going against the established rules and to reveal the dark side of humanity. The grotesque is amply present in the fantastic universe of science fiction, with its strange hybrid creatures, the bizarre vegetable portraits of ARCIMBOLDO and in GOYA’s depiction of human barbarity, to name but a few. In these works of the grotesque the body becomes the theatre of a variety of possible, and usually unnatural, reconfigurations. The cave is the place where these deformations are most at home, it is a closed, dark and often artificial space with a strong symbolic charge.

The techno-grotesque resides in the relationship between the biological body, technology, in their combinations which blur any defining boundaries between the organic and the technological, the human and the machine. The term grotesque is not reduced to the monstrous, but rather to an aesthetic concept which best describes these multiple, excessive and anomalous characteristics that are the basis of monstrosity. The monster, by its very nature, represents the radically other, the inordinate origin which cannot be categorized within an order of succession. With the techno-grotesque it is no longer the biological anomaly which creates the monstrous, but the introduction of the biological into the technological, the technical into the organic sphere where the human and the machine merge, this undefined zone where prosthetic devices make the emergence of cyborgs possible. There where the body slips out of the machine and the machine slips out of the body, is a new form of hybridization, an entangled, endowed with new functions and another perception, and there where the machine is grafted onto the organic, to the pull of flesh, the flow of blood and all the interior sensations of the living body. In the context of the technological body, the hybrid, the organic and the machine merge, this undefined space, endowed with new functions and another symbolic charge.

This future alliance between the technological and the human, this coming of the post-human, is being increasingly expressed in the popular imagination. The science fiction vocabulary is now having become current, where the body is jacked in, wired, etc. is itself indicative of a grotesque view of the body in its relation to technology. In the sensing body, becoming a part to be integrated into the technological, something to be adjusted, re-engineered and made to function within a larger whole. As in the membrane disjecta of the grotesque iconography, the body becomes a machine which can be recombined in multiple ways, but this time, the membrane disjecta are made out of metal and plastics as well as flesh and blood.

In the postmodern age where the multiple, heteroclitic mixtures and artistic explorations have become the rule, one can situate the techno-grotesque at the junction where the assemblies and juxtapositions of the body and technologies create monstrous hybrids, a body wired to all sorts of machines with a relay of information between body and machine, whether it be in the increasingly sophisticated bio-medical application, in space exploration or in interactive experiments. It is common to all these meeting grounds of body and technology is the implementation of prosthetic devices which link and bind the two domains. In those spaces where the body and machine are sewn together and plugged in, the spaces where the prosthetic devices bridge the organic and the inorganic is where the techno-grotesque is most apparent. The prostheses which are divided into two major groups: those which are directly implanted into or onto the body, the neuromorphic prostheses from the bio-medical fields, and those that provide increased perceptual capacities, interface prostheses, cybernetics, neuroprostheses in military, aeronic and communicational fields. The neuromorphic prostheses include among others, auditory, visual and neuromuscular devices as well as bionic limb replacements. These devices bridge or amplify the body’s functions. The interface prostheses include voice recognition, video conferences, virtual reality and telepresence to name but a few. They extend and amplify our perception through communication media.

In the first category it is the integrity of the organic body that is altered, either through implants to the inside or additions on the outside of the body: it is the order of the incorporation of the technological in the organic, the heavy material body, the techno-organic body. The second category is characterized by everything that alters the body through technology. The immediate space of the body, it is the prosthetic envelope. In the first case something is added to the body, and in the second it is the body itself that is added to a larger entity. These two categories can of course be mixed or be combined in a single prosthesis, the gear of virtual reality is probably the closest approximation of a total prosthesis.

The cyborg is a being that integrates these two prosthetic categories, combining the amplification of physical functions with an extension of perceptual and cognitive functions through its integration into broader communicational entities, such as computer networks, which then function as environmental prosthesis. In this process the intelligent machine is acquiring somatic functions, while the body acquires computational functions. Whatever its integration into machine languages and codes.

The body of the techno-grotesque is this wired, amplified and reconstructed body, which finds itself projected into the virtual worlds via the environmental prosthesis. This body has simultaneously become a site of multiple transformations (increased motor capacities, perceptual and cognitive functions, etc.) and an abandoned, empty space (that is left behind while one is plugged into a virtual environment). The techno-grotesque body is this impure construction, not quite organic anymore, and not yet altogether technological. It is not entirely embodied in the real, nor entirely virtual in the disembodied, in its awkward array of wires and plugs, as yet uncertain how to move within the virtual environments this techno-body is in the image of the grotesque.

Translated from French by Bernard SCHÜTZE

DANCING WITH THE VIRTUAL DERVISH: VIRTUAL BODIES

Diane GROMALA et Yacov SHARIR

Dancing with the Virtual Dervish: Virtual Bodies is a collaborative project in virtual reality (VR) by the artist and choreographer Yacov SHARIR. It was funded with a major grant from the Cultural Initiatives Program of the Department of Communications Canada through a two-year residency at the Banff Centre for the Arts in Canada.

Dancing with the Virtual Dervish: Virtual Bodies resulted in several dance performances where the dancer and audience members performed and interacted with a virtual environment in real-time. It gave one to increase the performance field, the virtual interactor experienced created another level of VR in the performance space, and further encouraged participation. The opportunities and limitations of this technological exploration into broader communicational and artistic contexts are entailed in a set of new creative strategies and directions for further technological development. The following notes are derived from the journals of the artists.

Bodies

GROMALA: My first technologically-mediated virtual experience was with my own body when, after surgery. I watched my own viscera being altered and manipulated on a large screen in a research hospital’s surgical theatre. Since then, I’ve insisted on my place in both the subject and object position of this medical discourse: a voyeur of the instrumentality of medi­cal imaging, I collect and personally finance, with
the help of my insurance companies, diverse types of “objective” and “scientific” visualizations of my body. What fascinates me are the crossroads of scientific and artistic uses of these technologies and images, as well as the creative, experiential, and performative potentialities opened by these convergences of visual, fluid and sound, movement and depth, for example, are at once considered to be “objective” representations of my body, yet, at the same time, they bear a marked dimensions of my body. Here my body, through their tools, is enhanced as a site through which social, political, economic, and technological forces meet, often with very real and tangible effect. Here I become a cyborg, both biological and technological elements. At other times during the performance, audience members directly interact with the immersive virtual body through the HMD.

Dancing with the Virtual Dervish: Virtual Bodies explores concepts and experiences of the body on many levels. Visually, sonically, and behaviourally, it was created to provoke reminiscences of the body in the mind, of materiality, growth, and decay. In the virtual — and cyberspaces, this metaphorical representation of an inner body houses all activities in the virtual space, engendering emotional content, a sensitive context, on which the virtual/physical relationship, and indirectly and directly coordinated to, and are triggered by, the issue of interaction with each veil.

As a dancer in two worlds — the simulation and the physical world — I experience my movements in a new way. But in addition, my dance, my actions, initiate cause-and-effect relationships in all worlds, affecting movement-by-movement my own performance, and in the animation of the simulation. Because I can also dance with videograbs of myself in the simulation, I experience a kind of mirror effect. All of these aspects conjure to create new opportunities for experiential computing, a new aesthetic, and new ways to consider creating artworks.

Experimental aspects

GROMALA: The larger design problems which emerged during this project were experiential and behavioral — one does not create a linear, repeatable piece. Rather, one designs worlds of experiential and behavioral possibilities. The experience is based on the users’ potential actions and interactions with the simulation and intelligent agents within it, and the possibility of each user to affect the piece in a particular way, probably unrepeatable. We asked: How does this affect the creative process? How would the nature of creating and experiencing the book be altered? What would it be like to inhabit a book? What would it be like to fly within one’s own body, a body in constant motion, a body which contains nested levels of other-worldly places which unfold, fractal-like? What new role might a user play in this interactive world? Can the performative/shadow experience be considered dance?

In some circles, virtual environments can be considered to be multimedia, taken to one extreme: the text, sound, video, animation, and interactive elements. In an immersive experience, one that allows users to interact with the environment to an unprecedented degree. In addition to a nonlinear experience comprised of multiple media which can engage visual, auditory, cognitive, and kinesthetic senses, an immersive environment may engage kinesthetic and haptic senses. For example, in later versions of Virtual Bodies, certain areas responded to motion detection, or an audience member’s body and the body of another dancer entered a certain area and flew into an inner, otherworldly chamber. Depending on how they approached the text, however, they may also find that it began to devour in a kind of digital, and at times the user must move between the inner and outer worlds, between the visual and the physical. No longer linear, each user will affect the piece in a particular way, probably unrepeatable. We asked: How does this affect the creative process? How would the nature of creating and experiencing the book be altered? What would it be like to inhabit a book? What would it be like to fly within one’s own body, a body in constant motion, a body which contains nested levels of other-worldly places which unfold, fractal-like? What new role might a user play in this interactive world? Can the performative/shadow experience be considered dance?

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The nature and the beast

GROMALA: Like GUTENBERG’S invention of the printing press, virtual technologies enable us to extend our will and ability to act upon the world through textual means. What is different about the more recent technologies, however, is the reach and scope of these tools, their instrumentality — their ability to allow us to see both inward into our own bodies and outward to the universe, to diffuse and consolidate power and distribute it, to create and then destroy a context that enables us to alter our relationship with ourselves and others to an unprecedented degree. Or is it?

Creating Dancing with the Virtual Dervish: Virtual Bodies presented a different problem, because one does not create a world — open to user interactions, the piece necessitates a non-linear, open-ended, almost fragmented composition. In addition, we collaborated for two years with a team of three computer scientists and a highly computer-literate art assistant.

Dance

SHARIR: Dancing with the Virtual Dervish: Virtual Bodies is among the first VR projects to synthesize immersive and interactive digitized dance in a performance environment that includes the performer in the physical/performance space as well as in the simulated virtual/cyberspace, I have experienced physically and spiritually intertwined senses of embodiment and disembodiment, senses that the VR performances opened up to dance. Additionally, the limitations of performance in restrictive VR gear affected and became creative forces in my choreography, as did the very nature of the technology itself.

In dance, chance operation, as it is generally understood, originates in chance decisions, which ultimately are reversed into a linear sequence, by which performance can be repeated. However, the nature of the simulated virtual/cyberspace, I have experienced can be taken further, as the chance is dependent upon the dancers’ interaction with the computer simulation itself — resulting in not one but a number of possible actions and consequences, which are significant to the unpredictability.

The VR technology tends to blur disciplinary boundaries by changing the nature of what and how artwork is created, realized, and performed. Because one must create a world — open to user interactions, the piece necessitates a non-linear, open-ended, almost fragmented composition. In addition, we collaborated for two years with a team of three computer scientists and a highly computer-literate art assistant.

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An installation such as this makes it evident to what degree the notion of the representation of the body in video is inappropriate. It would, indeed, be more accurate to speak of a performance of the body instead, since the image no longer serves as the functioning organ or reference to a body that exists prior to its representation. The videographic performance of the body is the movement made by the body as biological unit, it is that which does not cease to call into question the status of the body as a separate one, as a skin, as an independent and self, whose normative function based on which one distinguishes the so-called sick body from the so-called healthy body is to ensure a coherence, a distinction and distance between the self and the other.

The destabilization of the body in video may take on different forms, but mostly it takes on the form of two simultaneous operations: on the one hand, a putting into play of the body's limit, the skin, and on the other, an always failed attempt to reconstitute its borders. It is as though it were no longer possible to fully and permanently ensure the impenetrability of the body, its impermeability, its distinctiveness, its difference. The destabilization is, therefore, and this is my hypothesis, that which triggers an uncertainty as to its limit; it is an image which raises these questions: Where does the body end and where does technology begin? How does one distinguish identity from alterity? These are questions which Mnemonic Interferences; and video in general, try to answer and that is what I hope to have done in a fragmentary and limiting sort, but a failure which I would nonetheless qualify as productive.

This question of the limit also brings with it the question of the visible. The destabilization is not yet developed on the level of image production content. In video, not only make visible a different body, it must also put into play a difference which modifies the status of the visible. In video the visible, as the field of what is possible to be seen, is transformed, which can be perceived, or is made perceivable to the senses, is that which is constituted precisely where the body fails to maintain itself as a unit. In other words, the video destabilization of the body does not only consist of a different body (those bodies which the norm excludes from subjectivity—women, gays to name but two groups), but also of a body called into question by the vacillation of the visible, that is a body, which although it appears as actualized in an image, fails to be stabilized by this actualization. The key question, within the context of this inquiry into the destabilization of the body in video, is therefore, what role do the folio which represent a different body? Or to put yet another way, and here I paraphrase and reformulate the Italian philosopher Giorgio AGAMBEN: How can one confer the visibility of the visible, that is the body, which the image would be thought in the light of what must exist as potentiality but an ethics? It is in the end a matter of thinking the image in the light of subjective experience of potentiality through a layering of the inaccuracy which is proper to being.

A second video, La desserte blanche (1980) (The white sideboard) by Thierry KUNTZEL, is crucial in this regard. Here we are dealing with a representation of the body which is being formed directly out of the tension of the visible and the invisible. In the process of materialization and dematerialization. Here, the image's workings cause the body to function as a potential body which is rendered by the body's failure to stabilize the visible. If this failure is what allows for the body's future actualizations, it is because it corresponds to the body's incapacity to ensure its limit: the - skin - which is not to be confused with the skin of the image and the electronic scanning. Through this electronization of the body, the visible does not only bring the body into view, it also shows dissolution, which is, moreover, never irreversible.

So what do we mean by different body? One must first specify that the body of La desserte is not just any body, since it is the body of woman (in an iconography borrowed from MATISSE). This means that the dematerialization of the image is only possible because it is performed by Western philosophy. A priori, therefore, it seems that this video only consolidates the metaphysical dematerialization of a woman, since it uses it as the support for his dematerialization of the image. In addition, it is in the video Close-ups of the Woman (1989), Mary Anne DOANE1 argues that the images that perturb the readability of the feminine body in this way (as in La desserte) are those of Joseph von STERNBERG, for example, do in fact nothing more than restate woman as non-subjectivity. This is certainly true. La desserte, however, goes further. On the contrary the feminine body is that which in itself, and not in a reflection in the image, because the disappearance of the body, and here I draw on an idea formulated by Laurence LOUPPE, is always reversible. A body is not a closed system but to better reaffirm itself, to spread itself, change, gain in momentum a bodily virtuality is established precisely through the materialization-dematerialization process. Such is the body of La desserte: not a body of woman reproduced in its difference (excluding that which is already excluded) but a body that affects the visible representation of representation. Two feminist publications (especially if they are read in parallel) are, in my view, crucial for an examination of the possibilities of this re-signification of the body: Unmarked. The Politics of Performance (1993) by Peggy PHelan2 and Bodies that Matter (1993) by Judith BUTLER. The key-word is performance.

For Peggy PHelan, if the image is a performance it is because it is always more than it mediates: it is, moreover, never an absolute reproduction of what is real. The image is the closure itself for the lack of equivalence between the real and its representation. The body must be therefore represented as this element which can never be finally resolved. In other words, and this is the ethical, feminist, and in the sense that PHelan develops in importance, the representation of the body must integrate the incompleteness, loss, disappearance, and also the visible. Here we are at the confines of Mnemonic Interferences and La desserte.

Nonetheless KUNTZEL's La desserte still permits us to push PHelan's proposition a little bit further. In elaborating a reversible disappearance of the body, this monoframed integrates a sense of loss which no longer corresponds to the pure and simple loss of a feminine body.

In fact, would not such an interpretation end up simplifying the question? One could reasonably assert that this lost something (for example the feminine body) must remain irremediably lost? If we pay close attention to what is written in PHelan's Unmarked this something is in fact a body of woman, the excluded category of the Symbolic, which haunts (like a ghost) the confines of the representational visible. The lost is a Real whose absence one must accept, because, in PHelan's opinion, PHelan develops in importance, the representation of the body must integrate the incompleteness, loss, disappearance, and also the visible. Here we are at the confines of Mnemonic Interferences and La desserte.

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