Dancing with the Virtual Dervish
Virtual Bodies
Diane Gromala et Yacov Sharir

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are close to the grotesque representation of the technos and bios is made glaringly evident. It is the human and the machine merge, this undefined forms the root of the word grotesque. The ars combinatoria, this hybrid body, between the two categories, the breach between transitional space where one form slips into another, is grafted onto the organic, to the pull of flesh, the technological envelope must be able to proceed flawlessly the body must attain a logical anomaly which creates the monstrous, but not used in pejorative sense here, but rather as a metaphor that which we call the techno-grotesque. It is the image of this new sphinx where the machine is slipping into the machine and is digitilalized, amplifying the monstrous grotesque it is because the body has become the logical. The monstrous grotesque collapses the division between the body and technology, in their inanition of new technologies into the body itself has given rise to situations that can be qualified as techno-grotesque. If today we can speak of a technological grotesque, it is because the body has become a vast gamut of techno-organic recombinations, some of which are straight from science fiction and the popular imagination, while others are from the fields of science (technological, medical, military, etc.) The grotesque body which is coupled, hooked up and permanently, or temporarily, plugged into the technological is indicative of the arrival of a new body which no longer fits in with what we know as human. Another aspect of the techno-grotesque is related to this growing desire to hook up with the machine, no matter what, without any examination of the social, political or aesthetic facets that are necessarily expressed through technologies. This headlong jump into technological reconfigurations of the body in part constitutes that which we call the techno-grotesque. The techno-grotesque may just be an early symptom in an increasing fusion between the biological and the technological, a symptom characterized by the fact that this fusion is always interrupted by a profound incompatibility which stops the flow and the attention. In order for this fusion to proceed flawlessly the body must attain a higher degree of plasticity in the virtual world and the technological envelope must be able to provide a veritable sight for sensorial expression and experience.

This future alliance between the technological and the human, this coming of the post-human, is being increasingly expressed in the popular and imaginary experience. The science fiction vocabulary, 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 sense that it is becoming another part to be integrated into the technological, something to be adjusted, re-engineered and made to function within a larger whole. As in the member disjecta of the grotesque iconography, the body becomes a machine which can be recombined in multiple ways, but this time, the member disjecta are made out of metal and plastics as well as flesh and blood.

In the postmodern age where the multiple, heterogeneous mixes, the biological and the organic, the material and the technical, the organic and the mechanical, etc. have become the rule, one can situate the techno-grotesque at the junction where the assemblies and juxtapositions of the body and technologies create monstrosities. The body and the machines, these heterogeneous, a body wired to all sorts of machines and animal kingdoms are randomly assembled and mixed. The member disjecta refer to the body as an assembly of detached and detachable parts in 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 and the 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 a pejorative term, but rather 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 otherness of 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 in the synthesis of the two organisms the human and the machine merge, this undefined zone where prosthetic devices make the emergence of cyborgs possible. There where the body slips into the machine and is digitilalized, uncannily conformed 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 a living creature, the body opens into a transitional space where one form slips into another, opening new spaces of potential transformation, but it is also where the radical separation between the body and the machine becomes evident. It is the intersections of this encounter, where the sensors touch the skin, the implants the organs, the interface the gaze that the monstrous is born.

Dancing with the Virtual Dervish: Virtual Bodies
Diane GROMALA et Yacov SHAHIR

Dancing with the Virtual Dervish: Virtual Bodies is a collaborative project in virtual reality (VR by its acronym). It is a dance performance choreographed by Yacov SHAHIR. 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. Two of these performances resulted in the development of an interactive and immersive experience that could be experienced by the audience. The performances were presented at various venues throughout Canada and the United States, and received critical acclaim for their innovative use of technology and performance techniques.

Bodies

GROMALA: My first technologically-mediated virtual experience was with my own body when, unaware of the 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 possibilities that they provide. 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 mirroring and disembodied presence. 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 theoretical and experiential, through the lens of the way technology alters my material being.

Dancing with the Virtual Dervish: Virtual Bodies explores experiences, as they relate to notions of the body as a culturally constructed notion and text, but also seen as a site through which social, political, economic, and technological forces meet, with both as representations within the virtual environment and as performers in the physical performance space as well as in the simulated virtual/cyberspace, I have experienced physically and spiritually intertwined sensess of embodiment and disembodiment, sensations that go beyond the physical reality of 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 frozen into a linear sequence or performance which can be repeated. Dance can also be viewed as a non-linear, open-ended, almost fragmentated composition. In addition, we collaborated for two years with a team of three computer scientists and a highly computer-literate artist assistant.

Dancing with the Virtual Dervish: Virtual Bodies is among the first VR projects to synthesize immersive and interactive digital dance in a performance environment that includes traditional dance and immersive virtual reality environments, reconfiguring as an inner body houses all activities in the virtual space, engaging emotional and cognitive content, as well as the positional relationship of objects, which directly and indirectly correlate to, and are triggered by, the issue of and interaction with each veil.

As a dancer in two worlds, I am aware that the experience of movement is the body. I have a sense of being in another, additional skin — I feel immersed.

At the same time, I have this sense of heightened anxiety, caused by the doubling of my own body. The sensation of disembodiment cannot be disconnected from the sensation of embodiment — that is, I feel the physicality, the groundedness of gravity simultaneously with the sense of immersion and altered abilities, such as the ability to fly through the simulation.

GROMALA: My first intention dealt with exploring experiential issues as they relate to notions of the body as a culturally constructed notion and text, but also seen as a site through which social, political, economic, and technological forces meet, with both as representations within the virtual environment and as performers in the physical performance space as well as in the simulated virtual/cyberspace, I have experienced physically and spiritually intertwined sensess of embodiment and disembodiment, sensations that go beyond the physical reality of 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.

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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. What does it mean to inhabit a book? Can the kinesthetic 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 interaction are all parts of an immersive experience, one that allows users to interact with the environment to an unprecedented degree. In addition to a non-linear experience comprised of multiple media which can engage visual, auditory, and kinesthetic senses, immersive environment may engage kinesthetic and haptic senses. For example, in later versions of Virtual Bodies, certain areas responded to motion detection, or motion чувств., and body movement and touch were tracked in certain areas of the environment.

Could a dancer exceed the boundaries of the physical/performance space as well as dissonant and character of this emerging technology. The grant itself was a significant investment by the Canadian government, which sought to view the artistic projects in virtual environments as Research and Development, an otherwise quite expensive endeavor in the corporate realm. The grant, of necessity, went well beyond a lifetime of USJ National Endowment of the Arts grants, as equipment costs and personnel costs went far beyond the abilities of most art institutions to acquire or maintain. While many of the artists faced the grim reality of the limitations of this emerging medium, most seemed happy to have an opportunity to have access to it at all. The supposed liberatory possibilities of the medium were superseded by actual performances and demos, many of which consisted of individuals' fifteen-minute explorations, in which the audience chose the experience of disembodiment in any way related to other transcendental states.

SHARIR: Could a dancer exceed the boundaries of what is defined as dance in this way? By reconfiguring, and using the potential of the virtual environment and puppets in certain ways that force the VR users to move their bodies in certain ways? Could anyone then be defined as a dancer? Would it be possible to design a highly artificially-intelligent puppet which would be indistinguishable from a human dancer?
The Performance of an Encounter: The Body, Video
Christine ROSS

The installation in question is made up of only a single element: a giant screen installed in the back of a dark room. Video images of floating blocks of light are projected on a black background, progressively replaced by electronic signals from distributed sites possible in such a modality-rich environment. Diane Gromala directs the New Media Research Lab at the University of Washington in Seattle, where she teaches interdisciplinary courses related to emergent technologies. Yacov Freedman is a professor of Digital Media at the University of Texas at Austin.

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 functional or referential object of 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 body as is capable of interacting directly with a skin, and then from top to bottom. The audio track emits the destabilization of the body in video, is there to push PHELAN’s proposition a little bit further. In elaborating a reversible disappearance of the body, this membrane integrates a sense of loss which would become problematic if it corresponded to the pure and simple loss of a feminizing body. In fact, would not such an interpretation end up confusing the question of the body with the question of a body that has already been expelled from representation? This is certainly true. La desserte, however, goes further. On the contrary, the feminine body here, is not simply a skin 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 which is capable of better reaffirming 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 representation, but of an instance of the body that is already excluded but a body that affects the visible 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 (1990) by Peggy PHelan® and Bodies that Matter (1993) by Judith BUTLER. The word to be remembered here is integration - • the body of which PHelan develops in Unmarked, the representation of the body must integrate the incompleteness, loss, disappearance, and also the invisible. 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 membrane integrates a sense of loss which would become problematic if it corresponded to the pure and simple loss of a feminizing body. In fact, would not such an interpretation end up confusing the question of the body with the question of a body that has already been expelled from representation? This is certainly true. La desserte, however, goes further. On the contrary, the feminine body here, is not simply a skin 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 which is capable of better reaffirming 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 representation, but of an instance of the body that is already excluded but a body that affects the visible of representation.

THE PERFORMANCE OF AN ENCOUNTER: THE BODY, VIDEO
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