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

Arts et électroniques
Numéro 63, automne 1995

URI : https://id.erudit.org/iderudit/46529ac

Citer cet article
impure and multiple which mixes and recombines elements from incompatibile categories. The monster forces one to confront that which cannot be categorized and delimited in an hierarchial order. The monstrous grotesque collapses the distinction between organic and inorganic to express the rationality and the aesthetics of the beautiful with its ideal proportions.

If today we can speak of a technological grotesque, then, it is because the body as a site for creating extra-human beings has come to the fore. The focus of 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), literature (the gothic 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 into what we know of the 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 conditions that are necessarily expressed through technology. 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 of the body. 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 existence.

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 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 the body is becoming an other part to be integrated into the technological, something to be adjusted, re-engineered and made to function within a larger whole. As in the membra disjecta of the grotesque iconography, the body becomes a machine which can be recombined in multiple ways, but this time, the membra disjecta are made out of metal and plastics as well as flesh and blood.

In the postmodern age where the multiple, heterogeneous bodies mix, and in medical, political, military, etc., the body becomes a machine, the gear of virtual reality 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 prosthetic, 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 prosthetic additions, such as computer networks, which then function as environmental prostheses. In this process the intelligent machine is acquiring somatic functions, while the body acquires computational functions in 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 prostheses. 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 of 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 Canadian visual artist and digital media pioneer 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. The dancers wore increasing sensory feedback using an immersive environment. The system was extended to include another level of VR and the performance space, and further encouraged participation. The opportunities and limitations of this kind of performance lead to 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, awake during surgery, I watched my own viscera awake during surgery, I watched my own viscera. The virtual experience was with my own body when, awake during surgery, I watched my own viscera. The virtual experience was with my own body when, awake during surgery, I watched my own viscera. Since
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 for cultural output and viscerals, 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 mysterious and uncanny quality. 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 theoretically and as the result of the way the technology alters my material being.

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 rethinking of the body in terms 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. In the physical environment, the dance is made available to members of the audience as large video projections, in real-time. At other times during the performance, audience members directly interact with the immersive virtual body through the HMD.

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 virtual and physical performance space as well as a 360-view, interactive video projections, which enable the audience to participate in the environments and in essence, become co-creators. Although the work might seem as distinct and direct, the coupling of dance and computer technology provides for rich exploration in the development of digitized dance in a virtual environment. As the dancer/choreographer both 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 may be characteristic of virtual 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. However, because dance 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, the significance of user 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.

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 - near the limit? Can the artistic 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 computer operations as 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 cognitive senses, the immersive environment may engage kinesthetic and haptic senses. For example, in later versions of Virtual Bodies, certain areas responded to motion detection, or touch. When using the head-mounted displays, one 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 significantly affect the unpredictable.

Creating Dancing with the Virtual Dervish: Virtual Bodies provided an opportunity to participate as a character of this emerging technology. The grant itself was a significant investment by the Canadian government, which seemed to view the artistic projects in virtual environments as Research and Development, an otherwise quite expensive endeavour in the corporate realm. The grant, of necessity, went well beyond a lifetime of USJ National Endowment of the Arts grants, as equipment was not available to the rest of us, as students or 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 explore it all. The supposed liberatory possibilities of the medium were superseded by actual performances and demos, many of which consisted of individuals' fifteen-minute explorations, a limited and restricted display staff, in the head-mounted displays. My subsequent projects necessitated writing for grants from the Department of Defence, among other military sources eager to reconfigure technology for consumer purposes. How do I consider the immersive and post-industrial complex? Better bombs through better design? Disarmament through virtual art?
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. In the installation by the New Media Research Lab at the University of Washington in Seattle, where she teaches interdisciplinary courses on new media technologies, Diane Gromala directs the New Media Research Lab. She also directs the Sharir Dance Company, and is on the Dance faculty 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 functions as the functional representation 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 identity as a body, as such, from the body as 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 this body to a distance, and on the other, an always failed attempt to reconstruct 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 resolve, but in a confused sort of way, but a failure which 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, but only 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 which that which is seen is to be seen as that 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 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: how are we to put into play a difference which modifies the status of the 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 a body to an other, (acknowledge 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 laying bare of the inactuality which is proper to being.

A second video, La desserte blanche (1980) (The white sideboard by Thierry KUNTZEL, is a milestone in this respect, and it is in this video that one sees that the body is changed, destabilized) because the screen is all vibration, pulsation and electronic scanning.

These Interférences mnémoniques (Mnemonic Interferences), created by Ariane THÉZÉ in 1992, are an image production machine, images which cancel each other out, like a fleeting memory. They plunge us into the universe of what we now call the new images, defining them as from a place one doesn’t know how exactly to view and which ceaselessly disturb the gaze (through the insertion of hallucinations and phantom imaging) and the body (whose limits are becoming increasingly hybrid with the electronic). As such they are like questions thrown out at the spectator: What is it to see?, What is the body?, To whom does the being belong?