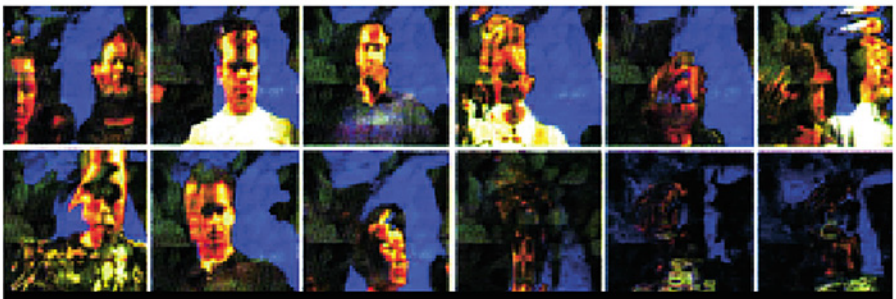

virtual theatres

an introduction

gabriella giannachi

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VIRTUAL THEATRES

Virtual Theatres presents the theatre of the twenty-first century in which everything – even the viewer – can be simulated. In this fascinating volume, Gabriella Giannachi analyses the aesthetic concerns of current computer-arts practices through a discussion of a variety of artists and performers including

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This is the first full-length book of its kind to offer an investigation of the interface between theatre, performance and digital arts. *Virtual Theatres* not only allows for a reinterpretation of what is possible in the world of performance practice, but also demonstrates how 'virtuality' has come to represent a major parameter for our understanding and experience of contemporary art and life.

Gabriella Giannachi is a lecturer in Theatre Studies at the University of Lancaster, where her specialist areas include new technologies and performance. She is also co-editor of *On Directing* (1999) and co-author of *Staging the Post-Avant-Garde* (2002).

VIRTUAL THEATRES

An introduction

Gabriella Giannachi

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CONTENTS

ILLUSTRATIONS

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INTRODUCTION

Technology and art

The etymology of the word 'technology', *tekhnē*, indicates that technology is also an art, a craft, and shows how profoundly technology and art are linked. Just as art has repeatedly advanced through technology, technology has, via art, acquired aesthetic signification. In the early twentieth century a movement evolved which not only made innovative use of technology in art, but also for the first time gave serious consideration to technology as a *form* of art. This movement derived from the First World War and was characterised by an obsession with mechanics across all arts, most importantly in Vsevolod Meyerhold's work with biomechanics, which in many ways represented a theatrical attempt to create a meeting-ground for the interplay of biology and technology. Likewise, with Oscar Schlemmer's 'puppets', the body was transformed into a machine through the use of stage costume composed of a mechanised system of parts. Here, dancers pursued precise series of kinematic sequences which followed the design of the costume and the structure of the piece. In Schlemmer's work, 'the body that appears on stage is a body *extended through space*, a body where costume and scenery merge, where anatomic and spatial geometric forms become a single form of nature and culture' (Palumbo 2000: 19, original emphasis). This architectural biomechanical body of the Bauhaus was therefore literally 'extended through space' (*ibid*.: 16) and in many ways represented a theatrical proto-cyborg. As Sue-Ellen Case points out, this body, wearing geometric designs, and literally extending 'its gestures outward, through poles' resembled the image of the computer mouse as an extension of the arm (Case 1996: 94), which transforms today's computer-user into a cyborg.

But Bauhaus was not the only avant-garde movement interested in experimentation with technology. Dada, especially through Francis

Picabia, who identified the machine as 'the genius of the modern world' (Picabia in Popper 1993: 11), and Constructivism were equally important in promulgating the role of technology within art. Likewise, Cubism, which had grown out of an 'increasing sense of urban dynamism and the inability of the painter to register the relativity of object–observer movements with the traditional tools of representation' (Burnham 1968: 206), and Futurism, with Filippo Tommaso Marinetti's exaltation of the machine, were both revolutionary in presenting technology as the means to move forward within aesthetic discourse. Then there was Bertolt Brecht's enthusiasm for science and technology as tools towards the realisation of a Marxist society and hence instruments, in theatre and life, towards the actualisation of progress. Indeed, even before the robot was introduced in Karel Čapek's play *R.U.R.* in 1923, works presenting figures that resembled robots appeared in paintings by Kasimir Malevich and Fernand Léger, whose *The Card Players* (1917) 'most precisely defines the robot in modern form' (*ibid.*: 210). Later machine works were created by Francis Picabia and Marcel Duchamp, although it was not until the second half of the twentieth century that 'the machine overtly entered the iconography of art' (*ibid.*: 211). Picabia suggested a 'certain merging of interests and physical characteristics between machines and future human beings' (*ibid.*: 211), a statement that is still at the heart of the contemporary debate about the cyborg. Photography, of course, also played a major role in the synthesis of art and technology, and such pieces as Etienne-Jules Marey's *Gymnast Jumping over a Chair* (1883) and Eadweard Muybridge's *Ascending and Descending Stairs* and *Descending Stairs and Turning Around*, from the series *Animal Locomotion* (1884–5), drew attention to kinetics and the organisation of time and space in art through technology. Finally, experimental cinema was also crucial in furthering the collaboration between art and technology, especially in works such as Sergei Eisenstein's *The Battleship Potemkin* (1925) and Dziga Vertov's *The Man with the Movie Camera* (1929).

These avant-garde movements and their passionate belief in technology were inspirational to experimental art and performance in the 1960s and 1970s. Especially important were the works of Duchamp, Alexander Calder and Jean Tinguely, as well as those of Man Ray, Lásló Moholy-Nagy and Vladimir Tatlin, who were highly significant in laying the groundwork for the investigation into the interrelatedness of art and technology. The origins of robotic or cyborg art may be found in Kinetic Art work by Tinguely from the 1950s or Nam June Paik's robots and Bruce Lacey's automata from the 1960s. Frank

Popper (1993) identifies a number of major influences on electronic art: namely, among others, photography and cinematography, conceptual and holographic art, Land Art, Light Art, Kinetic Art and Video Art. Being influenced by technology, however, has not always translated into a passion for technologies. Movements such as Fluxus, for instance, reacted against the machine by appropriating its products, 'displacing them from their everyday contexts, and "preparing" and maltreating them' (Huhtamo in Moser and MacLeod 1996: 237). On the other hand, John Cage and Merce Cunningham, with Robert Rauschenberg, Pop Art and especially Andy Warhol in his use of repetition, have introduced their audiences and viewers to revolutionary ways of looking at technology and art. Rauschenberg in particular was especially influential through his *Nine Evenings: Theater and Engineering* (1966) and the subsequent foundation, with Billie Klüver, of EAT (Experiments in Arts and Technology, 1967), which started an 'enduring and influential' collaboration between artists and engineers (Rush 1999: 38). Finally, works from expanded cinema and early video could be described as proto-virtual-reality experiments. This was especially the case for artists such as Nam June Paik, but also for Joan Jonas, Bruce Nauman, Vito Acconci, Dan Graham, Douglas Davis, Douglas Gordon, Gary Hill, Marina Abramovic, Laurie Anderson, Peter Campus, the Wooster Group, the Builders Association, Studio Azzurro and dumb type. Paik's *Video Synthesizer* (1969–70) even represented, in his opinion, the very 'beginning of the Internet' (Paik in Baumgärtel 2001: 40).

The first computers appeared in 1945, but initially were used solely by the military, with civilian use starting only in the 1960s. Roy Ascott pointed out the importance of cybernetics for the arts as early as 1966, and Jack Burnham introduced the concept of cyborg art a mere two years later (Dinkla 1997: 30). Meanwhile, Doug Engelbart, the inventor of the computer mouse, held a lecture at the Fall Joint Computer Conference in San Francisco in 1968 in which he demonstrated networked computers, video conferencing, hypermedia and hypertext (Weibel and Druckrey 2001: 19). Personal computers started to appear in 1975, and IBM announced its first model in 1981. In these years the development and commercialisation of the microprocessor gave rise to a new phase of industrial development which included robotics and automation (Lévy 2001: 13). The term 'cyberspace', however, was coined only in 1984, by William Gibson in his science-fiction novel *Neuromancer*. With this book, the long romance of fiction, art and technology became so consolidated that it is today hard to imagine that they could ever have been separate.

Cyberspace is a 'chaotic system' (Lévy 2001: 91), 'the *communications space made accessible through the global interconnection of computers and computer memories*' (*ibid.*: 74, original emphasis). One of the most important characteristics of cyberart is 'the participation in the work of those who experience, interpret, explore, or read it', which does not just amount to their participation in constructing meaning, 'but rather, their coproduction in the actual work' (*ibid.*: 116). The viewer not only participates in the production of the work, but does so in an open way. So cyberart is 'collective creation' in which the work has to be designed openly, '[t]hus creation is no longer limited to the moment of conception or realisation; the virtual system provides a machine for generating events' (*ibid.*: 116). In this context, Pierre Lévy identifies two major types of virtual world: 'those that are limited and editorialised, such as CD-ROMs and "closed" (off-line) installations by artists, [and] those that are accessible over a network and infinitely open to interaction, transformation, and connection with other virtual worlds (on-line)' (*ibid.*: 125–6). Lévy sees these two worlds as complementary to each other (*ibid.*: 126). Thus, although the virtual theatres described in this book are constituted by a variety of forms belonging to Lévy's categories, but also moving beyond them, they all share the characteristic of being open works in which the viewer is variously participating to the work of art from within it. This is why, in the world of virtual theatre, the work of art *and* the viewer are mediated. Hence, to understand the mechanisms at the heart of virtual theatre, it is necessary to understand the whole philosophical and material phenomenon of 'remediation'.

Remediation

Marshall McLuhan first drew attention to the role of mediation in contemporary society. Not only did he famously recognise that '[t]he medium is the message' (McLuhan 1987: 13) but that 'the "content" of any medium is always another medium' (*ibid.*: 8). The importance of this theory was recognised by Jay David Bolter and Richard Grusin, who expanded on McLuhan's claim in their book *Remediation* (2000), in which they argue that the main characteristic of digital media is its capacity to remediate, a phenomenon they define as the 'representation of one medium in another' (Bolter and Grusin 2000: 45). In their analysis, the medium itself is defined as that which remediates (*ibid.*: 19), so it is possible to conclude that, for them, all media remediate other media at the level of both content and form.

The first consequence of these assertions for a study of virtual theatre and performance is that any study of the phenomenon of virtuality from an aesthetic point of view has to take its mediatedness into account. It is therefore important to bear in mind both the role of the medium itself, and that it is the very use of the medium, including the role played in mediating the encounter between the viewer and the work of art, that determines the 'message', or content of the work. Second, it must be remembered that the medium itself always remediates. In relation to an analysis of virtual theatre and performance, this means that virtual theatre is therefore subject to a process not only of mediation but also of remediation. This implies the use of a certain degree of intertextuality and metatextuality, but also of intermediality and metamediality. In other words, the medium of virtual theatre is always also its content and this content is always also inclusive of other media. It is the very metadiscoursivity about these other media that allows the work to be metamedial – about media. Hence, virtual theatre is a form of theatre which remediates – which means that it is always also about media.

Virtual reality, one of the forms of virtual theatre analysed in this book, is, of course, also immersive: 'it is a medium whose purpose is to disappear' (Bolter and Grusin 2000: 21). Not only do 'programmers seek to remove the traces of their presence in order to give the program the greatest possible autonomy' (*ibid.*: 27), but also, unlike painting and figurative arts, the remediation is in itself subject to a process of disappearance. It is therefore possible to maintain that virtual theatre, whether through virtual reality or other forms of virtual performance, is created through a process of disappearance. This can be said not only because it involves a performative process which 'plunges into visibility' only to disappear again into memory (Phelan 1993: 148), but also because the medium itself operates by creating a flickering balance of appearance *and* disappearance. It is within this 'balance' that the viewer performs the work of art. And so, although the mediatised simulation is more or less reproducible, the viewer's performance of it is not.

The processes of appearance and disappearance that operate within the world of remediation are very complex. Philip Auslander first pointed to the fact that not only performance but also mediatised work are live and therefore subject to disappearance. Thus he showed that '[b]oth live performance and the performance of mediatization are predicated on disappearance: the televisual image is produced by an ongoing process in which scan lines replace one another and is always as absent as it is present; the use of recordings causes them to

degenerate' (Auslander 1999: 45). He goes on to argue that 'the historical relationship of liveness and mediatization must be seen as a relation of dependence and imbrication rather than opposition' (*ibid.*: 53) and so 'the "live" can be defined only as "*that which can be recorded*"' (*ibid.*: 51, original emphasis), thus the medium disappears, deteriorates, as a result of its appearance, its happening. Similar conclusions had been reached by Sean Cubitt who showed that, in television,

> the broadcast flow is [. . .] a vanishing, a constant disappearing of what has just been shown. The elector scan builds up two images of each frame shown, the lines interlacing to form a 'complete' picture. Yet not only is the sensation of movement on screen an optical illusion brought about by the rapid succession of frames: each frame is itself radically incomplete, the line before always fading away, the first scan of the frame all but gone, even from the retina, before the second interlacing scan is complete [. . .] TV's presence to the viewer is subject to a constant flux: it is only intermittently 'present', as a kind of writing on the glass [. . .] caught in a dialectic of constant becoming and constant fading.
>
> (Cubitt 1991: 30–1)

But whereas virtual theatre's performative and remediated nature makes it subject to disappearance, the very fact that it is constituted by remediation also means that it must be read in terms of Paul Virilio's findings about the production of the information world, which, he claims, clearly privileges appearance, arrival:

> [f]ollowing the three phases of displacement – departure, journey, arrival – and after the demise of the 'journey', suddenly it is 'departure' that we have lost. From now on, *everything arrives* without our having to leave. But what 'arrives' is already no longer a stopover or the end of the trip; it is merely information, *information-world*, no, *information universe*!
>
> (Virilio 1996: 131–2, original emphases)

Thus, virtual theatre consists of a performative component, which is unique in time, and a remediated component, which is more or less permanent. This means that virtual theatre takes place through the viewer's 'performance' of the work and its disappearance into memory (of both the viewer and, on occasion, the work itself). However, this

also means that, because virtual theatre takes place through a process of remediation, the environment in which the performance takes place is disappearing both in the sense that it is deteriorating *and* because it consists of a discontinuous, 'unreal' and yet live simulation. At the same time, its ability to remediate also suggests that virtual theatre is continuously (re-)arriving, (re)appearing as a fresh carnival of hyper-real signs.

As suggested by William Mitchell, '[a] digital image may be part scanned photograph, part computer-synthesised shaded perspective, and part electronic "painting" – all smoothly melded into an apparently coherent whole. It may be fabricated from found files, disk litter, the detritus of cyberspace' (Mitchell 1992: 78). In other words, the world that the virtual theatre user perceives as appearing around them is synthetic, made of text, mathematical formulae, not a proof, copy or representation of the real world. Thus the user is immersed in a world almost entirely made of what Jean Baudrillard defined as a new generation of signs and objects 'which will never have to be *counterfeits*, since from the outset they will be *products* on a gigantic scale' (Baudrillard 1998: 55, original emphases). So, although the virtual world is exclusively made of these new hypersigns, it is the viewer who constitutes the other, 'real' performance of virtual theatre.

But, in contrast to a traditional set or stage, the performer of virtual theatre is inside the work of art, not only metaphorically, but ontologically. In explaining the difference between the work of a painter and that of a cameraman, Walter Benjamin likened the painter to the magician and the cameraman to the surgeon. Whereas the magician, 'maintains the natural distance between the patient and himself', the surgeon 'does exactly the reverse; he greatly diminishes the distance between himself and the patient's body'; so, whereas the magician faces the patient 'man to man', the surgeon 'penetrates into him' (Benjamin 1992: 227). In other words, whereas '[t]he painter maintains in his work a natural distance from reality, the cameraman penetrates deeply into its web' (*ibid.*: 214). This analysis also applies to the making of virtual theatre. As suggested by Popper, 'a three-dimensional synthesis enables the artist to intervene not only on the image, but inside the image. Image has become architecture' (Popper 1993: 77), so the creation and the subsequent performance of the work takes place from within the world of the work. Moreover, as Virilio argues,

> [c]yberspace is a new form of perspective. It does not coincide with the audio-visual perspective which we already

> know. It is a fully new perspective, free of any previous reference: it is a *tactile perspective*. To see at a distance, to hear at a distance: that was the essence of the audio-visual perspective of old. But to reach at a distance, to feel at a distance, that amounts to shifting the perspective towards a domain it did not yet encompass: that of contact, of contact-at-a-distance: tele-contact.
>
> (Virilio 1995, original emphasis)

In cyberspace not only can the viewer feel at a distance, but they can feel what in reality is not there: '[a] rock thrown at you in VR is not a rock until it hits your head and hurts' (Stenslie in Beckmann 1998: 21). So even if virtual reality is not 'real', it still has to produce a 'real' effect in the user. Therefore, not only is the viewer inside the work of art, but they are operating it, possibly even modifying it, in real time, and being modified by it in return. In this sense virtual theatre remediates not only other media, but also the viewer's performance. Baudrillard argues that modernity was the moment of liberation and today all we can do is simulate the liberation (Baudrillard 1993: 3). This is important when attempting to understand virtual theatre because it is not so much the place in which the viewer is liberated from the canon and the dramaturgy of theatre arts or even life, but the place where the viewer is continuously performing the simulation of that liberation, and thereby continuously re-enacting their own performance of the medium, creating an actual theatre, a theatre of virtual reality, a theatre that must continuously appear because it is always already *disappeared*.

The theatre of virtual reality

Brenda Laurel's *Computers as Theatre* (1993) was the first major study to draw attention to the theatrical quality of human–computer interaction. Shortly thereafter, Jon McKenzie suggested that Laurel's Aristotelian view of computers as theatre should be expanded to include Bertolt Brecht, Antonin Artaud, Augusto Boal and Elizabeth LeCompte, concluding that 'one might start to invent computers as performance' (McKenzie 1994: 90). Around the same time, Sue-Ellen Case pointed out that the performativity of human–computer interaction was even visible in the prosthetic use of the mouse in that '[t]ogether, the mouse and the human constitute an entity' (Case 1996: 94). She also suggested that the process of writing on a computer screen is in itself performative (Case 1995: 333) and predicted that 'if