



University
of Glasgow

Bissell, Laura (2007) *The posthuman body in performance*. MPhil(R) thesis.

<http://theses.gla.ac.uk/3412/>

Copyright and moral rights for this thesis are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the Author

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the Author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given

Laura Bissell

The Posthuman Body in Performance

Department of Theatre, Film and Television Studies

MPhil by Research - Glasgow University

Submitted 1st October 2007

Contents

Abstract	p1
Introduction: The Posthuman Body in Performance	p2
Chapter One: The Live/Human Body in Performance	p13
Chapter Two: The (un)live/Posthuman Body in Performance	p33
Chapter Three: Virtual Environments	p53
Conclusion: The Post-posthuman Body?	p79
Bibliography	p89

The Posthuman Body in Performance

Abstract

This study explores the live body in performance in what has been called a posthuman phase. It takes a poststructuralist, post-essentialist perspective to examine the effect of prosthetic and virtual reality technologies on contemporary performance practice. A number of case studies are employed to illustrate how the live body in performance could be viewed as a *cyborgian* body in performance in this era of posthumanity. It interrogates the nature of the live body in performance as well as the body's augmented role in an area that is often said to leave the body behind. It questions the *bodiliness* of the body looking at the phenomenological experience provoked by technologised performance. Encountering binaries and juxtapositions such as human/machine, natural/synthetic, body/mind, subject/object and life/art, this thesis explores the posthuman body as a site for exploring issues of identity and hybridity.

Introduction: The Posthuman Body in Performance

Within this thesis I shall explore the impact of technology on the live body in performance. It is my belief that technological advancements have caused a shift in cultural paradigm so that we are now existing in, what has been referred to by theorists as a "posthuman phase."¹ The "posthuman," in theory, suggests that Western industrialised societies are experiencing a new phase of humanity, "wherein no essential differences between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals exist."² This citation from techno-theorist Katherine N. Hayles' informative work, *How We Became Posthuman*, indicates the shift in paradigm that has resulted from the rise of technological advancements. This reflects a shift not only in our culture and lifestyles but also, I would argue, a change in the way that we perceive the world and our bodies, and the relationship between these. This study examines how the shift towards posthumanity has affected the live body in performance.

In this thesis I will consider the contemporary live body in performance as a *posthuman body*. I argue throughout that the posthuman body is the cyborgian body - that is, part organism and part machine (part *human* and part machine). The term "cyborg" was coined in the 1950s as an abbreviation of "cybernetic-organism" - a reference to the hybrid nature of the form. The cyborg has proved a useful model for theoretical debate surrounding the postmodern subject and contemporary issues of identity and culture. The figure of the cyborg is understood as a site of fusion of two disparate elements: a meeting of human and machine, of live and un-live, of the natural and the man-made. As a result of the union of these incongruent states, the body of the cyborg therefore becomes a site of merging and melding, a site of possibilities and the unknown. Throughout this study I want

¹ William Gibson in his 1984 novel *Neuromancer* spoke of humankind entering a "posthuman" phase. The prefix "post" implies "after," but clearly we are not entirely in a phase of life *after* the human as we are very much still actively immersed and involved *in* the human and functioning as humans. The "posthuman", then, is more of a conceptual shift in ways of thinking and functioning, as technological advancements move ever forward.

² Hayles, Katherine N. *How We Became Posthuman* (Chicago and London: The University of Chicago Press, 1991) p3.

to explore the cyborg as a literal example of the posthuman body.

Hayles proposes in *How We Became Posthuman*, we are at the stage of "a technology that has become so entwined with the production of identity that it can no longer meaningfully be separated from the human subject."³ Hayles echoes here technologist Geoff Simon's idea about the effect of technology on our notions of identity in his earlier study *Are Computers Alive?* (1983): "Put simply, computers are forcing us to ask *what it is to be human*."⁴ I am largely examining works in which the live body in performance functions as a posthuman, cyborgian body. This raises some questions. I have defined the cyborg/posthuman body as part human and part machine. This implies a body that is part live and part inert. Prominent techno-theorist Donna Haraway writes in her seminal work, *Simians, Cyborgs and Women* (1991):

Late twentieth century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert⁵.

As Haraway acknowledges, the "live" and the "inert" are terms not easily assigned to bodies or machines. As the functions and roles of human and machine are becoming less clearly demarcated, the role of the live body is also becoming less and less clear. Therefore it is not just the *nature* of the live body in performance and how this has changed that needs to be considered, but also the *role* of the live body in performance in an increasingly technologised field. Often technology can supersede the capabilities of the body; an argument frequently used when considering the potential obsolescence of the live body. A recurring cadence throughout much of the literature and scientific writing about the advance of technology, is the *transcendence beyond the human*. The fear of human obsolescence as machines become more advanced and potentially more productive, more efficient and less demanding than their human counterparts is evident in theory,

³ Hayles, Katherine N. *How We Became Posthuman* (Chicago and London: The University of Chicago Press 1991) pxiii.

⁴ Simons, Geoff, *Are Computers Alive?* (Sussex: The Harvester Press, 1983) p2.

⁵ Haraway, Donna J. *Simians, Cyborgs, and Women* (London: Free Association Books, 1991) p152.

(alongside novels, film and other forms of popular culture) since the beginning of the twentieth century. This anxiety coincides with the industrialisation of society and culture in Victorian times, as the gradual escalation in the presence of machinery and the mechanisation of culture in a capitalist society becomes more and more evident. In the latter part of the twentieth century, there was a remarkable increase in the speed at which technology became a part of our everyday communication in particular through digital technologies - most notably the Internet which has become a phenomenon in itself.⁶

From the 1970s, technology has affected our lives and our culture in a way that is reminiscent of the cultural overhaul that the integration of technology at the beginning of the twentieth century brought about. How we communicate has also altered, affecting how we view the world, other people, and ourselves. This has changed at an incredible speed and has destabilised how we perceive our own bodies; notions of identity, self, and subjectivity have all become skewed. For example, many of us exist (bodiless) in a whole other plane of existence that has only appeared recently - the Internet and cyberspace. I will not have the time or space in this study to examine the implications of the Internet on communication and identity. However, I am aware that this has been an important factor in how the live body is perceived in recent years.⁷ As many seem convinced of the obsolescence of the body as our cyberselves float bodiless in the ether, technologist Rob Shields asks of the prevalent Western Internet culture, "The question is not should we get rid of the body and place, since that is impossible, but rather, why should we want to"⁸. Perhaps this is an interesting question to pose when considering the debate surrounding the obsolescence of the live body in performance. The notion of performance itself is predicated on the presence of a live body. Performer and theorist Helen Spackman states in her essay "Minding The Matter of

⁶ This is discussed in Shields, Rob, ed. *Cultures of Internet: Virtual Spaces, Real Histories, Living Bodies* (London: Sage Publications, 1996) p168.

⁷ The fact that our bodies play no part in communication when we surf the web or communicate/ shop/ live vicariously online completely changes the role of the body. Our virtual self has more credence than our live self in cyberspace and it could be argued that the opportunity to leave our bodies behind when online is embraced by many. Rob Shields' *Cultures of Internet* (1996) is a useful study in an area that needs much more scrutiny.

⁸ Shields, Rob, ed. *Cultures of Internet: Virtual Spaces, Real Histories, Living Bodies* (London: Sage Publications, 1996) p168.

Representation: Staging the Body Politic”:

The emphasis on the body in the performing arts is not of course something 'new' - indeed the physical presence of performer(s) doing something live in the presence of spectating others, traditionally constitutes the most fundamental prerequisite of any theatrical event.⁹

I maintain throughout this study that the body is essential in performance. I am considering this body as live, but also as *cyborgian*. I am arguing that the body is not made obsolete in performance, but that as it alters and becomes a *posthuman body*, new potential for explorations of identity and communication are exposed. I propose that the live body provides something essential to performance - and that its unique capacity for sensation and phenomenological experience (in both performer and spectator - my focus moves between both throughout this study) provides a foundation for what performance actually is.

It is for this reason that despite examining a range of live art pieces and theatre pieces (and some of the spectrum in between) that I refer throughout this thesis to “performance”. This is not to ignore the distinctions between these genres, but instead to avoid getting tangled within the contexts of each and complicating the issue with demarcations when my focus is the live performing body whatever the form. The term “performance” has many meanings and connotations and is used often to refer to theatre practice, however since the coining of the term “performance art” the term has taken on different connotations and meanings and can often refer to a live art piece. Theoretical discussions around performance and performativity have also given another range of meanings to the word. Throughout this thesis I use the term “performance” to refer to a range of forms including some pieces that would be considered theatre and others that could be considered visual art pieces. As an ephemeral form, the only consistent concept out of a plethora of definitions of what “performance” is, is the presence of the *live body* and it is this that is my focus. The influx of technology does not immediately change this premise for performance; however, culturally it has begun to change *the body* as a concept . This is precisely why I have been motivated to

⁹ Spackman, Helen, “Minding the Matter of Representation: Staging the Body (Politic)” *The Body in Performance*, ed. Patrick Campbell (London: The Gordon and Breach Publishing Group, 2000) p6.

do this study. The ontology of performance practice began to shift at the end of the twentieth century and is still metamorphosing as we near the end of the first decade of the twenty-first century.¹⁰

Before I continue, the restrictions that documentary methods - such as photography and film - place on an understanding of the original live event (particularly when my focus is on liveness) cannot go unacknowledged. The nature of the event itself, when considering body art or performance art, relies on its *liveness*, on the moment of its occurrence.¹¹ In documentation, in its capture on to film or as image the performance moment is lost. The image we are left with is something else. From the beginnings of performance as a live art it was the spontaneity and incapturability of the events that were their essence; the fact that they were actions that could not be pinned down, commodified or turned into artistic images for production or consumption. These ideas were at the centre of the events. However, the lack of documentation led to a fear of being forgotten resulting in many artists beginning to document their work through photography and film.¹² Kathy O'Dell questions the value of photographic documentation of performance pieces: "How can knowledge of a performed work of art be gained through a document which, due to the technological limitations of the apparatus producing it, so vastly delimits information?"¹³ Certainly for many of the performances I cite within the following pages, the audiences were very small and so it must also be acknowledged that the wealth of criticism surrounding the performances has been written substantially by people who were not present at the event, and who wrote from other witness' accounts and other critics' writings.¹⁴ I think that O'Dell sums the situation up very succinctly. She states, "it could be said, then, that the history of performance art is one that flickers, one that causes the historian to shuttle back and forth between that which is seen and that which has

¹⁰ Though has it ever been anything other than fluid and transient?

¹¹ The notion of liveness is discussed at length in Philip Auslander's study *Liveness* (New York: Routledge, 1999)

¹² Prominent theorist Peggy Phelan writes widely on the ontology of the performance event and its uncapturable nature. See Phelan, Peggy, *Unmarked: The Politics of Performance* (London: Routledge, 1993).

¹³ O'Dell, Kathy, "Displacing the Haptic: Performance Art, the Photographic Document and the 1970s", *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p215.

¹⁴ Including this writer.

to be imagined - between the invisible and the visible."¹⁵ I think that this image of a "flickering history" of performance is fitting when considering the materials available and their relationship to the actual event itself. I would ask my reader to bear this in mind when reviewing my study.

Throughout this thesis I use the term "technology" to refer to the very small category of technology and technological advancement that I have chosen to examine in relation to performance. A comprehensive study of the effect of technology would be vast, charting the first sound and light effects, through the integration of television, vhs, projection, video-editing technologies, advancements in film that were transferred to performance, through to digital live art, robotics, transgenic art... the list is extensive. Further, any such list is incomplete as new technologies are being developed as I write this. When I refer to technology throughout this study, then, I am referring to *prosthetic technologies* in Chapter Two and then *virtual reality* technologies in Chapter Three. In Chapter Two I consider a number of sub-sets of technologies as prosthetics. For example, when considering Stelarc I look at his use of robotics, electrode stimulated internet activity, tele-robotics and transgenic art as augmenting and extending his live body in performance.¹⁶

To clarify further, I am only considering these technologies to the extent that they have an effect on the *live body in performance*. By altering the live body via these technological methods in performance, the dynamic of the performance changes. When considering the implementation of technology in performance, many have considered the live performing body as on the brink of obsolescence. Throughout this thesis I am considering the effect technology has on the live body in performance and discussing the implications of these factors - positive and negative. There are multiple arguments against the idea of the cyborg and the breakdown of traditional notions of "nature" and the natural body that it entails,

¹⁵ O'Dell, Kathy, "Displacing the Haptic: Performance Art, the Photographic Document and the 1970s", *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p215.

¹⁶ I *could* have stated that all the technology I am considering throughout this study is prosthetic technology, as most of the virtual reality technology I examine in chapter three is also prosthetic, that is, communicated to spectators via head-mounted-display prosthetics. Stelarc himself speaks of *information* as a prosthesis.

but there is also a wealth of writing considering the potential for exploration and exciting creativity in this field. Victoria Pitts argues the latter:

Relatedly, technology has also been imagined as freeing us of *cultural* constraints, so that the postmodern body appears as a highly flexible, unmapped frontier upon which an ontologically freed subject might explore and shift identities. The body is theoretically freed then from its traditional miredness in the cultural constructions of race, gender, and sexuality, among others.¹⁷

Technology as a way of moving beyond the shackles of the "meat" (as some internet users refer to the body) does seem to be a liberating force.¹⁸ It also has the potential for the bodies of "others" to move away from the negative connotations that some bodies have been perceived to connote. I am referring, as Pitt does, to bodies socially marked in terms of race, gender and sexuality. I discuss the potential of this in Chapter Two when I consider cyberpunk theories of body modification and consider the defacement or alteration of the body. My discussion moves around concepts of the "natural" body and the taboos surrounding the augmentation of this to create a posthuman body.

Following on from this, advancements in technology are often implicated as being a dehumanising force. Often seen as the polar opposite to the so-called naturalness of the body, the mechanised nature of technology is sometimes portrayed or perceived as being unemotive, unfeeling, hard and cold.¹⁹ I would argue that some theatre companies and artists also feel this way and steer clear of integrating technology in their work, preferring to explore the potential of the live human body. However, throughout this study I am focussing on artists who work specifically with the sensory experience of the body through the integration of technology in their work. With the artists and companies I am exploring (many of whom would fall into the category of "body artists") technology is not *leaving the body behind*, but instead *heightening* the experiences of the body. The body is not *obsolete*, but instead *recreated and revitalised*. Not only live but *alive*.

¹⁷ Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification* (Hampshire: Palgrave MacMillan, 2003) p186. I intend to explore these issues of identity to a greater extent in further study.

¹⁸ Although there also seems to be a pervasive sense of a pressure to achieve perfection through technology.

¹⁹ Technology as portrayed in films, novels and advertising would be an example of this.

Chapter One, *The Live/Human Body in Performance*, charts the development of the live body in performance prior to the incorporation of technology. In order to consider the change in the performing body from live to cyborgian, it is important first to investigate the role of the live body from the moment that it became the focal point for much of the debate taking place in the art and theatre worlds. As discussed in Tracey Warr's *The Artist's Body* (2000), from the 1960s onwards, the body became, not only the subject of art, as had traditionally been the case, but the canvas itself, the site of the artwork and, into the 1970s a urinating, defecating, screaming, hurting, undeniable *human* body. The often masochistic, ritualistic, shocking performances that dominated the 1970s were about asserting the liveness of the body, asserting the presence of a live body in space, and challenging the limits of the body as well as the limits of art.

In Chapter Two *The (un)live/Posthuman Body in Performance*, I shall be looking at how the role of the body and the live body itself has been altered and augmented as technology and new media have permeated performance practice. I shall be asking the question "How has the live body responded performatively in relation to this technologised world/ posthuman phase?" I argue that Australian performance artist Stelarc *literally* embodies the posthuman body by extending himself and augmenting his body via technological means through prosthetics. When referring to prosthetics I am taking the original meaning of the word: a prosthesis is an addition, something to put on. In the light of this, my study will be looking at the literal *putting on* of technology, and how these additions or addendum alter and transfigure the human body, creating a hybrid creature: a techno-body, a cyborg.

Theatre theorist Gabriella Giannachi claims: "But the realisation that cyborgs did not represent humanity's future, but rather defined its present, implied that humanity itself already contained the characteristics of its own transcendence."²⁰ The recurring theme throughout technological advancement is that of transcendence, of moving beyond the limits of the human, the limits of the body,

²⁰ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p45.

as Freud wrote, to "become a kind of prosthetic God."²¹ Stelarc works with his body as a "structure rather than a site... not as an object of desire but rather an object one might want to redesign, the body as a biological apparatus that fundamentally determines our perception of the world."²² Stelarc declares that "the body is OBSOLETE" and that we must move beyond the limits of the flesh.²³ Indeed, much of his work over the past four decades has involved exploring and experimenting with notions of the cyborg, of augmenting his body by the use of prosthetics and by technological means. Many of his performances throughout the span of his career use prosthesis to represent how humanity is extended by technologies. I shall focus primarily on Stelarc in this chapter as an artist who has led the way in exploring the "liminal zone of the human," as well as looking at other groups and artists who have been inspired by his work to explore the possibilities made available by using prosthetics in performance.²⁴ This includes, for example, some of the work currently being carried out by the Institute of Artificial Art in Amsterdam. Inspired by Stelarc's experiments in this field to alter digital live facial expression, technologists here are currently working with automatic electrical muscle stimulation. In this chapter, when investigating some of Stelarc's experiments in what has been called transgenic art I also consider a different hybridisation - that of human and other cells to create a *chimera*. One of the leading figures in the area of transgenic art, or "bio-art" as he sometimes calls it, is Eduardo Kac, whose work I consider briefly. Debates concerning the ethics involved in these practices, and the argument surrounding traditional notions of "nature" and of the natural body in relation to the posthuman/cyborgian body are also explored.

Chapter Three examines the environments that can be created for and by the live body in a performative context. The discovery of virtual reality technologies created new potential for the live body in a range of disciplines, and in this chapter entitled *Virtual Environments* I survey how these technologies have been integrated

²¹ Freud cited in Jones, Amelia, *Self Image: Technology, Representation and the Contemporary Subject* (London: Routledge, 2006) p170.

²² Jones, Amelia, *Self Image: Technology, Representation and the Contemporary Subject* (London: Routledge, 2006) p175.

²³ Stelarc website, <http://www.stelarc.va.com.au/obsolete/obsolete.html> accessed 12/11/06.

²⁴ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p45.

into performance practice. There are two main types of virtual reality technologies: immersive and non-immersive. I examine performance groups that work with both of these forms, including Belgian company CREW (focussing on immersive techniques), and London based company al'Ka-mie (exploring their utilisation of non-immersive virtual reality technologies).²⁵

Eric Joris, the artistic director of the company, states that through the body's experience of technology CREW hopes to separate the body and the mind. By focussing on *U-Raging Standstill* and a number of CREW's other recent pieces I interrogate the role of the live body in mediatised performance. al'Ka-mie work with similar ideas to CREW, however it experiments with live bodies performing within large scale projections to show a literal immersion and submersion in a technologised world. The aim of their work is, "to continually research the interface between live movement theatre and technology,"²⁶ and throughout their work they explore placing a live body in a virtual environment - a digital world. In this chapter I refer to Matthew Causey's *Theatre and Performance in Digital Culture: From Simulation to Embeddings* (2006) and Gabriella Giannachi's *Virtual Theatres* (2004), both recent texts that explore virtual reality practices in a performance context.

Joris states that, "technology blurs the boundary between art forms as well as art and science."²⁷ In this study I shall be using an interdisciplinary approach as I tackle the wide ranging realms and areas of this research. My reading of performances and of the literary criticism that I refer to arises of a poststructural, post-essentialist perspective. Some key texts that feature largely throughout this study are: Susan Broadhurst, and Josephine Machon's, *Performance and Technology: Practices of Virtual Embodiment and Interactivity* (2006); Donna J. Haraway's, *Simians, Cyborgs, and Women* (1991) and Victoria L. Pitts', *In The Flesh: The Cultural Politics of Body Modification* (2003). As well as using texts, e-journals and Internet sites as resources, I have also been researching actively through conducting interviews and meetings with some of the artists whose work is

²⁵ I will provide definitions of the technology and its applications in more detail within the chapter.

²⁶ al'Ka-mie website, <http://www.alkamie.co.uk/intro-aims.htm> accessed 28/01/07.

²⁷ Interview with Eric Joris of CREW by Laura Bissell, conducted 15th February 2007.

featured in this study. As part of the *New Moves Winter School* I worked alongside CREW in their most recent piece *U-Raging Standstill*, performed at the Tramway in Glasgow in February 2007.

As will be evident throughout this study I am dealing constantly with a series of paradoxes and dichotomies as I interrogate the relationships between human and machine, self and other, subject and object, performer and spectator, man-made and "natural", mythic and modern, mind and body, life and art. Judith Halberstam and Ira Livingstone comment on the oxymoronic circumstance illuminated by the concept of posthumanity: "Is anything post anymore or is this the beginning? The search for origins stops here You're not human until you're posthuman. You were never human."²⁸ I believe that so many of these binary opposites are united in the site of the posthuman body as a symptom of the postmodern condition. The posthuman body is a hybrid body rather than a binarised body. As Haraway states: "By the late twentieth century, our time, a mythic time, we are all chimeras, theorised and fabricated hybrids of machine and organism; in short, we are cyborgs."²⁹ The notion of the body as the established site of such exploration, experimentation and creation has been firmly in place since the 1970s, and, despite the technological advancements that are being performed on/in/through the body at the moment - the liveness of the body remains an essential part of performance.

²⁸ Halberstam, Judith and Livingstone, Ira, *Posthuman Bodies* (Bloomington and Indianapolis: Indiana University Press, 2000) p8.

²⁹ Haraway, Donna J. *Simians, Cyborgs, and Women* (London: Free Association Books, 1991) p150.

Chapter One: The Live Body in Performance

In order to explore the impact of technology on the body it is necessary to contextualise the live body in performance up until the integration of technology. Obviously the live body has always been present in performance, but I intend to start my study from the point where the live body became the *focus, site* and *producer* of performance in the late 1960s and 1970s. As far as the integration of technology goes there were experiments as early as the 1950s exploring the relationship between technology and the body. However, for the purpose of this chapter I shall be looking at the main trends at the time when the body was being debated in the art world and prior to the period when performance art and body art began incorporating technology into performance practice. Thus the live body *without prosthesis* is key in this chapter.

I use the term "performance" throughout - a fluid term that seems to traverse disciplines and meanings. I prefer this to the restrictions and connotations of terms such as "live art," "body art," or "performance art" as these all seem too bounded, particularly when I intend to discuss a range of works that fall into all categories, some, or none. Out of these, "performance art," is probably the most useful to consider because it has the longest history of usage. According to performance theorist Roselee Goldberg, performance art was born out of a number of artistic movements happening at the beginning of the twentieth century. Futurist, Constructivist, Dadaist, Surrealist and Bauhaus movements in the early part of the century all contributed to performance art's formation. Goldberg states of performance: "By its very nature, performance defies precise or easy definition beyond the simple declaration that it is live art by artists."¹ This definition of performance implicates explicitly the body of the artist in a live performance.² The amalgamation of styles and disciplines (including literature, poetry, theatre, music,

¹ Goldberg, Roselee, *Performance Art: From Futurism to the Present* (New York: Thames and Hudson Inc, 2001) p9.

² There are, however, many cases in more recent performance art, particularly installational performance art in galleries, where the body is absent. There are also other instances in performance art where the live body is absent but its presence is felt, for example in Ana Mendieta's *Siluetas* series (1976) the artist leaves imprints of her body in different parts of the landscape to express her emotions about being torn from her homeland of Cuba at an early age.

dance, architecture, video, film and painting) meant that a precise definition was unattainable and that the only constant was a live body - a live body performing. The notion of "performing" was also changing as performance art challenged the demarcations between art and life. Instead of a performer or actor performing a character, performance art prioritised the "real life" and therefore "live" presence of the artist with the performance artist taking on no roles but their own. As theatre theorist Jeanie Forte claims: "The performance context is markedly different from that of the stage, in that the performers are not acting, or playing a character in any way removed from themselves."³ This has implications when considering the body's role, as it becomes more than a performer being manipulated around the stage: it is embodied, identified, and human.

The live human body also complicated the performer/spectator relationship as the rules became less clear regarding roles. More was expected of audiences, and by moving performance into everyday spaces the dynamic of traditional performance was completely altered. Theatre historian Arnold Aronson describes this instability in roles in avante-garde performance: "Avante-garde performance strives towards a radical restructuring of the way in which an audience views and experiences the very act of theatre, which in turn must transform the way in which the spectators view themselves and their world."⁴ Not surprisingly, early performance art works resisted definition and what we would now perceive as performance art had its roots in a number of artistic movements occurring around the beginning of the twentieth century as a reaction against "art" itself and bourgeois notions of the artist.

Lucy R. Lippard and John Chandler discuss the loss of interest in the physical evolution of the work of art during the 1960s in their 1968 essay, "The Dematerialisation of Art."⁵ During this time more emphasis was placed on everyday acts as performative, and gestures were appropriated as art while the figure of "the artist" came under scrutiny. Wanting to move away from the elitist view of the

³ Forte, Jeanie, "Women's Performance Art: Feminism and Postmodernism." *Theatre Journal*, 40.2 (1988) p224.

⁴ Aronson, Arnold, *American Avante-garde Theatre: A History* (London: Routledge, 2000) p7.

⁵ Lippard, Lucy R. and Chandler, John, "The Dematerialisation of Art" *The Artist's Body* ed. Tracey Warr, (London: Phaidon Press, 2000) p203.

artist as creator of great works, one of the seminal influences on the change in paradigm surrounding the artist was Marcel Duchamp. Critic Ira Licht states of Duchamp, "it is his career that certified the possibility that the artist himself has an aesthetic reality."⁶ Action painters such as Jackson Pollock brought into consideration the notion of the artistic subject and for the first time the artist's *body* was foregrounded as the creator of the artwork. Art historian Tracey Warr argues that the artist's body was "largely veiled or repressed within Modernism to the extent that it could not be fully 'seen' until the 1960s."⁷ Certainly it is around this time that live bodies start appearing in artworks; for example, Yves Klein's nudes acted as "Living Paintbrushes" in the early 1960s. Referring to the women's bodies that he used in his performance paintings, he states: "They became living brushes....Now, like a miracle, the brush returned, but this time alive."⁸ Like Klein, Piero Manzoni used the bodies of others in his work, signing live bodies as "Living sculptures"(1960). Manzoni worked towards creating art out of anything that he came into contact with, famously selling his own faeces, tinned and at the price of its weight in gold (*Merda d'artista*, 1961). He also sold his breath as "artist's breath" and constantly mocked his own status as artist and the economy behind the bourgeois art world. These artists used the bodies of others to create their works, but by the late 1960s and 1970s artists were turning to their *own* bodies to create art works, performances and "Happenings."⁹ Adrian Heathfield comments on this in *Live Art and Performance*: "The physical entry of the artist's body into the artwork is a transgressive gesture that confuses the distinctions between subject and object, life and art: a move that challenges the properties that rest on such divisions."¹⁰ By stepping inside the frame of the image, and becoming the image

⁶ Licht, Ira, "Bodyworks" Tracey Warr, ed. *The Artist's Body* (London: Phaidon Press, 2000) p251-52.

⁷ Warr, Tracey ed. *The Artist's Body* (London: Phaidon Press, 2000) p20.

⁸ Klein, Yves, "Truth Becomes Reality" *The Artist's Body* ed. Tracey Warr, (London: Phaidon Press, 2000) p196.

⁹ "Happenings" began to appear in New York in the 1950s and consisted of spontaneous performance events at non arts venues - often in the streets. Allan Kaprow is often described as the founder of such events, but was one of a number of artists who were involved in the development of such events. Deirdre Heddon and Jane Milling comment on Happenings as reflections of life: "The unpredictability of chance fitted well with the ephemerality of the Happening form, both seeming to reflect lived experience." Heddon, Deirdre, and Milling, Jane, *Devising Performance: A Critical History* (Hampshire: Palgrave MacMillan, 2006) p65.

¹⁰ Heathfield, Adrian, ed. *Live Art and Performance* (London: Tate Publishing, 2004) p11.

itself as well as the image maker (to use the words of performance artist Carolee Schneemann), all of the traditional demarcations and roles are dismantled and the role of the live body becomes a site for debate.¹¹

Warr agrees that there has been a shift in the perception of the body in the arts from the 1960s onwards: "Recent art history [...] reveals a significant shift in artists' perceptions of the body, which has been used not simply as the 'content' of the work but, also as canvas, brush, frame and platform."¹² By the early 1970s numerous performance artists, in various countries, had begun using their bodies in highly unconventional ways in performance artworks. Performance theorist Kathy O'Dell's comments reflect this:

Though from very different backgrounds, all these artists seemed to share a common set of concerns that can now be regarded as typical of masochistic performance. These concerns include the mechanics of alienation in art and everyday life; the psychological influences of the domestic site on art and everyday life; the sensation of being both a human subject and an object; the function of metaphor in art; and, especially, the relationship between artist and audience.¹³

While O'Dell's focus is on masochistic performance, I would propose that these concerns were not, in fact, limited to this type of performance but were imperative to the majority of performance art, particularly "body art" which was happening throughout the 1970s as the live body itself became a debated subject. The term "body art" denotes that the body is the site of the action and describes, in the words of Amelia Jones, "works that take place through an enactment of the artist's body."¹⁴ In the latter part of the century, the term "body art" or "bodyworks" was coined to describe art works that used the body as the site and the content of the work and these were seen to be influenced by Minimalism, Conceptualism, film, video and performance art.¹⁵ As O'Dell maintains, "Increasingly, the artist's body

¹¹ Schneemann, Carolee, "Eye Body" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p197.

¹² Warr, Tracey, ed. *The Artist's Body* (London: Phaidon Press, 2000) p11.

¹³ O'Dell, Kathy, *Contract with the Skin: Masochism, Performance Art and the 1970's* (Minneapolis: University of Minnesota Press, 1998) p2.

¹⁴ Jones, Amelia, *Body Art – Performing the Subject* (Minneapolis: University of Minnesota Press, 1998) p13.

¹⁵ Jones, Amelia, *Body Art – Performing the Subject* (Minneapolis: University of Minnesota Press, 1998) p13. Although this practice began in the 1970s, performance artists in the early twenty-first century continue to use their bodies as the site of their work- notable today in the work of Orlan and Franko B.

became the primary material of performance pieces, a development that coincided with the first attempts to coin a term - "body art" - to describe this type of work and to establish a critical discourse about it."¹⁶

Licht, in her article "Bodyworks" similarly notes that, "Artists using their own bodies as their primary medium of expression is the most significant artistic development of the 1970s."¹⁷ She continues, "The importance of 'Bodyworks' lies as much in the ways it revises the relationship amongst artist, subject and public as it does in the particular qualities intrinsic to this new activity, which has already produced an estimable corpus of work and suggests a reconsideration of the definitions of visual art."¹⁸ Therefore this movement had enough impact and cogency to reconfigure the boundaries of art and performance, which demonstrates that issues of the live body were key at this time.

Artists were working with ideas of liveness and using their bodies to explore issues of identity, agency and communication in performance. Most of the examples I will allude to in this chapter have become canonical through citation and reference, and I use them intentionally to consider the impact they have had on theories of the live body in performance and on the art world itself. I am taking a typically Western overview of performance art practices (with a few exceptions): most of the artists I cite in this chapter are from the USA, since it was their work that was in the media limelight, and is now part of a literary critical history. The case studies I will be looking at are the Viennese Actionists, Chris Burden's *Shoot* (1971), the masochistic work of Gina Pane (1970s), Marina Abramovic's *Rhythm 0* (1975) and Vito Acconci's *Seedbed* (1972). All of these performances were born of a specific era, and reveal a way of looking at, and of using the body in performance that was radical at the time. I hope that by analysing these I can provide some insight into the live body in performance and how at the beginning of the 1970s perceptions of the live body changed irrevocably .

The Viennese Actionists (or Aktionists) consisted primarily of four artists

¹⁶ O'Dell, Kathy, *Contract with the Skin: Masochism, Performance Art and the 1970's* (Minneapolis: University of Minnesota Press, 1998) p7.

¹⁷ Licht, Ira, "Bodyworks" *The Artist's Body* ed. Tracey Warr, (London: Phaidon Press, 2000) p251.

¹⁸ Licht, Ira, "Bodyworks" *The Artist's Body* ed. Tracey Warr, (London: Phaidon Press, 2000) p251.

working in Vienna in the 1960s and 1970s: Herman Nitsch, Otto Muhl, Gunter Brus and Rudolf Schwarzkogler. Despite the fact that they are often grouped together, these artists worked alone. They are often referred to under the umbrella title of the Viennese Actionists because they were responding to their social circumstances in a similar radical way, were using a correspondingly shocking and violent aesthetic and were contemporaries of each other. Of these artists Nitsch used ritual actions, Muhl used political actions, Schwarzkogler explored sexually explicit actions and Brus worked with S&M practices as well as involving faeces and urine in his pieces. (This often got him banned from venues and arrested). Francois Pluchart states of the Viennese Actionists that "the aim is to denounce determinisms, taboos, obstacles to freedom and to the individual's expression, whether the latter belongs to social, or family or other structures."¹⁹ The prioritising of individual expression led to a range of explicit artworks the like of which had not been seen before. Francesca Alfano Miglietti maintains in her study *Extreme Bodies* that:

the social rules that have been chosen to conceal or obscure suffering or irregular bodies, systematically repressing the instincts and slowly but incessantly domesticating the mind, are opposed by the Actionists with exposed bodies, bodies that reveal themselves to be irregular and diseased, emphasising and staging some of the mechanisms of the social machinery.²⁰

Miglietti here refers to one of the key ideas that the Actionists explored in performance. Nitsch and the others believed that the cure for the symptoms of a mechanised and alienated society was to be put in touch with primal animalistic drives and freed from the cultural constraints of society, and thus they created elaborate stagings of ritualistic, masochistic, messy, bloody, shocking performances in which their bodies were undeniably present, shockingly visceral and exposed. They often used rituals to attempt to return to a state of freedom of body and mind. Large scale performances and rituals showed the irregular, revealed bodies of the Actionists as imperfect bodies, wounded bodies, bodies in pain. Nitsch's later *Orgies-Mysteries Theatre* (1984) involved a three day long Dionysiac orgy of blood,

¹⁹ Pluchart, Francois, "Risk as the Practice of Thought" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press Ltd, 2000) p219.

²⁰ Miglietti, Francesca Alfano, *Extreme Bodies - The Use and Abuse of the Body in Art* (Milan: Skira Editore, 2003) p20.

gore, ritual disembowelments of animals, night-time processions with torches and hurling of entrails. In his performances, Nitsch often splashed blood and entrails over his own body and the bodies of spectators to "provoke a direct visceral sensory experience that would allow emotions to surface and be released."²¹ Actionist Otto Muhl explains in his "Materialaktion: Manifesto" (1964), "actual occurrences are recreated and mixed with material. real events can be jumbled up together or mixed with nonreal, artificial events and then combined with any material. similarly time and place can be changed at will."²² This refers to the way in which in performances, "everything is used as a substance," and that substances are often substituted by other things.²³ Thus in their bloody rituals often paint was a substitute for blood in what Lucy R. Lippard describes as "horror show theatricality."²⁴

Muhl continues in his Manifesto: "if the audience takes part it is either accomplice or material."²⁵ This again illustrates the marked shift in the relationship between the performer and the spectator; here the spectator is implicated, "an accomplice" to the action that is happening. Miglietti uses the same word in the following excerpt:

Art no longer wants just spectators, but now chooses to have witnesses.. accomplices...The body as blood, skin, limbs, senses, but also body as fear, panic, anguish, depression, tension... The Viennese Actionists incarnate the maximum limits of bodily experiences, accomplishing actions with a sharp tension towards cruelty, a cruelty physically employed upon themselves and psychologically upon their audience.²⁶

Sometimes masochistic in nature, the Actionists' performances were intended to viscerally affect and shock audiences. As Miglietti implies, the psychological effect for audiences was often affecting as they bore witness to bodily harm and the

²¹ Warr, Tracey, ed. *The Artist's Body* (London: Phaidon Press, 2000) p92.

²² Muhl, Otto, "Materialaktion: Manifesto" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p217. (Author's use of capitalisation as in original text.)

²³ Muhl, Otto, "Materialaktion: Manifesto" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p217.

²⁴ Lippard, Lucy R. "The Pains and Pleasures of Rebirth: Women's Body Art" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p255.

²⁵ Muhl, Otto, "Materialaktion: Manifesto" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p217.

²⁶ Miglietti, Francesca Alfano, *Extreme Bodies - The Use and Abuse of the Body in Art* (Milan: Skira Editore, 2003) p21.

extreme elements of rituals that the Actionists performed. Their bodies were ritually harmed while the bodies of animals were literally dissected, dismantled and destroyed. The Actionists explored the *bodiliness* of the body by taking their bodies to their limits. They were not dealing with the body *as object* as many artists in the 1970s were, but were instead exploring the body *as flesh* (as wounded and noisy and messy), providing a visual referent to the body in pain. Throughout the 1970s many artists turned violently towards their own bodies to communicate and create. With many artists turning to masochistic performance, it is unsurprising that critical discourse was firmly focussed on the debate surrounding the live body in performance.

Out of the canonical set of performance pieces from the 1970s that are constantly cited, Chris Burden's 1971 performance, *Shoot*, dubbed him the "bad boy" of performance art. In *Shoot*, Burden had one of his friends shoot him in the arm at close range at a Santa Monica Gallery. The performance was witnessed by only a few spectators and the only documentation of the event is a few blurry and grainy photographs. The images were displayed in a gallery with the following text printed beside them: "Shoot/F Space: November 19, 1971/ At 7:45 pm I was shot in the left arm by a friend. The bullet was a copper jacket 22 long rifle. My friend was standing about 4.5m [15-ft] from me."²⁷ In a similar way to the Viennese Actionists, Burden viewed his spectators as accomplices to the act of performance. Amelia Jones states in *The Artist's Body* that Burden "claimed that all those in the gallery were implicated in this act of self-inflicted violence by their failure to intervene."²⁸ In implicating his spectators in his own act of self-violence and locating them as guilty of allowing him to inflict injury on himself, Burden contributes to the ongoing discussion surrounding the altering status of the relationship between performer and spectator which was prominent throughout the 1970s.

Jones states that "Burden's staging of a real shooting in a gallery not far from Hollywood provided a shocking contrast to the artificiality and make-believe of

²⁷ O'Dell, Kathy, "Displacing the Haptic: Performance Art, the Photographic Document and the 1970s" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p215.

²⁸ Warr, Tracey, ed. *The Artist's Body* (London: Phaidon Press, 2000) p122.

the local film industry, replacing props and acting with real blood and pain."²⁹ Jones compares Burden's real shooting to the fake wounding that would occur on a Hollywood film set. Kathy O'Dell, however, takes a different slant on it, comparing Burden's shooting to the shooting that was happening in Vietnam at the time. She cites Peter Plagens, the author of the *New York Times* article "He Got Shot - For His Art," who asked Burden about "comparing his bullet wound to a real one, suffered by a Vietnam vet or a street gang member. 'Isn't it small potatoes?' I said. 'Yes,' he said. But so - it came to me later - it's all art: yours, mine, Burden's."³⁰ The exchangeability between life and art here seems a bit too glib, a bit too simple considering the subject matter. Yves Klein stated in the 1950s that, "life, life itself is the absolute art."³¹ The notion of life as art has become prevalent in performance art and has run as a common theme through many performances to this day with performance artists such as Linda Montano and Tehching Hsieh making their lives their artwork.³² Throughout her study, O'Dell very much implicates the cultural climate of the Vietnam war and the social movements happening at the time in a sense of impotence amongst artists, and the subsequent reaction against this that provoked masochistic performance art. Whilst I agree with her that the cultural climate was key, I think that she does not fully take into consideration the influence of other artistic movements, instead sticking rigidly to her structure of contract law and the influence of the war. I do find her point about Burden's shooting in relation to the "real" shooting happening in Vietnam intriguing (particularly when compared to Jones's analogy in which Burden's is the "real" shooting.) I think that that these are particularly interesting interrogations considering not only the art/life discussions that were happening at the time, but, considering then retrospectively

²⁹ Warr, Tracey, ed. *The Artist's Body* (London: Phaidon Press, 2000) p122.

³⁰ O'Dell, Kathy, *Contract with the Skin: Masochism, Performance Art and the 1970's* (Minneapolis: University of Minnesota Press, 1998) p12.

³¹ McEvilley, Thomas, "Art in the Dark" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p222.

³² O'Dell states: "The metonymic function of the performing body, then, attempts to blur the line between art and life - a concept that held a powerful attraction for performance artists of the 1960s." O'Dell, Kathy, *Contract with the Skin: Masochism, Performance Art and the 1970's* (Minneapolis: University of Minnesota Press, 1998) p6.

the postmodern debate about the "real," namely in the work of French philosopher Baudrillard.³³

Putting these analogies to one side, the fact remains that Burden was shot, and this action would have provoked a visceral reaction in many spectators.

Miglietti examines the idea of wounding in performance:

The representation of pain, of wounds, of the irreversible signs of disease upon the human body almost always provokes reactions of rejection, disgust and fear, which often lead to the need to establish a certain distance from the subject and the artwork. This sort of "impurity" of the body terrorises and frightens, almost appears as a threat, as a demonstration of the precariousness of our own body. A wound obliges us to an almost primitive confrontation and relationship in an era in which we often complain that the image has lost all power.³⁴

Certainly the images created in masochistic works of the 1970s provoked these reactions. To see the body harmed provokes a physical response - often revulsion - to the image of the body in pain, of blood. One of a few female artists working in the 1970s with masochism and wounding in performance was Gina Pane:

In my work, pain was almost the message itself. I would cut myself, whip myself and my body would just be overwhelmed.....Physical suffering is not merely a personal problem but also a problem of language.....The body becomes the idea itself whereas before it was nothing more than a transmitter of ideas.³⁵

Here Pane states that "the body becomes the idea itself." This coincides with the idea of the body as concept and as the subject and *site* of the performance. Here, Pane is working with Cartesian notions of the mind and the body. In stating that the body was previously nothing more than a transmitter of ideas, her language resonates with the language used when describing avatars (something I will consider when I come to explore the live body as becoming technologised). She is considering here the shift in paradigm from the body being a mere host for the

³³ I mention Baudrillard here as he controversially wrote about war and the "reality" of war. In this case I have been considering Vietnam in the context of the time period that I am studying in this chapter, Baudrillard wrote extensively on the Gulf War, most notably in three essays written under the title "The Gulf War Did Not Take Place" (1991).

³⁴ Miglietti, Francesca Alfano, *Extreme Bodies - The Use and Abuse of the Body in Art* (Milan: Skira Editore, 2003) p35.

³⁵ Miglietti, Francesca Alfano, *Extreme Bodies - The Use and Abuse of the Body in Art* (Milan: Skira Editore, 2003) p28.

mind - a transmitter of ideas - to becoming the idea itself. The body is embodied and playing the role of both the artist and the canvas in Pane's view - both subject and object. Miglietti connects with this notion when she states that Pane "presented her body as the original site of emotions and excitement."³⁶ By using her body in this way, Pane's work connects with Elaine Scarry's ideas on pain as discussed in her influential work, *The Body in Pain* (1985).³⁷ Thus when Pane states that the problem of pain is a problem of language she is pre-empting Scarry's theories on pain and of the inexpressibility of pain. Notably, there was audience reaction in performances of *Le Lait Chaud* (Warm Milk) in 1972, where Pane cut herself on her back and then motioned as though to cut her face. The audience cried out "No! Not the face!" Despite these protests, Pane continued and lacerated her face with a razor to the obvious revulsion of her audience. This is also intriguing when we consider Burden's comments that his audience was implicated in his shooting because they did not intervene. In the case of Pane's *Le Lait Chaud*, audiences *did* verbally intervene, but not physically. Does it take a body to physically stop a body in this case? Who then is responsible for the wounding? Does the audience have a right to intervene when it is the artist damaging her own body when it is hers to do with what she wants? Pane states of this performance, "So I touched an essential problem - the aestheticism in every person. The face is taboo, it's the core of human aesthetics, the only place which retains a narcissistic power."³⁸ The face symbolises identity and Pane's laceration of her face *disturbs* identity and the cultural sacredness (and beauty) of the female face. Here Pane is attempting to avoid representation. However, surely the body itself can never be anything *other* than representation? To implicate the body as the signifier for identity (in this case the face) is misguided and highlights one of the main issues when considering the relationship between body and identity.³⁹

David Harradine states that the performance of bleeding "can be read as a

³⁶ Miglietti, Francesca Alfano, *Extreme Bodies - The Use and Abuse of the Body in Art* (Milan: Skira Editore, 2003) p29.

³⁷ Scarry, Elaine, *The Body In Pain: The Making and Unmaking of The World* (Oxford: Oxford University Press, 1985).

³⁸ Gina Pane, "Performances of Concern, Gina Pane discusses her work with Effie Stephano (1973) as cited in Tracey Warr, ed. *The Artist's Body* (London: Phaidon Press, 2000) p121.

³⁹ A relationship which is further complicated with the integration of technology.

metaphor for the inevitable fragility of the bounded body, where 'the body' here stands both for the site of the performance itself, and for the social systems that are organised around similar spatial metaphors of included and excluded identities..."⁴⁰ In breaking the skin (the body boundary/the container/ the surface) in performance, and letting the blood that is normally contained inside the body come out, issues of the abject body become significant. Julia Kristeva in her essay "The Power and The Horror: An Essay on Abjection," asks: "How can I be without border?"⁴¹ She defines the abject as "what disturbs identity, system, order... [and] ...what does not respect borders, positions, rules."⁴² Pane's portrayal of her wounded body leaves her open to interpretation as abjectifying herself, as do many other performance artists who work with bodily fluids - fluids that can seep beyond their perimeters and disturb normative boundaries. For example, Actionist Gunter Brus often used urine and semen in his performances and perhaps most famously, Vito Acconci used semen in *Seedbed* (1972).

For *Seedbed*, Vito Acconci lay under a ramp situated in a gallery space of the Sonnabend Gallery. As visitors entered the gallery they could hear the sounds of him masturbating under the ramp over a loudspeaker. Here the spectator/performer relationship is tense as the spectator is involuntarily implicated in the action. Acconci's performance has been continually theorised with readings of the piece ranging from narcissistic, to masochistic, to the asserting masculine privileges of "sowing seed". Cindy Nemser comments on the work of male performance artists at the time that: "When interviewed, none of these artists (Oppenheim, Acconci, Le Va) admitted to any sense of pleasure or pain while acting out their works. They all regarded their bodies simply as materials or instruments with which to discover real physical or physiological processes."⁴³ This apparent disconnection from the sensory aspects of physically *doing* the

⁴⁰ Harradine, David, "Abject Identities and Fluid Performances: Theorizing the Leaking Body." *The Body in Performance* ed. Patrick Campbell (London and New York: Routledge 2001) p80.

⁴¹ Kristeva, Julia, *Powers of Horror: An Essay on Abjection* trans. Leon S. Rouliez (New York: Columbia University Press, 1982) p4.

⁴² Kristeva, Julia, *Powers of Horror: An Essay on Abjection* trans. Leon S. Rouliez (New York: Columbia University Press, 1982) p4.

⁴³ Nemser, Cindy, "Subject - Object: Body Art" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p234.

performance intrigues me; it is obviously partially caused by the theories of the body as object and the body as material that were prevalent at the time. The fact that Nemser, writing in 1971, has picked up on the disconnection between the body of the live performer during the performance and the sensory experience of doing it seems to act as a precursor to what some of the artists that I will be considering later on in this study are reacting against with the use of technology in their work. Her statement that Oppenheim, Acconci and Le Va regard their bodies as "materials or instruments with which to discover real physical or physiological processes" resonates uncannily with the views of performance artist Stelarc, and I would add him to Nemser's list.⁴⁴ Stelarc, too, disconnects himself from his body in performance in the way identified by Nemser and negates the notion of pleasure or pain in performance, claiming that there are no masochistic or pleasurable reasons behind his performance work.

In the early 1970s when Nemser's essay was written, Stelarc was mainly practising suspension pieces. Perhaps Nemser had not considered him as belonging to the same category as the others she has cited, however I would argue that Stelarc *is* a body artist and could be considered alongside the others in this observation. The way that these male body artists are viewing their own live bodies in performance at this time says a lot about the impinging advance of technology and its effects on the body in performance. Already, these artists have distanced themselves from their bodies in performance, they have denounced the sensory experience of their bodies as they perform live; and they have *reimagined* their bodies as merely a material from which to gather information - i.e. they have reconfigured themselves. This might seem far fetched and influenced by my knowledge of the subsequent influx of technology in performance, however Nemser

⁴⁴ Nemser, Cindy, "Subject - Object: Body Art" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p234. David Bolter concurs with Nemser's view that the artists in question use their bodies as information processors. He states in *Cultures of Internet*: "By promising (or threatening) to replace man, the computer is giving a new definition of man, as an 'information processor,' and of nature as 'information to process.'" David Bolter cited in *Cultures of Internet: Virtual Spaces, Real Histories, Living Bodies* ed. Rob Shields (London: Sage Publications, 1996) p112

- writing at the time - notes the changing notion of the live body in performance:

Right now, the body artists, openly alternating between states of intense body sensation and extreme cerebral detachment, are attempting to give us a message about the frightening and dangerous aspects of our own society. As a simultaneous re-creation and mirror of the chaotic structure of contemporary Western culture this disturbing art form faces two major obstacles. On one hand, due to the unpleasant nature of the content of body art, the public may refuse to read it intelligently. On the other hand, these bodyworkers, with their self destructive impulses, may not survive long enough as artists to get their message through. The question is, if they don't make it, will we?⁴⁵

In this excerpt from her essay, "Subject - Object: Body Art," Nemser positions the live body in performance as existing between two states - that of intense bodily sensation and extreme cerebral detachment. In my next chapter I go on to examine Stelarc as existing in, and exploring, these two disparate states in a range of cyborgian performances. It is worth noting here, though, that Nemser has picked up on the fractured view of the body that many performance artists are working with. The proliferation of theories and explosion of artworks themselves as a response to what she calls the "chaotic structure of contemporary Western culture" also, I would argue, fed into the already fractured view of the live body in performance, and diffracted it even further.

Jones states of the situation in the 1970s:

Certainly not coincidentally, this shift coincides with the rise of the second wave of feminism and the civil rights and gay movements, all of which attacked the politics of normative subjectivity in white, male dominated Euro-American culture, as well as with the development of poststructural critiques of modernist conceptions of subjectivity and meaning.⁴⁶

The influence of second wave feminism as well as civil rights and gay movements would have all contributed to the proverbial melting pot of destabilising forces working on all aspects of normative culture. Miglietti agrees with this view and of the social and cultural changes that were happening at the time that thrust the role of the live body in performance into the arena for debate and exploration:

⁴⁵ Nemser, Cindy, "Subject - Object: Body Art" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p234.

⁴⁶ Jones, Amelia, "Dis/playing the Phallus: Male Artists Perform Their Masculinities" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p266.

The end of the 1960s was a time of open and wide-ranging debate over some of the fundamental rules that guide society. A number of the more hypocritical social conventions were the target of a series of rebellious actions that involved nearly every walk of life: the talk was of liberty, and the body constituted one of the sites in which the revolt chose to take place.⁴⁷

Miglietti here situates the body not only as the site of the artwork, but as a site for social revolt and action. I would argue that male bodies such as those of Burden and Acconci are being used in performance to raise questions about the destabilised role of the male in society and in art, querying how violence operates in relation to masculinity. Lucy R. Lippard states: "Though lacking the horror show theatricality of the Viennese S&M school, the deadpan masochism of American male body artists has a decidedly chilling effect."⁴⁸ The "deadpan masochism" of Burden, Acconci and others seems to offer a bleaker perspective on their role as live bodies in performance - the anger and theatricality of the Viennese Actionists is replaced by a more cynical, more pensive male performance artist in the USA in the 1970s that, as Lippard states, has more sinister undertones about the society that is provoking these masochistic works.

Although more deadpan in style, the male artists I have referred to have all damaged themselves in some way through their works. They are all aware that in the defacement of their own bodies they are challenging the artist/genius stereotype that Manzoni mocked ten years previously. The nature of the live body as damageable, as defaceable, as open to degradation was something that these artists played with throughout their work. The image of the artist as a god-like figure is dissembled partially by the nature of the works (a lack of skill or craft perhaps compared to traditional male artists), but also in the use of their own bodies as messy, bloody, ejaculating, *human* bodies. I believe that the artists I have been considering were trying to distance themselves from the role of artistic

⁴⁷ Miglietti, Francesca Alfano, *Extreme Bodies - The Use and Abuse of the Body in Art* (Milan: Skira Editore, 2003) p19.

⁴⁸ Lippard, Lucy R. "The Pains and Pleasures of Rebirth: Women's Body Art" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p255.

authority as early experiments in performance art attempted to do. Jones argues this point:

...by displaying and performing their own bodies, these 'body artists' shift to varying degrees away from the transcendental and singularly masculine conception of artistic authority put into place within Modernism - a conception that relies on the veiling of the actual body of the artist such that his divinity (his phallic prowess) can be ensured.⁴⁹

However, when considering masochistic works - regardless of gender - it must be noted that any empathy for pain felt by spectators must also be accompanied by the knowledge that the harm to which they are succumbing is self-inflicted - the artist is the "victim" of their own constructed narrative. Before stressing the empathetic reactions of audiences to these works (which was a common response) I return to the brief point O'Dell brings up about Burden and actual gunshot victims. Although Burden and Pane and others are portraying the wounded body (the body in pain) they have *engineered and planned* this pain, anticipated the reactions of shock, revulsion, empathy. As Max Kozloff argues in his essay "Pygmalion Revisited" (1975):

Their bodies and ours: they're conscious, animate, sensitive and mortal organisms. The artist's flesh often gives the impression of having been exposed to damaging conditions, or of having taken into itself something of the work, and possibly the force necessary to have made an object presentable as art. Empathy has been defined as the identification of the self with the other. But we never had to empathise, as we do now, with the physical violence that materialises art because it has become dramatised by the artist who plays the role of its victim.⁵⁰

In thinking about this self victimisation, I wish to turn to Yugoslavian artist Marina Abramovic. Abramovic created a number of performances, working extensively with partner and collaborator Uwe Laysiepen (known as Ulay) for a number of years before returning to solo work.

Throughout the 1970s, Abramovic devised a range of performances which she titled simply *Rhythm* and then a number. In her performance *Rhythm 0*, performed in a Naples gallery in 1975, Abramovic created a situation that explored

⁴⁹ Jones, Amelia, "Dis/playing the Phallus: Male Artists Perform Their Masculinities" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p266.

⁵⁰ Kozloff, Max, "Pygmalion Revisited" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p248.

the altered spectator/performer relationship that body art had brought about. She situated herself next to a table with a number of objects on it. Written on the wall adjacent was the statement: "There are seventy-two objects on the table that can be used on me as desired. I am the object."⁵¹ The objects included a gun, lipstick, a bullet, a fork, paint, knives, a rose, a feather, grapes, olive oil, scissors, nails, a comb, a candle, a saw and plasters amongst other things. By explicitly stating "I am the object" she openly refers to one of the main debates around the live body in performance at this time - that of the artist as subject/object. Nemser maintains, "Kaprow, along with other creators of the Happenings, still viewed the body primarily as a prop to be moved about into various spatial positions along with other inanimate objects."⁵² By classifying the body as an object however, the performer's status as subject is removed. Willoughby Sharp writes: "Strictly speaking it is impossible to use the body as an object. The only case in which a body approaches the status of an object is when it becomes a corpse."⁵³ In fact there are a number of performances where the body of the artist passes for the body as corpse, for example, Mona Hatoum's 1983 piece, *The Negotiating Table*, saw the artist portrayed as a corpse in a body bag.⁵⁴

Sharp's assertion of the liveness of the body, and of the difference between body and object stands in opposition to much of the discussion and theory circulating at the time. Abramovic's declaration that there are "seventy two objects on the table to be used on me as desired" is immediately followed by "I am the object." In the rhetoric used she distances herself from the other objects - they are to be used on her. She is saying "I am *the* object that these other objects are to be used upon/related to." She however has set up this situation, and has therefore acted as a subject. She simultaneously sets herself up as subject and object, although throughout the piece the *spectators* act as subject while Abramovic is

⁵¹ Warr, Tracey, ed. *The Artist's Body* (London: Phaidon Press, 2000) p125.

⁵² Nemser, Cindy, "Subject- Object: Body Art" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p233.

⁵³ Sharp, Willoughby, "Body Works: A Pre-critical, Non-definitive Survey of Very Recent Works Using the Human Body or Parts Thereof." *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p231.

⁵⁴ Even in this case the body still does not pass as object, or reach object status as the artist's breath is still slightly perceptible under the plastic of the bag.

objectified. Abramovic uses a double bluff here - apart from using a suspiciously self-declamatory statement "I am the object" she also negates her self proclaimed status as object by stating this as the case. Heathfield argues that, "Performance explores the paradoxical status of the body as art: treating it as an object within a field of material relations with other objects, and simultaneously questioning its objectification by deploying it as a disruption of and resistance to stasis and fixity."⁵⁵ Abramovic is *performing* "object." She is representing herself as an object as opposed to anything else she might represent herself as. She has the agency to move but chooses not to - she has sacrificed her agency, her status as subject and, most importantly, her body, to subjectified spectating bodies.

I would argue that in her use of language, she also subtly implies that she is the *object of desire*. In rereading the statement "There are seventy-two objects on the table that can be used on me as desired. I am the object" I feel that the juxtaposition of the phrases makes me want to add the further statement "I am the object of desire." This implicit separation of her body from the other objects, despite her overt statement that she is "the object," implies a complex positioning of her body in the space, and provides a complicated setup in terms of how the spectators are to interact with her. They are not being expected to spectate here, but instead to act - to perform - while the performer remains immobile. It is *their* action that drives the performance, not the performer's. She has constructed the situation and now stands objectified while the action unfolds around her.

Roselee Goldberg offers a description of the performance:

As she stood passively alongside the table, viewers turned her around, moved her limbs, stuck a thorny rose stem in her hand. By the third hour they had cut all her clothes from her body with razor blades and nicked bits of flesh from her neck. Later, someone put a loaded gun in her hand and pushed its nozzle against her head.⁵⁶

The performance was supposedly stopped at this point by a concerned spectator. Perhaps the danger of real bodily harm had become too explicit, the actions being performed against Abramovic's body becoming too "real" - the whole performance

⁵⁵ Heathfield, Adrian, ed. *Live Art and Performance* (London: Tate Publishing, 2004) p11.

⁵⁶ Goldberg, Roselee, "Here and Now" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p246.

treading a fine line of ambiguity between ethical action and taking advantage of another's body, of one who has chosen to sacrifice her free will (and perhaps safety) in a performance space. The idea of "real experience" in the gallery was in keeping with conceptual art's aesthetic experiments and was fashionable in performance experiments at the time. However, this experience was *not* real in any simple way - the actions were real but the event was staged. This locates the actions of the spectators (or perhaps performing-spectators is a more appropriate term in this case) as they were implicated as physically dangerous and acting with intent to cause harm to the artist.

By stating "I am the object" in *Rhythm 0*, Abramovic places her body not just as an object in the space, but undeniably her body *as woman* as object in the space. Perhaps my own urge to link her use of the word "desire" to the image of her body in the space is because of my own cultural conditioning to the notion of the female body as an "object of desire." As a feminist myself, it is strange to realise that this is what I would instinctively consider, perhaps indicating that the female body is so culturally written that it is difficult to remove it from centuries of cultural inscription from painting, literature and film. Lynda Nead discusses representations of the female form throughout history in her study, *The Female Nude: Art, Obscenity and Sexuality* (London: Routledge, 1992). She argues that "one of the principal goals of the female nude has been the containment and regulation of the female sexual body."⁵⁷ Many female performance artists in the 1970s were reacting against voyeurism and the objectifying of women under the male gaze. Many wanted to reclaim and repossess their bodies and performed naked - not to perform female sexuality to a male gaze, but to use the female body to confront that gaze and to answer back to it. Despite the wealth of feminist performance art that appeared in the 1970s I do not have time in this study to provide a gendered reading of the body.⁵⁸ For the purpose of this study my focus is the *liveness* of the body and its capacity for phenomenological experience.⁵⁹

⁵⁷ Nead, Lynda, *The Female Nude: Art, Obscenity and Sexuality* (London: Routledge, 1992) p6.

⁵⁸ However, I do acknowledge the first appearances of the live female body in performance at this time.

⁵⁹ My next thesis will consider a gendered reading of the live body in technologised performance.

In this chapter I have provided a context from which to take my discussion of the live body in technologised performance. The issues that I have raised relating to the body - those of subject/object, art/ life, performer/spectator - can be joined by *human/machine* as I look towards the next two chapters. Identity in relation to technology, to the Internet and to virtual others also becomes an issue to consider. The live body in performance as a site for this debate, of explorations of identity and of communication, remains all of these things as technology is integrated into performance. As my overall thesis is exploring the development of the impact of technology on the live body in performance, this chapter has charted the development of the live body in performance before the incorporation of technology. In my next chapter, I will look at how the live body alters with the integration of technology as a prosthesis in performance.

Chapter Two: The (un)live / Posthuman body

Having considered the role of the live body in performance in the previous chapter, I now want to look at the effect of technology on the live body in performance, exploring some of the issues arising from the integration of technological practice on contemporary performance. The relationship between technology and the body is a complex and in some senses paradoxical one - paradoxical, because technology is often seen to be implicated in erasing the body and in making the body obsolete, as it is replaced by machines in a capitalist, industrialised world. Arthur Kroker describes the cultural politics of advanced capitalism: "the exteriorisation of all the body organs as the key telemetry of a system that depends on outerring of the body functions (computers as the externalisation of memory; in vitro fertilization as the alienation of the womb; Sony Walkmans as ablated ears; computer generated imagery as virtual perspective of the hyper-modern kind...)." ¹ This statement sets up the body in contemporary culture as redesigned; as technologically mutated and augmented from what "the body" traditionally has signified. This body could be described as "posthuman."

A post-essentialist perspective argues that human bodies are always shaped and transformed through cultural practices - both physical and ideological. Taking into account the techno-culture that has increasingly permeated the last thirty years, a post-essentialist view would veer towards a reading and understanding of the body as technologised, machinated and cyborgian. Post-essentialist theories of the body - expressed in cultural studies, feminism, postmodernism and poststructuralism - reject the notion that there is an "essential" body; posthuman theory on the body continues this trajectory of thought and advances it. I am concerned with what happens when *performing* bodies become posthuman and how contemporary performance practice tackles the potential obsolescence of the body that many cultural and social theorists predict.

Throughout this chapter I shall primarily be examining the work of Stelarc

¹ Kroker, Arthur, and Kroker, Marilouise, *Body Invaders* (Montreal: New World Perspectives, 1987) p21.

(Stelious Arcadiou), an Australian of Greek Cypriot ethnic origins and one of the most renowned artists working within the field of technologised performance. Stelarc has been augmenting and extending his body by technological means since the 1960s illustrating the emerging notion of the "posthuman" in performance through his work. Stelarc's pieces exemplify a spectrum of types of technological performance from the use of prosthetics, virtual reality, robotics, and the Internet, to biotechnology and transgenic art. One constant throughout the span of his career has been a preoccupation with the evolution of the human body. Stelarc champions the cyberpunk notion of the body as a "work in progress" and has been very articulate about his view of the body as an object to be redesigned and reconfigured. For Stelarc, "It is no longer a matter of perpetuating the human species by REPRODUCTION, but of enhancing male-female intercourse by human-machine interface. THE BODY IS OBSOLETE. We are at the end of philosophy and human physiology. Human thought recedes into the human past."² Stelarc scholar Jane Goodall points out that for somebody who has a genuine interest in evolution, his insistence that the body is obsolete is a peculiar one.³ Perhaps we must read Stelarc's definition of obsolescence as *evolution* and consider his perspective on discarding the body as the next step along humankind's evolutionary path. His definition of obsolescence is not of negation or destruction of the body, but instead of vitality in redesigning - of *evolution*. Some theorists such as Kroker and Baudrillard argue that the natural body is already obsolete: "Indeed, why the concern over the body today if not to emphasise the fact that the (natural) body in the post-modern condition has *already* disappeared, and what we experience as the body is only a fantastic simulacra of body rhetorics."⁴ This would support Stelarc's opinion that the natural body is already obsolete and that the human body now is an object for constant redesign and reconfiguration to evolve alongside our changing culture.

² <http://www.stelarc.va.com.au/obsolete/obsolete.html> accessed 02/06/07.

³ Stelarc interview with Jane Goodall, Sydney, 23 August 2000 in *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p1.

⁴ Kroker, Arthur, and Kroker, Marilouise, *Body Invaders* (Montreal: New World Perspectives, 1987) p21/2.

In an interview with Goodall, Stelarc points out the flaws and imperfections of the human body:

The body is neither a very efficient nor very durable structure. It malfunctions often and fatigues quickly; its performance is determined by its age. It is susceptible to disease and is doomed to a certain and early death. Its survival parameters are very slim - it can survive only weeks without food, days without water and minutes without oxygen.⁵

Bearing in mind the limitations of the human body and viewing it as outdated, he aims to redesign and reconfigure the body. As with the whole of this study, my main focus and concern is the role of *the body*, and the prominence of the live body in performance. I intend to explore the experience of a performance (for spectator and performer) in terms of sensation while considering the phenomenological aspect to performance. Through my analysis of Stelarc's work, I will argue that despite his claims the nature of his work demonstrates that the body is *not* obsolete in the traditional sense of the word; that his work explores both the physiology of the human and the philosophy of "the body" as a concept. I shall determine through examples of Stelarc's work that although he aims to redesign and augment the body, his work is incredibly focussed *in and around* the body itself, and investigates the *bodiliness* of the body.⁶

Due to the volume of work produced by Stelarc and his longevity as an artist operating within the field of technology and the body, I shall divide his career into stages in order to analyse some of the main concepts that his work explores. Firstly, I shall look at Stelarc's suspension pieces, before moving on to look at his experiments with robotic prosthetics and the Internet as a prosthesis. Finally, I will consider some of his experiments in transgenic art also referring to other artists working in this area. It should be noted that although I have divided Stelarc's work into these areas, they are not mutually exclusive. Many of his performance pieces and explorations overlap and at times he is working on different projects simultaneously. The evolution of his own work is constantly feeding on previous ideas - he does not let his new pieces render the previous ones obsolete.

⁵ <http://www.stelarc.va.com.au/obsolete/obsolete.html> accessed 2/06/07.

⁶ Stelarc states: "The body becomes not a site for inscription, but for reconstruction, regeneration and replication." <http://www.stelarc.va.com.au/obsolete/obsolete.html> accessed 02/06/07.

Although dividing his works into stages, I would argue that all of his performances explore prosthetics in some way. By referring to "prosthetics" I am taking the original intended meaning of the word. That is, a prosthesis as an addition or as "something to put on." In this chapter, unless specified otherwise, I shall be considering the literal *putting on* of technology, and how these additions or addendum alter and transfigure the human body, thus creating a hybrid creature: a techno-body, a cyborg. Even Stelarc's early suspension works should be categorised as posthuman performance. The hooks and suspension wires still make the body capable of doing something it would otherwise not be able to do (i.e. be raised off the ground.) Technology as a prosthesis to the human body comes in a number of forms. Arguably, any foreign man-made object that is added onto, or inserted into the body (from reading glasses to a pacemaker) makes it cyborgian. Any augmentation could be seen as transforming the human into a cyborg, as transcending the capabilities and limitations of the body. Medically, prosthetics are often used to replace a part of the body that is not functioning properly: for example artificial limbs, metal rods to replace bone, etc. In a performative context often the technology does not *replace* but instead extends or enhances the body or part of the body. This raises the question: "Have we *always* been posthuman?" In answer to this I would cite Stelarc himself: "We fear the involuntary and we are becoming increasingly automated and extended. But we fear what we have always been and want what we have already become - Zombies and cyborgs."⁷ Perhaps it is only recently when technology has looked as if it could *surpass* the human that these issues of posthumanity seem so imperative, despite the fact that the human body has been cyborgian for quite some time. Katherine Hayles places the human body as the original prosthesis as she states in her study *How We Became Posthuman*: "The posthuman view thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses became a continuation of a process that began before we were born."⁸

When considering the relationship between the human and technology -

⁷ <http://www.stelarc.va.com.au/stelarc1.html> accessed 28/08/07.

⁸ Hayles, Katherine N. *How We Became Posthuman* (Chicago and London: The University of Chicago Press, 1991) p3.

particularly when examining them in the context of prosthetics - we must acknowledge the type of technological medium that is being dealt with while additionally understanding the implications of that medium. What should also be considered is *how* the machine or technology is relating to the body. Is it a wearable device like a glove or a head-mounted device which does not interrupt the skin but is worn over parts of the body to extend it? Or does it need to be implanted in the body, does it rupture the skin - the body-boundary - in order to be attached? Does it use the skin as a membrane in order to work with the sensorial nature of the skin and to stimulate this? Is it attached to the body at all? And if so, perhaps it is only by a hand on a computer mouse? Is the technology interacting with the brain? Is it immersive and affecting the whole body? If not, what part of the body is it working with, and what are the implications of the connection with this particular part of the body? To fully understand the complex relationship between the live body and technology these issues are important to consider.

Looking at the nature of the prosthesis is also important when thinking about the implications of power in the joining of the two disparate mediums. Is the computer being controlled by a human operator? Is the human body responding to the technology or vice versa? Who is controlling who? On the other hand, there is also the rather controversial notion first voiced by Marshall McLuhan (writing in the 1960s) that we are a mere prosthesis to machines, that we are nothing more than the sex organs for machines.⁹ Stelarc, in an interview with Jane Goodall, states the following: "I've from very early on held the view that we've always been prosthetic bodies. Ever since we evolved from hominids... we've constructed artefacts, amplifications of the body. It's part of what we are as a human species."¹⁰ Here Stelarc is implying that it is not the technology that has driven us to want to extend or amplify parts of the body, but rather our nature, our innate desire to move forward and to progress. By viewing the body as a "work in progress" or as an outmoded design open to reconfiguration, Stelarc is emphasising the limitations of

⁹ McLuhan, Marshall, *Understanding Media: The Extensions of Man*, (Cambridge, Massachusetts and London: MIT Press, 1994).

¹⁰ Stelarc interview with Jane Goodall, Sydney, 23 August 2000 in "The Will to Evolve", *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p1.

the body as it stands. In the 1980s the United States Air Force realised that the bodily reflexes of pilots of new ultra-sonic jet fighters were inadequate. The "hyper-speeds" that the jet fighters travel at demanded reaction times outwith the human body's capabilities. In this respect, and in this context, it could be argued that the human body is obsolete as advancements in aerial technology supersede the humans who operate them.¹¹ This is where Stelarc's appeal for a redesigned techno body to replace the obsolete flesh model has some magnitude.

Stelarc began his career as a body artist in the 1960s but found fame in the mid 1970s through a series of suspension events, suspending his body from cliffs and buildings by using cables attached to hooks that were pierced through his flesh. Stelarc states "For me, the cables were lines of tension which were part of the visual design of the suspended body, and the stretched skin was a kind of gravitational landscape." (Stelarc 1995) Although in these suspensions Stelarc was not augmenting his body via a technological prosthesis, his desire to transcend the body is clear and the concept of design (of *re-design*) is evident.¹² He insists that the suspended body is synonymous with the obsolete body: "The imagery of the suspended body is really a beautiful image of the Obsolete body. The body is plugged into a gravitational field, suspended yet not escaped from it."¹³ The obsolete body for Stelarc exists between two states or planes of existence: human/post human, man/machine. Indeed a whole series of hybridities are explored throughout his work. In the early 1980s he staged a number of body suspensions, such as *Pull Out/Pull Up, Event for Self Suspension* at the Tokiwa Gallery, Tokyo on the 2nd March 1980, where he suspended himself in an almost meditative seated pose, eyes shut, suggesting an inner peace and sense of well-being, directly contrasting with the image of numerous hooks in his flesh suspending him off the gallery floor. The conflict between Stelarc's serene persona and the image of the hooks creates a tension - no discomfort appears to be

¹¹ This provoked a series of experiments into virtual head gear to block out normal vision and show a slowed down version of the visual information needed. I discuss virtual reality head mounted displays in Chapter Three *Virtual Environments*.

¹² The architectural design elements to Stelarc's work are notable although I do not have space to discuss them due to limitations of length.

¹³ Interview with Paul McCarthy (1983) cited in Kroker, Arthur, and Kroker, Marilouise, *Body Invaders* (Montreal: New World Perspectives, 1987) p25.

registered on his face despite the pain that his body is experiencing. This resonates with his previous statement about existing between states. Stelarc plays down the experience of his body in his performance pieces, denying that pain plays any part in his work. By denying any masochistic intent he emphasises the idea of the body as object and as detached from himself. He states of one of his suspension pieces: "My body was suspended by hooks with ropes from an 18-foot diamond inflated balloon. My body sounds were transmitted to the ground and amplified by speakers. I got sick - turned purple - the body sounds changed dramatically."¹⁴ This is a rare admission of the bodily effect of performing such physically demanding and painful works. Note, however, that although Stelarc uses the first person initially in "I got sick," he then refers to his body in the third person - as a disconnected object: "The body sounds changed dramatically." By distancing himself from his own body in this way Stelarc constructs the body as object: malleable and open to reprogramming.¹⁵

Stelarc performed *Event For Stretched Skin* at the Maki Gallery in Tokyo on the 16th May 1976, where his attempt to objectify and negate the body was evident. In this performance, Stelarc lies face down with his arms outstretched while suspended from wires attached to a wooden structure and pierced through the flesh of his back. Throughout the performance his face remains neutral (he remains detached), as much an object as the natural materials from which he constructs his suspension structures. In *Event for Propped Body* (1978) he lies on a bed of wooden spikes and again his outward disconnection from his own body is clear through his serene facial expression. In 1982 he staged *Event for Clone Suspension* - again at the Maki Gallery- where his body was wrapped in wire mesh and covered in plaster to create a full body cast. When it was set and removed, Stelarc said that "the sensation was of shedding skin."¹⁶ The cast was displayed in the gallery for a week following the performance and could be viewed as

¹⁴ Interview with Paul McCarthy (1983) cited in Kroker, Arthur, and Kroker, Marilouise, *Body Invaders* (Montreal: New World Perspectives, 1987) p25.

¹⁵ Stelarc objectifies his body in the way that Abramovic and others in the 1970s did, continuing the debate around the body as object, and moving this debate on with his use of technology.

¹⁶ Interview with Paul McCarthy (1983) cited in Kroker, Arthur, and Kroker, Marilouise, *Body Invaders* (Montreal: New World Perspectives, 1987) p25.

representative of the discarded body form - in this case the body at a literal remove.

From this point on most of Stelarc's work looks at extending the body through some kind of technological or robotic prosthesis. By extending the body he is redesigning it, which remains synonymous with Stelarc's definition of obsolescence. Between 1981 and 1994 Stelarc performed his range of *Third Hand* events, working with a robotic hand that he had designed to be attached over his own hand. By experimenting with robotics - and by attaching robotic limbs as an addendum to his own - Stelarc literally embodies the cyborg human, the "Bionic Man." Stelarc did not create his robotic third hand as a replacement limb, but as an *additional* part. By replicating an existing appendage and attaching it to his own version of this limb for performances, Stelarc is setting up the robotic arm as the simulacrum. By adding a robotic arm to his own body he is furthering his case for the obsolescence and redesign of the body.¹⁷ Note however, that he is not *replacing* his own arm with a robotic one (and therefore negating the human body, making it obsolete in the traditional sense of the word) but instead *extending* it by means of a prosthesis, augmenting it and adding to it. The action of the robotic arm works in tandem with Stelarc's own arm; they work together to spell out EVOLUTION. This is an example of how the posthuman body can function in performance, not only as a performing cyborg (a live and mechanised performer) but also exploring issues of posthumanity, evolution and obsolescence within the performance itself.

From 1995-98 Stelarc worked on Internet art pieces, *Fractal Flesh*, *Ping Body* and *Parasite* with the assistance of the Merlin Group in Sydney Australia. The Internet can be viewed as a prosthesis, a way of extending our bodies beyond their limitations via the prosthesis of a computer mouse. The Internet also enables us to extend ourselves over a virtual space rather than in a physical capacity. Stelarc began exploring the potential of communication via the Internet through the involvement of a number of dispersed internet users in his performances via cyberspace. His use of the Internet is radical in that he avoids the "virtual" or

¹⁷ Throughout this time he also did a range of events with industrial robot arms and in 1992-3 he worked on the *Virtual Arm* Project in Melbourne Australia, playing with Data Glove Control technologies.

virtual reality practices, instead using the Internet as a stimulus for his own body and as a means to explore the relationship between his own body and Internet users, and through this creating performances. For example, in *ParaSite for Invaded and Involuntary Body*, Stelarc's body is connected to the Internet. A search engine selects random body images that act as visual stimulation and then the images are reprocessed as electricity for muscle stimulation. In this way the simulated visual body moves Stelarc's actual body. His actual body then becomes parasitical on the parallel virtual world. This coincides with theories of the body becoming a prosthesis to technology, instead of the other way about. Stelarc states in an interview: "Information is the prosthesis that props up the obsolete body."¹⁸ In these instances, Stelarc has surrendered control over his own body by having it electronically wired so that operators at remote terminals can initiate the impulses which activate his muscles. Like Abramovic in *Rhythm 0*, it could be argued that he is ultimately in control of this by making the decision to hand over his body to others, to those "spectators" who then become active participants in the performance.¹⁹ However, they ultimately become the controllers of his body (the avatar). Gabriella Giannachi states of Stelarc's internet performances, "He is not only in control of a complex technological operation, but is also, paradoxically, being controlled by the very technological means he activates."²⁰ By electronically linking his body motion to remote, random sensors on the internet, the artist's body is physically moved through the collective activity of Internet users. Stelarc's agency is surrendered to the collective of users, breaking down the distinction between the individual and technology, the self and the other. Giannachi continues: "To let technology affect the body, Stelarc therefore has to 'absent' himself partly, allowing himself to be simultaneously active and passive, container and contained."²¹ Once again we can see these binary states being troubled, and in this case we can see the literal disappearance of the human body as we know it and instead the emergence of an interfacing cyborg entity. The notion of interfacing is

¹⁸ Stelarc interview with Jane Goodall, Sydney, 23 August 2000 in "The Will to Evolve", *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p7.

¹⁹ In the way Marina Abramovic did in *Rhythm 0* as discussed in Chapter One.

²⁰ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p58.

²¹ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p59.

key here - the cyborgian body needs a host body, and therefore the human body cannot be totally erased or invisible. He asserts that, "there is the possibility that the realm of the posthuman may not simply be in the realm of the body or the machine but the realm of intelligent and operational images on the Internet."²² It is through these Internet pieces that we can witness Stelarc's vision of the posthuman: perhaps the most lucid version of the posthuman body in performance out of all of his performances.

Ping Body took place at the Artspace in Sydney on 10th April 1996 using three computers, three cameras, two video projectors, a vision switcher, a vision mixer, a specialised sound system and the Internet. In *Ping Body: An Internet Actuated and Uploaded Performance* Stelarc interfaced his body with the Internet. During a live performance, Stelarc's body is actuated via a scaled-up version of the interface while the image on the computer screens parallel the real body's limb movements as they "randomly imbibe fluctuations in Net activity levels."²³ In this multi-user performance there is a reversal of the usual dynamic between the user and the net: instead of the Internet being constructed by the input from user's bodies, the Internet constructs the activity of *one* body.²⁴

At the Institute of Artificial Art in Amsterdam there are a number of experiments being performed that examine the effects of electronic muscle stimulation. The Institute strives towards a fully automated form of art, developing creative machines and exploring ultimate digital control of the human body. In terms of performance making, Arthur Elsnar and his team focus primarily on the facial muscles, with a department solely devoted to *ArtiFacia/Expression* which works at developing new forms of algorithmic performance art that "employ the human body as a computer-controlled display device."²⁵ By using electrodes attached to the human face they send a series of pulses that cause the muscle to respond independent of the performer's will. By choreographing these movements

²² Stelarc (2002) cited in Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p61/2.

²³ <http://www.stelarc.va.com.au/pingbody/ping.html> accessed 28/08/07.

²⁴ In *Fractal Flesh* (1995) Stelarc had used a similar idea using STIMBOD software to create a parasite via the internet which was hosted within his body.

²⁵ <http://iaaa.nl/artex/index.html> accessed 09/07/07.

to music by the Solenoids, an automatic guitar band with whom they collaborate, they create performance pieces where the only action is a manipulation of the performer's facial expression using electronic means. An example of this would be the performance piece *Arthur and The Solenoids* (1997) in which the facial muscles are stimulated by a live application of electronic impulses in time to a musical score. There is a gradual build up of the pulses to create a range of facial expressions (some comical, some spasmodic, some painful looking) until the climax of the piece where the face becomes almost unrecognisably distorted. The face is disfigured and deformed by electronic means; by using the technology, the face is manipulated into expressions that our muscles cannot normally create. The speed with which the muscles move, particularly towards the end of the piece, and the expressions created are on occasion painful to watch as the face morphs from a recognisable human into a face obviously being manipulated by the prosthesis - a hybrid entity, a cyborgian monster. As the humanity of the facial movements disappear and the technology becomes the focus, the face emerges as a mere puppet on electronic strings.²⁶

It is important to consider that sometimes during performances using prosthesis and technological means, the power between man and machine shifts: often the one that has been controlling seems to surrender control at some point in the piece and the other becomes the dominant force. Brian Massumi who has written widely on the work of Stelarc argues that: "... the body and its objects were prosthesis of *each other*, and that matter itself was prosthetic."²⁷ I agree with this, and would argue that the relationship between the body of the live performer and the technology used can change throughout - at points one is the master and one is the slave; one is the marionette, one the puppeteer; one the controller, one the controlled.²⁸ In my opinion, it is often when the control shifts and where the tension arises that such works become theatrical. This is frequently when issues of

²⁶ One of the aims of The Institute of Artificial Art is to produce completely automated art - art completely made by machines. This is an example of where the body is being replaced (or where bodies are attempting to replace the body). I refer to this now to show that the anxiety surrounding the erasure of bodies has some cogency.

²⁷ Massumi, Brian, "The Evolutionary Alchemy of Reason" *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p179.

²⁸ The body in the theatre as an ubermarionette was explored by Edward Gordon Craig.

embodiment come into play too, for the performer *and* the spectator - notably when pain is involved in the experience of the performer (or imagined empathetically by the spectator). This can be witnessed in *Arthur and the Solenoids* when the electronic muscle simulations speed up and the face begins to look grotesque and inhuman, while the pulses themselves travelling through the electrodes look painful. In watching this, the visceral nature of the action becomes overriding and it proves difficult not to think about the experience of the performer. I therefore construe that at times the experience of watching another body in pain can be transferred to the experience of the spectator. I have already discussed theories of the role of the live body in performance, in the first chapter, in terms of pain.²⁹ There have been a range of extreme physical reactions to performance acts beginning with those in the 1970s with masochistic and sado-masochistic performance provoking spectators to vomit, faint or have to leave the performance space.³⁰ In technologised performance often the purpose is not the pain and this experiential aspect is ignored, as are other phenomenological aspects of technologised work. I will now discuss this, specifically exploring Brian Massumi's slant on sensation in Stelarc's work.

In his article "The Evolutionary Alchemy of Reason," Massumi champions Stelarc's use of the body as being deeply rooted in the sensation of the body claiming that "Stelarc's is an art of sensation."³¹ This is a controversial statement when theorising an artist who attempts to erase the body and portray through his work its obsolescence. A body that can express nothing is a dysfunctional body. It is what philosophers Deleuze and Guattari call a "body without organs."³² Taking this into account, I would like to look at Stelarc's 1993 performance, *Stomach Sculpture*, in which he swallows a minute camera device, or "aesthetic

²⁹ I discuss Gina Pane's work in relation to Scarry's *The Body In Pain* (1985) in Chapter One.

³⁰ These reactions are not uncommon to this day in response to the performances of Modern Primitivist rituals, such as hook and pull suspensions and extreme body piercing.

³¹ Massumi, Brian, "The Evolutionary Alchemy of Reason" *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p134.

³² Deleuze, Gilles, and Guattari, Felix, *A Thousand Plateaus: Capitalism and Schizophrenia* (London: The Athlone Press, 1988).

adornment."³³ Audiences were able to witness what was being filmed as the images were projected on to screens. During the performance Stelarc amplifies the sounds of his own body (the blood flow, heartbeat and muscle movement) and "makes his body its own simulacrum."³⁴ Instead of a literal *visual* simulacrum of the body as can be witnessed in his *Third Hand* pieces, the body is aurally transformed into a simulacrum of itself - the outer physical body disappears as it is turned inside out. The audiences actual act of watching (and experiencing) the journey through the visceral, wet, moving insides of what Stelarc claims to be the "HOLLOW HARD BODY" are surely far removed from what his claim suggests. Jones draws the following conclusion: "Stelarc's spectator is the alienated viewer out there, who is left to wonder at the insistence of the artist's desire to avoid (and to void) the body, to call it obsolete, done, finished, and yet to do so through an obsessive manipulation of its brute materiality."³⁵ For both the spectator and the performer, sensation is crucial - for the spectator, the deferred experience of putting themselves in that position, of being an empathetic body in the space is key; for the performer (despite his denial about the painful/uncomfortable/embodied experience he is going through) the actuality of the experience itself as a performance is worth acknowledging - i.e. even if the artist does not claim to be emotive or feel anything in performance, their bodies are physically reacting to the circumstances they are experiencing.

In considering the *fleshiness* of the body and the characteristics of the body as an organism (that is, as a living, growing, breathing life form) I now want to move on to an area of posthuman performance that looks at the augmentation and extension of the body through *cellular* prosthesis. In his more recent works, Stelarc has been researching a field that has been dubbed "Transgenic Art." The leading name in this field is Eduardo Kac, Associate Professor of Art and Technology at the School of the Art Institute of Chicago. A practising artist and theorist, he began

³³ Smith, Marquand, ed. *Stelarc: The Monograph* (Cambridge, Massachusetts, London, England: The MIT Press, 2005).

³⁴ Kroker, Arthur, and Kroker, Marilouise, *Body Invaders* (Montreal: New World Perspectives, 1987) p25.

³⁵ Massumi, Brian, "The Evolutionary Alchemy of Reason" *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p109.

working in the 1980s in performance and art, then later in tele-robotics and transgenic art. Kac defines "transgenic art" as, "a new art form based on the use of genetic engineering techniques to transfer synthetic genes to an organism or to transfer natural genetic material from one species into another, to create unique living beings."³⁶ Having started his technological experiments through tele-robotic and internet pieces, Kac then moved on to explore the potential of advancing experiments in fusing man and machine to create a *cyborg*, to fusing man with other organisms, to create a *chimera*, using technological means.³⁷ These experiments advance further the technologisation of the body, and the move towards a posthuman aesthetic.

There are a number of analogies that could be made between the work of Stelarc and that of Kac. When the internet exploded on to our cultural and artistic map, Kac created a number of pieces in which actions carried out by Internet participants had a direct physical manifestation in a remote gallery space, in a manner reminiscent of Stelarc's *Ping* piece. *Genesis* was commissioned by Ars Electronica 99 and presented online and at the O.K. Center for Contemporary Art in Linz in September 1999. *Genesis* is a transgenic artwork exploring the relationship between biology, technology, information, ethics and the Internet. The artwork is based around a synthetic gene created by Kac by translating a sentence from the biblical book of Genesis into Morse Code, before converting the Morse Code into DNA base pairs according to a conversion principle specially developed by the artist for this work. The sentence reads: "Let man have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moves upon the earth." The text was chosen for what it implies about the dubious notion of divinely sanctioned humanity's supremacy over nature. Kac describes his performance as such:

The Genesis gene was incorporated into bacteria, which were shown in the gallery. Participants on the Web could turn on an ultraviolet light in the gallery, causing real, biological mutations in the bacteria. This changed the

³⁶ <http://www.ekac.org/transgenic.html> accessed 09/07/07.

³⁷ "While in ordinary discourse the word 'chimera' refers to any imaginary life form made of disparate parts, in biology 'chimera' is a technical term that means actual organisms with cells from two or more distinct genomes. A profound cultural transformation takes place when chimeras leap from legend to life, from representation to reality." <http://www.ekac.org/transgenic.html> accessed 09/07/07.

biblical sentence in the bacteria. The ability to change the sentence is a symbolic gesture: *it means that we do not accept its meaning in the form we inherited it, and that new meanings emerge as we seek to change it.*³⁸ (my italics)

It is the last line of this description of *Genesis* that epitomises the transgenic and cyborgian adaptation of the body. The human body as we know it (and have inherited it) has altered through the technologisation of culture and society, and within this new *meanings for the body* and new *versions of the body* are emerging. This is conveyed through the appearance of the posthuman body in performance as witnessed through the work of Kac and Stelarc.

Stelarc began working in the field of transgenic art in the mid 1990s, in 1997 initiating his *Extra Ear* project. The concept behind this was to construct an extra ear - an exact reproduction of a human ear - to be placed next to a real human ear and to communicate aurally with it. Once again in his work the reconstruction and the *redesigning* of a human appendage can be witnessed. The ear appears to be a carbon copy of the human ear, although the design has been improved not only to listen but also to communicate. Kac, even more so than Stelarc, although working with technology, is also intrinsically entwined with the live through his "bio-art." The premise behind these works is not just watching something live, but actually watching something *live* - some genetic organism be born, grow, and alter before your eyes. For example his *Specimen of Secrecy about Marvellous Discoveries* (2004-06) is a series of works comprised of what Kac calls "biotopes": that is, living pieces that change during the exhibition in response to internal metabolism and environmental conditions. Each of Kac's biotopes is literally a self-sustaining ecology comprised of thousands of very small living beings in a medium of earth, water, and other materials. Kac orchestrates the metabolism of these organisms in order to produce his constantly-evolving living works.

The implications of these experiments in transgenic art (or "bio art" as he sometimes refers to it) must be considered, for by interfering with and mutating genetic structures, there are cultural, political and ethical concerns. In *Simians*,

³⁸ <http://www.ekac.org/transgenic.html> accessed 09/07/07.

Cyborgs and Women, feminist techno-theorist Donna Haraway claims that the differences between nature and culture have collapsed.³⁹ This is a serious statement to make considering the wealth of material regarding the relationship between nature and culture that has been written in sociological, biological and anthropological studies. Giannachi concedes that: "The concept of 'nature,' is no longer synonymous with evolution, in that evolution today primarily implies nature's capacity to adapt to a polluted and destructive environment."⁴⁰ The term "nature" has metamorphosed in recent times moving from referring to the organic growth of species, to encompass the *synthetic* growth of species (e.g. humankind) as technology has permeated the social, cultural and physical environment.⁴¹ I concur with Giannachi here believing that the acknowledgement of "nature" changing is crucial. This is particularly the case when considering the ethics and concepts behind bio-technology and the integration of such practices into "transgenic art."

In the following excerpt, Giannachi considers the fear of experiments in transgenic art, genetics and plastic surgery; of overriding the genetic code and dissolving or diluting the differences between nature and culture:

In recent years, through the development of genetics and artificial life technologies, the concept of nature has also come to embrace the genetically modified and artificially created. Thus nature has come to incorporate what in original definition it was not: the technological, human-made, artificially simulated unnatural. So nature is now inclusive of both the real and the virtual.⁴²

This echoes Kac's view. This definition of what "nature" has come to mean seems to contradict what the word itself was traditionally understood to mean. Because of the denaturing processes of techno science, the movement of the body past presumed "natural" constraints can now be seen to "make literal postmodernism's celebrated deconstruction of the subject."⁴³ What is now seen as the concept of "nature" is no longer synonymous with evolution, in that evolution today primarily

³⁹ Haraway, Donna J. *Simians, Cyborgs, and Women* (London: Free Association Books, 1991).

⁴⁰ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p70.

⁴¹ An example of this would be the integration of genetic modification practices on to plant and vegetable growing processes.

⁴² Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p69.

⁴³ Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification* (Hampshire: Palgrave MacMillan, 2003) p152.

implies nature's capacity to adapt to a polluted and destructive environment, as illustrated by Giannachi.

Therefore, evolution as the progression and development of species has moved *away* from the organic and towards the manmade, mutating towards an artificially simulated, "unnatural" thing: the cyborg. This shift in paradigm is also evident through the immense rise in plastic surgery in the past ten years. The escalation of the notion of the body as image and of the cultural and societal situation that has produced this phenomenon has been discussed by Jones in her recent *Body Image* as well as by Victoria Pitts in *In The Flesh: The Cultural Politics of Body Modification*.⁴⁴ There is a pervasive sense of a pressure to achieve perfection through technology, of beauty becoming technologically achievable, a necessary commodity in order to survive and succeed in the world; a "quick fix" in terms of physical appearance. Many condemn this as working against nature - of overriding the genetic code. One such critic is Kathryn Pauly Morgan, who states "Research in this field is increasing at such a rapid pace that every area of the human body is seen as open to metamorphosis."⁴⁵ This metamorphosis and the integration of man-made elements into traditionally "natural" organisms is not, however, seen as a violation of nature by Kac and Stelarc, but is instead embraced as an opportunity for creativity, creation and hope for new beginnings. It could be argued that these types of new technologies have liberated societal groups that do not necessarily fall into the realm of white, male patriarchy. As Pitt asserts:

Cyborg technologies, for instance, might free women from biologically based roles such as pregnancy. They also can denaturalise other gendered roles. Transsexual surgery, for example, a twentieth century cyborg technology, has already challenged the fixity of nature based sex and revealed the ways in which femininity and masculinity are scripts that can be learned.⁴⁶

Within such theories the physical body could be seen as disappearing into the void of cyberspace - thus why it has been embraced by a number of feminist and queer

⁴⁴ Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification* (Hampshire: Palgrave MacMillan, 2003).

⁴⁵ Morgan, Kathryn Pauly, cited in *Body and Flesh: A Philosophical Reader* ed. Welton, Donn (Oxford: Blackwell Publishers Ltd, 1998) p339.

⁴⁶ Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification* (Hampshire: Palgrave MacMillan, 2003) p158.

theorists who take up the idea of new bodies and sexualities being imagined beyond the traditional physical limitations of the body. One of the most obvious examples of this would be the number of Internet users who chat online with an augmented identity, gender, and sometimes sexuality - moving beyond the identity that they feel their physical body demands of them. New cyborgian philosophies such as these have been dubbed "cyberpunk" by many theorists with the main premise being that body technologies are theoretically limitless and that through them human identities are totally malleable.⁴⁷ Pitt comments on this notion: "Cyberpunk assumes a world in which endless body transformation and the hybridity of humans and machines is taken for granted."⁴⁸ Once again I return to the idea of the metamorphosis of the body, of the body as a work in progress and (in Stelarc's view) an object for redesigning and reconfiguration.⁴⁹

Cyberpunk theory advocates the idea of an individualistic evolution of the body and of limitless potential for adaptation and augmentation. Pitt continues: "The very limitlessness of the cyberpunk world in terms of space, consumption, innovation, and embodiment seems to suggest the dissolution of all material and symbolic barriers, creating a state of freedom to choose one's body and identity."⁵⁰ The dissolution of the material body as a barrier envisages a liberated and liberal body politic. In insisting that the body is obsolete, Stelarc's theories are concurrent with cyberpunk theory; however, once again I must insist that the body is present and undeniable. While championing a "personalised evolution," cyberpunk thought nevertheless, proposes to liberate those *to do to their bodies what they wish*, to have the freedom to move away from social norms, and to experiment with their bodies.⁵¹

⁴⁷ Those that are involved in cyberpunk social groups often physically augment their bodies, practising procedures such as tongue splicing, having metal plates or objects inserted under the skin and having their genitals modified. Interestingly, some of the body modifications are strikingly similar to those practiced by the Modern Primitivists, who take their practices from ancient tribal practices. This appears to be another case where the past and the future may not be as disparate as they might at first seem.

⁴⁸ Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification* (Hampshire: Palgrave MacMillan, 2003) p152.

⁴⁹ I have no time here to discuss the "reality" of this - that will be the focus of my next thesis.

⁵⁰ Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification* (Hampshire: Palgrave MacMillan, 2003) p152.

⁵¹ Having said this, there is also the potential for technology to have the opposite effect. For example,

In this respect, Kac's work is already looking ahead to the chimera that we are arguably to become through transgenic experimentation:

In the future we will have foreign genetic material in us as today we have mechanical and electronic implants. In other words, we will be transgenic. As the concept of species based on breeding barriers is undone through genetic engineering the very notion of what it means to be human is at stake. However, this does not constitute an ontological crisis. To be human will mean that the human genome is, not a limitation, but our starting point.⁵²

The idea that the posthuman phase is a starting point is reiterated here. Both Kac and Stelarc's work epitomises "the posthuman body" exploring ideas such as the human and machine, self and other, subject and object, performer and spectator, man-made and "natural", mythic and modern, mind and body, life and art and control/response. Massumi comments on the in-between state of Stelarc's work as, "suspended between the prehuman and the posthuman."⁵³ These dichotomous mutations and exchanges between the organic and the man-made epitomise the definition of the posthuman body. Judith Halberstam and Ira Livingstone make the link between the paradoxical posthuman body and identity: "The posthuman does not necessitate the obsolescence of the human; it does not represent an evolution or devolution of the human. Rather it participates in redistributions of difference and identity."⁵⁴ Massumi agrees with this: "In a very real sense, the body is always already obsolete, has been obsolete an infinity of times, and will be obsolete countless more - as many times as there are adaptations and inventions. *The body's obsolescence is the condition of change. Its vitality is in obsolescence*" (original emphasis).⁵⁵ Stelarc's obsolescence of the body is, from his perspective, the next phase in evolution. In appealing for the redesign of the body, he is appealing

technology is seen as a way of achieving an ideal of beauty and thus could have a homogenising effect on people's bodies. In a similar way the identification of unwanted genes could eradicate these before birth, i.e. the "gay gene" the disabled gene, could also work towards a homogenisation of bodies and an elimination of difference.

⁵² <http://www.ekac.org/transgenic.html> accessed 09/07/07.

⁵³ Massumi, Brian, "The Evolutionary Alchemy of Reason" *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p176.

⁵⁴ Halberstam, Judith and Livingstone, Ira, *Posthuman Bodies* (Bloomington and Indianapolis: Indiana University Press, 2000) p10.

⁵⁵ Massumi, Brian, "The Evolutionary Alchemy of Reason" *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p152.

for progress and an admission that *technology is changing culture*, that *nature has changed* and that the *nature of bodies is also changing*.

However, despite Stelarc's appeal for a hollow, hard, technologised body and his claims that the body as it stands is obsolete, his work with the body is often visceral and affecting. As Jones states: "After all, this artist who rhetorically insists that the body is obsolete chooses performance as his medium. The medium of performance most insistently begs the question of bodily 'presence,' materiality, unpredictability, sweat, and stench."⁵⁶ The presence of Stelarc's live (yet mechanised) body in the space is the essence of his art. Stelarc states that the body as object has no memory. I strongly disagree, and would argue that the body *can be seen as* our memory. With our experiences etched on its surface over time, the body becomes a living document, a living memorial to our existence and experiences.⁵⁷ Stelarc's body after almost four decades of suspension, piercing, endurance works and the grafting of foreign objects on to it, and could be read as the visual memory of his career - the story of his life is scarred upon him. Far from being a "container," his body is the visual memory of a life's work. Unlike his *Event for Clone Suspension* (1982) at the Maki Gallery in Tokyo, where a plaster cast of his body was suspended as a representation of his obsolete body (like a snake shedding skin), Stelarc remains very much a body, and a body artist. His *actual* body remains breathing, living, vital, as his very performances show.

⁵⁶ Jones, Amelia, "Stelarc's Technological Transcendence"/Stelarc's Wet Body" *Stelarc: The Monograph* ed. Marquand Smith (Cambridge, Massachusetts and London: The MIT Press, 2005) p94.

⁵⁷ This is argued by Steven Connor in his study on skin. See Connor, Steven. *The Book of Skin*. (London: Reaktion Books, 2004).

Chapter Three: Virtual Environments

Having examined the nature of the posthuman body in performance in my previous chapter, I now wish to explore the posthuman body in virtual environments. Throughout this chapter my main focus of discussion will be exploring issues of the live body that emerge through the transposition of virtual reality technologies on to performance, and the creation of virtual environments through a range of artists' works. To do this I will primarily be focussing on the work of Belgian company CREW and London based company al'Ka-mie. The relationship between the "real" and the virtual, the body and machine, and of the live body and the pre-recorded image shall be the main focus of this chapter. I will question how the body reacts and responds to virtual environments, how the body itself "performs" in these circumstances, and how new technologies in virtual reality can be transposed on to what could be argued is already a virtual world.

"Virtual reality hit the headlines in the mid-1980s... and overnight everything suddenly had a virtual dimension."¹ The explosion of the phenomenon of virtual reality in the 1980s described here by John Vince was expected to have a huge impact on a range of mediums and seemed to open up a new world of possibilities in the fields of entertainment, marketing, design, and everyday life. Some were optimistic about this new virtual realm, however others felt that this was another human transcendence into cyberspace that brought into question the basics of social interaction.² Despite the vast media coverage surrounding the new virtual reality experiences at this time, in actuality many of these early experiments in virtual reality proved disappointing. The lack of high quality imaging programmes and the presence of what is known as "lag time" (the time delay from physical movement to receiving the image) left many disappointed and frustrated with the medium. Because expectations were so high and theorisations surrounding the new medium so advanced, the actual capabilities of the technology were poor in comparison. Performance theorist Matthew Causey comments on this situation:

¹ Vince, John, *Essential Virtual Reality Fast* (London: Springer-Verlag, 1998) p1.

² As discussed in *Cultures of Internet: Virtual Spaces, Real Histories, Living Bodies* ed. Shields, Rob (London: Sage Publications 1996) p5.

"The theory has surpassed the realities, which may be the purpose of theory. In that sense, virtual reality theory has a unique opportunity to assist the agendas for virtual reality experimentation."³ I would argue that since these experiments in the 1980s, this has continued to be the case and that virtual reality technologies have been attempting to catch up with the vast amount of computing and philosophical theory that has been written on the subject.

Computer scientist Roy S. Kalawsky states of virtual reality: "This format has variously been termed cyberspace, virtual reality, or artificial reality. But whatever oxymoronic neologism is used, the basic underlying feature is that the viewers of such display systems can be made to experience the interactive image as a synthetic or virtual environment with which they may interact in a potentially natural way."⁴ As Kalawsky points out, the terms used when theorising virtual reality are oxymoronic since we are dealing with virtual optical images conveyed either via a screen or via a head mounted display (HMD). However the phrase "virtual reality" implicates both the real and the virtual. What is "real" and what is "virtual" is problematic terrain. Gabriella Giannachi's study *Virtual Theatres* offers some insights into the transposition of virtual reality technologies into performance practice. On virtual reality she states:

Virtual reality is in a paradoxical relationship with the real. On the one hand, it is part of the real; yet, on the other, it has to be constructed as different from the real in order to be perceived as separate from it. Thus, virtual reality consists of a dichotomous paradox, torn between its ontological status which locates it as part of the real, and its aesthetic, through which it demonstrates its difference from the real.⁵

There has been much debate over virtual reality and of "real" experience as "virtual", most notably in the work of French philosopher Jean Baudrillard. He argues, "Today we do not think the virtual, the virtual thinks us,"⁶ and maintains that we are already in a state of virtual immersion and unwittingly still believe in the *reality* of the real, while the virtual has already virtually scrambled all the

³ Causey, Matthew, *Theatre and Performance in Digital Culture: From Simulation to Embeddings* (London: Routledge, 2006) p62.

⁴ Kalawsky, Roy S. *The Science of Virtual Reality and Virtual Environments* (Wokingham: Addison Wesley Publishing Company, 1994) pv.

⁵ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p123.

⁶ Baudrillard, Jean, *Screened Out* trans. Chris Turner (London and New York: Verso, 2002) p107.

pathways of thought. He claims that:

We cannot even imagine how much the virtual - as though running ahead of us - has already transformed all the representations we have of the world. We cannot imagine this, for it is the particularity of the virtual that puts an end, not just to reality, but to the imagining of the real, the political and the social; not just to the reality of time, but to the imagining of the past and the future (this is what is known, in a kind of black humour, as 'real time').⁷

I include this citation to make clear Baudrillard's stance on the position of virtuality and reality, which will be a point of discussion of this chapter, but also for his definition of "real time" to which I will also refer.⁸ When he is discussing the "virtual" Baudrillard is referring to a state of hyperrealism that advancements in technology have brought about as well as literal virtual worlds. He goes on: "The social, the political, the historical - even the moral and psychological - *there are no longer any but virtual events within all these categories...* And this even applies where technology is concerned: we speak of 'technologies of the virtual', but the truth is that there are now only - or there will soon only be - virtual technologies."⁹

This dialectic between the real and the virtual is interesting when one considers how virtual environments and virtual technologies have been developed. They are often developed as imitations of the real, but are not quite convincing enough to pass as real, nor intended to pass as real, as Giannachi indicates in the quote previously cited. I return here to the programming of virtual worlds in computers. In *Designing Virtual Worlds*, computer programmer Richard A. Bartle explains how virtual worlds are often programmed within the same "laws of nature" as the "real" world. He looks in depth at the behaviour of players or users of these worlds, and how although their chosen character (or "virtual self") has no *need* to eat or drink or sleep or procreate, these behaviours are common.¹⁰ Despite the fact that the virtual characters are independent of the boundaries of human life and can survive independent of an ecosystem, players often direct their characters to go

⁷ Baudrillard, Jean, *Screened Out* trans. Chris Turner (London and New York: Verso, 2002) p107.

⁸ Baudrillard is renowned for his writing on history in terms of his philosophy of real time and the lack of proof we have of anything other than the immediate, thus throwing doubt on all historical facts and all expectations for the future. Particularly famous are his writings on the Gulf War. See Baudrillard, Jean, "The Gulf War Did Not Take Place" (1991).

⁹ Baudrillard, Jean, *Screened Out* trans. Chris Turner (London and New York: Verso, 2002) p111.

¹⁰ Bartle, Richard A. *Designing Virtual Worlds* (Indiana: New Riders Publishing, 2004).

through these processes.¹¹ There is a vast amount that could be said about identity when examining the adoption of character (the creation of a virtual self) in these virtual worlds but that is matter for another study.¹²

In order to engage with debates about virtuality and reality, I want to clarify some of the terms used throughout this chapter as some are used interchangeably or have more than one referent. Virtual worlds are what used to be referred to as MUD's (multi-user dungeons) and these fall more into the realm of computer programming. Virtual worlds are the worlds created in computer games but which almost always have a screen separating the player or user and the environment.¹³ For the purpose of this study, "virtual environments" refers to virtual spaces that the user is immersed in, and that can be explored via HMD or another prosthesis. As Kalawsky states in *The Science of Virtual Reality and Virtual Environments*:

Virtual environments are... special simulators that are generally worn rather than entered. They are personal simulators. They aim to provide an unmediated immediate sense of presence in a world or space other than the physical one in which their users actually are. Their users are not in a cockpit that is within a synthetic environment, they are in the environment themselves.¹⁴

Another analogy that is often used is that the non immersive virtual environment is like looking at the ocean through a glass-bottomed boat, while immersive virtuality is like scuba diving in the ocean.¹⁵ The difference is the removal of the screen and with the removal of this, the immersion of the physical self, which has an incredible

¹¹ This behaviour could also be witnessed in the 1990s with the phenomenon of the tamagotchi, the Japanese virtual pet that required its "owner" to regularly feed it and let it sleep otherwise it would expire. This attribution of "live" qualities to an inanimate computer program is interesting when examining the demarcations and relationship between the live and the unlive, the real and the virtual. Although the virtual pet does not literally need food/ water etc. for its existence, as a real pet would, the consequences of neglect are the same; there is still cause and effect at play, which often the virtual rules out. Having said that, the nature of the programme is engineered to attribute "real" qualities to the virtual creature, giving it the characteristics of the live. There is a restart button on these creatures indicating that consequences in the virtual are less severe (less "real" perhaps?!) than in the real world.

¹² The website for multi user game *Everquest* states: "join thousands of people online in a living fantasy world that continuously evolves. Customize your character by choosing a class, race, deity and appearance." <http://everquest.station.sony.com/> accessed 20/04/07.

¹³ i.e. multi user games such as *Everquest*.

¹⁴ Kalawsky, Roy S. *The Science of Virtual Reality and Virtual Environments* (Wokingham: Addison-Wesley Publishing Company, 1994) pv.

¹⁵ Sherman, Barrie and Judkins, Phil, *Glimpses of Heaven, Visions of Hell: Virtual Reality and its Implications* (London: Hodder & Stoughton, 1992).

effect on the perception of the experience by the "immersant." Virtual environments, then, are experienced by attaching a prosthesis to the body - usually a HMD, or in the most recent advancements, hydraulic suits and other apparatus that create an immersive experience for the whole body.¹⁶

Throughout this chapter, I will be referring to computing programming as it was in this area that "virtual theatre", as Giannachi calls it, or the implementation of virtual reality technologies in performance has its grounding. Theatre theorist Johannes Birringer points out that in video gaming "one might propose that 'game' or 'play' creates a separate frame from the real world."¹⁷ This is not dissimilar to the way that performance creates a separate frame from the real world, and the similarities between virtual reality gaming practices and performance practices, up to and including the implementation of technology, are important when examining how one perceives virtual theatre and the reading of virtual environments in performance.

I want to stress here that even if the format of the virtual technologies in performance are not of the traditional virtual reality model, nor computer generated, people will often perceive them in terms of computer gaming and compute them in this way. That is, people will accept these virtual environments as the virtual worlds of gaming technologies which is why I emphasise the initial technological developments in these areas when examining their effect in performance. I agree with Birringer that through familiarity with these gaming technologies people are conditioned into accepting and believing that they are "in the scene," as he terms it. For, through immersion in the virtual environments via a virtual reality prosthesis people accept that they *are in* the environment, while also ultimately knowing that they are physically *not*. One must not forget also the presence of the body in gaming practices, and the recent developments in virtual or interactive software such as the Nintendo Wii which provides a physical interactive experience, and also arcade games such as interactive dancing machines and

¹⁶ Hydraulic suits are being used in military research at the moment to simulate being buried, to assist training for warfare.

¹⁷ Birringer, Johannes, "Saira Vicious: Game Choreography in Multiplayer Online Performance Spaces" *Performance and Technology: Practices of Virtual Embodiment and Interactivity* ed. Susan Broadhurst and Josephine Machon (New York: Palgrave Macmillan, 2006) p 48.

golfing games which require players to simulate the movement of the “real” game.¹⁸

This leads me on to the nature of the experience itself. Kalawsky states: “Virtual environments are synthetic sensory experiences that communicate physical and abstract components to a human operator or participant.”¹⁹ The importance of the *synthetic sensory* experience is also a vital part of my discussion. As I have explained, there are two basic types of virtual reality. The first that I will examine is the more basic desktop virtual reality, which has emerged from animated computer aided design (CAD). With desktop virtual reality the user views and interacts with the computer-represented image on a traditional computer graphics screen. The other kind of virtual reality is known as immersive virtual reality, and is based on helmet-mounted or immersive display technologies. In the remainder of this chapter I illustrate the use of both of these kinds of virtual reality in performance practice, firstly undertaking the non immersive kind of virtual reality that can be seen in the work of al’Ka-mie. I will go on to examine the immersive kind of virtual reality that can be identified in the work of CREW, and will analyse how the body experiences and is experienced differently in the work of both companies.²⁰

Thinking about the virtual as a “separate frame from the real world” and thinking about performance in a similar way, it could be argued that performance itself is virtual and has always been virtual. Following this train of thought it could, then, be argued that any “separate frame from the real world” is virtual. This would suggest that novels contain virtual worlds, as do films and even photographs. Margaret Morse explains this: “The semi-fiction effect is akin to but not identical with split-belief - knowing a representation is not real, but nonetheless momentarily closing off the here-and-now and sinking into another world - promoted within the

¹⁸ Nintendo Wii was released on 6th November 2006. It has been argued that these more interactive, and indeed active, computer games are being developed in a bid to combat the inactivity of computer game playing and the subsequent relating rise in childhood obesity and lack of exercise in young people.

¹⁹ Kalawsky, Roy S. *The Science of Virtual Reality and Virtual Environments* (Wokingham: Addison-Wesley Publishing Company, 1994) p4.

²⁰ Some of my initial research on CREW contributed towards a review of *U_Raging Standstill* that I wrote for the Body, Space, Technology e-journal entitled *Virtual Reality and Real Virtuality in Performance*. This can be found at <http://people.brunel.ac.uk/bst/vol08/home.html>.

apparatuses of the theatre, the cinema and the novel."²¹ Causey agrees with Morse, stating: "The theatre has always been virtual, a space of illusory immediacy."²² He then follows this up with the statement, "Everything has always-already been virtual."²³ I think that Causey has gone too far here, and am once again drawn to the theories of Baudrillard who pinpoints the commodification of culture and the rise of technology as being the cause of our progression towards what he calls "the simulacrum" and our advance towards a world dominated by the virtual.²⁴ Everything has *not* always-already been virtual; virtuality is dominating *now* because of an acceleration of technological advancements that have brought into question the relationship between the real and the virtual, and human experience of both. I do think, however, that Causey's statement about the theatre as virtual could be given some credence. In stating that, "The theatre has always been virtual, a space of illusory immediacy," he is highlighting the traditional view of theatre as an immersant art form - as a space in which a virtual world is shown and in which events unfold. I say that this is a traditional view because it harks back to the intended experience of the spectator as that of an escapism and of catharsis, outlined as early as Aristotle's *Poetics* (335BC).²⁵ Virtuality and illusion certainly run congruent to one another and I shall return to these ideas of the illusionary element to virtuality later in this chapter.

Giannachi also speaks of this illusion and artifice in cyberspace: "the more sophisticated the fake (simulation) the more authentic (and 'truthful') it appears. Thus cyberspace is not so much a place for authenticity and truthfulness, but rather the site for simulation, artifice and performance. In other words, it is the

²¹ Morse, Margaret, *Virtualities: Television, Media Art and Cyber Culture* (Bloomington and Indianapolis: Indiana University Press, 1998) p99.

²² Causey, Matthew, *Theatre and Performance in Digital Culture: From Simulation to Embeddings* (London: Routledge, 2006) p16.

²³ Causey, Matthew, *Theatre and Performance in Digital Culture: From Simulation to Embeddings* (London: Routledge, 2006) p16.

²⁴ Baudrillard, Jean, *Simulacra and Simulation* trans. Sheila Faria Glaser (Michigan: The University of Michigan Press, 1994).

²⁵ Interestingly, it is Aristotle's *Poetics* that provides the framework for Brenda Laurel's discussion in *Computers As Theatre* (1983).

very theatre of the real."²⁶ Giannachi's point here expresses one of the main paradoxes surrounding the virtual: the better the simulation the more it *seems* to be real.

Bearing these things in mind, I now want to examine some artists whose work explores the potential of virtual reality technologies within this "theatre of the real", looking firstly at the work of al'Ka-mie. al'Ka-mie is made up of Robyn Stuart and Brian Curson, both of whom are dance artists and also very active in the field of science (one is a computer systems engineer and the other an academic scientist). They started collaborating in 2000 and later formed the company. In 2001 the company worked on a seven day project called *VRIP*, the *Virtual/ Real Interface Programme*, and the relation between the real world of the body and the virtual world of the computer has been a preoccupation throughout all of its work since then. al'Ka-mie asserts that: "Notions of dimension, form and gravity can all be questioned in the virtual and juxtaposed to the real. Apparent solid objects can melt, bodies split."²⁷ al'Ka-mie's work is highly entertaining and very visually spectacular. Although altering the projection surface to create some 3D effects, the projection itself serves basically as a moving backdrop which is reminiscent of some early experiments in film and theatre.²⁸ The interaction between the real and the virtual happens at those moments when the body of the performer reacts to the surrounding environment.

The company's recent work explores how to make the merging of dance and virtual environments a more immersant experience for spectators. al'Ka-mie uses technologies that have been developed from computer aided design and employ large scale projection of these images in its performances while maintaining the use of a traditional stage space. It aims to explore the role of the live body in virtual environments to visualise what it sees as our literal immersion in a digital world. al'Ka-mie argues: "Using our work as an analogy, we conclude that use of

²⁶ Please note here that Giannachi is using the term "cyberspace" in reference specifically to a *virtual environment* like the ones that I examine in relation to CREW's work. Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p144. Throughout this study I use the term "cyberspace" in a different way, i.e. to refer to the Internet.

²⁷ <http://www.alkamie.co.uk/vworlds-explain.htm> accessed 21/04/07.

²⁸ For example, Station House Opera often use filmed backdrops in their theatre productions.

digital media in contemporary life may not necessarily lead to a loss of sensation, becoming subsumed into the digital world, but could lead to a new intensity of sensation and emergence of new possibilities throughout the fusing of physicality and virtuality."²⁹ The company does not however use immersive technologies, instead using large scale projection to provide vast moving virtual backdrops for the action of the live bodies onstage. Because of the movement of the computer generated graphics and their sheer size, often the audience is affected in feeling as though they are "kinetically moving."³⁰

To create the digital material al'Ka-mie uses a hybrid fusion of techniques. The visual elements may be taken from footage of real performers, photos, drawn animations or created in 3D modelling programs using a program called "Director" to combine sound, music, images, animations, video and 3D modelled elements. al'Ka-mie asserts, "Our scenography is not only less realistic with more metaphoric found objects, but also our 3D models are moved in a manner similar to a 3D computer game."³¹ It adds: "A projection only becomes a reality when it falls upon a reflective surface. So the shape, fragmentation and position of the reflective surfaces in a performance space, effect how a two-dimensional image can literally take three dimensional form. The virtual and the real becomes a tangible dimension with powerful metaphoric uses."³² It is this fusion of the virtual and the real and the place of the body within this new tangible dimension that interests me in the work of al'Ka-mie.

I want to focus on the merging of technology and bodily movement in the company's performance *Living Room* (2004). The piece is comprised of one onstage performer (Stuart), one offstage "performer" controlling the RAVE's (real-time animated virtual environments) movement (Curson), and either recorded music or improvising live musicians. The RAVES fill the entire stage and are "live" in

²⁹ Stuart, Robyn and Curson, Brian, "Exploring Living Room: Using Complexity Theory to discuss dance set in 3D digital scenography." Paper presented at (re)Actor: The First International Conference on Digital Live Art, The Octagon, Queen Mary, University of London, September 11 2006, p12.

³⁰ This can be seen in performances *Flux* and *Preflux* (2003).

³¹ Stuart, Robyn and Curson, Brian, "Exploring Living Room: Using Complexity Theory to discuss dance set in 3D digital scenography." Paper presented at (re)Actor: The First International Conference on Digital Live Art, The Octagon, Queen Mary, University of London, September 11 2006, p5.

³² <http://www.alkamie.co.uk/vworlds-explain.htm> accessed 21/04/07.

that they are controlled and rendered in real-time. al'Ka-mie states of its created virtual environments:

We aim to make the movement of the RAVEs, or virtual choreography, an equal, intelligent and creative dance-partner to the live onstage performer(s). The combination of the offstage dancer and the technological system creates in effect a 'technological dancing entity' which both responds to, and creates onstage events, in a manner that promotes a dancing dialogue between itself and the onstage performer.³³

Curson is currently working on software to make a computer system artistic and creative - to become an equal partner in this dance duet.

Living Room tells the story of a young lady moving through a series of RAVEs. Audiences have read the woman's journey in a range of ways: for example, that she is moving through an Alice-like dream; that she is caught in a computer virtuality; that she is psychotic; or that she is waiting for life to start and that she is experiencing various dream realities.³⁴ Within the RAVEs a range of iconic references are made to time (a clock in the living room ticking at half speed), death (a graveyard), ascendance (stairs), nature and life (tree and flower), with some of the visuals being influenced by the work of Dali, Escher and Geiger amongst others. At times the woman appears physically to fade in and out of any of the real or dream worlds. At the end of the piece her physical form becomes blurred into her environment - she is both real and virtual. al'Ka-mie itself theorises its work using Deleuzian theory and Complexity Theory. Complexity Theory is a branch of mathematics that investigates complex systems such as emergence, randomness and order, non-linearity and self organisation. The part-improvised movement and part-improvised RAVEs throughout the performance embody these elements of Complexity Theory.

³³ Stuart, Robyn and Curson, Brian, "Exploring Living Room: Using Complexity Theory to discuss dance set in 3D digital scenography." Paper presented at (re)Actor: The First International Conference on Digital Live Art, The Octagon, Queen Mary, University of London, September 11 2006, p8.

³⁴ Stuart, Robyn and Curson, Brian, "Exploring Living Room: Using Complexity Theory to discuss dance set in 3D digital scenography." Paper presented at (re)Actor: The First International Conference on Digital Live Art, The Octagon, Queen Mary, University of London, September 11 2006.

After productions of *Living Room*, Stuart and Curson did surveys to gauge audience reactions and experience. They asked questions relating to the audiences experience and found that 65% of viewers felt that the dancer was present or inhabited the virtual world, whilst 47% of viewers felt themselves kinaesthetically moving. The company are as yet unsure of the links between these findings and is currently doing more research and development into making this non immersive form of virtual reality as immersive as possible for spectators and heightening their phenomenological experience. Through *Living Room* al'Ka-mie discovered that there were some techniques for making the RAVEs seem more immersive. For example, if the performer was standing, the spectator had a greater perception of gravity than if the performer was on the floor doing floor work. Similarly, a performer doing floor work could be perceived to be flying in a 3D space if the RAVE flew in the manner of a 3D trajectory.

Stuart and Curson consider a range of philosophers' views on virtual reality and speak of the experience of the body in a literally virtual world in Baudrillard's terms:

According to Virtual Reality (VR) philosophers such as Hillis, Idhe, and Heim in our digital hypertextual world, the body lives in a heightened visual sense with the other senses being downplayed and further suggest that our contemporary western culture elevates vision among all our senses. They believe that in using the highly visual medium of VR we are attempting to live in a techno-fantasy of escaping the limitations of our bodies by immersing ourselves in VR and 'leaving' our bodies behind. But they suggest an addendum: that we are simply substituting one set of limitations of the real world for another of the virtual world without necessarily gaining freedom and instead losing bodily senses.³⁵

This is an interesting analysis of audience experience in relation to the earlier discussion at the beginning of this chapter. This substitution of the real by the virtual is not in fact extending or augmenting our experience, but is merely transferring it to another (virtual) realm, and paradoxically in this transference and immersion we are actually losing bodily sensation (in striving for the ultimate sensation). Despite the use of non immersive technology in the work of al'Ka-mie,

³⁵ Stuart, Robyn and Curson, Brian, "Exploring Living Room: Using Complexity Theory to discuss dance set in 3D digital scenography." Paper presented at (re)Actor: The First International Conference on Digital Live Art, The Octagon, Queen Mary, University of London, September 11 2006, p22.

they are striving for an immersive, bodily experience for their audiences, and comment on this as such:

Perhaps the virtual interaction of contemporary life is not about losing sensation, being subsumed into the digital world, but about fusing physicality and virtuality to evolve a new intensity of sensation, with lateral perspectives leading to the probable emergence of new properties, of new creative possibilities.³⁶

The body of the live performer can appear to move in an otherwise impossible manner, however the company are very much focussed on the experience of their spectators, of a return to sensation - to bodily experience.³⁷ I shall now examine another company which has a similar preoccupation with a return to the phenomenological experience of theatre and who uses technology to achieve this but who employ an alternative kind of virtual reality technology in performance.

The innovative and inventive work of Belgian performance company CREW employ immersive virtual reality technologies in their work via the use of prosthesis. CREW describes its work as follows:

The artistic outcome tends to be hybrid; technological live art troubles installed categories of theatricality. CREW wants to explore how these hybridities can be operated, both on a theoretical and on a practical level. What happens when digital technology really merges production and reflection within the context of the stage - insofar as one can still speak of a stage?³⁸

Here CREW point out the hybridity inherent in its work and draw attention to its fusion of theatre and technology. The work of CREW is interesting in the way it plays with the definition of what a virtual environment *is*, and how the live body responds to it.³⁹ For although spectators (or "immersants" as the company refer to them) are moving through virtual environments, the environments themselves are made up of either live feed or pre-recorded filmed space, as opposed to computer generated or simulated spaces. This brings me back to the issues of liveness and reality and virtuality which I introduced at the beginning of this chapter. Another

³⁶ Stuart, Robyn and Curson, Brian, "Exploring Living Room: Using Complexity Theory to discuss dance set in 3D digital scenography." Paper presented at (re)Actor: The First International Conference on Digital Live Art, The Octagon, Queen Mary, University of London, September 11 2006, p27.

³⁷ As much of the body art of the 1970s was preoccupied with.

³⁸ <http://www.crewonline.org/crew.html> accessed 4/3/07.

³⁹ Arguably the immersant "performs" unknowingly.

notable point about the work of CREW is that it often seems to amalgamate many of the elements of the posthuman body that I began this study with. It often uses prosthetics, engaging and playing with the notion of the cyborg and the fusion of human and machine within a performative context. The work of CREW, by using many different apparatuses, prosthetics, and techniques, is perhaps moving towards a more complete or total version of a posthuman body. Let me make clear that by this I do not mean that it is technologising the body more, or making the body less human as it incorporates more "machine" through its work. I believe that by its use of multiple prosthesis and other devices to make the experience for the "immersant" as total and as phenomenological as possible, CREW is in fact exploring and celebrating the potential of the live body itself. Although there is a vast amount that could be written about all areas of CREW's work, it will principally be CREW's experimentation with virtual reality and virtual environments that will be my priority in the remainder of this chapter.

I shall be focussing on its most recent performance *U - Raging Standstill*, presented at the Tramway in Glasgow in February 2007.⁴⁰ The concept behind *U - Raging Standstill* started off as an investigation of the human mind suffering from dementia, looking specifically at the mental processes of Alzheimer's patients. Artistic Director Eric Joris says that he views the workings of the human mind experiencing dementia much as he views the way a computer works. Alzheimer's sufferers often cannot remember things that happened moments before, but can remember things that happened thirty years ago - they only have access to their long term memories, and Joris likens this to how computers store old files onto databases. He uses the analogy between the mind and a computer to explore themes of memory and recognition. As he explains: "Most people see technology as a way to progress, we wanted to explore it as a way for people to *regress*" (my emphasis).⁴¹ CREW wishes to return to an experiential, physically moving kind of theatre - a theatre that is affecting and which physically and mentally challenges

⁴⁰ *U - Raging Standstill* was produced in Leuven in cooperation with Het productiehuis Rotterdam (Rotterdamse Schouwburg, NL) and ARTEFACT Festival (arts center STUK, Leuven, B) released in February 2006. It was performed at the Tramway in Glasgow as part of New Territories 2007.

⁴¹ Interview with Eric Joris, February 24th 2007 conducted by Laura Bissell.

the body and our perceptions of the body⁴². It wishes for audiences to return to the responses of the body and mind via the circumstances it creates for spectators to experience, rather than being visually dazzled by technological slickness and wizardry.

Although working with cutting edge technology and often pioneering its own technological inventions in its performances, CREW's works frequently return to Greek and classical mythologies for characters and narratives. Previous titles include *Icarus: Man of War* (2001) and *Philistines* (2002), and it is currently holding labs and residencies to explore its next piece *O-Rex*, based on the character of Oedipus Rex. Haraway also makes links between ancient and mythic times and the contemporary technoculture, stating in her study, "A Cyborg Manifesto: Science, Technology and Socialist-Feminism in the Late Twentieth Century": "We live in a mythic time."⁴³ There are indeed links between these mythic tales and our current situation.⁴⁴ The cyborg, a hybrid creature made of part human part machine, could be seen as the modern day version of hybrids of human and bird, human and insect or human and animal.⁴⁵ Surely the cyborgian human is the evolution of these mythic hybrids? Simons points out in his study *Are Computers Alive?*. "Copernicus, Darwin and Freud met bitter opposition because they effectively dethroned mankind from the centre of the universe. The emergence of computer life is rightly sensed as continuing this process of dethronement. They also do not depend on hydrocarbon-based metabolisms; and this shows that mankind does not necessarily represent the pinnacle of biological evolution."⁴⁶ There is a certain arrogance in mankind believing that it is the last point in evolution, and certainly CREW acknowledges the progression of the technological and the cyborgian human as looking *towards* further evolution. For CREW to pinpoint regression as one of the aims of its work, suggests that it believes that the body has already been left behind, or that at least the sensory experience of the body has been neglected as

⁴² These ideas are reminiscent of the Viennese Actionists and their perceptions of the live body.

⁴³ Haraway, Donna J. *Simians, Cyborgs, and Women* (London: Free Association Books, 1991).

⁴⁴ Interestingly, multi user game *Everquest* is set in a mythic fantasy environment, reinforcing this notion of a modern day return to the ancient and mythic.

⁴⁵ i.e. the centaur.

⁴⁶ Simons, Geoff, *Are Computers Alive?* (Sussex: The Harvester Press, 1983) p4.

the body becomes a mere avatar for the mind, as some philosophy suggests.⁴⁷ This return to the experience of the body could be seen as a regression, despite the utilisation of progressive technology to facilitate this. As seen in the work of Stelarc in the previous chapter, we are faced with contrasting states - the ancient and the contemporary, regression and progression, human and machine - as the company resurrect binary opposites and Cartesian duality.

The first piece the company made that used mythology as a stimulus was *Icarus / MAN-O-WAR* (2001). With *Icarus*, CREW introduced its perception of multimedia as a prostheses, working with paralysed actor Paul Antipoff. In this performance the actor becomes a cyborg as a whole network of multimedia is connected to his body as a literal prosthesis. Antipoff speaks, draws and "performs" through a computer interface which he can manipulate by his tongue, his chin and a laser attached to his forehead. CREW state that, "He becomes the modern Icarus who is locked up in the labyrinth of his own body... Antipoff/Icarus embodies the human desire to surpass our physical limitations."⁴⁸ This idea of moving beyond the human, of transcending the human is a prominent theme in techno culture, and is continued in CREW's subsequent piece, *Philoctetes / MAN-O-WAR* (2002). In *Philoctetes* it asks: "Is technology the prosthesis of the body? Or is it the other way around?"⁴⁹ This performance examines the idea of viruses attacking computers and bodies, with mini robots attacking the paralyzed body of Antipoff while audiences look on from a viewing gallery - the performance is reminiscent of a public dissection in an anatomical theatre. This medical and scientific way of viewing the action below means that audiences are invited to believe that they will be seeing the body anatomically dissected - that they will see the inner workings of the body - when in fact they are witness to the inner workings of the mind. *U-Raging Standstill* further explores the implications of having people watching from a viewing gallery having space for an audience of twenty to watch the immersant go through the performance.

⁴⁷ Rene Descartes first suggested the separation of body in mind in 1637 in *A Discourse on Method: Meditations and Principles* (London: Everyman, 1995).

⁴⁸ <http://www.crewonline.org/crew.html> accessed 4/3/07.

⁴⁹ <http://www.crewonline.org/crew.html> accessed 4/3/07.

The performance itself involves a number of stages. The immersant is met in the Tramway foyer by a member of CREW and shown the HMD they will put on at some point in the performance. They are given a set of headphones and guided by a disembodied voice around a number of spaces within the building. They find a fluorescent jacket which they are asked to put on and then in the darkness are fitted with the HMD by unseen members of the company. From here the immersant takes the handles of a tele-steered trolley (being driven by a member of CREW) and is guided around the large space of Tramway One, while experiencing a number of places via the virtual goggles. Towards the end of the piece the images switch from virtual spaces to live feed filming and the immersant confronts an image of her/himself and moves past her/his own virtual image. I shall analyse each of these sections momentarily.

Media artist Mark Coniglio proposes that there are two basic approaches to making media intensive performance: materials-driven and content-driven. The former, he suggests, "is primarily focused on digital materials and the performative contexts they indicate, the latter uses digital materials in an attempt to communicate specific narrative ideas."⁵⁰ I think that this is an important distinction, and that there are examples of the latter which could be compared to trying to fit a square peg in a round hole, trying to force the digital materials in performance to create a performance narrative when sometimes they are not suited to do this. CREW acknowledges these distinctions and stresses that in its work it is always the technology that is its creative starting point, and that it is this that drives the work, not the other way around. Members of CREW have pointed out however that because the technology is the starting point for their work and because the spectator or "immersant" has an element of control in what they see in the virtual environments, it is very difficult to integrate a narrative into performance pieces. The company have a somewhat limited amount of control over what the immersant sees as they can never know in what direction someone will be looking and therefore there can be no predetermined narrative.

I would argue that it is important to consider control when examining the

⁵⁰ Mark Coniglio cited in Broadhurst, Susan and Machon, Josephine, *Performance and Technology: Practices of Virtual Embodiment and Interactivity* (New York: Palgrave Macmillan, 2006) p xviii.

work of CREW. Many immersants that come out of the experience talk about how they felt they did not have control over their own bodies because they are guided around by a computerised tele-steered trolley.⁵¹ However, although the sequence of spaces and the instructions they are given are the same, what each immersant sees is in their control as they look around the spaces using the virtual goggles. Having said this, the power of the immersant to choose lies only in the spaces that CREW have dictated to them; the spaces are pre-chosen and pre-filmed and despite the participant having control over their eyes which gives the impression of some level of choice, CREW ultimately controls the rest of the immersant's body - it is the controller of the participants, the machines. CREW aims to exert more control over its immersants in its next piece of work, *O-Rex*, which the company have been experimenting with in Ghent. For *O-Rex*, CREW intends to have a number of immersants all with individual instructions moving around one large space, but moving so that they unknowingly interact with each other so as to create a narrative for the spectators viewing in the viewing gallery. In CREW's work there are often two spectators, one who is immersed in the virtual environments, and others who can sit in a spectating gallery and watch the immersant as they move around the space.⁵²

Before I continue my analysis of CREW's work, I must make clear my involvement with the company. I was involved in *U_Raging Standstill* as a member of the *New Moves Winter School* with CREW and was included in the filming, preparation, and performing of the piece. My opinions on *U_Raging Standstill* are therefore not only those of a spectator but of one who had access to the inner workings of the performance and the ideas behind it. My perspective on *U_Raging Standstill*, then, is obviously coloured by this. However, I have tried to remain as impartial as possible in my analysis of the performance itself, despite having a privileged insight into the workings of it. In the stages of my initial involvement in the piece I was surprised that CREW's virtual environments were not in the

⁵¹ Eric Joris speaks of an attempt to "separate the mind from the body." Interview with Eric Joris, February 24th 2007, conducted by Laura Bissell.

⁵² This is the case for *U_Raging Standstill* for twenty spectators, while for *O-Rex* the company can accommodate up to three hundred spectators.

animated style of computer games, nor in the traditional computerised grid style environments of early experiments in virtual reality, but actually made up of filmed footage of real spaces around the building in which *U-Raging Standstill* was being performed, filmed in real time by its specially created camera. When shown the virtual goggles that will be worn during the performance, the immersant is shown a headset with a camera on the top of the device, and when tried on, they can see what is around them via a live feed camera. It must be noted that this is *not* the device that is worn throughout the performance, and in this there is an element of deceit - the goggles that are actually worn throughout are linked to pre-recorded images, and then for the final part of the performance have a feed that is situated elsewhere in the space. They are not given the goggles at this point, but are informed by a CREW member that they will be fitted with the equipment at some point throughout the performance.

In the beginning section, because the immersant's movements are being traced the voice of the live actor is able to comment to the immersant on their movements, telling them, for example "I see you are smiling" or "ignore the person walking past you." This initially is disorienting for the immersant. They often think that they are being followed and look behind them, while the members of CREW in the space watch their movements via computer monitors, and any spectators in the spectating gallery can see the same images projected onto large screens in the final large space where the immersant will end up. The text by Belgian writer Saskia de Coster involves a repetition of the phrase "this is a pre-recorded voice," which is undercut by the constant use of the immersant's first name and the comments made about the immersant's surroundings and what they can see (i.e. it is clearly a voice transmitting live). What is live and what is not is hazy in that as the immersant moves into the next section of the performance what is real and what is virtual also begins to blur.

Once the immersant reaches the main performing space and is fitted with the prostheses, the voice states: "you will be replaced," "new cycles for new pieces," "everything is replaceable."⁵³ It should be noted that as this is happening,

⁵³ Text by Saskia de Coster, CREW, *U- Raging Standstill* 2007.

one of the members of the company stamp the immersant with the phrase "I was in U," using an ink stamp on the immersant's flesh. The double meaning of this is apparent: the immersant was involved in the performance "U" and also to an extent their psyche was infiltrated by the company, the performance, and the experience. The stamping on a part of the immersant's flesh could also be perceived as linking with the text that is being spoken at this point; the immersant is a mere replaceable part - one product on the assembly line of this performance. The stamping conjures up notions of the mechanistic nature of the performance: the immersants *are* on an assembly line (with fifteen half hour slots per day this feeling is inescapable). They have just been fitted with apparatus that makes them cyborgian, they are part-human part-machine, a product of the performance, a product of our time. Interestingly, the company explained that it had done a full month of research trying to find a machine or apparatus that could fit the virtual goggles but had failed, and so had reverted to having a human fulfil the task. Here, despite the prominence and prioritisation of technology in its work, bodies are still essential, machines cannot take the place of humans. Many immersants do not notice the stamp on their body until after the performance, often much later once they have left the theatre. The continuation of their experience beyond the performance itself is something that CREW enjoy the idea of; that the performance will be in the immersant's thoughts (and, indeed, on their body) long after the experience has finished.

The trolley is made of various parts of old trolleys and wheelchairs, with a laptop on the top and a steering device for the CREW member to drive the device. Joris jokingly refers to the company's homemade equipment and constructions as being of "Russian design," that is, functional rather than aesthetically pleasing, and indeed the contraptions used throughout *U-Raging Standstill* are bizarre to look at. Spectators watching in the gallery often laugh at the individual immersants as they move around the space wearing a fluorescent jacket and large clumsy looking goggles, being led by a hybrid shopping trolley and computer. However, it is not the spectator's visual perception of the performance that is their main concern, it is the experience of the person who has gone "inside" as they call it - the immersant, and their particular visual, aural and sensory experience in the virtual environment

they have created.⁵⁴ There are ethical questions arising from the nature of this performance, questions that will also come into play as the company researches for *O-Rex* which also involves people unknowingly acting in a certain way while others are voyeurs to this. Although people are aware of what is going to happen to them upon embarking on the performance, many who watch it from the spectating gallery afterwards find that what has been such a strange and immersive experience when "inside" is now a comical experience. Do people feel duped? Or perhaps embarrassed by their own susceptibility to this trickery? I would cite here Margret Morse's similar example of Michael Naimark's spoof video *Virtuality Inc* (San Francisco Art Institute 1991) where a dieter in a HMD eats crackers, but sees virtual cherry pie. Morse describes the difference in experience depending on which side of the HMD you are on:

Once one switches point of view from the internal to the external, from the virtual to the organic world, virtual reality takes on a wholly different guise. To the observer on the outside, the improbable gustatory moaning of the eater of the virtual cherry pie resembles a regression to infancy; similarly the flailing motions of 'flying' (or other virtual locomotion) suggest an actual situation of helplessness and vulnerability in physical space. Indeed, immersion in the artificial realms of information presupposes not only an electronic skin, but also a womblike fortress of safety from the physical world before the user can enjoy apparent invulnerability.⁵⁵

Here Morse talks about the technology instigating a regression, however not in the positive way that *CREW* do - she sees this as a return to infancy and vulnerability, and suggests an aversion to the experience of the external view of this, the ethics of its voyeurism and of the lack of control the immersant has of how they are perceived.

As well as the visual aspects of *U_Raging Standstill* acting in a deceptive and manipulative way, often within the piece the other senses are targeted too to make the experience more "real." For example, when being urged by the voice in *U_Raging Standstill* to move towards what seems to be a gaping hole in the floor of

⁵⁴ At the end of the performance the immersant is invited to sit in the gallery and watch the journey of the next immersant to see what they have just gone through - and to realise that the multiple spaces they thought they were encountering was in fact the one space.

⁵⁵ Morse, Margaret, *Virtualities: Television, Media Art and Cyber Culture* (Bloomington and Indianapolis: Indiana University Press, 1998) p143.

one space, a fan is placed alongside the immersant, facing upwards so that air is being blown up into their face as they look into the hole. At this point many immersants are fully "inside", they struggle to see what is at the bottom as the voice tells them "Look down, further, look down, it is you on the bottom."⁵⁶ The sudden disappearance of the image often seems to shock the immersant by playing on more than one of their senses, the experience of looking down the hole seems more "real." By making this virtual environment virtual to both the eyes and the skin, the environment is more complete, more *real*, and perhaps therefore less virtual. What CREW is reaching for is this altered state of immersion, to confuse the state of presence by combining theatre and technology until it is no longer possible to distinguish the medium from reality. Note, however, its use of an illusionist trick here. This would correspond to Giannachi's comment cited earlier that virtual environments are "the site for simulation, artifice and performance."⁵⁷ The illusion and artifice is clear, and the reliance on this *over* technology is striking.

Joris spoke to me about one of the company who first experienced "going inside." He went through the performance as an immersant and at the end seemed highly unimpressed, to Joris's disappointment. He said he did not see the point of it, and when questioned about this he replied that he did not see the point of being led about various places in the building via a trolley - what was the value of it? It was only after Joris and CREW explained what had actually happened to him, that he had remained in the one large space while experiencing a range of virtual environments that he understood. From this Joris has deduced that 100% immersion is unsuccessful - that is, if the immersant accepts the virtual environment as "real" then the whole performance implodes and becomes nothing, echoing Giannachi's point.

Having virtually moved through the final space - a rather deceptive pre-recorded filmed version of Tramway One with a filmed immersant pushing a wheelchair with a figure in it (it could be argued that the immersant is intended to think that this figure is them, or alternatively that they are moving around a space simultaneously with other immersants) - the immersant's image goes to black and

⁵⁶Text by Saskia de Coster, CREW, *U- Raging Standstill* 2007.

⁵⁷ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p144.

they are left moving through darkness.⁵⁸ Here, unknown to the immersant the image switches to a live feed and they begin to move through a tunnel of light that has faded up on the Tramway floor. At this point they are being followed by a CREW member driving an omni-directional camera, and it is the image that this camera is "seeing" that the immersant is seeing. So while the immersant thinks that what they are seeing is being filmed by a camera on top of their head (as they were led to believe by the original demonstration apparatus), they are actually being followed by an omni-directional camera that is acting as their eyes. Because of this, when they turn a corner on the light corridor the CREW member controlling the camera behind them can speed up so that the immersant sees a figure in front of them. It takes a while for the immersant to realise that this is their figure, and often the voice tells them to "raise your right hand" so that they realise that the person that they are approaching, and eventually pass, is in fact themselves. This, I would argue, is the point where CREW comes the closest to achieving the separation of body and mind that it strives to produce. The confusion of being able to move and also simultaneously *see* yourself moving from a distance, while also seeing yourself as a figure that inhabits and moves around in this virtual environment is a strange one.

Causey describes an experience of this kind as such: "Telepresence, or presence at a distance, is a term used in descriptions of virtual environment technology to indicate the experience of the subject as being in two places simultaneously."⁵⁹ To do this, and to see yourself as virtual, is to see yourself as no longer real. As Haraway states: "upon entering virtual reality, the viewer becomes a cyborg, a fiction, as well as a creature of social reality."⁶⁰ Some describe this as an out of body experience. Others do not recognise their own bodies as they are so deeply rooted in the experiences of their mind at this time, while for others this confrontation of the spectral self belongs in the realm of Freud's uncanny - a sense of confronting your own death as your body, the thing most grounded in the "real,"

⁵⁸ This is one of the principle ideas behind *O-Rex*.

⁵⁹ Causey, Matthew, *Theatre and Performance in Digital Culture: From Simulation to Embeddings* (London: Routledge, 2006) p38.

⁶⁰ Haraway, Donna J. *Simians, Cyborgs, and Women* (London: Free Association Books, 1991) p149.

passes over to the realm of the virtual.⁶¹ This state of limbo and uncertainty about what is live and what is not, of what is *living* and what is dead is examined by Margret Morse in *Virtualities*:

However, the very notion of immersion suggests a spiritual realm, an amniotic ocean, where one might be washed in symbols and emerge reborn. Virtual landscapes can also figure as liminal realms of transformation, outside of the world of social limits and constraints, like the cave or sweat lodge, if only by reason of their virtuality - not entirely imaginary, or entirely real, animate, but neither living nor dead, a subjunctive realm, wherein events happen in effect but not actually.⁶²

Joris's understanding of this part of the piece resonates with Morse's statement. He states: "You pass your own body - the part which is life can be changed."⁶³ The part which is life can be changed. *You* can be changed, from flesh to image, from real to virtual, your mind displaced from your body. As this section draws to a close, the camera overtakes the immersant and moves into blackness as the voice whispers "you leave yourself behind..."⁶⁴ By not only confronting the spectral image of themselves, but also moving *past* this image, the immersant sees themselves as virtual, throwing into doubt all previous conceptions of real and virtual regarding experience and the live body.

Immediately after this section the immersant is instructed to hold the trolley from behind and they start walking towards a screen (they think however they are walking towards an exit). At the moment they are about to walk into the screen the camera switches to a live feed so they see themselves barging into the screen. They physically feel it and also mentally feel the shock of believing themselves to be somewhere only to find themselves actually elsewhere. The performance ends with the immersant being guided to a vibrating step which they stand on while a final soundscape plays, a final return to the physical experience of the live body (some immersants felt at this point as though they were levitating). The piece concludes with a final sensory experience to heighten once again the liveness of the body and its capacity for sensory stimulation.

⁶¹ This notion first appeared in Sigmund Freud's 1925 essay "The Uncanny."

⁶² Morse, Margaret, *Virtualities: Television, Media Art and Cyber Culture* (Bloomington and Indianapolis: Indiana University Press, 1998) p185.

⁶³ Interview with Eric Joris February 24th 2007 conducted by Laura Bissell.

⁶⁴ Text by Saskia de Coster, CREW, *U_Raging Standstill* 2007.

I believe that although CREW do not use computerised images or animation in their recent performances the initial impact of computer gaming strategies and styles are played upon by the company within *U-Raging Standstill*. They play upon their audience's familiarity with virtual reality game playing, not to fool or trick them into believing that they are in a computer game or a virtual space (the aesthetics and use of pre-recorded film rather than animation or computer graphics make this notion obsolete), but rather to confirm that they are *within* this virtual environment and that they are experiencing the things that they seem to be experiencing. This idea is examined in *Performance and Technology: Practices of Virtual Embodiment and Interactivity*.

There is an emphasis in the mainstream game industry on designing interfaces which construct a direct view of the screen scene through the player's own eyes, matching and synchronising player actions with changes and movements on the screen, thus producing a sensation of being 'in the scene', regardless of whether it is a hardcore shooter game like *Halo* or role-playing game/quest games like *Sim City* or *EverQuest*. It has often been noted that the environments of these games are rendered in highly realistic detail, with naturalistic surface texture, dramatic lighting and sound effects, and subtle use of colour.⁶⁵

The difference here is that CREW's environments are not "rendered in realistic detail," but in fact are a slightly fuzzy version of a familiar and *real* space. The immersant is "in the scene" as they have been "in the scene" the last time they visited the Tramway, or were "in the scene" as they walked down the corridor wearing headphones in the first part of the performance. Reality and virtuality blur as the company's explorations of memory and the relation between mind and body become clear as immersants "physically walk around in a live virtual surrounding."⁶⁶

Joris speaks of "Reality engineering" and states that "reality is but one of the levels of the narrative."⁶⁷ This viewpoint is evident through CREW's work, and particularly in its experiments in virtual environments. The way that CREW merges and fuses reality and virtuality, human and machine, performer and spectator, and uses the mind's capacity for memory and physical experience, is unique and

⁶⁵ Broadhurst, Susan and Machon, Josephine, *Performance and Technology: Practices of Virtual Embodiment and Interactivity* (New York: Palgrave Macmillan, 2006) p 47.

⁶⁶ Interview with Eric Joris February 24th 2007 conducted by Laura Bissell.

⁶⁷ Interview with Eric Joris February 24th 2007 conducted by Laura Bissell.

intriguing in an area of performance which all too often loses sight of the body and the experience of the body in performance. For CREW, it is this visual, aural and sensory experience that is at the centre of their work - a return to the body and its capabilities through an immersive experience, while enhancing the body's capabilities through technology and allowing it to move through virtual environments and spaces. In *Virtual Theatres* Giannachi states: "In contrast to the traditional set or stage, the performer of virtual theatre is inside the work of art, not only metaphorically, but ontologically."⁶⁸ CREW's work very literally shows this through its immersive performances.

To conclude, the relationship between the real and the virtual in performances that use virtual environments can range vastly, some highlighting the difference between the two worlds as in the work of al'Ka-mie with their use of large scale projection, and some blurring the boundaries between the real and the virtual until it is impossible to tell where one ends and the other begins, as in the work of CREW. Giannachi claims that "virtual reality users often find that the virtual does not only borrow from the real, but cannibalises it, so that the virtual supersedes or even substitutes itself for the real."⁶⁹ This idea is becoming common, the idea of the medium cannibalising what has spawned it, an idea first pioneered by Marshall McLuhan who stated as early as the 1960s as a response to the growth in television that "the medium is the message."⁷⁰ This train of thought has been followed up by many - Baudrillard also speaks of the interdependence, yet the unified destruction of the real and the virtual. However the relationship between them is further complicated by the nature of the medium itself. As Giannachi states: "Virtual Reality is not only a medium, like television or film, but, like language, a medium that is able to reinvent itself and reflect upon itself continually."⁷¹ By combining virtual reality technologies and performance the work of al'Ka-mie and CREW is moving towards a new language, combining choreographed movement and technology (in the work of al'Ka-mie) and sensory

⁶⁸ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p7.

⁶⁹ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p131.

⁷⁰ Horrocks, Christopher, *Marshall McLuhan and Virtuality* (Cambridge: Icon Books Ltd, 2000).

⁷¹ Giannachi, Gabriella, *Virtual Theatres* (London and New York: Routledge, 2004) p124.

experience and technology (in the work of CREW) to create a combination of body language and virtual worlds in both immersive and non immersive virtual performances. Virtual reality technologies are providing a new sort of language, a new way of communicating with the body in performance, a new sensory experience, and also a new level of illusion in an already illusory space.

Although using the technologies in very different ways, CREW and al'Ka-mie focus primarily on the sensory and kinaesthetic bodily experience of their spectators, in the case of CREW with the spectator becoming the performer, literally moving through the virtual environments, and in the case of al'Ka-mie with the spectator feeling that they are moving within the large scale virtual environments while remaining static. Both are committed to returning to the sensory experience of the body, to fulfilling the sensory potential of the body, by means of a technology that has often been accused of dehumanising and transcending the body - of moving beyond the body and leaving the senses behind. The work of both companies signals a return to the body, a celebration of the body and its sensory potential that technology can heighten but has yet to match.

Conclusion: The Post-posthuman Body?

Throughout this thesis I have considered the position of the live body in performance in a posthuman phase of performance and culture. In an attempt to locate the live performing body in an increasingly technologised environment, I have examined the role of the body and its importance to the shifting ontology of performance. I started this thesis with an examination of the *human* body to situate the body as human before considering it as posthuman. I began initially with the moment that the live body became the site of critical debate and discussion in the late 1960s and 1970s. I examined how and why the live body came into focus at this time, looking at some of the shifts in paradigm that were happening in the art and theatre worlds as symptomatic of cultural changes. I discussed how, throughout the twentieth century, shifts in artistic movements led to a reconsideration of the figure of the artist and of what constituted art. From this, the appearance of what is now called "performance art" occurred - an amalgamation of a range of disciplines, forms and styles. From the 1960s onwards the body was under scrutiny in performance, leading to a proliferation of works inspired *by* and performed *through* the body. Changing concepts and perceptions of art and life, subject and object, live and mediated, and performer and spectator were beginning to influence performance practice in a way not yet witnessed. I examined the role of the live human body in performance up until the integration of technology, in order to gauge the effect that technological practice has had on contemporary theatre practice and the location (and role) of the live body within this. Throughout this thesis I have attempted to understand the threat posed by technology to the live body in performance, and to challenge this notion.

Due to the size of this study, I have been unable to chart the effect of *all* technological influences and have instead looked at the main trends that have mapped the trajectory of performance since the 1970s.¹ Prior to considering the posthuman body I examined the *human* body in Chapter One and considered the

¹ When I say trends, I am referring to trends within performance, as opposed to trends within mainstream art at the time, although in the 1970s performance art became fashionable with many distinguished galleries housing performances that were controversial.

body *without* prosthesis at the time when the body became a site of anxiety and scrutiny. I used a number of case studies to illustrate live bodies in performance - to consider *actual* (living, breathing, hurting, performing) bodies including work by Burden, Abramovic and Pane. By examining and analysing these case studies, the findings I made in Chapter One regarding the situation of the live performing body at the end of this very specific era of performance led naturally to an examination of how these anxieties and issues surrounding the live body were continued in an era of advancing technology - a posthuman phase. Having considered the human body in performance by examining the work of early body artists, I then moved onto considering the human body *with* prosthesis in Chapter Two; the body as posthuman and cyborgian, looking at the work of Stelarc. In Chapter Three I continued this notion of posthumanity in relation to virtual reality technologies and virtual environments examining the company work of al'Ka-mie and CREW.

My own experience of each of my case studies has been different. In my initial chapter I drew on canonical examples of seminal (and now iconic) pieces of early performance art and body art, ones which I have experienced only through the texts and photographs that document them. In my chapter on the posthuman body I focus on the work of Stelarc - the posthuman body embodied and one of the most prolific and intriguing artists working in this field. Once again, I have encountered his work by textual and photographic means, although also by electronic means because of his Internet presence. In my chapter on Virtual Environments, I have a different experience of the performances I am working with as I have experienced them as a spectating body and in the case of CREW as both a spectating and an *immersed* body. My perspective in this chapter, then, is different. Not only am I a spectating critic (as I have not been, sadly, to those earlier performances to which I refer), but I am also a participant in the creation of the piece and therefore can claim little objectivity. I have tried to the best of my ability to amalgamate my experiences of all the performances I am examining in terms of written criticism, my own sensory experience and documentary evidence such as photographs and film, but I am aware that due to the ephemeral nature of performance, I am experiencing each medium in a different way, which makes comparison difficult. In Chapter One I referred to Kathy O'Dell's image of the

history of performance art as "flickering", and I would return to this now to excuse any discrepancies in my comparisons.

This is further complicated by the fact that I have also been comparing and contrasting what are arguably pieces from different genres with some falling under the category of "theatre" and others under that of "live art." I have been very wary of categorising these as such throughout as I think these kinds of demarcations can often be limiting when considering pieces of work that often refuse definition or incorporate a number of different stylistic influences. Thus my referral throughout to "performance" has been defined simply by the presence of the live body while spanning over a number of genres, as I stated in my introduction. Although to define my field of study as examining works in which the live body is present might seem vague, I find this the most useful way to consider a range of performances without getting caught up in the definitions and demarcations between the fields. In a study such as this the field is irrelevant particularly as towards the end of the era I am considering the categories themselves become more fluid. This is not to ignore the history of "theatre" or of "live art" but to consider the performances in their own right and as relevant to my examination of the effect of certain technologies on the live performing body.

There are still a vast number of artists and theatre companies who work without the implicit presence of technology in their work, or without considering implementing technological practice into their methods of creating performance.² However, the permeating nature of technological advancements in our everyday lives mean that the culture we are all living in is gradually becoming more dependent on technology. In the 1970s and 1980s performance art was often viewed as exploring the relationship between art and life, and I would argue that this remains the case at the beginning of the twenty-first century. Much of the art being produced worldwide reflects our increasingly technologised existence, and the questions about identity and communication that technology provokes are imperative today. I have looked at a small segment of performance theory

² Even if a company does not base their work around the theme of technology, or consciously use technology in its performances, most do some sort of research via the internet, or rely on web-based mailing lists.

surrounding technology, and a restricted type of technology in performance (prosthetics, and virtual reality technologies), however this is by no means an extensive or exhaustive list.

Writing towards the end of 2007 I am constantly struck by the proliferation of new technologies that are emerging at an incredible speed. I am also very aware that as new technologies are integrated into performance practice, as a *symptom* of our cultural immersion in technology, or as a *means of exploring* the issues that this immersion creates for our bodies in terms of identity, communication and our relationship to others and to the world - the speed at which this happens leaves little time for reflection. Mexican posthuman dancer, Saul Garcia, when questioned about the technology he is using for his contemporary dance pieces, regretfully explains his feelings that the technology he is using is already outdated, "Without it having been given the chance for me to fully explore it."³ The snowballing effect of these advancements means that often a new medium is not explored to its full potential.

Through the advent of vhs and television in performance in the 1980s to larger scale mediations such as projection that became prominent in the 1990s, questions about the integration of technology into performance arose - particularly when considering the fusion of a live form and a mediated form. These are still imperative today as we look at more sophisticated forms of digital live art and computer imaging becoming integrated into art and performance. Companies such as The Wooster Group and Forced Entertainment put television sets on stage and integrated them into performances. The television set as a prop on stage - and as another, smaller, mediated parallel world encased in a box with a screen - was explored over a number of years and the potential for interaction with performers and for experimentation of its potential meanings and readings on the stage were exhausted.⁴ However, since then the volume of technologies (prosthetics, robotics, Internet, bio art, surgery art, transgenic art, to name but a few) have appeared with a domino-like effect in the art world. A cultural obsession about being on "the

³ Interview with Saul Garcia conducted by Laura Bissell on 29th September 2006.

⁴ Perhaps not, since there are still companies who use the television set in performance although I would argue that it takes on a different meaning in the context of today's performance practice.

cutting edge" of technology leaves many stones unturned when it comes to research and development and exploratory work on a particular technology.

In addition, the often visually stunning, large scale technologised "performances" (what Causey refers to as "cybertheatre") often leave one empty - feeling nothing after a visually spectacular but vacuous "performance." I use inverted commas here because there is controversy over whether such works could be called performances, in the same way that installational performances are often condemned because of their lack of performer - their lack of *live body*.⁵ Throughout this study I have mainly focussed on the sensory experience of the live body as epitomising its *liveness* - its *bodiliness*. Technology is often considered implicated in the dispersal of bodies, the alienation of the live body and the depletion of *human connection* as we all become global souls, remote, in cyberspace. Performance demands the human-to-human contact that is becoming rarer in our everyday lives, and I have considered a range of artists who, despite using technology, make it their aim to use technology to heighten the experience of the body - to stage a return to the body rather than a move away from it.

This resonates with the extreme body artists of the 1970s with which I began this study. Their determination to affirm their bodies by painting, wounding, celebrating, stripping, shooting and defecating, celebrated the liveness of their bodies. By taking the body to its utmost limits and testing it physically (often placing themselves at great risk), artists toyed with ideas of mortality, of the body as flesh - as meat. Some artists looked inwards, and in doing so their bodies became the site for discussion about identity, understanding and connection.

In challenging the body's limitations and capabilities some artists looked towards advancements in technology to artificially augment and extend the human body. In Chapter Two of this thesis, I examined the body artist who epitomises the posthuman body in performance - the most complete and comprehensive example of variations of the performing cyborg - Stelarc. His lengthy career has involved experimentations in how to redesign the body through many areas of technological

⁵ Causey proposes that we need to look to a new form, a new aesthetic for this medium rather than trying to fit this to a performance model. Causey, Matthew, *Theatre and Performance in Digital Culture: From Simulation to Embeddings* (London: Routledge, 2006).

advancement, from prosthetics and robotics, to Internet performances and experiments in transgenic art. Despite inhabiting a digitally immersed, technology driven world and according to many techno-theorists, experiencing a “posthumanity,” the body itself, despite augmentations, prosthesis and cyborgian elements, remains human. As Hayles claims: “Bodies can never be made from information alone, no matter which side of the computer screen they are on.”⁶ Having said that, what is next? What is the future for the live body in performance? In this chapter I also discussed Eduardo Kac’s experimentation into transgenic art which perhaps offers another field of creative potential for the relationship between the live body and technologised performance.

Having looked at how the posthuman body functioned in performance through the use of the case study of Stelarc, I wanted to reflect on how the posthuman body functioned and performed in virtual environments. In my third chapter, I considered the two types of virtual reality technology and examined the work of companies that experimented with immersive and non-immersive virtual reality technologies to explore the potential of sensory experience for spectators. In privileging the phenomenological experience for the spectators, both CREW and al’Ka-mie (in different ways) heighten the sensation of the body synthetically - through means of virtual technologies. Morse speaks of the paradoxes in virtual reality technology and how this particular technology still remains relatively uncharted territory:

For the virtual does not yet necessarily (a) represent “reality” in ways we have come to expect; nor (b) distinguish between imaginary and real consequences of manipulating symbols; nor (c) is it always framed off from everyday life, like for instance, theatrical or novelistic fiction. Consequently, (d) the reality statuses of virtuality have not yet been culturally mastered or regulated, nor are the subjunctive modes of virtuality well marked.⁷

In the final moments of CREW’s performance *U_Raging Standstill*, the immersant’s encounter of their virtual self embodies some of the complexities surrounding live

⁶ Hayles, Katherine N. *How We Became Posthuman* (Chicago and London: The University of Chicago Press 1991) p246.

⁷ Morse, Margaret, *Virtualities: Television, Media Art and Cyber Culture* (Bloomington and Indianapolis: Indiana University Press, 1998) p24.

bodies in virtual worlds - and also provides a glimpse of some of the creative potential that these developments can make available.

Instead of technologised performance negating or erasing the body, many of the artists and companies I have examined in this thesis aim to foreground the sensory experience of the body and to explore as much as possible the heightening of sensory experience for the spectator. I specifically refer to CREW and al'Ka-mie who both prioritise the *sensory experience* of their spectator in their performances.

In this study I have prioritised the phenomenological aspects of these artists' and company's work. Descartes' famous "I think, therefore I am" has been variously appropriated.⁸ Scarry's claims that "to have pain is to have certainty," has been re-appropriated as: "I suffer, therefore I am."⁹ Barbara Kruger's synthetic pop art images ironically claim, "I shop, therefore I am."¹⁰ From my own examination of the ontology of performance in light of the techno-revolution, I would state "I *feel*, therefore I am." Perhaps the phenomenological impact is not what you would immediately associate with technologised performance (or posthuman performance as I have called it throughout this study). Images that come to mind when the word "posthuman" is referred to are of the sleek and metallic cyborgs of science fiction films and cyberpunk literature - the female cyborgs of *Bladerunner* (1982) and the powerful man-machine that Schwarzenegger embodies in the *Terminator* films (1984-2003). Images come to mind of robotic usurpers and machines erasing bodies - of a dehumanised and desensitised, more mechanised aesthetic. When applied to performance, the most *human* of the arts, the most *embodied* of the arts, and arguably the *livest* of the arts, I would argue that the term posthuman seems to create an odd juxtaposition.¹¹ Performance is predicated on the live, namely the presence of a live body as I have argued in Chapter One. The posthuman body implies a departure from the live body - a move *away* from the live body (literally *after* the body). However I have argued that the posthuman

⁸ Descartes, Rene, *A Discourse on Method: Meditations and Principles* (London: Everyman, 1995)

⁹ Scarry, Elaine, *The Body In Pain: The Making and Unmaking of The World* (Oxford: Oxford University Press, 1985) p13.

¹⁰ Barbara Kruger, "I Shop Therefore I Am" (1987).

¹¹ In critical writing many theorists refer to body art or types of performance art as "live art" - thus the famous international festival The National Review of Live Art, an annual event where international artists show a range of performance, installational, and art pieces.

body is *not* the body left behind, nor the body obsolete and discarded. The posthuman body is the *cyborgian* body - part living organism and part machine. Explorations of this hybridity in performance have created a whole new realm of possibilities in terms of exploration of identity, communication and of sensory experience with the aid of technology in this liminal zone.

Throughout this thesis, I have argued that the live body is an essential part of performance, *including* the live body in technologised performance. I would argue that contrary to much post-industrial thought, machines are *not* replacing bodies in a performative context. I would argue that despite the integration of technology into contemporary theatre practice, the body itself is still crucial - the live body is integral to live performance and that there is no performance without a performer *or a performing body in the space*. I believe that we have entered into an era of cyborgian performance and the posthuman body in performance is just that: cyborgian. Understanding what this is and what this means is crucial to understanding contemporary practice, and where the trajectory of performance practice may go next. I return here to Stelarc's theories about obsolescence (in his view the evolution) of the body. He states that the body must be open to redesign and reconfiguration. He demonstrates this throughout all of his work by extending and augmenting his body via technological means. Stelarc makes his body cyborgian - he epitomises the posthuman body in performance. However, even when considering Stelarc's body as posthuman, as a cyborg, *the body still remains undeniably there*. It is not a case of the body being replaced by machines, or of solely robotic performance. In cyborg performance (posthuman performance) the body is still very much an essential part.

The idea of the subject was destabilised throughout the latter part of the twentieth century with a decentralised sense of self and identity correlating with the fragmentation and dispersal that postmodern theory had heralded and which constructed the posthuman body. Victoria Pitt explores this idea: "The denaturing processes of techno science, the shifting of the body past presumed 'natural' constraints, can be seen to make literal postmodernism's celebrated deconstruction

of the subject."¹² The posthuman subject can relate to the cyborg, to the mutated and monstrous posthuman body. Perhaps they *are* the posthuman body. Perhaps *we* are the posthuman body. Because the cyborgian/posthuman body is not that monstrous at all; it is an example of the *evolving body*.

Stelarc states:

Modification of the body is the ritual for its ultimate mutation. Conscious modification and mutation compresses evolution in time. Conscious evolution will not be evolution of the masses by chance, but rather evolution of the individual by choice.

Evolution by the individual, for the individual.

TECHNOLOGY IMPLANTED - EVOLUTION EXTERNALISED¹³

Stelarc's views embody the cyberpunk theories that champion the redesign and evolution of the body. His own embodiment and demonstration of these ideals in performance has paved the way for a new aesthetic of posthuman performance.

Having offered a small insight to some examples of how technological practice is affecting the role of the live body in performance, and how our theorisations around the live body are shifting, I now aim (in future study) to continue considering the role of the live body in performance as inhabiting a post-gender, post-race and post-class world. I will follow up this thesis with further research that specifically interrogates the relationship between gender, technology and performance. In this thesis I have covered some of the recent critical interest in technology and performance (including Giannachi [2004], Broadhurst and Machon [2006] and Causey [2006]) and intend to build on these foundations to examine specifically the female body in posthuman performance, asking questions such as, "What are the implications of a posthuman performance context for the gendered (performing and spectating) body?" Taking a feminist approach (inspired by post-structuralism but also perhaps challenging post-feminism), I will consider the simultaneous rise of the spectacularisation/ commodification of the female body, and the rise of technology in a global capitalist climate. By drawing on both

¹² Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification* (Hampshire: Palgrave MacMillan, 2003) p152.

¹³ Stelarc, "Artist's Statement" *The Artist's Body* ed. Tracey Warr (London: Phaidon Press, 2000) p285.

techno-theory and performance studies I shall specifically look at the nature of the posthuman body as cyborgian (as I have done here) but shall take this further to examine the validity of predominantly utopian concepts of the posthuman body against the practice of those bodies in contemporary performance in an era of "post-identity."

In this study I have argued that the body is not obsolete but that the body is evolving, as it has always done, to adapt to its surroundings. As technology changes our socio-cultural climate and the boundaries between nature and culture dissolve, so the body changes in order to survive. We are becoming hybrids with machines, becoming cyborgian (and perhaps one day we will even become chimera). As our bodies have changed, so have our bodily responses to our surroundings, to our own bodies and to society. Our performing bodies have done likewise: they have adapted. They have redesigned themselves. In the words of Causey: "It is important to realise that performance like the body and its subjectivity which enacts the performative has been extended, challenged and reconfigured due to its position in the space of technology. Performance has taken on the ontology of the technological."¹⁴ In taking this ontology, performance once again mutates and transfigures into another version of the hybrid it has always been. And the live performing body metamorphoses with it.

¹⁴ Causey, Matthew, *Theatre and Performance in Digital Culture: From Simulation to Embeddings* (London: Routledge, 2006) p29.

Bibliography

- Allain, Paul and Jen Harvie. *The Routledge Companion to Theatre and Performance*. London and New York: Routledge, 2006.
- Anker, Roy M. ed. *Dancing in the Dark: Youth, Popular Culture, and the Electronic Media*. Michigan: William B. Eerdmans Publishing Company, 1991.
- Aronson, Arnold. *American Avante-garde Theatre: A History*. London: Routledge, 2000.
- Auslander, Philip. *Liveness*. New York: Routledge, 1999.
- _____. *Presence and Resistance: Postmodernism and Cultural Politics in Contemporary American Performance*. Michigan: The University of Michigan Press, 1994.
- Bartle, Richard A. *Designing Virtual Worlds*. Indiana: New Riders Publishing, 2004.
- Barry, Judith. "Women, Representation, and Performance Art: Northern California". *Performance Anthology: Source Book of California Performance Art*. ed. Carl E Loeffler. San Francisco: Contemporary Arts Press, 1980. 439-62
- Baudrillard, Jean. Trans. Chris Turner. *Screened Out*. London and New York: Verso, 2002.
- _____. *Selected Writings*. ed. Poster, Mark. Cambridge: Polity, 2001.
- _____. Trans. Sheila Faria Glaser. *Simulacra and Simulation*. Michigan: The University of Michigan Press, 1994.
- Bhavnani, Kum-Kum, ed. *Feminist Futures: Re-imagining Women, Culture and Development*. London: Zed Books Ltd, 2003.
- Birringer, Johannes. *Media and Performance: Across The Border*. Baltimore: John Hopkins University Press, 1998.
- _____. *Performance on the Edge: Transformations of Culture*. London and New Brunswick, NJ: The Athlone Press, 2000.
- _____. *Theatre, Theory, Postmodernism*. Bloomington and Indianapolis: Indiana University Press, 1991.
- Broadhurst, Susan and Josephine Machon. *Performance and Technology: Practices of Virtual Embodiment and Interactivity*. New York: Palgrave Macmillan, 2006

- Campbell, Patrick. *The Body in Performance*. London and New York: Routledge, 2001.
- Causey, Matthew. *Theatre and Performance in Digital Culture: From Simulation to Embeddings*. London: Routledge, 2006.
- Childs, Nicky, and Jeni Walwin. *A Split Second of Paradise: Live Art, Installation and Performance*. London: Rivers Oram, 1998.
- Connor, Steven. *The Book of Skin*. London: Reaktion Books, 2004.
- Deleuze, Gilles, and Felix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. London: The Athlone Press, 1988.
- Descartes, Rene. *A Discourse on Method: Meditations and Principles*. London: Everyman, 1995.
- Dolan, Jill. *Presence and Desire: Essays on Gender, Sexuality, Performance*. Michigan: University of Michigan, 1993.
- __ __ __. *The Feminist Spectator as Critic*. Michigan: UMI Research Press, 1988.
- Dusinberre, Deke. *Orlan: Carnal Art*. Paris: Editions Flammarion, 2004.
- Falk, Pasi. *The Consuming Body*. London: Sage Publications, 1994.
- Forte, Jeanie. "Focus on the Body: Pain Praxis and Pleasure". *Critical Theory and Performance*. ed. J.G Reinelt. Michigan: University of Michigan Press, 1992. 248-262
- __ __ __. "Women's Performance Art: Feminism and Postmodernism", *Theatre Journal*, 40.2 (1988): 217-35
- Giannachi, Gabriella. *Virtual Theatres*. London and New York: Routledge, 2004.
- Gibson, William. *Neuromancer*. London: Harper Collins Publishers, 2000.
- Goldberg, Roselee. *Laurie Anderson*. London: Thames and Hudson, 2000.
- __ __ __. *Performance Art: From Futurism to the Present*. New York: Thames and Hudson Inc, 2001.
- __ __ __. *Performance: Live Art since the 60s*. London: Thames and Hudson, 2004.
- Gomez-Pena, Guillermo. *Dangerous Border Crossings - The Artist Talks Back*. London and New York: Routledge, 2001.

- Goodman, Cynthia. *Digital Visions: Computers and Art*. New York: H.N. Abrams; Syracuse: Everson Museum of Art, 1987.
- Gray, Chris Hables, with Heidi J. Figueroa-Sarriera, and Steven Mentor, eds. *The Cyborg Handbook*. New York and London: Routledge, 1995.
- Grosz, Elizabeth. *Space, Time and Perversion: Essays on the Politics of Bodies*. New York: Routledge, 1995.
- Grundy, Frances. *Women and Computers*. Exeter: Intellect Books, 1996.
- Hadreas, Peter J. *In Place of the Flawed Diamond: An Investigation of Merleau Ponty's Philosophy*. London: Peter Lang, 1986.
- Halberstam, Judith and Ira Livingstone. *Posthuman Bodies*. Bloomington and Indianapolis: Indiana University Press, 2000.
- Haraway, Donna J. *Modest_Witness@Second_Millennium.FemaleMan(c)_Meets_Onco Mouse: Feminism and Technoscience*. London: Routledge, 1997.
- Haraway, Donna J. *Simians, Cyborgs, and Women*. London: Free Association Books, 1991.
- Hayles, Katherine N. *How We Became Posthuman*. Chicago and London: The University of Chicago Press, 1991.
- _____. *My Mother Was A Computer: Digital Subjects and Literary Texts*. Chicago and London: The University of Chicago Press, 2005.
- Heathfield, Adrian, ed. *Live Art and Performance*. London: Tate Publishing, 2004.
- Heathfield, Adrian, ed. *Small Acts: Performance, the Millennium and the Marking of Time*. London: Black Dog Publishing Limited, 2000.
- Heddon, Deirdre, and Jane Milling. *Devising Performance: A Critical History*. Hampshire: Palgrave MacMillan, 2006.
- Horrocks, Christopher. *Marshall McLuhan and Virtuality*. Cambridge: Icon Books Ltd, 2000.
- Jones, Amelia. *Body Art – Performing the Subject*. Minneapolis: University of Minnesota Press, 1998.
- Jones, Amelia. *Self Image: Technology, Representation and the Contemporary Subject*. London: Routledge, 2006.
- _____, and Andrew Stephenson. *Performing the Body/Performing the Text*. London and New York: Routledge, 1999.

- Kalawsky, Roy S. *The Science of Virtual Reality and Virtual Environments*. Wokingham: Addison-Wesley Publishing Company, 1994.
- Kaye, Nick. *Art Into Theatre: Performance Interviews and Documents*. Amsterdam: Harwood Academic Publishers, 1998.
- Kirkup, Gill and Linda Janes, Kath Woodward, Fiona Hovenden, eds. *The Gendered Cyborg: A Reader*. London: Routledge, 2000.
- Kristeva, Julia. *Powers of Horror: An Essay on Abjection*. trans. Rouliez. Leon S. New York: Columbia University Press, 1982.
- Kroker, Arthur, and Marilouise Kroker. *Body Invaders*. Montreal: New World Perspectives, 1987.
- Laurel, Brenda. *Computers as Theatre*. Wokingham: Addison-Wesley Publishing Company, 1991.
- Lemoine-Luccioni, Eugenie. *La Robe: Essai Psychanalytique sur le Vêtement*. Paris: Éditions du Seuil, 1983.
- Lippard, Lucy R. *Six Years: The Dematerialisation of the Art Object*. Berkeley, LA and London: University of California Press, 1973.
- Longhurst, Robyn. *Bodies - Exploring Fluid Boundaries*. London and New York: Routledge, 2001.
- Malloy, Judy, ed. *Women, Art and Technology*. Cambridge, Massachusetts and London: The MIT Press, 2003.
- McIlvenny, Paul. *Avatars R Us? - Discourses of Community and Embodiment in Intercultural Cyberspace*. 29th August 2007
<http://www.immi.se/intercultural/nr1/mcilvenny.htm>
- Merleau-Ponty, Maurice. *The Visible and the Invisible*. Evanston: Northwestern University Press, 1968.
- — —. Trans. Colin Smith. *Phenomenology of Perception*. London and New York: Routledge, 1994.
- Miglietti, Francesca Alfano. *Extreme Bodies - The Use and Abuse of the Body in Art*. Milan: Skira Editore, 2003.
- Montano, Linda M. *Performance Artists Talking in the Eighties*. Berkeley and London: University of California Press Ltd, 2000.
- Morgan, Robert C, ed. *Art and Performance: Gary Hill*. Baltimore and London: The

- John Hopkins University Press, 2001.
- Morse, Margaret. *Virtualities: Television, Media Art and Cyber Culture*. Bloomington and Indianapolis: Indiana University Press, 1998.
- Nead, Lynda. *The Female Nude: Art, Obscenity and Sexuality*. London: Routledge, 1992.
- O'Dell, Kathy. *Contract with the Skin: Masochism, Performance Art and the 1970's*. Minneapolis: University of Minnesota Press, 1998.
- Oddey, Alison. *Practice as Research*. Abingdon, Oxfordshire: Routledge, 2002.
- Phelan, Peggy. *Unmarked: The Politics of Performance*. London: Routledge, 1993.
- _____, and Jill Lane. *The Ends of Performance*. New York: New York University Press, 1998.
- Pitts, Victoria L. *In The Flesh: The Cultural Politics of Body Modification*. Hampshire: Palgrave MacMillan, 2003
- Plant, Sadie. *Zeros and Ones: Digital Women and the New Techno Culture*. London: Fourth Estate, 1998.
- Rheingold, Howard. *Virtual Reality*. Reading: Mandarin Paperbacks, 1992.
- Sandford, Mariellen, R., ed. *Happenings and Other Acts*. London: Routledge, 1995.
- Scarry, Elaine. *The Body In Pain: The Making and Unmaking of The World*. Oxford: Oxford University Press, 1985.
- Schneider, Rebecca. *The Explicit Body In Performance*. London: Routledge, 1997.
- Sedgwick, Peter, R. *Nietzsche: A Critical Reader*. Oxford: Blackwell Publishers, 1995.
- Sherman, Barrie and Phil Judkins. *Glimpses of Heaven, Visions of Hell: Virtual Reality and its Implications*. London: Hodder & Stoughton, 1992.
- Shepard, Simon. *Theatre, Body and Pleasure*. London and New York: Routledge, 2006.
- Shershow, Scott Cutler. *Puppets and "Popular" Culture*. Ithaca and London: Cornell University Press, 1995.
- Shields, Rob, ed. *Cultures of Internet: Virtual Spaces, Real Histories Living Bodies*. London: Sage Publications, 1996.

- Shilling, Chris. *The Body in Culture, Technology and Society*. London: Sage Publications, 2005.
- Simons, Geoff. *Are Computers Alive?* Sussex: The Harvester Press, 1983.
- Smith, Marquand, ed. *Stelarc: The Monograph*. Cambridge, Massachusetts and London: The MIT Press, 2005.
- Spender, Dale. *Nattering on the Net: Women, Power and Cyberspace*. North Melbourne, Victoria: Spinifex Press, 1995.
- Stratton, Jon. *The Desirable Body: Cultural Fetishism and the Erotics of Consumption*. Manchester and New York: Manchester University Press, 1996.
- Vince, John. *Essential Virtual Reality Fast*. London: Springer Verlag, 1998.
- Warr, Tracey, ed. *The Artist's Body*. London: Phiadon Press, 2000.
- Weiss, Gail. *Body Images: Embodiment as Intercorporeality*. London: Routledge, 1999.
- Welton, Donn, ed. *Body and Flesh: A Philosophical Reader*. Oxford: Blackwell Publishers Ltd, 1998.
- Wosk, Julie. *Women and the Machine: Representations from the Spinning Wheel to the Electronic Age*. Baltimore and London: The John Hopkins University Press, 2001.
- Zita, Jacquelyn N. *Body Talk: Philosophical Reflections on Sex and Gender*. New York: Columbia University Press, 1998.

Websites

- al'Ka-mie Website www.alkamie.co.uk (last accessed 19/08/07)
 Body, Space, Technology e-journal <http://people.brunel.ac.uk/bst/home3.html>
 (last accessed 26/09/07)
 Kac Website www.ekac.org (last accessed 20/09/07)
 Stelarc Website www.stelarc.va.com.au (last accessed 26/09/07)

Performances

- U_Raging Standstill*. By CREW. Dir Eric Joris. Tramway Theatre Glasgow 20-24 February 2007.