AUSTRALASIAN DRAMA STUDIES 65
OCTOBER 2014

EDITED BY
GORKEM ACAROGLU
AND GLENN D'CRUZ

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DIGITAL PERFORMANCE FUTURES IN AUSTRALASIA

ADS 65 OCTOBER 2014

GUEST EDITORS GORKEM ACAROGLU AND GLENN D'CRUZ

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MUSIC AND SOUND IN THE THEATRE

Editor: Kim Baston

'Things to hear and things to see' is how John Cage described the theatre. In practice, though, the study of theatre has been long dominated by its visual and textual elements. This focus issue instead examines the hearing of theatre. Articles are invited that explore aspects of music and sound in theatrical practice, whether performed live or recorded, composed for a specific production or compiled from pre-existing sources.

Of particular interest are articles that explore the following: music and sound as an aspect of scenographic practice; the experience of the listener-spectator; sound and music as meaning-making practice in theatrical performance; theorising music and sound within performance analysis; music as audience engagement; the practice of live music in performance; the voice in theatre; and historical perspectives on theatre sound.

Expressions of interest to Kim Baston (K.Baston@latrobe.edu.au), by 31 October 2014. Deadline for full papers, 31 March 2015.

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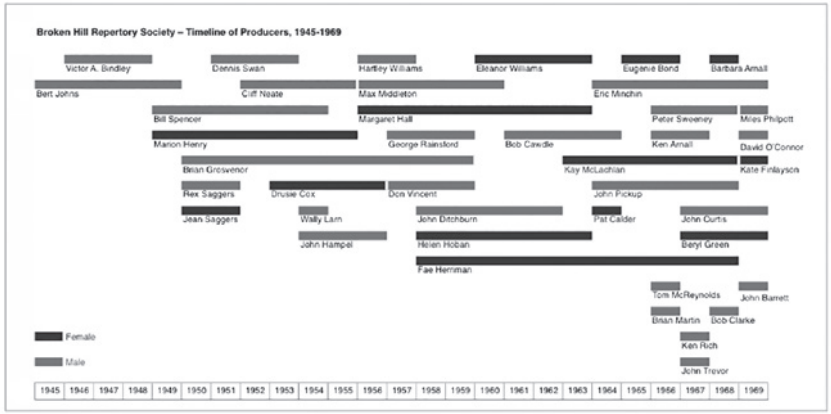
A Correction

Jonathan Bollen and Murray Couch have, understandably, asked us to publish the following corrections to their articles in *ADS 64* (April 2014):

p. 4, Editorial: 'Jonathan Bollen and Murray Couch employ the quantitative resources of *AusStage* to provide detailed and vivid surveys of the amateur theatre scene in Broken Hill in the 1960s and 1970s'. This should be: '… in the 1950s and 1960s'.

p. 261, Figure 2: Timeline of Broken Hill Repertory Society producers, 1945–69. Source: *AusStage*. This figure was omitted.



INTRODUCTION

Gorkem Acaroglu and Glenn D'Cruz

The word 'technology' has a complex and fascinating genealogy. As an English language noun, it is derived from a Latin word, *technologia*, and originally referred to 'the systematic treatment of grammar'. Later, in the 18th century, the word was used to refer to a 'discourse or treatise on arts'. It was not until the 19th century that the word acquired its present usage as a 'branch of knowledge dealing with the mechanical arts and applied sciences'.[1] As is commonly known, the word also contains the Greek stem *techné*, which signifies 'a technique, principle, or method by which something is achieved or created'.[2] So, 'technology' contains a heady brew of connotations that blend art with science, knowledge with action, know-how with performance. The collection of articles in this special issue of *Australasian Drama Studies* examines several key questions generated by what we might call 'daily' digital technologies – smartphones, computers, MP3 players – and 'extra-daily' digital technologies – motion capture, immersive 3-D projection, artificial intelligence, motion tracking, and robotics.

From computers to smartphones and 3-D televisions, digital technology is ubiquitous – an integral part of everyday life for most modestly affluent people today. The rapid dissemination of this technology has also had a profound impact on performance practices and has challenged long-held assumptions about the ontological status of performance. It is an attribute of new media to make old media critically interrogate its verities, so digital technologies challenge the performing arts sector to identify its unique qualities and articulate why it should survive in a new cultural order. Does digital technology consign theatre to the museum, or will the medium reinvent itself? Do we need to develop new research methodologies to comprehend contemporary performances that utilise digital media? Do digital technologies facilitate hitherto unimagined possibilities for performance? How do cyborg technologies that blur the distinction between human and virtual performers confound conventional notions of the co-presence of performers and unsettle categories such as presence, 'liveness' and corporeality? How do such technologies transform our relationships with each other and the world? These are some of the questions raised by the contributors to this volume.

While scholars such as Susan Broadhurst, Steve Dixon, Philip Auslander, Chris Salter, Edward Scheer and Rosemary Klich, among others, have produced extensive commentaries on the theory and practice of digital performance, there is a relative paucity of critical work on the way Australasian performance-makers use new digital technologies and media to address questions of politics, identity, history and locality. This publication fills that lacuna to a certain extent, but also references several landmark works made outside Australia. Additionally, it contains two articles by international scholars – Susan Broadhurst and Robin Deacon – that provide a more global perspective on technology and performance.

We open with a series of articles dealing with local case studies of works that focus on ways in which the human body interacts with various technologies.

Russell Fewster's 'Staging David Hicks' explores the relationship between video projections and performers in the Australian Dance Theatre production, *Honour Bound*. He argues that the close relationship between the live body and visual media in this work facilitated a semiotic/affective aesthetic in which each contributing element reinforced the other, thereby reconstituting the body of David Hicks – a body formerly hidden from public view. In contrast, Richard Jordan's provocative article, 'Digital Alchemy: The Posthuman Drama of Adam J.A. Cass's *I Love You, Bro*', eschews an engagement with any specific production of the work in order to focus on the diegetic world created within the dramatic text of Cass's play. Drawing on Katherine Hayles' account of the posthuman, Jordan argues that *I Love You, Bro* disturbs the boundaries between data and flesh, and underscores the differences between a humanist and posthumanist world view. He proposes a new dramatic genre, which he calls 'posthuman drama'. Texts belonging to this new category, he argues, are characterised by the evocation of a posthuman subjectivity, and need not rely on technology to be realised on stage.

Jodie McNeilly's 'A Phenomenology of Chunky Move's *GLOW*: Moves Toward a Digital Dramaturgy' identifies the structural relations between bodies and digital media. She proposes a new method for digital dramaturgy using phenomenology as a methodology, arguing that we need to formulate new dramaturgical techniques to deal with the complexity of digital performance with specific reference to a performance of Chunky Move's *GLOW* in 2007. Lara Stevens' contribution to this volume is also concerned with bodies and digital technologies, but she casts her critical eye overseas. In 'Alienation in the Information Age: Wafaa Bilal's *Domestic Tension*', she analyses a live art installation by Iraqi-American artist Wafaa Bilal in order to address the political implications of communications technologies that confound conventional understandings of proximity and distance. Stevens considers Marx's ideas about the role of machines in exacerbating alienation under capitalism, and draws upon the Marxist characterisation of technological development as catastrophe and progress all at once, arguing

that *Domestic Tension* stages the contradiction between the use of remote technologies in warfare that both intensify existing forms of contemporary alienation under capitalism and offer the potential for new alliances that temporarily circumvent the logics of capital.

The next three articles provide critical reflections on creative work produced by their authors. The first of these is a round table discussion about the connections between performance and technology with some of Melbourne's most accomplished performance-makers: Suzanne Kersten, David Pledger, Julian Rickert, Tamara Saulwick and Hellen Sky. These artists cover a wide range of issues: they begin by contesting any simple definition of the term 'technology' and go on to speak about the political implications of their work, and the pragmatic issues generated by working with both 'daily' and 'extra-daily' technologies. Robert Walton's 'Bewildering Behaviour: Practice as Research for Audiences and Other Creators of Immersive Performance' challenges the orthodoxies of practice as research methodologies (PaR) by placing the audience, as opposed to expert academic researchers, at the centre of the PaR process. He proposes a model of 'everyday practice research' that unsettles 'the entrenched dichotomies of practice/research and art/theory' with reference to the emancipatory promise inherent in immersive theatre. He proffers two case studies to support his reconfigured model of PaR, but focuses on a work created by Fish & Game, a performance group he formerly led with Eilidh MacAskill. *Alma Mater* utilises what we are calling 'daily' technologies in order to make the audience the site of embodied knowledge. In 'White Balance: A History of Video', the text of a performative lecture, originally delivered at the New Performance Festival in Turku, Finland in 2013, Robin Deacon maps an unorthodox history of the video camera, drawing on historical references to popular culture, and personal biography. He explores how ways of seeing and ways of remembering are shaped by the technological medium used to capture 'everyday' events. He challenges the idea that video functions as a tool of verification. Yoni Prior's article, 'Impossible Triangles: Flat Actors in Telematic Theatre', describes and critically examines her creative process in a number of collaborative telematic performance projects devised with Dutch and Australian university students. While enumerating the exciting possibilities offered by interactive telematic performance, she is also mindful of the technical, temporal and mechanical demands of televisual transmission that make it a marginal practice.

The following cluster of contributions to this volume focus on questions of theory and methodology. Using the participatory performance, *The Confidence Man*, as a case study, Asher Warren's article, 'Mixed Actor Network Reality: A Performance in Three Networks', demonstrates the strengths of actor network theory (ANT) for understanding mediatised and participatory performance. He argues that ANT can provide new ways of identifying and describing the relationships between the numerous elements at play in technically complex, multi-layered performance works that unsettle ordinary temporal and spatial schemas and categories. Like Walton, Warren invokes Jacques Rancière's philosophy of emancipation to underscore the political implications of his proposed methodology and the dramaturgical strategies employed by the creative team responsible for *The Confidence Man*. For Warren, the play 'emancipates' the participant actors and interacting audience by giving some the opportunity to take the stage, and the rest to make their own audio selections.

Susan Broadhurst's 'Theorising Performance and Technology: Aesthetic and Neuroaesthetic Approaches' examines and compares neuroaesthetic and aesthetic theorisation in order to provide interpretative strategies for this new and sophisticated genre. She provides a comparative study of the writings of Maurice Merleau-Ponty. At the same time, she examines a neuroaesthetic approach linking performance and art practices with recent neurological research on cognition and behaviour, which suggests some future understanding of the biological underpinnings of aesthetic experience.

Gorkem Acaroglu's 'Cyborg Presence in Narrative Theatre' argues that mixed-media performance work unsettles the concept of theatrical presence, and also requires a re-evaluation of Derrida's account of the metaphysics of presence. Using three landmark digital theatre productions to ground her

analysis, she argues that these works necessitate a more nuanced and complex theorisation of theatrical presence to account for what Cormac Power calls 'fictive', 'auratic' and 'literal' presence. More specifically, she argues that projected media reveal 'literal presence', the sense of actually 'being present' at a performance.

The issue concludes with three articles that focus on Japanese robots. Yuji Sone's 'Imaginary Warriors: Fighting Robots in Japanese Popular Entertainment Performance' explores the phenomenon of Japanese humanoid entertainment robots and their social role, with specific reference to Japanese popular culture. He contextualises the popularity of robots in Japanese culture with reference to manga, anime and video art that operate throughout the Japanese social imaginary, arguing that the figure of the robot allows the producers and consumers of robot culture to sublimate their subjectivity, and revel in fantasies generated by Japanese robot culture. Gorkem Acaroglu and Glenn D'Cruz, the editors of this special issue, focus on *Sayonara: Android–Human Theatre*, which was performed as part of the 2012 Melbourne Festival. The play features Geminoid F, an android robot, playing a robot caregiver that looks after a terminally ill young woman, played by a human actor, Bryerly Long. D'Cruz, in his article '6 Things I Know About Geminoid F, or What I Think About When I Think About Android Theatre', contextualises the performance with a series of critical ruminations on its reception that identify some of the major themes and issues generated by the performance, while Acaroglu, in '*Sayonara* Interviews: Android–Human Theatre', presents a set of interviews with the key members of the creative team responsible for the production.

We hope that the *ADS* readership finds this collection of articles and interviews stimulating and enjoyable. We are heartened by the mix of topics and discursive registers in the volume, and the fact that we are publishing a number of articles by early career researchers and talented postgraduate students alongside work from established scholars. We are, of course, indebted to the numerous people who have contributed to this volume as readers and copy-editors. Thanks

to the anonymous reviewers who provided our authors with valuable and constructive feedback. This collection is stronger for your efforts. Thanks also to the current general editors of *ADS*, Meredith Rogers and Julian Meyrick, for your practical assistance and advice. Finally, heartfelt thanks to the former editor of *ADS*, the late Geoffrey Milne, who encouraged us to develop this project, and provided us with valuable guidance in the early stages of the work.

NOTES

1 'technology, n.' *OED Online*, Oxford University Press, June 2014 (accessed 10/08/14).

2 '*techné*, n.' *OED Online*, Oxford University Press, June 2014 (accessed 12/08/14).

STAGING DAVID HICKS

Russell Fewster

> Thanks to a bold piece of commissioning … director Nigel Jamieson has been able to realise a powerfully immersive account of the agonies of unlawful incarceration and its impact on others … *Honour Bound* is no apologia for David Hicks' actions but a viscerally intelligent argument for justice.[1]

INTRODUCTION

This case study explores the integration of projection with performer in the Australian production *Honour Bound*, concerning former Guantanamo Bay detainee David Hicks, a controversial figure in Australia. *Honour Bound* is a dance theatre work that was directed by Nigel Jamieson and choreographed by Gary Stewart. The work premièred at the Sydney Opera House and toured to the Malthouse Theatre in Melbourne in 2006 and then to Europe in 2007.[2]

Honour Bound drew on verbatim theatre styles, as Jamieson interviewed the Hicks family, consulted various legal documents and surveyed archival

footage with interviews of the relevant politicians. It differed radically from a conventional play in the application of acrobatic techniques in combination with video projection. This was an intermedial approach involving a mixing of media in performance, including the elements of body, costume, set and video – all media of expression in their own right but actively influencing each other.

Central to the work was the performer's body as site or locus for the interplay of these media. I discuss how the body and these various media engaged with each other in order to represent the unrepresentable: torture. In doing so, I examine how the combination of media, body and projection, functioned from gestic and affective perspectives. In turn, such perspectives expose how the actual body of David Hicks was hidden by authorities, and turned into a hyperbody – a media body regulated by specific images that incriminated Hicks while actual images of him in captivity were unavailable.

DAVID HICKS: GUANTANAMO EVERYMAN

David Hicks is an Australian citizen who travelled to Afghanistan, where he studied Islam and allegedly joined the Taliban. He was captured in 2001 by the Northern Alliance of Afghani Tribes and then sold to the invading American forces. He was subsequently held in American custody at the American Army base at Guantanamo Bay, in Cuba.[3]

David Hicks has been described by former US Secretary of Defence Donald Rumsfeld as being 'among the most dangerous, best-trained, vicious killers on the face of the earth', while the former Commander of Guantanamo Bay, Rear Admiral Harry Harris, unequivocally stated: 'I believe there are no innocent detainees here'. The former Australian Government[4] commented along similar lines, with the then Treasurer Peter Costello stating that the case against David Hicks was 'pretty straightforward … he wasn't on a backpacker tour', while the former Foreign Minister Alexander Downer described Hicks as a 'dangerous person'.[5] This pre-trial condemnation attracted the ire

of Hicks' US-appointed defence counsel, Major Michael Mori, as well as State Attorneys-General, QCs, lawyers, civil rights campaigners and members of the general public who protested the apparent lawlessness of Hicks' detention. They cited the denial of *habeas corpus*, alleged torture claimed by Hicks himself and the US ruling that the Geneva Conventions did not apply to the detainees at Guantanamo Bay.[6]

The Australian Law Council also rallied against the military commissions set up by the US military to try terrorist suspects such as Hicks, that allowed evidence gained by coercion and hearsay. Such commissions, though supported by both the previous US and Australian Governments, were found to be unconstitutional by the US Supreme Court in 2004. The commissions were then revamped by the former US Bush Government but still raised concerns from critics in regards to their perceived unfairness.[7] A key figure has been Hicks' father Terry, who lobbied tirelessly on behalf of his son. His line was consistent, arguing that whatever his son did, he should be charged and put through a fair trial process or released and brought back to Australia.

In 2007, David Hicks pleaded guilty to providing material support for terrorism, in what would seem an act of desperation to escape Guantanamo Bay after more than five years of detention. In the face of mounting public criticism of the handling of his case, and in a move widely seen to be an election ploy[8] by the former Australian Government, he was returned to be held in an Australian prison, from which he was released in December 2007 though he remained unable to talk to the media for a year.[9] In late 2013, Hicks lodged an appeal in the US Court of Military Commission Review to have his conviction annulled.[10]

DRAMATISATIONS

There have been a number of previous dramatisations of David Hicks' story, including a play and a documentary. The first was the play *X-ray* by Adelaide playwright Chris Tugwell.[11] The play, set in Camp X-ray at Guantanamo Bay,

primarily focuses on the day-to-day incarceration of Hicks and his imagined interaction with the guards; it also works as a series of flashbacks enabling Hicks' back-story to be told from first person point of view.

The documentary film, *The President Versus David Hicks* (2005) by Curtis Levy, differed radically from the play in that it focused more on the father Terry and journeyed with him as he travelled to Afghanistan. Terry literally followed in his son's footsteps as he searched to try to understand what had happened to his son. Terry's journey was contrasted with David's letters home, both before and after his capture by the US Army. Both the play and the documentary can be seen to fit within verbatim or testimonial styles; although the play was a fictional account, it drew heavily on interviews by the playwright with Terry and Bev (David's stepmother), while the documentary followed a tradition of journalistic investigation in seeking to throw more light upon the case.

It is at this point that Nigel Jamieson began working on his version of the David Hicks story. In 2005, Phillip Rolfe, executive producer from the Sydney Opera House, asked director Jamieson if he had a project that might be suitable for the forthcoming 2006 season. Jamieson had just seen the Hicks documentary and decided that he wanted to create a work on this subject. Jamieson is a theatre director originally from Great Britain, whose work has been characterised by an emphasis on physical theatre.[12] Having moved to Australia in 1992, his work has moved in broadly two directions: large-scale, outdoor celebratory works such as the *Tin Symphony* at the opening of the 2000 Sydney Olympics, and smaller, indoor works such as *In Our Name* that have focused on social issues including the plight of refugees in detention centres in Australia.[13] Both styles have periodically used aerial acrobatic techniques, which would feature in this new work, ironically entitled *Honour Bound*.[14]

For Jamieson, the work would begin from a physical 'image' of a 'human figure spinning and turning in a void', and it would attempt to 'not be didactic' while asking hard questions about the plight of democratic values in the

Western world under threat in the War on Terror.[15] A key collaborator would be Gary Stewart, artistic director of Australian Dance Theatre, whose internationally renowned work has increasingly meshed the dancer's body with new technologies such as software projection and robotics.[16] Stewart would choreograph the production and foreground the body of the performer as a principal medium of the performance. The other key medium would be the use of projection.

I begin with a key scene from the production that dynamically combines body and visual media, which I term the 'spinning' scene for ease of reference. The discussion then moves to a broader exploration of how the performer and digital image were employed by Jamieson and Stewart to 'stage' David Hicks.

DANCE BETWEEN BODY AND MEDIA

Scrolling up the back of an 8-metre-square cage is a list of the Geneva Conventions regarding the internationally agreed humanitarian principles by which prisoners of war are to be treated.[17] Simultaneously a voice-over of the former American President George Bush declares that he has determined that these regulations do not apply to Al-Qaeda prisoners held at Guantanamo Bay, whom he terms 'enemy non-combatants'. The voice-over finishes.

The video projection of the text of Article 4 of the Geneva Conventions continues to scroll up the rear of the giant cage. A man in an orange jumpsuit starts to climb up the rear of the cage, literally walking over this projected text. Then the video of the text tilts up and away from the audience's view. The man then walks in a slow, deliberate manner up and along this 'freeway' of text. As he reaches the top of the text, in reality the top of the cage, the projected text suddenly and unexpectedly spins. Simultaneously the man spins with it and falls down slowly to the floor. He starts again, steadily walking up the rear of the cage along the projected text until, reaching the top, he and the text spin again, and he once again falls to the floor. The action is repeated another five times. Occasionally the man grabs hold of a bar at the top of the theatre and hangs momentarily before ultimately spinning down to the floor.

The scene is initially silent save for the voice-over, then as the projected text tilts away a sound that could be interpreted as a helicopter or text being printed follows. These sounds are overlaid periodically by metallic clangs as the man spins and his harness pulls on the rigging above him. An electronic score then slowly creeps into the scene, adding an uneasy ambivalence.

The overall effect of the scene is the sense of a man attempting to find a direction forwards in life but who is pushed and pulled by forces outside his own body and which send him repeatedly spinning to the ground. Simultaneously international humanitarian laws that should ensure his democratic rights spin with him, providing no protection. The performer's body and the projected text spin in a dance that integrates body with video and which together highlight the hopelessness of David Hicks' prolonged imprisonment in Guantanamo Bay.

DISORIENTATING THE BODY

Nigel Jamieson's first image when thinking about staging David Hicks' plight was 'of an orange suit turning in space, in a complete void'.[18] Although this scene appears in the middle of the production, it was the first scene rehearsed.[19] The scene has many of the key signifiers of the work and demonstrates the use of the body with technology. It can therefore be seen as central to the whole work. For Jamieson, the scene was intended to be a metaphor for an individual lost from his familial bearings of home and thrown into a world where humanitarian principles literally spin around him and him with them.[20] In this way, the action of the performer's body is complemented by the action of the video, mutually reinforcing each other. The two media combine to represent the effects of torture upon a human being. Gary Stewart comments:

> I wanted to create a sense of disorientation that you'd experience under extreme duress, trapped in the dark for months on end in

> a small cell, where your world is literally turned upside down, so the performers are turned upside down too.[21]

The starting point for the scene is the body of David Hicks under extraordinary physical and mental coercion. It shows a representation of the body of Hicks as victim of incarceration and punishment and subjected to institutionalised abuse authorised under the umbrella of the US War on Terror. Stewart underlines this point in stating that *Honour Bound* is a 'gravity-defying work' that seeks to 'disorient the audience's perspective on the body' and thereby reflect Hicks' own disorientation.[22]

Jamieson sets up this sense of disorientation by initially contrasting sharply the voice-over of supreme American authority with the declaration of internationally accepted human rights projected onto David Hicks' cell. There is a clash of media, between voiced text and projected text, between sound and image, that establishes the destabilising atmosphere that Hicks is placed within. This is followed by a body representing Hicks turned literally upside down by this usurping of human rights (see Figure 1). These different elements of performance – voiced text, spinning projected text and a spinning, upside-down body – interact with each other to create a powerful sense of abandonment of fundamental principles of human justice.

INTERACTIVITY: MUTUAL AFFECT BETWEEN BODY AND MEDIA

Early in rehearsal, Jamieson was faced with the dilemma of how to stage texts such as the Geneva Conventions, which in his own words make 'quite dry reading'.[23] Such aesthetic challenges are typical of staging verbatim texts. Jamieson, when asked how he had created the scene, stated that he was searching for a 'living way' to simultaneously dramatise the Geneva principles and show the dilemma facing the prisoners.[24]

For Jamieson, the solution lay in trying to make the process 'interactive' – a key term that reflects the ongoing application of computer-generated imagery

Figure 1: Disorientating the body. Photograph: courtesy Sydney Opera House.

to live performance. Jamieson reveals that the scene was achieved through experimentation with video programs that 'allowed the text to be manipulated' and which was then 'combined' with the performer 'walking on the wall',[25] Jamieson describes this approach to the scene in question. He states:

> So … the Geneva Convention suddenly tilts down and becomes a road which one of the performers tries to run along and it turns and flips him up and I suppose that's some kind of metaphor … those documents are important to us all and that's a way of showing that not in a didactic way but in a visual way.[26]

The body of David Hicks, like the international humanitarian laws that are supposed to protect it, are thrown up and tossed away literally and metaphorically. The performer's body was linked to projection via the interactive nature of the software (see Figure 2).

Figure 2: Interactivity: mutual affect between image and body. Photograph: courtesy Sydney Opera House.

The software was architectural, providing shape and three-dimensionality when projected onto the two-dimensional surface of the cage. As such, it gave a line of direction for the live performer to navigate, and was then able to rotate with the rotation of the performer's body, resulting in a 'mutual affect' between the media of body and software.[27] This dynamic interactivity in turn reflected Jamieson's intention that the work would not be a 'didactic' piece about whether Hicks was guilty or not but rather would focus on his treatment at the hands of the US military that was, in his view, outside of recognised democratic principles.[28] This marks the work as differing radically from conventional, text-based verbatim theatre that 'forgoes image' and 'chooses to tell rather than show'.[29] However, there is no doubt that the work still had a clear political point to make: the primary intention was to *embody* representations of torture and visually demonstrate the apparent discarding of the Geneva Conventions through combining the performer with projection.

INTERACTIVE TRANSMISSION OF MEANING VIA VIDEO TO THE BODY

Jamieson's work in its overall thrust sought to redress the apparent trashing of human rights by emphasising the clash of the impersonal with the personal – that is, the punitive affects of the regime's War on Terror in removing an individual's humanising factors. In this respect, the 'spinning' scene needs to be seen in the context of what comes before it and after it, as it is the montage or collision between official decrees and actions against private revelations that brings this struggle into sharp focus. Jamieson highlighted this sense of contrast between the official world of authority and David Hicks' diminished private world, with the mix of digital imagery and live performers.

For example, immediately before the 'spinning' scene there is projected footage of President Bush declaring that the detainees are 'killers … terrorists, parasites' not worthy of any humane consideration. This is immediately followed by a voice-over of Hicks' letter home, apologising for the embarrassment he has caused. As his letter is voiced-over, the live performer representing David Hicks is frisked and dragged from his cell; this is then accompanied with projected footage of a walk through his family home, followed by images of a sweet-looking younger Hicks.

The approach works on both auditory and visual levels: the contrast between official declaration of the subject's inhumanness and the subject's personal testimony – a sound montage between captor and captive. This is then followed by the contrast between the forced walk by the captors from his cage with the smooth, leisurely glide through his house – a visual montage of a restricted body placed against an open, warm home environment. The two worlds of captor and captive collide and highlight the attempt by the captor to swallow or deny the captive's world.

As Elaine Scarry states in her book *The Body in Pain* (1985), torture 'is world destroying', and in Honour Bound the theatre-maker's intent is to reassert the humanising value of the detainee's previous, private world.[30] The use by Jamieson of the images of the Hicks' home and a younger David Hicks are an attempt to show a human being before he is degraded into a non-entity, and become exclusively part of the captor's world.

Amy Jensen describes the stage use of projected imagery of a character's private world as enabling 'explorations of character: … an "extension" of what the character sees' or has seen, and in turn the audience is exposed to another aspect of the character's journey. According to Jensen, the 'source of emotions is … transferred from the performance of the actor to the technology space'. The audience then 'performs emotions' and projects them back onto the actor.[31]

In *Honour Bound*, a similar process is taking place. The audience exposed to the private world of David Hicks is able to then place those associations onto the dancers in orange suits representing Hicks. The projected, private world of a younger, innocent Hicks in his natural surroundings thus offers 'cues to extract emotion from the images', enabling the audience to project 'emotional or cultural reality back onto the performers'.[32] In Jensen's words, an 'interactive transmission of meaning' is taking place between audience and performance. For Jensen, this 'technology-enhanced audience performance through associative perceptions is taught to the audience by everyday interaction with mass media technologies'.[33] It functions because of the 'opportunity' for the audience to gather information from the projected imagery in a way

to which they are already accustomed, through daily interaction with media.

In Honour Bound, this information is in the form of personal testimony from the former, private world of an incarcerated individual that subsequently opens up and informs the character's narrative. As reviewer Richard Phillips comments:

> A backdrop of snapshots of Hicks and video footage of his parents' home not only humanises Hicks, who continues to be slandered by the Howard Government and a group of extreme right-wing Australian media, but helps to illustrate why he left Australia seeking adventure and converted to Islam.[34]

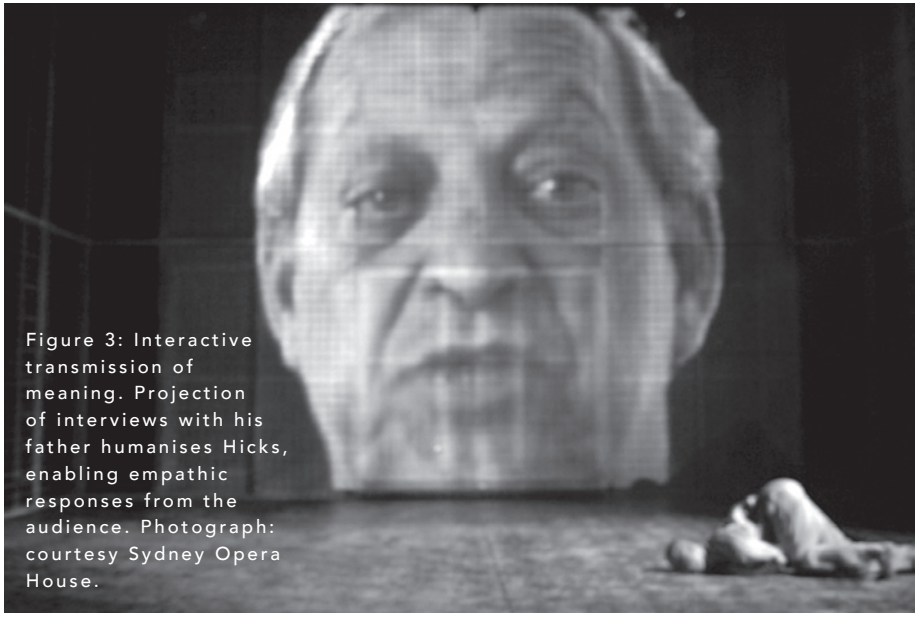


Figure 3: Interactive transmission of meaning. Projection of interviews with his father humanises Hicks, enabling empathic responses from the audience. Photograph: courtesy Sydney Opera House.

The revelation of the private world of Hicks offers a counter narrative to the government line that Hicks is simply a terrorist; it contextualises Hicks as a confused young man coming from a loving family. Jamieson also included projected interviews with Hicks' parents that further highlighted the contrast between the parents' love for their misguided son and their son's suffering in detention (see Figure 3).

Jamieson has identified that part of the sadness in reading the accounts of torture at Guantanamo Bay is the 'bureaucratic coldness of the legal documents' that hide the systematic destruction of an individual's sense of love and their world by incarceration.[35] To underline this after the 'spinning' scene finishes, five other performers, similarly clothed, climb and attach themselves to the rear wall and join the lone figure in orange overalls. The projection of the Geneva Conventions on a large cage that acts as holding facility and screen is contrasted with the voice-over of the former US Secretary for Defence Donald Rumsfeld, authorising various forms of interrogation. Rumsfeld's voice in its measure, tone and sense of calm authority embodies a language far removed from actual pain. It is a voice which verbally highlights the material absence of torture from officialdom but which is contrasted by its physical representation in the performers' bodies. As the different forms of interrogation are listed, the stage lights flash and the inmates assume different extreme poses of subjugation – each body no longer that of its owner but controlled by others, by Rumsfeld's directives. Power is illustrated by physical

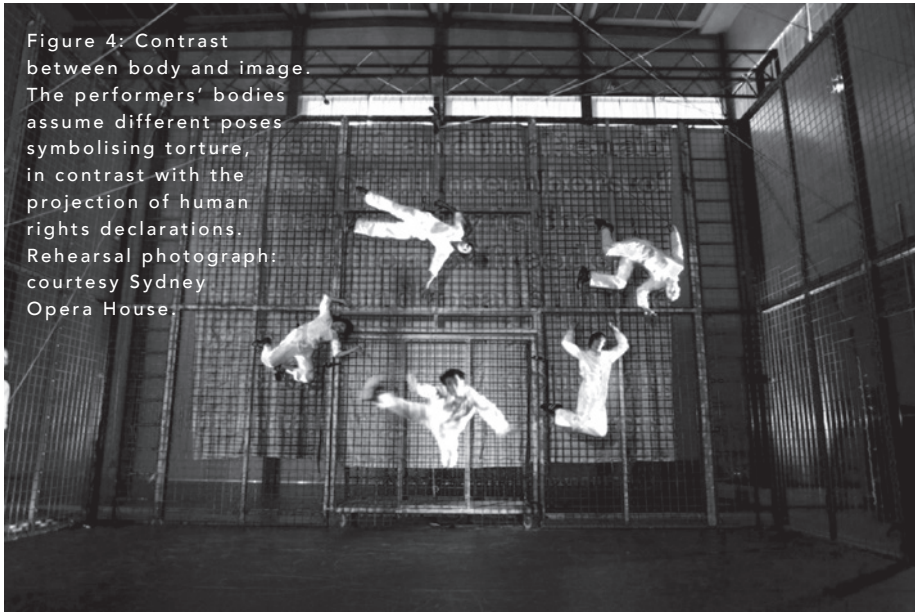


Figure 4: Contrast between body and image. The performers' bodies assume different poses symbolising torture, in contrast with the projection of human rights declarations. Rehearsal photograph: courtesy Sydney Opera House.

restriction and control and shown to be world-destroying, in contrast to the apparent reasonableness of its vocal embodiment (see Figure 4).

In *Honour Bound*, the elements of projected images contrasted with live bodies dramatises the effects of prolonged detention. The audience is able to experience the hitherto hidden, private world of David Hicks through digital imagery and which is then obliterated as the live bodies representing Hicks are deprived of their freedom. There is a resultant collision of media between image and body, representing a collision of ideologies between the familial body of the private world and the controlled body of the regime. The audience's emotions are generated through this contrast, this 'shock experience', which is a feature of intermediality.[36] The bodies of the dancers subsequently become a metaphorical screen for the audience to project these emotions upon. Emotions generated by technology are thus transferred to the live bodies of the performers.

THE HYPERBODY

Jamieson's direct contrast of the body with video projection and voice-over are dramatic representations of the contrast between the plight of the individual and the state's denial of that individual's freedom. The former is hidden and the latter promoted actively by the state's control of information flow, via media. The replacement of the familial body with a controlled body points to the construction of a hyperbody – the body that government via media allows the public to see. The latter was focused through the media's use of imagery that portrayed Hicks as a terrorist. Pierre Levy refers to a hyperbody as a 'communal' or 'collective body' made possible through the 'virtualisation of the body' that transmits more than images, but a 'quasi presence'.[37] I propose that such a quasi-presence may also represent a media body, a hyperbody produced for media and collectively absorbed by viewers. Hyperbodies are reproduced via media to such a degree that they attain their own 'integrity', or sense of being, by their sheer volume of reproduction. They are simulations of a 'third order',[38] to employ Jean Baudrillard's term, that are distortions

of reality, the 'hyperreal'. Such simulations are produced by vested political, military and/or commercial media interests to present or hide humanising aspects of the body. These quasi-presences take on 'hyper' qualities for their uncritical acceptance as being accurate representations of real bodies. Such bodies often include those marginalised by dominant forces, for example Guantanamo Bay inmates, such as David Hicks, whose real bodies have been hidden and replaced by incriminating images disseminated via media.

In the absence of any images of David Hicks[39] in detention, Jamieson attempted to counter the demonising of Hicks by both media and the Australian Government. Projected interviews with both father Terry and stepmother Bev Hicks showed them commenting directly on media's propensity to use the often-featured image of Hicks holding a Rocket Launcher. Bev Hicks told the audience of her shock when a 'friend' of Hicks passed the photo to the media. She related how the photo was taken in Kosovo, ten years previously, and bore no relation to Afghanistan and the War on Terror. However, the image was enough for the public to form an association between Hicks and terrorism. The image was subsequently used constantly by the media to support the view of Hicks as being a terrorist and is an example of a hyper-image, a hyperbody that circulated misrepresenting Hicks.

Jamieson also showed the Hicks family responding directly to comments previously made by the former Australian Government officials (Foreign Minister Alexander Downer and the Attorney-General Phillip Ruddock) that seemed to prejudge David Hicks as being guilty of terrorism. Rather than Jamieson heavy handedly accusing the government of wrongdoing, he allowed the victim's family to speak emotionally and eloquently from first-hand accounts – a technique derivative of investigative documentary and often used in verbatim theatre. Thus while the live body through the dancers represented the physical marks of the regime's acts of torture, it was the projected images and voices of the victim's family that told of the effects of Hicks' ongoing incarceration upon them. In this respect, one could argue that Jamieson was taking on the US and Australian Governments with their own tools of mediatised representation – contrasting the 'reassuring' and deadening words of the captors with the emotive words of the captive's family.

RE-INSTATING THE VISCERAL BODY

A counter to the hyperbody of projected 'rocket-launching' terrorist were the violent live actions generated by the performers' bodies that represented the brutality of prolonged detention. These were actions with accompanying sounds that were real, kinaesthetic and intended to act affectively upon audiences. By 'kinaesthetic' and 'affective' I mean muscular tension and exertion within the performers' bodies that is communicated directly and sensorially to the audience, before cognitive recognition. Examples included the sound of a performer's body pulling on a harness attached to metal rigging as the performer fell spinning to the floor (in the 'spinning' scene), and the performers slamming themselves into the floor and in particular into the walls of the cage in other scenes. Jamieson commented:

> There is something very genuine and direct about expressing emotions and feelings through the body … In some ways I trust them more than words. I think the exertion, the sweat, the bang and the noise of what the performers do is really literal, really real. We're in a room where people are in a metaphor through their own work going through a certain kind of suffering.[40]

In this respect, 'suffering' refers to the actual exhaustion caused by the work performed by the dancers/acrobats in the performance. Numerous reviewers commented on how the show pushed performers to their physical limits.[41] This in turn reflects Jamieson's concerns that the work would 'trivialise' and not effectively dramatise David Hicks' incarceration in Guantanamo Bay.[42] The actual suffering of the work's protagonist demanded that the performers undergo some level of suffering themselves in performance.

The visual and auditory signs of the exertions of the performers in *Honour Bound* can be read as attempts to transcend the limits of verbal descriptions

of torture for a more immediate and direct expression, an extreme body language that Jamieson himself felt was more 'sincere' or 'genuine'.[43] In *Honour Bound*, the intention of Jamieson and Stewart was to create a 'visceral' work to overcome the perceived neutralisation of torture by official government statements disseminated through media reportage.[44] This viscerality might be termed a re-instated body, a body of the victim that is staged with full knowledge of authority and media's role in neutralising or 'disappearing' it.

Caroline Wake comments that in Australia, refugees and asylum-seekers have been made to 'disappear in several ways over the past few years'. Wake describes how 'they have disappeared linguistically with bureaucratic acronyms such as "boat people", "these people" and "queue jumpers"'; they have also 'disappeared physically', being rarely seen in the media while being displaced to remote locations such as 'desert camps' and 'small Pacific islands'.[45] Similarly, Guantanamo Bay inmates such as David Hicks have been linguistically disappeared behind the terms 'detainee' and 'enemy combatant' and physically disappeared with their image not seen while in captivity. Jamieson's aim was to make the invisible visible, to bear 'witness', as Wake writes, to the suffering inherent in the disappeared body: in this instance, to the absent body of Hicks.

GESTUS AND AFFECT IN REPRESENTING TORTURE

In addition to the performer's body and projected media, *Honour Bound* also employed strategies foregrounding the prison uniform and cage as weapons of torture. Returning to Elaine Scarry, the orange uniform and cage represent agencies for torture, 'weapons' that are world-building for the captor and world-destroying for the captive.[46] While there were no images available of prisoners themselves, the orange uniform of Guantanamo Bay has become an everyman representation of institutionalised injustice. Jamieson comments:

> The orange suit has become an icon in the world, and what it represents to most people now isn't values like 'Honour Bound to Protect Freedom', which is written above the gates of Guantanamo. It's become a kind of symbol that represents a retreat from the fundamentals of human decency and human rights.[47]

The uniform is a second hyper-image or hyperbody freely circulated by government and media. Like the image of Hicks holding a rocket-launcher, it signifies 'terrorist'. The uniforming and the hooding of Guantanamo Bay inmates works to delineate those who are acceptable to the controlling authority and those who are not. The dehumanising effects of the costume are clearly demonstrated at the beginning of *Honour Bound* when the performers enter in only their underwear and slowly don the overalls and hoods and then stand motionless, showing how they have become suddenly void of individuality and personality. Their world has shrunk and been absorbed into the world of their captor.

Later in the performance, in scenes reminiscent of the Abu Ghraib[48] prison scandal, the bodies of the performers are stripped bare save for the hoods that remain (see Figure 5). The images from Abu Ghraib break up the hyperbody, the masquerade. They replace and disrupt the dominant view of the gun-wielding terrorist or orange-uniformed criminal, revealing instead the bodies of 'non-combatants' as victims. These bodies were hitherto hidden to such a degree that they were virtualised, resulting in a 'change of identity, a displacement of the centre of ontological gravity'.[49] It is only when the uncensored breaks through this deception, such as in the Abu Ghraib scandal, that the naked and vulnerable body is revealed and disrupts this dominant view, highlighting the victim status of the inmates.

Denise Varney, in writing about the performance event *Bitte Liebt Österreich* (*Please Love Austria*, Vienna, 2000), describes the hiding of asylum-seekers' faces from the public in that performance as:

> A gestic sign of the hierarchical relationship between outsider and citizen. Their social determination as lesser beings with less human rights than citizens is made clear and readable.[50]

Figure 5: Hyperbody exposed. The hooding of Guantanamo Bay inmates acts as a gestic sign of the US War on Terror: that in defending freedom, the USA denies freedom to those it deems the enemy, the other. Photograph: courtesy Sydney Opera House.

In *Honour Bound*, the hooding of Guantanamo Bay inmates works in the same way, clearly delineating those who are acceptable to the controlling authority and those who are not. Varney writes that in contemporary performance, gestus and affect are mutually reinforcing, forming the post-gestic, and can act as a 'powerful critical intervention in a media-dominated sphere'.[51] The hood and uniform are clear gestic signs of dominance and power. In turn, in performance these elements of costume are shown to act affectively as physically numbing and space inhibiting. These agencies of torture initially render the performers' bodies motionless and then later highlight how authority strictly controls their movements.

In the performance of The *Bogus Woman* (2003), a verbatim theatre work covering the plight of an asylum-seeker in Britain, a teacher freezes the moment before being captured and beaten up by authorities. In *Honour Bound*, the transformation from near-naked body to a still body wrapped in prison clothing might equally be termed a 'gestus of paralysis', a body 'waiting for the blows to come'.52 The body visually obliterated by the costume of the captor is vulnerable, waiting with trepidation for the violence to come. This vulnerability, or powerlessness (power having been transferred from captive to captor), reinforces the semiotic labelling of the body as 'criminal' and therefore unworthy of humane consideration by its captors. On the other hand, in performance this very vulnerability undermines the state's brutality and reinserts the individual's humanity.

As pointed out earlier, in *Honour Bound* this violence is staged affectively through the performers slamming themselves into the floor and in particular into the walls of the cage. The cage's metal structure provides affective resonance when in the course of the work the performers variously throw themselves against it, hang from it and run and walk across it. The sounds of bodies bouncing off metal reiterate the inhumanness of such a metal enclosure. A room is a basic building block of civilisation, providing protection and representing a comforting extension of the human body.[53] Torture turns this comfort upside down, as benign elements such as floors and walls are

turned into weapons, agents of torture. The room in its normal protective capacity is obliterated and, with it, civilisation as well. The room becomes a weapon, a constant reminder of the torturer's world and the 'prisoner's absence of world'.[54] The cage already once removed from a room implies holding an animal, a savage beast, something dangerous and inhuman. For the 'detainee', their holding cage works to remind them at any moment of their lack of personal world. As such, as a central unchanging component of the production, it provides a constant visual reminder of Hicks' status or lack thereof. Varney writes that 'composed on the body of the actor, gestus also contributes to the strength, duration and intensity of the [stage] image and its affect'.[55] The combination of the gestic signs of cage, uniform, hood, with a vulnerable body, creates a mutually reinforcing semiotic/affective aesthetic – an aesthetic that simultaneously aims to reflect and undermine the authority and its representations of power that hold detainees such as David Hicks prisoner.

CONCLUSION

Elaine Scarry points out that torture is primarily about the obliteration of the victim's world and the accompanying aggrandisement of the torturer's world.[56] Inherent in this is the torturer's public use of language to justify their actions. Such language is then amplified by media reportage. In the case of the War on Terror, inmates at Guantanamo Bay such as David Hicks were classed as terrorists without recourse to due process. In *Honour Bound*, the performer's body combined with projection provided both viscerality and vulnerability in opposition to the David Hicks body that had been neutralised or disappeared by authority. In turn, the images of Hicks promoted and circulated by government and media were exposed as hyperbodies, misrepresentations of David Hicks as terrorist.

The performer's body was closely linked to video projection in two distinct ways: first, the spinning, upside-down body was linked with projection that replicated the body's movements. This interactivity between the disorientated body and spinning projection of text from the Geneva Conventions was a metaphor for the discarding of international conventions on human rights. Second, the subjugation of the detainee's body was highlighted through the contrast between the two worlds of captor and captive: a collision montage.

The effect upon the detainee's family was portrayed through projection of interviews, which contrasted with official reports on the subject. The use of projected images of Hicks' personal world enabled a reconstitution of that individual's private world and a counter to government and media's simplistic but effective demonisation of Hicks. This constituted an interactive transmission of meaning, as the audience members were encouraged to extract emotional cues from the projected private world of David Hicks and place them back onto the live performer representing the detainee; to transfer emotions from technology to the body. The use of body and media together, to contrast official and private worlds, created a shock effect, a mutual affect between media, which is a dramaturgical principle of intermedial theatre.

The performer's body provided a physical anchor that countered the disappearing of Hicks' actual body into a hyperbody by authorities and media. The actions of all the performers' bodies were foregrounded and articulated as an extreme language in order to represent actual torture. The body of the performer was pushed to physical extremes, to the point where the dancers suffered exhaustion in performing the work. The body was shown to be subject to visual signifiers such as overalls, hoods and cage that symbolically represented loss of freedom. These signifiers were shown to be weapons of torture that affectively destroyed the body's sense of personal world or space.

In performance, the close relationship between the live body and visual media facilitated a semiotic/affective aesthetic that was mutually reinforcing. This aesthetic subsequently enabled the reconstitution of a body that had been hitherto virtualised or hidden from public view.

NOTES

1 Keith Gallasch, 'Perspective on Power and Perception: Keith Gallasch at Moving and Challenging Performances' (Review of *Honour Bound*, dir. Nigel Jamieson), *RealTime,* October–November 75 (2006). Online: http://www.realtimearts.net/article/issue75/8227 (accessed 30/01/07).

2 *Honour Bound* was performed at the Sydney Opera House Playhouse 28 July – 3 September, the Malthouse Theatre 13 September – 1 October, and the Barbican Theatre in London 14–17 November 2007.

3 Guantanamo Bay in a US-controlled area of Cuba was, according to the US military, 'not a prison … [but] a "detention facility" … Guantanamo has no prisoners, only "enemies"' from the so-called War on Terror. The commanding officer, Rear Admiral Harris, stated in March 2007 that 'today it is not about guilt or innocence. It's about unlawful enemy combatants.' The US Government established the 'detention facility' out of US territory so that US law would not apply. The subsequent lengthy detention of such 'combatants' without access to normal legal process, as well as allegations of systematic abuse of human rights, attracted increasing controversy. See Karen Greenberg, 'There Are No Prisoners at Guantanamo, Which Isn't a Prison', *The Age* (2007). Online: http://www.theage.com.au/news/opinion/no-prisoners-at-guantanamo-not-a-prison/2007/03/14/1173722553792.html?page=fullpage (accessed 15/3/07).

4 I refer to the John Howard-led Liberal and Country Party Coalition Government, in office 1996–2007.

5 Quoted in Kevin Thompson, 'Presumed Guilty Without Fair Trial', *The Age* (2007). Online: http://www.theage.com.au/news/opinion/presumed-guilty-without-fair-trial/2007/02/24/1171734074697.html?page=2 (accessed 2/3/07).

6 Tom Allard, 'Hicks Tells of Abuse and Torture at Guantanamo', *The Age* (2007). Online: http://www.theage.com.au/news/national/hicks-tells-of-torture/2007/03/01/1172338796050.html (accessed 3/3/07).

7 The incoming US Obama Administration subsequently abandoned the commissions and publicly declared their intention to close Guantanamo Bay – a response to the USA's loss of prestige in the world over the issue of human rights. President Barak Obama attempted to close Guantanamo as a prison for terrorist suspects in 2009 but has faced sustained opposition from Congress. Obama stated in 2013 that 'Gitmo has become a symbol around the world for an America that flouts the rule of law'. See Kathy Gannon, 'Obama Pledge to Transfer Guantanamo Bay Detainees Sparks Diplomatic Maneuvering for Detainees' (2013). Online: http://www.foxnews.com/us/2013/07/13/obama-pledge-to-transfer-guantanamo-bay-detainees-sparks-diplomatic-maneuvering/ (accessed 5/10/13).

8 In Australia, 2007 was an election year and early that year the David Hicks case increasingly became an electoral issue for the Australian Government, as public opinion turned against the government's handling of the case. After five years of prevarication, the government finally put pressure on the USA to find a solution or 'deal' in regards to David Hicks. In contrast, other allies, including the UK, had 'non-combatant' detainees returned to their jurisdiction much earlier.

9 Hicks had suffered extreme isolation and deprivation. According to court transcripts, he was mentally ill and at risk of a life-threatening condition if not released into a general prison.

10 Hicks' lawyers stated: 'A guilty plea induced by the unholy trinity of violence, threats and improper promises cannot be allowed to stand'. See Natalie O'Brien, 'David Hicks Lodges US Military Court Bid to Overturn Terrorism Charge' (2013). Online: http://www.smh.com.au/national/david-hicks-lodges-us-military-court-bid-to-overturn-terrorism-charge-20131105-2wzqv.html (accessed 29/1/14).

11 The play premièred at the Adelaide Centre for the Arts (a tertiary performing arts institution) in Adelaide in 2003 and was directed by the author.

12 Jamieson received the Greater London Arts Award for outstanding contribution to the fields of Dance and Physical Theatre in 1985 and more recently the 2006 Sidney Myer Individual Performing Arts Award. In 2007, *Honour Bound* received the Australian National Helpmann award for most outstanding physical/visual stage work.

13 *In Our Name* was written and directed by Jamieson and performed 22 April – 30 May 2004, at Belvoir Street Theatre, Sydney.

14 'Honour Bound to Defend Freedom' is the sign above the entry to Guantanamo. Jamieson's titling of his work is a clear reference to the apparent hypocrisy of a facility which purports to defend freedom while being widely condemned for abusing human rights.

15 Angela Bennie, 'Doing the Guantanamo Shuffle' (Interview with dir. Nigel Jamieson), *The Age*, A2, 16 September (2006): 19.

16 Key works include *Held*, which premièred at the 2004 Adelaide Festival of Arts and subsequently toured to Sydney, Monaco and New York. *Held* juxtaposed Stewart's 'ballistic' choreography with photographic images of the dancers captured live by photographer Lois Greenfield and simultaneously projected onto large video screens. *Devolution* premièred in 2006 at the Adelaide and Sydney Festivals respectively and toured to Paris in 2007. *Devolution* juxtaposed the dancers with 'multiple robotic machines' designed by Louis-Phillipe Demers. See Australian Dance Theatre, *Repertoire*. Online http://www.adt.org.au/page/default.asp?page=Repertoire&site=1 (accessed 11/9/07). More recent works include *Multiverse* (2013–14), where dancers interact with 3-D graphics.

17 I attended a performance of *Honour Bound* at the Malthouse Theatre in Melbourne in September 2006.

18 Nigel Jamieson, 'Front of Mind', *Australian Financial Review*, 28 July (2006), 14.

19 The order of rehearsal of this scene was revealed to me in a conversation with the Sydney Opera House publicist, Claire Vince, in February 2007.

20 Quoted in Michael Veitch, 'Sunday Arts' (Interview with dir. Nigel Jamieson), ABC Television (2006).

21 Quoted in Katrina Fox, 'A War of One's Own' (Interview with chor. Gary Stewart), *SX News* (2006). Online: http://sxnews.e-p.net.au/ (accessed 27/7/06).

22 *Ibid*.

23 Quoted in Richard Phillips, '*Honour Bound* Director Nigel Jamieson Speaks with WSWS', *World Socialist Web Site: Arts Review: Interviews: International Committee of the Fourth International* (ICFI) (2006). Online: www.wsws.org/articles/2006 (accessed 23/8/06).

24 *Ibid*.

25 *Ibid*.

26 Veitch, 'Sunday Arts'.

27 Chiel Kattenbelt, 'Intermediality: A Redefinition of Media and a Resensibilisation of Perception', paper presented at the *Intermediality: Performance and Pedagogy Conference*, (UK: Sheffield University, 2006) 3.

28 Bennie, 'Doing the Guantanamo Shuffle' 19.

29 Steve Waters, 'The Truth Behind the Facts', *The Guardian*, 11 February (2004). Online: http://arts.guardian.co.uk/features/story/0,,1145870,00.html (accessed 19/02/07).

30 Elaine Scarry, *The Body in Pain* (New York: Oxford University Press, 1985) 29.

31 Amy Jensen, *Theatre in a Media Culture* (USA: McFarland & Company, Inc., 2007) 76.

32 *Ibid* 78.

33 Jensen specifically refers to a scene from the opera *Dead Man Walking* at New York City Opera (2003). To accompany an aria sung by Sister Mary Prejan, a montage sequence was constructed of the actual drive from her house to the prison to meet death row inmate Matthew Poncelet, who she is to counsel.

The images of the drive were interspersed with religious imagery and projected with the aria, allowing insight into her private world. The montage of the walk through the Hicks home, together with images of a younger Hicks and his family, similarly evokes a personal narrative. Jensen contrasts this successful example of the use of projected imagery with the failure in the production of Woman in White (2003). In the latter, Jensen argues, the use of projected scenery didn't allow such emotional connection to be made with the imagery, thereby alienating the audience. *Ibid* 76–8.

34 Richard Phillips, 'A Passionate Exposure of the David Hicks Case with One Glaring Omission' (Review of *Honour Bound*, dir. Nigel Jamieson), *World Socialist Web Site: Arts Review: Interviews: International Committee of the Fourth International* (ICFI) (2006). Online: www.wsws.org/articles/2006 (accessed 23/8/06).

35 Jamieson 'Front of Mind' 14.

36 Drawing on Sergei Eisenstein's 'montage of attractions', Kattenbelt states that intermediality relies on 'different elements of the performance' that 'crash on each other with the result that a new energy is released which physically … affects a shock experience'. 'Intermediality' 6–7.

37 Pierre Levy, *Becoming Virtual: Reality in the Digital Age* (New York: Plenum Press, 1998) 39.

38 Baudrillard refers to 'three orders of simulacra', with the third being 'simulacra of simulation, founded on information, the model, the cybernetic game – total operationality, hyperreality, aim of total control'. See Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Glasser, (USA: University of Michigan Press, 2006) 121.

39 The US military claimed, rather bizarrely, that to show contemporary images of David Hicks would be a contravention of his human rights under the Geneva Conventions. Given that the USA had already ruled that these conventions did not apply to the Guantanamo inmates, one can only surmise that this selective use of the conventions was a cynical ploy designed to prevent the outside world seeing the physical effects of five years of incarceration on Hicks.

40 Veitch, 'Sunday Arts'.

41 For example, Jo Litson, writing in the *Australian* national newspaper, spoke of an 'extreme physicality … that depicts torture', while Keith Gallasch wrote in *RealTime* that in the performance, 'nothing detracts from the intensity of physical feeling and abjection which becomes the totality of torture'. See Jo Litson, 'Where All the World Is a Cage' (Preview of *Honour Bound*, dir. Nigel Jamieson), *The Australian*, 28 July (2006) 16, and Gallasch 'Perspective on Power'.

42 Veitch, 'Sunday Arts'.

43 *Ibid*.

44 Phillips, '*Honour Bound*'.

45 Caroline Wake, 'Witnessing Degree Zero: Performance, Disappearance and the SIEV X', paper presented at the *Extreme States* Australasian Drama Studies Association (ADSA) Conference (Melbourne: University of Melbourne, 2007) 2.

46 Scarry, *The Body in Pain*, 38–41.

47 Bennie, 'Doing the Guantanamo Shuffle' 19.

48 Abu Ghraib is a US-controlled prison in Iraq. In 2004, images of abuse by US soldiers of Iraqi 'non-combatants' were widely circulated, first on US television and in US newspapers, then globally via the internet. Wendy Herford comments: 'The mass circulation of the torture photographs undercut the Bush administration's highly controlled visual strategies, which were used to sell the Iraq war to the American people as an act that would liberate and "civilise" the Iraqi people'. See Wendy Herford, 'Staging Terror', *TDR: The Drama Review,* 50.3 (T191) Fall (2006), 29–41.

49 Levy, *Becoming Virtual*, 26.

50 Denise Varney, 'Gestus, Affect and the Post-Semiotic in Contemporary Theatre', *The International Journal of Arts in Society*, 1.3 (2007) 119.

51 *Ibid* 120.

52 Elaine Aston, 'The "Bogus Woman": Feminism and Asylum Theatre', *Modern Drama*, 46.1 (Spring) (2003), 14.

53 Scarry, *The Body in Pain*, 38.

54 *Ibid* 38, 41.

55 Varney, 'Gestus', 120.

56 Scarry, *The Body in Pain*, 28.

DIGITAL ALCHEMY: THE POSTHUMAN DRAMA OF ADAM J.A. CASS'S *I LOVE YOU, BRO*

Richard Jordan

The definition of a 'digital performance' remains contested. Steve Dixon has defined the field as 'performance works where computer technologies play a key role rather than a subsidiary one in content, techniques, aesthetics, or delivery forms'.[1] The inclusion of the word 'or' is crucial here. Under this definition, a theatre performance *about* computer technologies would still earn the definition of 'digital performance', whether those technologies were used on stage or not. Yet for Dixon and others, this has not proved to be the case. The trend in theatre scholarship exploring digital themes has overwhelmingly tended towards the final three categories of Dixon's definition: an emphasis on 'techniques, aesthetics, or delivery forms' to evoke a digital mise-en-scène. Implicit here is a wider emphasis on 'liveness' over 'content' in contemporary theatre scholarship, which Hans-Thies Lehmann observed as

Figures 1–2:Leon Cain in *I Love You Bro*, La Boite Theatre Company production directed by David Berthold. Photographer: Al Caeiro 2010.

a rift between 'theatre' and 'drama'.[2] While digital 'theatre' has been the main focus of scholarly inquiry to date, this article aims to redress this imbalance, by presenting a critique of the Australian one-man play *I Love You, Bro* by Adam J.A. Cass (2007) via the 'drama' of the performance text itself. In so doing, I make the case for an alternative method of classifying digital performance – one in which a digital *mise-en-scène* may be evoked via the playwright's construction of identity within a technoscientific narrative. To anchor this approach, I employ the theoretical construct of the 'posthuman' – a figure that represents a compelling nexus for contemporary anxieties about the digital age.

Over the past twenty years, the concept of the posthuman – part-human, part-intelligent machine – has come to symbolise the inevitable endpoint of human technological progress.[3] Proponents of the literal posthuman, alternatively referred to as a 'cyborg', herald an eventual union between organic and artificial intelligence – between digital and biological code.[4] Yet in 1999, N. Katherine Hayles redefined the then-emerging term by shifting its focus from physical embodiment to cultural perception, declaring: '[P]eople become posthuman [when] they think

they are posthuman'.[5] For Hayles, equating humans with intelligent machines renders the present moment as posthuman, because the paradigm challenges humanist notions of identity and agency via the emergence of digitally enabled technologies. According to Hayles, in the digital age the split between a human's 'enacted' (real) body and their represented body (on a screen, as an avatar, and so on) 'necessarily makes the subject into a cyborg, for the enacted and represented bodies are brought into conjunction through the technology that connects them'.[6] For Hayles, both humans and nonhumans alike have been reduced to processors of information within a digital environment. Within this landscape, 'technology has become so entwined with identity that it can no longer be meaningfully separated from the human subject … Even a biologically unaltered *Homo sapiens* counts as posthuman.'[7] If perception forms our reality, then the human has been rendered 'essentially similar' to the intelligent machine.[8]

In this article, I argue that *I Love You, Bro* – along with several other plays of the digital age – explores the moral, emotional and existential implications of a posthuman world, where the boundaries between flesh and data can no longer be determined. In

Figures 3–4:Leon Cain in *I Love You Bro*, La Boite Theatre Company production directed by David Berthold. Photographer: Al Caeiro 2010.

each of these plays, human characters are equated with intelligent machines, either materially (via the body) or virtually (via consciousness).[9] This equation renders each human character less as a holistic 'I', and more as an assemblage of cybernetic and biological components, presenting a subjectivity that exists as both material being and digital code. Yet this subjectivity is evoked within the drama of the text itself, and as such is not beholden to the 'techniques, aesthetics, or delivery' of any specific production. *I Love You, Bro* may thus be understood to be a form of posthuman drama, a genre of playwright-driven performance that asks what it means to be 'human' in the digital age.

I am not the first scholar to invoke the posthuman when discussing digital performance. Matthew Causey, Steve Dixon, Gabriella Giannachi, Rosemary Klich and Edward Scheer, and Jennifer Parker-Starbuck, among others, have employed posthuman or cyborg theory to critique works as diverse as Stelarc's 'man-machine' creations, the Wooster Group's 'cyberised' aesthetic, the rise of internet-enabled theatre, and multimedia-driven performance more generally.[10] Yet my intention with this term is not to focus on a play's production potential, but rather on a playwright's construction of a posthuman subjectivity within the text itself. A 'posthuman play', under this definition, creates a diegetic world where human and nonhuman agents are 'essentially similar' to each other, and where intelligent machines are crucial to the unfolding narrative. Within this narrative lies a central conflict – between a humanist and a posthumanist world view – and it is this conflict that I propose fuels the unfolding drama.

Hayles was among the first to articulate a tension between the liberal subject and a cybernetic paradigm. In *How We Became Posthuman* (1999), she defines liberal humanism (as espoused by Thomas Hobbes, John Locke, and others) as championing 'a coherent, rational self, the right of that self to autonomy and freedom, and a sense of agency linked with a belief in enlightened self-interest'.[11] If one accepts that liberal humanism places humankind (or, more broadly, the rational, liberal subject) at the centre of the physical and moral universe, Hayles asserts, then by extension this model ascribes to the human full mastery over

their actions, which can be judged, measured, and discretely separated from that universe. The posthuman paradigm, by contrast, views the human subject less as a unified, rational self, and more as an informational system, refashioned in a computer's image. In this paradigm, according to Francisco Varela, human cognition is modelled as a series of semiautonomous agents, each running a program designed to accomplish a specific activity, without interfering with one another.[12] Varela posits that the mind can be viewed 'not as a unified, homogenous unity, but as a disunified, heterogeneous, collection of processes' within a much larger network.[13] In this way, humans and intelligent machines become 'essentially similar' to each other – indeed, come to co-exist with each other – such that the boundaries between flesh and data can no longer be determined. The immediate ramifications of such a paradigm are profound: if the subject can no longer claim sole mastery over their actions, how are we to seek justice? If the subject is no longer 'I' but 'we', how can we know – or love – another person? The posthuman paradigm thus challenges humanist notions of identity and agency by reconfiguring the human subject as a networked, pluralistic agent that is no longer 'in control'.

So how to reconcile these ideas with contemporary performance? As we have seen, the vast majority of scholars have focused on the aesthetics of digitally enabled productions. I propose that a posthuman subjectivity can be located within the performance text of several contemporary plays, such that a case can be made for a new genre of performance I will term here as 'posthuman drama'. This new genre explores the human(ist) subject's unravelling sense of 'I' within a technoscientific landscape. Six features that tend to define a posthuman play are as follows:

First, posthuman drama explores the moral, emotional and existential implications of the 'post' on the 'human' in the digital age. It is preoccupied with the question: What happens when human beings are equated with intelligent machines? The question is purposefully broad. 'Equating humans with intelligent machines' is open to much wider interpretation than simply 'plays about digital technologies'. In this model, the posthuman

becomes a paradigm, a way of seeing which informs our understanding of the central conflict in the play. As such, Caryl Churchill's human cloning play, *A Number* (2002), may be classified as posthuman, as it explores the ramifications of what happens when human identity is reduced to informational code. Likewise Manjula Padmanabhan's *Harvest* (1997) may be thought of as posthuman, in that it presents its central character's body as an assemblage of parts to be sold on the human organs trade. Conversely, Patrick Marber's Closer (1997) does not comply with this feature, despite being the first major play to include an online conversation between two of its characters. For despite this one technological gesture, the play is not fundamentally concerned with equating its human characters with intelligent machines. In this way, computer technologies in Closer may be said to play a 'subsidiary' rather than a 'key' role in the drama.

Second, in posthuman drama, a character's identity is compared and equated with the intelligent machines that surround them, rendering human and nonhuman agents in the play as 'essentially similar' to each other. Within this environment, a character becomes less a 'unified' self and more an assemblage of virtual and/or material components. This posthuman subjectivity is then placed in direct conflict with the character's own liberal self-concept, providing the catalyst for drama. An example of this feature can be seen in Lucy Prebble's 2003 play *The Sugar Syndrome*. This play explores the friendship that develops between a bulimic teenage girl (Dani) and a 38-year-old convicted paedophile (Tim). Tim and Dani meet on an anonymous online website (spoken as dialogue), during which Tim thinks Dani is an 11-year-old boy. Both Tim and Dani may be viewed in this encounter as material/virtual cyborgs – their 'enacted' bodies (in the flesh) performing their 'represented' ones online. Yet despite subsequently meeting each other in a park, their initial, digital bond has allowed a way into understanding each other's personal demons. The Sugar Syndrome thus presents a model of identity in which the human subjects are not singular, self-conscious agents, but an assemblage of fears and desires, depravity and innocence, seamlessly integrated with intelligent machines. This phenomenon in turn presents profound emotional, moral and even existential implications for the characters, instigating and driving the drama forward.

Third, posthuman drama does not rely on technology to be performed, nor does it reject it; it is not defined by aesthetics. Actors on a bare stage with no sound or lighting can still perform a posthuman play. However, digital technology is an imperative feature of the plot – a silent character central to the conflict. As a dramatic genre, the emphasis here is on text over performance. In this regard, a posthuman subjectivity should be inherent in the text itself, whether or not a director chooses to incorporate intelligent machines on stage. In *The Intelligent Design of Jenny Chow* by Rolin Jones (2003), an adopted Chinese-American woman (Jennifer) sends a robot replica of herself to China to meet her birth mother for the first time. When the robot – 'Jenny Chow' – finally meets Jennifer's mother, the two humans remotely communicate with each other via the translator software installed in the robot. In the première production, 'Jenny Chow' was played by a human actor, yet the spectre of the intelligent machine is central to the play's central narrative.

Fourth, posthuman drama is a product of the digital age. While a posthuman reading of Shakespeare or the classics is certainly possible, any pre-digital play must inevitably be viewed as posthuman in retrospect, and not as a contemporary response to the intelligent machine. I am defining the 'digital age' here as beginning from the publication of Alan Turing's 1950 paper 'Computing Machinery and Intelligence', through to the present day, and into the foreseeable future. Turing's paper was a seminal moment in the history of artificial intelligence, in which he introduced what is now known as the Turing Test, a blueprint for assessing whether 'machines can think'.[14] Within these ideas lay the groundwork for a cybernetic form of intelligence that would come to fascinate the latter half of the twentieth century, creating a digital infrastructure that is now firmly entrenched post-2000. While Henry S. Turner and Farrah Lehman have in recent years convincingly made posthuman readings of early modern drama texts – reframing the work of

Shakespeare and John Webster respectively – such readings must inevitably only be retrospective in nature.[15] If 'digital performance' more generally aims to chart how the theatre responds to intelligent machines, then its dramatic subset – posthuman drama – should likewise align with the digital age.

Fifth, posthuman drama is 'loose' with boundaries: temporal, physical, formal and scientific. It may be speculative or entirely set in a realist present, or a combination of both. An amalgam of styles is common. Sarah Ruhl's 2007 play, *Dead Man's Cell Phone*, is particularly striking in its transgression of boundaries. Throughout the course of the play, the narrative style jumps from *film noir* to the absurd, romantic comedy to faux-realism, to a series of tableaux inspired by the paintings of Edward Hopper. After answering the cell phone of a dead man (Gordon) in a café, the lead character (Jean) discovers that Gordon had been selling human organs on the black market. She soon embarks on a journey to South Africa, the Afterlife and beyond to 'make up for Gordon's mistakes', using Gordon's phone to reconnect with him in heaven.[16] Yet upon returning home, what felt like a day in the time of the play is revealed to be several months, as Jean emerges from a posthuman wonderland where the rabbit hole has been replaced with a digital ether. Michel Serres' concept of 'hominescence' posits that the ubiquity of digital technologies has reconfigured the subject's relationship with the wider world, such that 'we are losing our finitude in demonstrable ways … undoing the boundaries of subject and object, the borders of life and death, and the kinds of spatial and temporal limits that have long defined us'.[17] Within this context, 'the human "itself" likewise grows increasingly difficult or even impossible to locate clearly or define securely'.[18] Jean's journey, both narratively and formally, presents a transgression of humanist boundaries, by departing from the notions of a fixed liberal self, and all its associated moralities.

Sixth, posthuman drama is narrative-driven. Though the narrative need not be linear, there is still an identifiable story being told. It is necessary to distinguish this genre from the 'postdramatic' here. While a play such as Heiner Müller's *Hamletmachine* might on the surface offer several posthuman possibilities, its central conflict does not arise from a gradual disintegration of the Aristotelian unities; indeed, that disintegration has ended before the play begins. Aristotle's three unities of action, place and time may be somewhat 'loose' in posthuman drama, but they are not done away with altogether.[19] Crucially, it is the interplay between unity and disintegration – between 'I' and 'we' – that should drive the play forward, in a narrative that is clearly discernable to the audience. Fundamentally, a posthuman play presents an 'I' unravelling.

An excellent example of posthuman drama can be found in the Australian one-man play *I Love You, Bro* by Adam J.A. Cass. The play was first presented at the Melbourne Fringe Festival in 2007, before receiving its professional première at La Boite Theatre Company in Brisbane in 2010. It has since gone on to enjoy multiple productions in Canberra, Melbourne, Sydney, Edinburgh, Auckland, Sweden and Denmark.[20] The plot is based on a real-life incident that unfolded in Manchester, England, in 2003. As recounted in a widely read Vanity Fair article from the period, a 14-year-old boy (referred to as 'John') was found after being stabbed in an alleyway by an older boy whom he met online ('Mark').[21] But what initially appeared to be a cut-and-dried case took a turn for the bizarre when, upon analysing masses of online conversations between the two boys, police identified John as the main engineer behind his own attempted murder. The case became a *cause célèbre* and has since been developed into a feature film: the critically panned *UWantMe2KillHim?* (2013).[22] Yet while Cass has acknowledged the *Vanity Fair* article as a source document, his version of the tale is not a simple retelling of facts, but rather its own creation: 'a universal story inspired by the events without replicating them in all of their detail'.[23]

The story is told in direct address to the audience by Johnny, a teenage boy who spends most of his waking hours online. Logging onto his regular chat room one night (with the username AlbaJay), he notices a new user called MarkyMark chatting with the regulars, and soon realises that he knows this user from school. Although Johnny repeatedly assures us that he's 'not a fag', his reaction to MarkyMark's arrival is one of flushed excitement. With

Johnny posing as a girl called Jess in a private chat room, the two soon begin to think of each other as online lovers, and Johnny (as Jess) convinces Marky-Mark to give him a naked webcam viewing (with Johnny's own cam turned off). What follows is a series of increasingly desperate ploys by Johnny to keep MarkyMark interested in Jess, without an offline meeting. Johnny creates several virtual characters who converse online with MarkyMark – including Jess's 'step-brother', her violent ex-partner Stingz, and even two Secret Agents investigating Jess's eventual 'death'. As Johnny keeps MarkyMark on tenterhooks throughout the various plot twists, however, what begins as a self-conscious manipulation gradually gives way to a game that Johnny feels he has no control over, as his various selves order out his own death.

I Love You, Bro can be read as a dramatic evocation of a posthuman subjectivity, in which the central character's sense of 'I' unravels within a cybernetic environment. As the play progresses, we gradually learn that 'Johnny' is not a self-conscious sole agent, but an assemblage of virtual and material components who are at war with each other. At least eight selves of Johnny are presented as the plot develops, including the Performer (on stage), the Son (in 'real life') and six virtual personas: AlbaJay, JohnnyBoy, Stingz, LeoCap, and finally the two Secret Agents (whom Johnny calls 'Agent 47695' and 'Jane Bond'). As the plot is somewhat complicated, I have isolated four key moments for discussion: the opening sequence; Johnny's mutating subjectivity; the arrival of Stingz; and the play's violent ending. Through the conflict generated between Johnny's various selves, what begins as a self-conscious act evolves into something much more complex: an 'I' unravelling into a posthuman subject.

The first time Johnny appears in the play, his sense of 'I' is clearly established – a self-conscious Performer with a story to tell:

> I step into the light and it's fame 'n glory all the way for the boy who murdered 'imself 'n lived to tell the tale tonight … Here 'tis me exploits writ large, or some of 'em anyway – cos the whole telling'd fill more than one comfortable jaunt in the theatre …[24]

This is a subject in control of his actions, a coherent self who has 'lived to tell the tale'. Yet almost immediately, the audience is instructed that the Performer's version of events is not to be trusted: 'Though every word of what follows is true you'll also wanna know I'm a truly famous liar'.[25] This version of Johnny is thus never positioned as a source of 'truth', or at least no more true than the other selves that are about to follow. Indeed, the Performer's contrived persona acknowledges that the online tale we are about to witness is itself a simulation – or in Antonin Artaud's words, a 'virtual reality'.[26] Artaud's term (from 1938) has inevitably been appropriated by Dixon and other scholars to describe a digital *mise-en-scène*.[27] Yet Artaud's original evocation of a 'virtual reality' was envisioned along more analogue lines, taking its cues from chemical alchemy: 'Where alchemy, through its symbols, is the spiritual Double of an operation which functions only on the level of real matter, the theatre must also be considered as the Double … of (an) archetypal and dangerous reality'.[28] The 'virtual' for Artaud is a spiritual mirage, emerging from the fusion of the material elements of a performance. In *I Love You, Bro*, this mirage is largely brought to life by the spoken words of a single actor, who embodies both the material and virtual encounters that he describes. It is through this description alone that the many virtual components of 'Johnny' begin to alchemise, starting with a chat forum user called AlbaJay.

The persona of AlbaJay is the first indication that Johnny is living in a 'condition of virtuality', a condition which Hayles claims is one that 'millions of people now inhabit', defining it as 'the cultural perception that material objects are interpenetrated by information patterns'.[29] She argues that the informational culture of virtuality veers away from a material postmodernism, and in so doing the subject's experience in this environment likewise transforms. In postmodernism, she asserts, the point of psychological crisis is fixated on the fear of castration; in virtuality, by contrast, the fear turns to 'mutation'. Within this logic, the 'mutational' nature of virtual identity enables a unique dilemma of the digital age, as the subject communicating in a body-less world no longer faces a fear of physical annihilation, but rather the loss of finite boundaries – the loss of an identifiable 'I'.[30] The conditions for Johnny's unravelling 'I' have thus

been established; this is a diegetic space where flesh is no more 'real' than data, and human(ist) boundaries can be crossed.

When the Performer initially logs into his regular chat room, he establishes AlbaJay as an understood 'male' entity. However, upon recognising MarkyMark from school, AlbaJay soon mutates into a 'female' entity, and her interactions with MarkyMark become increasingly intimate. This transformation from male to female may be viewed as the first step in Johnny's own transgressive psychological crisis. Unable to reconcile that his 'enacted' body might be attracted to the Mark he knows at school, Johnny seeks refuge in his 'represented' body – AlbaJay – instead. When this occurs, it becomes apparent that Johnny as a subject has begun to segregate his gay desires, channelling them into AlbaJay, in a cyborgic relationship that he considers to be separate from his offline self. When AlbaJay successfully convinces MarkyMark to perform a naked webcam show for her, the Performer would have us believe this was not a request made by him:

> I'm starin' at me screen, seein' him in big pixels, starin' back at me – or it looks like he's starin' at me, but really it's just the cam he's gapin' at. Fuck he's got muscles on him, that lad … But *fuckin' hell* I'd be thinkin' if me mind was still in gear – I'm not a frickin' *fag* …[31]

The 'I' who wants to see MarkyMark naked has therefore been transferred to AlbaJay, independent from Johnny in the flesh. As the audience imagines MarkyMark undressing in front of his unseen girlfriend, both AlbaJay and MarkyMark become each other's posthuman fantasy: two 'represented' bodies brought into being by intelligent machines. Their sexual encounters soon evolve into a mutually declared 'love' for each other, despite never having met in the flesh – a situation which causes anxiety, we are told, for MarkyMark. Johnny resolves this by mutating into a series of ever more elaborate virtual identities, in an effort to keep his lover interested in a girlfriend whom he can neither touch nor see.

Yet while Johnny's initial deceit as AlbaJay can be seen as a consciously manipulative act, as each new persona emerges there is an increasing sense

that a sole agent called 'Johnny' is not in control here. Indeed, even in the early stages, Johnny remarks that his various personae are beginning to take on a life of their own:

> It's like as I'm thinkin' all this … all these things 'n people *really* come into life or somethin' … I see 'em so clearly … It's like I *am* AlbaJay now, in this moment … But all these different things're workin' in me head now … and one of 'ems tellin' me that if I'm not careful AlbaJay's gonna lose MarkyMark 'n his dancin' – and I don't wanna lose the dancin' …[32]

Johnny's struggle to retain control in the midst of his fragmenting self can be read as a humanist resistance to a 'nodular subjectivity'. First proposed by Mark C. Taylor in 2001, the nodular subject exists in a vast flow of information, wherein the self 'is a node in a complex network of relations … [N]odular subjectivity not only screens the sea of information in which it is immersed, but is itself a screen displaying what one is and what one is not. In emerging network culture, life is lived on screen.'[33] What Taylor goes on to describe as the repercussions of this subjectivity sounds strikingly similar to the posthuman experience: 'As the webs in which I find myself become ever more complex, I eventually realise that the currents rushing through me are tributaries in a vast river of information. Tossed and turned by the turbulence this river perpetually generates, the I unravels.'[34] As AlbaJay mutates into a series of further virtual identities, Johnny as a character becomes an agent whose 'self' no longer ends at his flesh, but rather extends outwards into a cybernetic network.

This subjectivity now takes a darker turn in the play, with the arrival of the persona 'Stingz'. After MarkyMark's interest begins to fade, Johnny mutates into Jess's ex-lover, Stingz, telling Mark in an email to stay away from her, with the threat that he'll come after her little brother – a new persona called 'LeoCap'. However, his signature at the end is described by the Performer as a dissociative act:

> And I sign it: Stingz.
>
> And it's like me mind's workin' on its own, knowin' what to do without the rest of me havin' any idea of what's really goin' on.[35]

It is at this point that Johnny's sense of self truly begins to disintegrate, as Stingz emerges as an agent operating beyond the Performer's control, and one who gradually wages war on Johnny's other identities, both virtual and material. After reigniting MarkyMark's interest in AlbaJay, the Performer informs us:

> Stingz is a mad cunt – been proving that with a series of nastier 'n nastier emails to MarkyMark, 'n behind the scenes some probably bin piped off to poor little LeoCap who's just a tragic case waitin' to unfold like one've Romeo's mates.[36]

The tone of description is now completely dissociated; Johnny no longer knows what 'he' does. A flow of emails and messages pour from his fingers, as Johnny, possessed by Stingz, kills off Jess: 'And right now I'm hatin' myself cos Stingz is all through me 'n I just wanna shake 'im off … but he's got me, 'n there's nuthin' I can do'.[37] The admission is the first time Johnny realises that a holistic 'I' is not in control here; his various components are no longer at his command.

Now that Johnny has accepted his own plurality, the play races towards its bloody conclusion. The structure and rhythm of the text begin to mirror the online experience – a scattered onslaught of information, with multiple conversations at once – as Johnny races from Performer to Son to LeoCap to Stingz to the Secret Agents, with the plot growing ever more ludicrous. Thus our sense of fact and fiction, of virtual and physical, even of life and death, begins to blur in a vast sea of information in which our performer – and his audience – have now become lost:

> 'N I'm sittin' there, me, the spy Agent 47695 'n AlbaJay's lurkin' from her coma bed 'n Stingz is up in me head poundin' 'n poor li'l LeoCap as dead as dead can be along with that hopeless Jane Bond … 'N'm out of me body 'n talkin' like 'm already dead.[38]

This death-wish is to come tantalisingly close for Johnny: in the Performer's description, a boy called Mark meets him in an alleyway, brandishing a knife as directed by Johnny, and stabs him, whispering, we are told: 'I love you, bro … With him pretendin' he loved me just as he's murderin' me.'[39]

Johnny's wish to be loved by Mark as a physical being has thus brought him to the brink of death – and yet by the time of his stabbing, our notion of an offline Mark has long been cast in doubt; perhaps he is yet another extension of Johnny. Should this be the case, what we have witnessed instead is an attempted suicide – the final transgressive journey Johnny can make, to the ultimate body-less world. As audience members, we are left to ponder the possibility that if Johnny had killed his body, then his online presence(s) would have remained, and that what we are witnessing might not only be posthuman, but posthumous.

I Love You, Bro presents a central character whose journey is not a pre-determined act of mastery, but a gradual unravelling into a posthuman subject, distributed across virtual and material planes. As Johnny's 'I' unravels, what fuels the drama is a central conflict between a liberal self-concept and a cybernetic environment. Yet this conflict is embedded within the playtext itself, and is not dependent on any one production to exist. Cass's creation of identity within a digital narrative is a compelling example of how a post-human subjectivity can be created via text alone. As such, *I Love You, Bro* forces us to take into account the entirety of Steve Dixon's definition of 'digital performance'. If the text of a performance can chart the unravelling 'I' of a human(ist) subject in the digital age, then the staging of that text becomes only one element that may be said to be 'digital'. The construct of the posthuman – part-flesh, but code – is a fitting metaphor with which to articulate the dialectics of digital performance. Yet in our rush to celebrate a literal posthuman theatre, let us not forget the spectre of Artaud's 'spiritual Double': the alchemy of a material body and a performance text. By charting the conflict of an unravelling 'I', contemporary playwrights are reconfiguring the 'human' in the age of the intelligent machine.

NOTES

1 Steve Dixon, *Digital Performance* (London: MIT Press, 2007) 3.
2 Hans-Thies Lehmann, *Post-dramatic Theatre* (New York: Routledge, 2006) 46.
3 An 'intelligent machine' may be defined as any digital technology (embedded with a computer chip and run by programming code) that can pass the Turing Test, as set out in Alan Turing's 1950 paper 'Computing Machinery and Intelligence'.
4 N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (Chicago: University of Chicago Press, 1999) xi.
5 *Ibid* 6.
6 *Ibid* xiii.
7 *Ibid* xiii, 4.
8 *Ibid* 7.
9 A 'character' for the purposes of this discussion may be defined as any kind of sentient agent within a performed narrative. See David Z. Saltz, *The Oxford Encyclopaedia of Theatre and Performance* (Oxford: Oxford University Press, 2003).
10 Matthew Causey, 'Posthuman Performance', *Crossings: eJournal of Art and Technology* 1 (2001); Dixon, *Digital Performance*; Gabriella Giannachi, *Virtual Theatres: An Introduction* (New York: Routledge, 2004); Rosemary Klich and Edward Scheer, *Multimedia Performance* (Basingstoke: Palgrave Macmillan, 2012); Jennifer Parker-Starbuck, *Cyborg Theatre: Corporeal/Technological Intersections in Multimedia Performance* (Basingstoke: Palgrave Macmillan, 2011).
11 Hayles, *How We Became Posthuman*, 85–6.
12 Francisco Varela, Evan Thompson and Eleanor Rosch, *The Embodied Mind* (Cambridge, MA: MIT Press, 1993) 106.
13 *Ibid* 107.
14 Alan Turing, 'Computing Machinery and Intelligence', *Mind* 49 (1950): 433.
15 Henry S. Turner, 'Life Science: Rude Mechanicals, Human Mortals, Posthuman Shakespeare', *South Central Review* 26.1&2 (2009): 197. Farrah Lehman, '"The Future in the Instant": Posthumanism(s) in Early Modern English Drama', PhD thesis (Lincoln, NE: The University of Nebraska, 2010).
16 Sarah Ruhl, *Dead Man's Cell Phone* (New York: Theatre Communications Group, 2008) 75.
17 Translated (from the French) in Thomas Carlson, *The Indiscrete Image: Infinitude and Creation of the Human* (Chicago: University of Chicago Press, 2008) 141.
18 *Ibid 141.*
19 Aristotle, *Poetics*.
20 Delaney Tabron, '*I Love You, Bro* Q&A', *No Magazine* (2011). Online: http://www.nomagazine.co.nz/good/i-love-you-bro-qa (viewed 29/03/14).
21 Judy Bachrach, 'U Want Me 2 Kill Him?', *Vanity Fair* 534 (2005): 86.
22 Guy Lodge, 'Edinburgh Film Review: "Uwantme-2killhim?"' (*Variety*, 12 July 2013). Online: http://variety.com/2013/film/reviews/edinburgh-film-review-uwantme-2killhim-1200562358/ (viewed 29/03/14).
23 Quoted in Tabron, '*I Love You, Bro* Q&A'.
24 Adam J.A. Cass, *I Love You, Bro* (Brisbane: Playlab Press, 2014) 13.
25 *Ibid*.
26 Antonin Artaud, *The Theatre and Its Double*, trans. Mary Richards (New York: Grove Press, 1958) 48.
27 Steve Dixon, 'Truth-Seekers Allowance: Digitizing Artaud', in Susan Broadhurst and Josephine Machon (eds), *Performance and Technology: Practices of Virtual Embodiment and Interactivity* (Basingstoke: Palgrave Macmillan, 2006) 29.
28 Artaud, *The Theatre and Its Double*, 48.
29 N. Katherine Hayles, 'The Condition of Virtuality', in Peter Lunenfeld (ed.), *The Digital Dialectic* (Cambridge, MA: MIT Press, 1999) 69.
30 *Ibid* 79.
31 Cass, *I Love You, Bro*, 19.
32 *Ibid* 26.
33 Mark C. Taylor, *The Moment of Complexity: Emerging Network Culture* (Chicago: University of Chicago Press, 2001) 231.
34 *Ibid* 231.
35 Cass, *I Love You, Bro*, 24.
36 *Ibid* 27.
37 *Ibid* 28.
38 *Ibid* 45.
39 *Ibid* 46.

A PHENOMENOLOGY OF CHUNKY MOVE'S *GLOW*: MOVES TOWARD A DIGITAL DRAMATURGY

Jodie McNeilly

White plastic sheet, drop sheet, inviting, walk, roll on hunched foot, planted, split open. Laser line hit white effervescent glow when rolling out the measure of one in folds of white; snow dropped depression in snow roll, land. Arcs, line, glacial bunny snow. Exhausting screech. *She* yelps with quavering voice downward and upward – off the floor from beneath the lines masking, face masks. Tremble she will shiver. Nordic goddess of the right haunted [by] black globules. I feel fear, real terror with sound. Her eyeline searches – different level down, reptilian strong lines rolling, whipping, shifting torso mapping floor dragging face. Melting, bubbling, conditioning wiped away

> clean – nothing there now, slate clean but screamatic sound – a trace. Heavy luminous courageous cotton line with her? Without her? Purple haze lines envelop directed by limbs carrying the weight – who directs who? The God of mediatisation? Always together. Haunting her. Absorbing her.[1]

This excerpt is the poetic result of a phenomenological workshop conducted in 2007, one session of five organised to examine the relationship between bodies and digital media experienced by audience in a public dance performance. The workshops were developed in order to carry out phenomenological analyses from an audience-oriented perspective. By emphasising audience receptivity in the ontological status of an artwork, the balance is restored between the artist, the artwork and its reception.[2] There are many performer-based phenomenologies to be found in both the Dance Studies and Performance Studies literature that describe from a first person perspective the experience of dancing with technologies.[3] My research draws attention away from the perspective or experience of the performer toward a group-style practical phenomenology conducted from within audience.[4] Here, audience members participating in these workshops become trained in a specific phenomenological method as spectator-analysts. Their first person descriptions engage with their experience of participation in the performance event. A further difference between my approach to phenomenology and other models is the use of 'eidetic' analysis, which comes directly from the philosophy of Edmund Husserl, the founder of phenomenological method.[5] Combining practical phenomenology with eidetic analysis permits me to inquire into the meaning constitution of experiences. It is my contention that through such a method called *Poetics of Reception*, the structural relations between bodies and digital media in performance may be elaborated in distinctive and insightful ways.[6]

Two questions: What is the significance of revealing the structural relations between bodies and media via a phenomenological approach that harvests its insights from poetic, receptive-based writing? To what extent can phenomenology as a descriptive, somewhat subjectively oriented task elucidate these structures and contribute to both the discourse and practice of digital performance? It will be the purpose of this article to actively demonstrate through the use of my findings from the *Poetics of Reception* project how phenomenological analysis is not just a theoretical tool for generating concepts, but is a practice for understanding performance through the experience of performance, and a means for providing valuable insight into performance-making itself; I consider this to be a new method for digital dramaturgy. Section One will discuss the importance of seeking new methods in dramaturgy to account for the complexity and diversity of interactions and experiences in digital performance; provide a theoretical reasoning for the analogous claim, phenomenology as dramaturgy; and introduce the idea of a spectator dramaturgy based on group phenomenology. Section One will also introduce the nuts and bolts of the *Poetics of Reception* method along with a cursory consideration of its findings. These findings are the analysis of participants' writings from a 2007 performance of Chunky Move's *GLOW*, and are taken up in Section Two where the prototype software application, *Digital Dramaturgy Matrix* (DD-Matrix), will be sketched.

SECTION ONE: A NEW METHOD FOR DIGITAL DRAMATURGY

Working at the forefront of dance technology, Australian artist Hellen Sky describes the dramaturgy of dancing with digital systems as 'electrophysical dramaturgy'.

> My Electrophysical Body is wired for new sensations, new perceptions, new modes of making sense, making meaning; I can feel its transformation synaesthetically, processed cellularly, algorithmically, animated sonically, simultaneously visually. In each millisecond, I am being made anew, my body is cellular – data, an embodied dispersion. I have swallowed the system; it

> is embedded in me. I can taste the nuance of its difference. The Subject is moving.[7]

Sky develops a working sensitivity to her corporeal immersion in the deeply layered dialogue between her cellular body and changing data. There is a unique amalgam to consider. Territories that require a different mode of attention, or manner of being, which the usual strategies of dramaturgy fall short in offering. In *Dramaturgy and Performance*, Cathy Turner suggests that '[t]he impact of new technologies on theatre, while remaining unpredictable is likely to be of increasing significance, suggesting new dramaturgies'.[8] 'New dramaturgy' experiments with the fundamental principles of traditional dramaturgy in contexts not dominated by text, narrative or linear plots; it is democratically visual, physical, spatial, sonic and virtual.[9] Marianne van Kerkhoven describes new dramaturgy as the practice of looking at the 'internal structure of a production', while Elinor Fuchs sees it as examining 'the organic structures of the performance'.[10] The welcoming and ever-increasing use of digital technologies in theatre, dance, opera and installation begs for new dramaturgies that can cope with the structural complexity of these interactive events and the diversity of encounters that the audience experiences with embodied imaginations. It will be the purpose of this article to demonstrate how a model for new dramaturgy based on the phenomenological practice of group writing and eidetics can account for these non-textual elements of performance at their deeper structural levels.

PHENOMENOLOGY AND DRAMATURGY

Phenomenology in the aesthetic domain (or more precisely, a phenomenological aesthetics)[11] can reveal more than the conceptual meanings of an experience. Meaning constitution is described at the level of *aesthesis* in terms of a transcendental aesthetic – understood in Husserlian terms as the pre-figuring spatio-temporal patterns and structures that affectively motivate our embodied selves. These structures can be sought through refined phenomenological attention that momentarily suspends – that is, puts into brackets,

or out-of-play – our judgements, presuppositions, likes and dislikes, and even our pre-formed bodily habits in the watching of performance. These structures are indeed deeper aspects that, once disclosed, are not only significant for the study of performance but are of great utility to the performance-maker.

Dramaturgy is akin to phenomenological practice. When a practitioner working under the broader conception of the new opens upon material – as Norman Frisch describes – to 'expose the plumbing, the wiring, the termites, the invisible world that existed inside the walls of the structure', they are phenomenologically engaged with their world.[12] Thus by adopting a specific style of phenomenology as dramaturgical practice, the maker in a digital performance context is provided the opportunity to understand and fruitfully describe at a structural level the given and potential relationships between all the production elements. With this information, they can weave the internal structure and aesthetics of the performance from experiential suggestions that are visual, spatial, aural, kinaesthetic, emotive, temporal and imagined.

The analogous relation between phenomenology and dramaturgy holds only if they follow the same presupposition regarding the presence, identification and description of constituted structures. 'Description' in a phenomenological sense is not empirical description. Empirical descriptions of complex relations are ready-formed explanations that distort 'certain fundamental structures which alone can furnish a guiding thread to the human maze'.[13] Instead, phenomenological understanding is sought through a particular kind of dis-positioning of the self, in a non-empirical way, whereby we dispose 'ourselves to being struck in which ever way' by the phenomena to which we are turned.[14] Further, it engages an interpretive effort on behalf of the one experiencing and writing the event and, as the *Poetics of Reception* method suggests, the examination of these written texts which are approximate to the immediate experience itself.

Phenomenology is a particular kind of reflective practice. It allows us to reflect upon the structures of our experiencing phenomena as they appear in the world. The phenomenologist of performance can meditate, speak about,

or write about these reflections in a way that suspends all critical regard. 'Critical' is meant here in terms of understanding an event through one's learnt and embedded value system. Hildegard De Vuyst notes that the dramaturg becomes a mirror by reflecting the work. In this reflection, she 'does not aim to give her opinion' but describes.[15] If this is the case, what kinds of reflection or mirror-like activity are evident, or even possible, in digital dramaturgy? Their shared mode of experiencing phenomena is indubitable. Considered as dramaturgy, phenomenology can echo back to the analyst, come maker, the fundamental structures of complex entanglements between bodies and mediatic forms. It permits dramaturgy to consolidate its theoretical and methodological framework, while still being open to the dynamic, endless possibilities of performance practice and technological progression.

GROUP PHENOMENOLOGY, SPECTATOR DRAMATURGY

But why a dramaturgy involving audience experience? Tim Etchells of Forced Entertainment knows purely from audience experience that 'shifting registers', rather than 'straight mimesis', is the successful device for making performance more believable.[16] Many dramaturgs are aware of the usefulness of their devices or efficacy of solutions through audience feedback. During performance-making, the dramaturg is often on the margins looking in at the development or rehearsal, sitting just outside the performer, director and production triangle. Phenomenology practised by an observer or spectator-analyst is in a similar position to describe in first person what they experience.

Group phenomenology was developed as a means to take theoretical phenomenology into practice and also to overcome the overt-subjective character of this discipline when one's regard is turned to themselves experiencing the world. Group work shares and provides a more developed experiential consensus on what the phenomenological structures could be, thus supporting invariance from a richly diverse variance. Approaching dramaturgy through group phenomenology, where experiences are both singular

(variant) and shared (invariant), challenges the myopia prevalent within hierarchical, non-collaborative creative teams who form incumbent hegemonic structures. Many feminist theatre groups eschew top-down, director-led models of making and pursue collaborative principles in a range of different ways. Usually this is for political ends, rather than aesthetic means.[17] Open collaborations with no single directorial voice can bring about such issues as tyranny of the majority (as with any democracy), coupled with undisciplined decision-making. This is not the kind of collaborative platform that my spectator dramaturgy promotes. Non-political in purpose, it opens up the creative process to spectator-analysts (audience) as an expanded aesthetic practice. By and large, the sharedness of events within a single production (or across several) is vital to the style of dramaturgy practised here. The idea of the sole dramaturg loses currency with this approach. I prefer the action of *dramaturgy*, as pluralistic, fluid, shifting, irruptive and interruptive across a horizon of shared receptive meanings.

POETICS OF RECEPTION PROJECT

I like it when Laurence Louppe says:

> The object of a poetics, like that of art itself, is at one and the same time knowledge, affect and action. But poetics also has a more particular mission: it does not only tell us what a work of art does to us, it teaches us how it is made.[18]

The *Poetics of Reception* project was a study conducted between 2006 and 2011. Its overall framework was iterative and non-static in nature, to deal with the becoming, transitional character of select phenomena: bodies, media and audience. The method underwent many changes, with the ongoing prospect of refinement following each application. The purpose of this article is not to describe this method in fine detail, but to demonstrate how group phenomenology and the procedure of eidetics can contribute to dramaturgical practices in a digital context.[19] However, it is important to say something of the group

phenomenology workshops and textual analysis which led to the findings taken up in Section Two.

Between 2007 and 2009, I conducted two pilots and three workshops for the *Poetics of Reception* project in Sydney. The first two workshops were comprised of four invited participants who were asked to attend a public dance performance involving some form of digital media, followed by a workshop off-site to engage in the writing phase of the session. The third workshop was a performance installation devised in collaboration with a media artist and dancer to set the conditions for research, and resolve the issue of very few public dance performances using digital technologies available to attend.[20] *Transmission Laboratories* allowed me to increase the number of participants to six, and reformulate earlier procedures.

Participants were selected on the basis of their interest in performance and phenomenology. Each received information to help them to prepare for the watching and writing stages of the workshop. Foremost they were instructed on how to do a phenomenological and attentional reduction. Together these reductions form a paradoxical process, producing what I call an 'Algorithm for First Seeing: Opening = bracketing + focusing'.[21] The 'bracketing' phase, or first reduction of this formulation, requires active suspension of all value and knowledge prejudices that may colour or close down one's experience. The act of suspension can be understood as shelving regions of knowledge: putting aside those concepts and theoretical systems that filter our experiences, and which permits us to get back to the activity of perceiving and intuiting the structures with an attentive rigour, bringing us to the second reduction of 'focusing'. The workshops were designed to collectively inquire into the relationship between moving bodies and performance media. To perform an attentional reduction one must possess an 'active turn of regard' towards the selected objects of concern. This requires a heightened mode of attentional focus with a postural disposition that equates to the bodily comportment of facing toward the performance as a seeing, hearing, thinking (actively bracketing), imagining, reminiscing audience member in reception.

The workshops generally followed an eight-step procedure:

1. Invitation and reading preparation
2. Pre-show Embodied Induction – preparation
3. Attending the show, doing the attentional and phenomenological reductions
4. Embodied Induction – revivification of the event
5. Generative Writing Task A – where the reductions are continued
6. Pragmatic Attunement – reading and discussing accounts
7. Generative Writing Task B
8. Generative Writing Task C (dropped after the first workshop).

Each step was refined with each new group and context.

After three workshops and two pilots of the project, I had amassed a diverse collection of phenomenologically produced texts from participants and began the textual interpretive work. I undertook a type of analysis that seeks to disclose the essential aspects of an individual's account across the writing tasks they produced, and more universally across all group accounts. Through line-by-line transcription of participants' texts, I paid close attention to repetition of linguistic motifs, emergent themes, patterns and points of difference in descriptions of the performance that the language illuminated in its rich, poetic variance. I asked questions and made suggestions about the meaning of the words and metaphors used. All interpretation is intended as revelatory in the hermeneutic sense, and is not used to work out or validate what the performance meant in terms of its narrative or overarching intended meaning. Interpretation is a friendly decipherer of meaning structures and modes.

Six 'Interactive Encounters', eight 'Constitutive Structures' and several 'Associative Modes' were identified from the analysis (see Table 1). In brief, interactive encounters are not only typological categories; they are also essential indicators of the relationship between the performing body(ies), digital media, stage space and audience. They assist in guiding the analysis and (as will be shown) in developing a system for digital dramaturgy. Eight constitutive struc-

tures were distilled from all the participants' writings. They are the fundamental constituting aspects of the triangulated interaction between bodies, media and audience in digital performance. Generated from a somewhat paradoxical fusion of intuition and rational-analysis of participants' writings (characteristic of Husserlian phenomenology), the eight structures elucidate the meaning constitution of dancing bodies: heads, limbs, and torsos that interact with media – light, images, lines, patterns and grids as hybrids, haunting entities, animal, insect, labyrinthine architectures and holographic mirror reflections. These structures never operate independently but overlap in complex relationships; they are explicated independently with a presupposed interdependency. Associative modes relate directly to these structures as further nuanced distinctions brought out differently by the interactive encounters. For example, if we consider Structure 6: 'Orientation: embodiment in receptivity' of the Interactive Encounter 'Environment and Other Worlds', we arrive at one associative mode: the 'Miniature in Kinesthesia and Imagination'. A participant reflecting on one moment during *Transmission Laboratories* wrote:

> Train goes backwards and forwards like dreams of mini world, attack of the 50-foot woman … Wouldn't mind running in time to train or riding inside it inspecting big body so close its got a sunshine feel to it. Yes, like being in a field. [P1]

Here, the encounter of environment triangulates performer, train and spectator through a differential in scale (tiny and giant), sound, tempo and nostalgia. The writer desires to shrink in imagination and to run alongside the train, warmed by the sun in an open field. They then enter the train, looking out at the 50-foot woman dancing inside the tracks. By shrinking one's body and constituting the scene from an imagined perspective (shrunken and inside the train), a transporting and transformational experience at a kinesthetic and spatial level takes place. The performance installation provided spatial and scalar transformations of internal proportions: a shrunken embodiment in relation to the given dimensions of an environing space. From this primary associative mode, secondary modes also emerged.

In Table 1, the encounters, structures and modes to be discussed in accordance with the upcoming digital dramaturgy application *DD-Matrix* are highlighted.

Interactive Encounters	Transmorphing
Digital Touch (Wearability)	Transmorphing
Dancing *with* Digital Other	Environment and Other Worlds
Hybridity	Expressing the Inner

Constitutive Structures	Associative Modes
The Relational Structure of Action: acting upon – acted upon	Reciprocal, Ambiguous, One-Sided Directed Secondary modes: Permeability, Neutrality
Dimensional Conversion Types in Receptivity of Encounters	Type 1: Three-dimensions converting to Two-dimensions (spatial) and Conversion; Type 2: Two-dimensions converting to Three-dimensions (spatial); Type 3: Temporalising Two-dimensions and Three-dimensions
Belief Structure: Suspension of Disbelief. Loss of mode of certainty and limits of identity	
Identity–Presence Structures (a) One as Two; (b) One of Two; (c) One of Three; (d) One of One; (e) Two of One	
Language of Description (a) The grammar of interactions; (b) Negative and positive valences	(b) Disjunction, Disconnect, Interference, Harmony, Intersection
Orientation: embodiment in receptivity	Miniature in Kinesthesia and Imagination
Transcendent Movement: beyond human form, beyond stage space; perceptual possibilities	
Receptive Empathy (a) role of audience; (b) the For-Us structure of audience	(a) 'I want to do what they are doing', feeling satisfaction, 'I feel their fear', feeling joy, 'I want to be', feeling the thud of the other, like tasting numbers: synaesthesia

Table 1: Phenomenological structures discovered in the *Poetics of Reception* project.

The relation between these phenomenological structures will be articulated with more emphasis on their poetic source, participants' words, and the utility of this interpretation for a spectator-based dramaturgy in the next section.

SECTION TWO: DIGITAL DRAMATURGY MATRIX (*DD-MATRIX*)

The proposed digital dramaturgy model is at an embryonic stage of development and should be understood as a representative tool for organising, interpreting and communicating shared experiences of the performance process; it is a prototype for a 'living dramaturgy'. My idea is that the dramaturgy will be practised with the aid of a custom-built software application. This article presents a two-dimensional design of this application, with a discussion on how the dramaturgy lives beyond phenomenological analysis. The application should not be viewed as a product for *how* to do dramaturgy, but as an accessible means of representation and documentation for the person(s) conducting the dramaturgy and key creatives who are informed by the practice.

The software application *DD-Matrix* is a large, interconnected web of information for making dramaturgy a living and responsive performance practice. It allows all the dramaturgical elements (see categories in Figure 1) to revolve and renew in changing relations. The application documents what happens, while offering infinite solutions and possibilities. Figure 1 depicts the first user interface screen we encounter. It is also represents Layer 1 (L1), which connects to an arbitrary number of layers dependent upon the selection process. Selecting the type of interaction to dramaturgically work with from a scroll-down selection panel generates the appropriate core categories for that type – here, represented by a wheel (see Figure 1). They are not fixed. Iteratively they change through the application's use across productions. The interconnected web is made accessible by clicking on links appearing at each layer. As will be seen in the upcoming example, layers are also not fixed in any specific order, but are interpretively determined by the user. One can navigate the links in any way, making informed selections. I purposely use the metaphor of a wheel to avoid any hierarchical relations between the core categories that are connected by multifarious threads within the one interaction type and across types. Since this application is not intended as a product of or for reproduction, I propose only one system for the purposes of research and making digital dramaturgy with artists. The system exists to create and share information through a network of interpreted threads. It does not represent any one truth or way of doing dramaturgy; it evokes meaning for making.

CASE STUDY: CHUNKY MOVE'S *GLOW*

Melbourne-based company Chunky Move's production *GLOW* (2007), choreographed by Gideon Orbazanek in collaboration with programmer Frieder Weiss, is a solo dance performance lit overhead by a single data projector, and viewed from above by the audience from a square-shaped mezzanine balcony. An overhead camera tracking system films the movement, position in space and speed of the dancer, and then feeds this into the computer as real-time data. 'From that data the computer runs a series of algorithms that are cued up', providing a graphic generated response in the form of moving projections onto the dancer and stage space.[22] The projections are pre-determined visualisations, but rely upon the movement and position of the dancer to trigger the system. The overall interaction between dancer and system is the symbiotic result of the dancer responding visually and spatially to the generation of graphics, while simultaneously the output of graphics is determined by these movement choices. Despite set choreographic choices, no two performances are exactly the same.[23]

On 23 March 2007, I took four participants to The Studio, Sydney Opera House, to view a performance of *GLOW*. There were two writing tasks, A and B, executed under strict time constraints. Task A (30 minutes) asked participants to continue engaging the phenomenological and attentional reductions in their recollection and writing of the event. They were asked to avoid: conceptual analysis and use of theory to interpret meaning; evaluative language, such as 'it was wonderful' or 'it was dull'; too quick an interpreta-

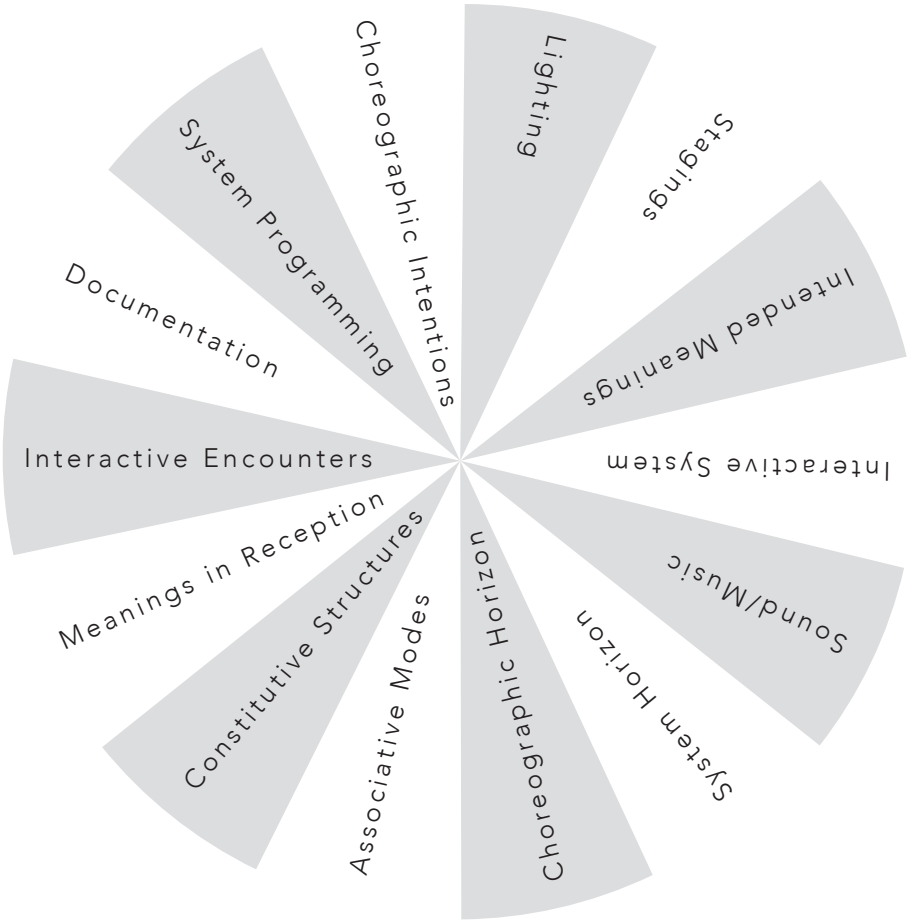


Figure 1: Wheel representing Core Categories appearing as first User Interface Screen. Patch for Interaction Type: 'projections on physical body'.

tion from intended meanings of the production; and judgments of taste, such as 'I like' or 'I dislike'. Instead, they were asked to recall: their embodied responses (sensorial, kinaesthetic), imaginations (image production and reproduction) and feelings (emotional without being ethical). A reading of one another's account followed this, with group discussion focused on isolating significant or repeated linguistic motifs that could begin a thread of interpretation. Task B continued with constraints from Task A, but authors

were now able to deepen their descriptions, add new experiences, or start again. They were asked to take one word, term or significant phrase identified from the group discussion of Task A. All accounts were very different in response, style and language use. Editing was not permitted.

The lines of texts in the following sample are taken from the writings produced from this workshop on *GLOW*. These lines of poetics are hermeneutically massaged over and over to reveal something new in the structure of relations between bodies and media. The prototype of this application is the first instantiation of bringing these experiences toward practical use as a spectator dramaturgy for digital performance.

Figure 1 addresses the very basic interaction-type projections on physical body. This was a constant interaction in the production of *GLOW* and is quite common in other digital-based interactive performances. Other types might include: physical body dancing with projected double; physical body in front of large-scale projection (triggered); and physical body in front of large-scale projection (non-triggered). It is important to note that the term 'interaction' is broadly construed here in relation to the domain of digital performance. Human-to-computer and human-to-human interactions are equally valued in this context. A body moving in front of or under a projection that does not directly effect or trigger the image should not be dismissed as 'non-interactive', nor said to be merely a body carelessly placed in front of moving wallpaper – even if sometimes the effect is nothing more. Understanding scale and perceptual depth from an audience's perspective, a performer's position in relation to lighting, or an active physical dialogue between the body and projected image can help to produce interactions just as (e)/affective and meaningful as a sophisticated tracking system. On this basis, it is possible to use this digital dramaturgy application in cases where the makers are attempting to create a digital sense of interaction through analogue technologies (such as the use of a photo or overhead projector), or with simple lighting, shadowing and silhouette techniques.

Once the interaction type is selected from the scrolling menu, its pre-figured patch of categories (as shown in Figure 1) will create a logical track to

consecutive layers in the system. These pathways of selection vary greatly, and are entirely dependent on the interpretation of the user. Working logically to describe the layers here, I draw on my phenomenological findings from Chunky Move's *GLOW*. The watching and writing aspects of this phenomenology were conducted on a finished production that had been performed several times. I have little information regarding the making of the show. This served well the phenomenology practice of being uncloaked by intended meanings and information that may influence and/or close down the experience of the watcher; however, in developing the framework towards a digital dramaturgy, the makers' intentions become equally significant to the phenomenological findings.[24] Working post-production can assist with remounting a show, or contributing to its documentation. Moreover, since the application supports several basic interaction types (such as projections on the body or digital-doubling[25]), phenomenology of a single production can inform/inspire the making of future productions undertaking similar interactions.

Table 2 shows a hypothetical trajectory of selections to provide a sense of how the *DD-Matrix* application operates for a digital dramaturgy.

Stepping through the trajectory outlined above, we select Interactive Encounters (A1, L1) to find Digital Touch (A2, L2). This interaction involves a close spatial, surface and multi-directional penetrating relation between the boundaries and thresholds of the fleshly performer body and illuminating media. It is a meaningful meeting between a three-dimensional body and two-dimensional light source. The modes of touch relative to the structures revealed include: extension; permeability with directions (media into body; media out of body; body out of body; media with body); possession; reversibility; wearability; and interference. These modes of Digital Touch are highlighted as individual links in L3. For the sake of brevity, and to avoid confusion, I follow only one of the Modes of Digital Touch (A3, L3) in this chain of operation: Wearability (A4, L4). From here, we open onto Meanings in Reception (A5, L1), which displays lines of poetics from the phenomenological writings of participants (A6, L6). In this example, it is text from the reception of *GLOW*:

Interactive Encounter: Projections on body			
Action	*Layer*	*Category selection and track*	*Category type*
1	1	Interactive Encounters	Core
2	2	Digital Touch	Interactive Encounter
3	3	Modes of Digital Touch	Secondary Mode
4	4	Wearability	Mode of Digital Touch
5	1	Meanings in Reception	Core
6	6	'*She* yelps with quavering voice downward and upward – off the floor from beneath the lines masking, face masks.' [CI, G]	Meaning in Reception
7	1	Intended Meanings	Core
8	1	Choreographic Horizon, then Staging, then Lighting, then Sound/Music	Core
9	1	Intended Choreography	Core
10	1	Constitutive Structures	Core
11	14	The Relational Structure of Action: acting upon – acted upon	Constitutive Structure
12	16	Reciprocal, then One-sided Directed	Associative Modes
13	1	Constitutive Structures	Core
14	14	Dimensional Conversion Types in Receptivity	Constitutive Structure
15	7	Two-dimensions converting to Three-dimensions (spatial)	Associative Mode
16	1	Documentation	Core

Table 2: Hypothetical trajectory of selections for *DD-Matrix* Model

> *She* yelps with quavering voice downward and upward – off the floor from beneath the lines masking, face masks. [CI]

'Meanings in Reception' pertains to all the writings from the workshops. They are the descriptive poetics of experience that directly relate to the constitution of structures in the interactions between bodies and media in performance.

> off the floor from beneath the lines masking, face masks

Here, the projections create a mask. Hypothetically, if pre-performance information had been available, this image could be connected to something found in

the creators' Intended Meanings (A7, L1) – a core category involving concepts, narrative content, images, footage, plus any source or inspirational material that contributes to developing a work. An idea may be foregrounded from the background (not unlike a *Gestalt*) by the image within description. 'Face masks.' As simple as the description is, further images and ideas for the maker around what a mask could mean might be generated, thus informing a potential Choreographic Horizon (A8, L1) or any aspect of the performance's design Staging, Lighting, Sound/Music (all A8, L1). The choreographic horizon is directly related to the Intended Choreography (A9, L1) – both broadly construed within the working conception of choreography that the maker has. Choreography may mean a very physical language influenced by a particular tradition and generated from sensations, shapes or images. It may be a highly structured improvisational scoring, or free-form practice. Through the dramaturgy, the choreography would be in constant dialogue with other aspects of the production that sometimes becomes separated due to space-time restrictions (such as scheduling or separated creative teams), potentially expanding its horizon and making an impact.

If we continue to follow the line of poetics: 'off the floor from beneath the lines masking, face masks', we can move back to Constitutive Structures (A10, L1) and into the next layer, The Relational Structure of Action: acting upon – acted upon (A11, L14), that is displayed along with others that best connect with the receptive meaning for this interaction type. There are three associative modes of relational action elicited from the descriptions: reciprocal, ambiguous and one-sided directed.

> Off the floor from beneath the lines masking, face masks

If we accept a positive encounter of Digital Touch between the performer body and media, we select the associative mode Reciprocal (A12, L16). Reciprocity implies that body and media have equal importance. A symbiotic relation may be indicated where both are independently working together in a synthesis of aesthetic formation. For example:

> The externally imposed lines. Lines she created for herself. Both undifferentiated. Having the equal importance and visibility. [P2]

There is a relation of responsiveness. Either media or body resists or reacts to the other, recognising and accepting reciprocities of action. They are together. Togetherness is an aspect of responsive reciprocity, implying openness toward the other, resisting and or reacting in this duet.

> Always together. Haunting her. Absorbing her. Resisting, reacting. [CI]

'The lines masking, face masks' as wearability in the encounter Digital Touch has the fundamental relational structure of reciprocity. This is not the only mode of constituted meaning. We could follow a second relation with this action, One-sided Directed (A12, L16), when the action of one player is unilaterally directed upon the other. When media acts upon the body, the performer's humanness and/or corporeality is brought into greater relief.

> Black globules encroach, hunting, sucking her, drawing, tension, entrapped, engulfed. Spine laid out for all to see. [CI, G5]

> White clean lines shifting, pushing away candles alive. [CI]

This could be conceived as a negative valuation of Digital Touch, where the media acts upon the body in violent ways, dictating the movement, bending, shaping: media becoming puppet master. Such an interpretation of the lines on face as a restriction, or bondage of sorts, shows how dramaturgy can create alternative paths. This is the value of a shared, open-ended platform.

If we return to Constitutive Structures (A13, L1) and select Dimensional Conversion Types in Receptivity of Encounters (A14, L14), we find three conversion types. The dimensions are spatial and temporal in nature. They indicate conversions between two-dimensional spatial surfaces and corresponding light and image-based projections, three-dimensional volumetric objects, and the temporal dimensions of consciousness within audience reception: memories, imaginings and image formations. The conversion type that best describes the chain of interpretation: projection on bodyàDigital TouchàWearability

is: Two-dimensions converting to Three-dimensions (spatial) (A15, L7). The media become wearable in this encounter of digital touch. The moving body gives the impression that it bears some kind of weight or resistance from the media, pushing, pulling or yielding (fitting better with the relational action mode reciprocity than one-sided directed on this interpretation). The body behaves as though it is wearing something with volume, density and force.

> *She* yelps with quavering voice downward and upward – off the floor from beneath the lines masking, face masks. [CI]

The final category is Documentation (A16, L1). My speculation on how the *DD-Matrix* might function has been from a post-production perspective. If I were to make a new dramaturgy using these past productions, the information would have already been fed into the system. As a living dramaturgy, a multi-user porthole would be designed for live participation. The creative team could make blog entries, upload text, images and footage as often as they liked during the process. Synthesising this material into the matrix would be both manual and automatically linked through the system. An automated or computer-generated response would be word sensitive and require a kind of dramaturgy in the programming of the software itself. The matrix is a living complex dramaturgy open *itself* to interpretive interactions.

CONCLUDING REMARKS

There has been an increase in digital documentation and archiving processes over the past decade in the fields of Performance Studies and Dance Studies to address the disappearance of live performance.[26] But is it only through still images, footage, critical reviews, production notebooks or academic ethnographic accounts that we capture the ephemeral? What about our experiencing of the fundamental structures of phenomena? How can they play a role in preserving or documenting performance? Could a dramaturgy seeking such structures survive disappearance? The documentation of spectator experiences is crucial to this digital dramaturgy; it relies upon the immediate

recollections of audience on their experiences to create a living poetics for performance-based reflection. Fundamentally, it demonstrates the value of a particular style of documentation that can feed directly back into the making.

To tackle the question of *how* and *when* a group phenomenology might be conducted during the development stages of a show is not so easily answered. Future development of the digital dramaturgy model is planned to take place in a university/research context where students and/or research participants will be enlisted to form phenomenology groups. Given tight funding conditions in Australia, it is unlikely that a company would contract for group dramaturgy. However, there are enough programs to support a shared mode of engaging with new work, especially when interdisciplinary collaborations are involved. A bigger issue may, in fact, be artists protecting their intellectual property and privacy during the more vulnerable stages of a process. If artists reject group observation, the sole use of receptive meanings from other productions could still work. Group phenomenology does not need to take place during the making stages at all. Ultimately, how and when this spectator dramaturgy is enacted becomes production sensitive. There are no hard and fast rules, only a framework that is adaptive to the needs and working rhythms of artists and researchers.

Dramaturgy that is presented in a logical, procedure-driven form (*DD-Matrix*) is arguably more open, and non-habit forming, than a dramaturgy practised in an intuitive, non-determined way. Such resistance (or vagueness) from dramaturgs to pin down their methods is often explained in even vaguer terms of how they must remain fluid, inspired and protective of their cookery. Despite adding to the alluring mystique of the dramaturg's role, we may speculate on other reasons for this. Since new dramaturgy often exists outside the strictures of the theatre tradition, ideologies resisting hegemonic structures may be the motivating factor behind the lack of method, explanations and systems. Then again, it may be purely epistemic. Peter Eckersall points to this in his article 'What is Dramaturgy, What Is a Dramaturg?', using an excerpt from the *New York Times* that reports verbatim the answers of some

high-profiled dramaturgs when asked to state the mission of their profession. One panelist admits: 'I'll probably get killed for saying this, *but I don't know the answer*'.[27] Even though it may not be critical to 'know' what the dramaturg is or does, it is paramount to know what dramaturgy can do. When it comes to managing the complexity of new technologies and the variety of audience experiences and collaborations requiring a different language for communication, it is necessary to develop systems like the *DD-Matrix*, which can objectively identify, reflect, evaluate and adapt. This can be achieved without losing sensitivity to the intuitive, instinctual, and embodied aspects of dramaturgy.

Dramaturgy is indeed many things, as phenomenology, thinking, making or reflecting on work is sought through description, analysis, documentation and evaluation. Despite its systematic, procedural-driven delivery in the form of a software application, there is nothing static or rigid about this method of dramaturgy. Interpretively built on the reception of bodies and media dancing in specific spatio-temporal moments together, the fundamental structures of interactions are described through a non-critical poetics. With its predetermined connections and potential for emergent structures, this dramaturgy is paradoxically horizonal in its 'determinable indeterminacy'.[28] Its interconnections are somatic, intuitive and always open to reinterpretation.

Louppe argues that dance is 'an expressive field that is still obscure and poorly explored by the science of aesthetics'.[29] In the Australasian context, the entwinement of dance, technology, audience and dramaturgy is an even more underexplored phenomenon. It is my hope that a phenomenologically inspired, spectator dramaturgy that poetically engages with bodies past and present in complex dances with media will help to expand the frontier of digital performance in both scholarship and practice.

NOTES

1 Phenomenological description of Chunky Move's *GLOW* at The Studio, Sydney Opera House, Friday 23 March 2007 by [CI] from *Poetics of Reception* Workshop One, Friday 23 March 2007. Note that all direct references to texts taken from the workshop are in square brackets, for example: CI is Chief Investigator; P1 is Participant One.

2 I develop upon Hans-Georg Gadamer's tripartite structure (artist, artwork and audience) in his critical recasting of aesthetic theory since the German Romantics venerated the notion of artist genius in their misreading of Immanuel Kant's third critique from his *Critique of Judgment*. Hans-Georg Gadamer, *Truth and Method* (London and New York: Continuum, 2004).

3 Classic examples of phenomenologies written from a dancer's perspective within the dance literature include: Maxine Sheets-Johnstone, *Illuminating Dance: Philosophical Explorations* (London and Toronto: Lewisburg Bucknell University Press, 1984); Sondra H. Fraleigh, *Dance and the Lived Body* (Pittsburgh: University of Pittsburgh Press, 1987). More recent studies include: Susan Kozel, *Closer: Performance, Technologies, Phenomenology* (Cambridge, MA: MIT Press, 2007).

4 I draw upon the North American practical phenomenology tradition that began with Herbert Spiegelberg, who wanted to practise phenomenological method from 'beyond the theoretical armchair'. Spiegelberg proposed and later implemented a practical method in a series of workshops conducted at Washington University, Missouri. His method begins with the description of experienced phenomena by participants who employ a style of Husserlian reductionism – 'phenomenology in the strictest sense'. Herbert Spiegelberg, *The Phenomenological Movement: A Historical Introduction* (The Hague: Martinus Nijhoff, 1971) 6. I spent three semesters as a research scholar at the Phenomenology Research Centre in Southern Illinois (2010–12) with phenomenologist Anthony J. Steinbock, participating in his groups on the moral emotions. Here I was exposed to a very different style that also influenced my overall framework. Methods differ widely, as do the phenomena under investigation.

5 Eidetic analysis follows the phenomenological (or psychological) reduction known as the *epoché* in the practice of Husserlian phenomenology. An eidetic reduction distills the essence (*eidos*) understood as the essential structure of an object whether physical, mental or inexistent. It involves a procedure known as 'imaginative variation', where one runs through all the instances of experienced phenomena to find points where these variants coincide, overlap and provide congruent points of invariance. In my analytical approach, the variances of an experience take on equal significance to seeking invariance, for without them, the pursuit of essential structures would be impossible.

6 The purpose of the *Poetics of Reception* project was to move beyond the limitations of debate surrounding the ontological nature of live and mediatised forms (Auslander versus Phelan). I developed a phenomenological framework to investigate the essential structures and modes of experienced phenomena from within audience, and to understand the complexity and dynamism of the relationship between bodies and technologies in performance. Through a series of specially designed workshops (to be discussed), audience participants were trained in phenomenological techniques of bracketing and attention and asked to write their experiences of the interaction between bodies and performance technologies. These texts underwent a hermeneutic-inspired analysis.

7 Hellen Sky, *Virtual/Physical Bodies (Corps Virtuelles/ Physiques)* (Exhibition catalogue) (Centre des Arts Enghien-les-Bains, Paris, and body>data>space, London, 2009) 25. For more on 'electrophysical dramaturgy', see Hellen Sky, 'What's in a Word: Electrophysical Dramaturgy', in Jodie McNeilly (ed.), Critical Path *Critical Dialogues – Dance Dramaturgies* 2.1 (2014). Online: http://issuu.com/criticalpath/docs/criticaldialogues_issue2.

8 Cathy Turner and Behrndt K. Synne, *Dramaturgy and Performance* (Hampshire and New York: Palgrave Macmillan, 2008) 17.

9 For an expanded discussion on new dramaturgy and digital performance (especially dance), see Jodie McNeilly, 'Method for a New Dramaturgy of Digital Performance', in Magda Romanska (ed.), *Routledge Companion to Dramaturgy* (London and New York: Routledge, 2014).

10 Turner and Synne, *Dramaturgy and Performance*, 17.

11 For a survey of approaches in phenomenological aesthetics of creative media, see Hans Rainer Sepp and Lester E. Embree (eds), *Handbook of Phenomenological Aesthetics* (Dordrecht, Heidelberg, London and New York: Springer, 2010).

12 Turner and Synne, *Dramaturgy and Performance*, 151.

13 Paul Ricoeur, *Freedom and Nature: The Voluntary and the Involuntary* (Evanston, IL: Northwestern University Press, SPEP, 2007) 3.

14 Anthony J. Steinbock, *Phenomenology and Mysticism* (Bloomington and Indianapolis: Indiana University Press, 2007) 4.

15 Turner and Synne, *Dramaturgy and Performance*, 157.

16 Matthew Reason, *Documentation, Disappearance and the Representation of Live Performance* (Hampshire: Palgrave Macmillan, 1996) 66.

17 Elaine Aston, 'Staging Feminism(s)', *An Introduction to Feminism and Theatre* (London and New York: Routledge, 1995) 57–77.

18 Laurence Louppe, *Poetics of Contemporary Dance*, trans. Sally Gardner (Alton, UK: Dance Books, 2010) 4.

19 For full details of my method, see Jodie McNeilly, 'Poetics of Reception: A Phenomenological Aesthetics of Bodies and Technology in Performance', PhD thesis, The University of Sydney, 2012. Online: http://ses.library.usyd.edu.au/handle/2123/9526.

20 *Transmission Laboratories* was the second pilot (23 May 2009), third workshop and fifth performance (30 May 2009). Collaborators Ryan Leech (media artist) and Miranda Wheen (dancer), AV Studio, Department of Performance Studies, The University of Sydney, Australia.

21 McNeilly, 'Poetics of Reception', 149.

22 Gideon Orbazanek, 'Interview for *GLOW*'s Promotion at The Studio, Sydney Opera House'. Online: https://www.youtube.com/watch?v=B-VW92VR8n9M.

23 The phenomenology led to many insights in relation to the interactions found in *GLOW*, but the research does not attempt to ascertain the kinds of meaning that a dramatic or literary style of performance analysis might pursue.

24 There is no tension here between suspending presuppositions and expectations in the phenomenology stages of analysis, and the working with (or having knowledge of) the makers' intentions in the dramaturgical development of the framework. A practising phenomenologist *should* be able to conduct the phenomenological and attentional reductions at anytime, regardless of what they know.

25 A 'digital double' is a projected or holographic replica of the performer that can be played in real time as a mirror image, or manipulated in playback to split the image from the corporeal body in real time.

26 Reason, *Documentation, Disappearance and the Representation of Live Performance*.

27 Peter Eckersall, 'The Dramaturgies Project', special feature for *RealTime* 70 (December–January 2005): 2. Online: http://www.realtimearts.net/downloads/RT70_dramaturgies.pdf.

28 'No final presentation in the flesh is ever reached in the mode of appearance as if it would present the complete, exhausted self of the object. Every appearance implies a *plus ultra* in the empty horizon … The empty pointing ahead acquires its corresponding fullness. It corresponds to the more or less rich prefigured possibilities; but since its nature is determinable indeterminacy, it also brings, together with the fulfillment, a closer determination.' Edmund Husserl, *Analyses Concerning Passive and Active Synthesis: Lectures on Transcendental Logic*, trans. Anthony J. Steinbock (Dordrecht, The Netherlands: Kluwer Academic, 2001) 48.

29 Louppe, *Poetics of Contemporary Dance*, 5.

ALIENATION IN THE INFORMATION AGE: WAFAA BILAL'S *DOMESTIC TENSION*

Lara Stevens

In *Cyber-Marx* (1999), Nick Dyer-Witheford interrogates the effects of the new technologies of late capitalism on the labouring subject. His attitude mirrors Marx's view of technological development as the objectification, abstraction, estrangement and alienation of the worker from her labour, herself and her social environment as catastrophe and progress all at once. Noting the proliferation of new media, online communities and information technologies in the late twentieth century, Dyer-Witheford writes:

> I analyse how the information age, far from transcending the historic conflict between capital and its labouring subjects, constitutes the latest battleground in their encounter; how the new high technologies – computers, telecommunications, and

> genetic engineering – are shaped and deployed as instruments of an unprecedented, world wide order of general commodification; and how, paradoxically, arising out of this process appear forces which could produce a different future based on the common sharing of wealth – a twenty-first-century communism.[1]

I want to take Dyer-Witheford's metaphor of information technology as the 'battleground' between capital and labouring subjects to consider how acts of war and their deployment of new technologies are represented and critiqued in contemporary anti-war performance. This article focuses on the work of Iraqi-American artist Wafaa Bilal and his 2007 live art installation piece *Domestic Tension*. I argue that *Domestic Tension* stages a contradiction in the use of new technologies in warfare, which both exacerbate existing forms of contemporary alienation under capitalism and offer the potential for new alliances and communities by which to momentarily overcome or circumvent such alienation.

For Marx, alienation under capitalism manifests for both the capitalist and the worker in psychological and lived bodily effects within what seems to be a clearly demarcated historical, material 'reality'.[2] The importance of materiality in the constitution of human 'reality' in the late twentieth and early twenty-first centuries has been unsettled since Jean Baudrillard described the media-saturated visual cultures in which we live as 'hyperreal' – a copy of a copy without an identifiable original[3] – and Donna Haraway described human bodies as increasingly 'cyborg'.[4] Thus, Marx's idea of alienation needs to be updated for the digital age of spectacle that makes increasingly less distinction between material and virtual realities. Yet, it needs equally to be acknowledged that the effects of alienation on human psychology and bodily survival that Marx describes remain comparable over the centuries. In thinking through the problem of alienation under techno-capitalism, I will later draw upon Judith Butler's work that rethinks ideas of proximity and distance in relation to twenty-first-century global circuits and the ways in which these force us to rethink our ethical obligations towards the other.

In *Domestic* Tension, Bilal set up a small room within Flatfile Galleries in Chicago. He lived in the space 24 hours a day, seven days a week for one month, only leaving the room to use the toilet and occasionally shower. The room contained a bed, a table, a lamp, a plexiglass shield, an exercise bike, a computer and a robotically controlled paintball gun with a webcam mounted on top. The webcam fed footage of the space in real time to Bilal's website and online chat room at http://www.wafaabilal.com. Bilal worked with skilled computer technicians to design the gun so that it could be aimed and triggered remotely via participants logged into his online chat room. The work was experienced two ways. Viewers could walk around the space in Flatfile Galleries and watch Bilal dodge paintballs. Alternately, people could watch the live feed images of the gallery space on the website. Once logged into the site, spectators could participate in the work by manoeuvring and/or firing the gun in the gallery and/or communicating with the artist and other participants in the artwork through online instant messaging – a format typical of massive multiplayer online gaming. Each day, Bilal would record a video diary of the day's events and upload parts of his virtual diary to YouTube.

The work was performed in the midst of the so-called War on Terror, while the Bush Administration that had instigated the war was still in power. The 2003 Iraq War was conducted with the cooperation and collaboration of a number of wealthy nation states and their armies in what Bush termed the 'Coalition of the Willing'.[5] Former Australian Prime Minister John Howard and former British Prime Minister Tony Blair were among this war's most fervent and generous supporters, who provided combat troops to 'Operation Iraqi Freedom'.

Throughout the month that Bilal was housed at Flatfile Galleries, the paintball gun was shot 65,000 times from online users in 136 countries. The paintballs were bright yellow – the theme colour of the merchandise sold to support American troops in Iraq. They stained the room in bright smatterings of paint that stank of fish oil and that Bilal was constantly mopping up. The intensity and anxiety of living within the conditions of a self-constructed war

zone resulted in Bilal experiencing a relapse of post-traumatic stress disorder (PTSD) from which he had suffered as a persecuted Shia under Saddam Hussein's Ba'athist Party rule.[6] Bilal's distressed body became a synecdoche for all the precarious bodies trying to survive in war zones in Iraq and the Middle East more broadly.

Bilal created *Domestic Tension* in response to the American military's use of drones, or UAVs (unmanned aerial vehicles), in the 2003 Iraq War. Unexpectedly, the piece became a highly publicised cyber culture event that sparked a global public debate around the artwork, the American military's use of drones, remote violence, online activism and terrorism. Bilal's desire to interrogate the ethical questions surrounding drone warfare was sparked by two events. First, Bilal learned that an explosive was dropped from an American helicopter after a drone had scoped out an area in the holy city of Kufa, Iraq, in 2004.[7] Kufa was Bilal's hometown and his brother was killed in the attack, a victim of what the American military and media euphemistically call 'collateral damage'. Second, Bilal watched an American ABC news interview with an American soldier firing missiles into Iraq from a base in Colorado. When the soldier was asked if she had any regard for human life, Bilal cites her as saying: 'No, these people are bad, and I'm getting very good intelligence from people on the ground'.[8] The appearance of a 'clean' war where 'right' and 'wrong', 'good' and 'evil' were portrayed as neatly distinguishable prompted Bilal to create a performance piece that blurred these dichotomies.

THE MILITARY–ENTERTAINMENT COMPLEX

Domestic Tension evoked a *digital gaming aesthetic in the work's original title, Shoot An Iraqi*. The opportunity to shoot Bilal became a 'game' for online users that recalls popular first person shooter war games such as *Call of Duty: Black Ops*, *Battlefield* or *America's Army* as well as Hollywood blockbuster films such as *Zero Dark Thirty* and the latter's spin-off game *Medal of Honour: Warfighter*. First person shooter games allow a restricted perspective in a coded and scripted environment in the form of subjective inhabitation of a character or avatar. These environments are designed to encourage the use of violent means to destroy enemy targets.[9] People who wanted to participate in *Domestic Tension* could 'play' for free and, though they did not have a visual avatar, the chat room gave a first person perspective of the gallery space through the manoeuvrable gun and webcam. The images of Bilal's room appeared online in deliberately low-resolution graphics without sound, simulating the grainy images available to drone pilots.[10] By creating a live artwork that drew on both the aesthetics of online war games and drone graphics, Bilal's work called attention to the close ties between American military training and popular entertainment.

The relationship between these two defining features of American hegemony dates back to the 1960s in what historian of science Tim Lenoir calls the 'military–entertainment complex', which he describes as an expanding synergy between the American Army's Simulation Training and the entertainment industry.[11] Lenoir notes how interactive high-profile programmers who had developed complex military network simulations later went on to create games such as *Behind Enemy Lines* and *Doom*.[12] He also explains that the trend sometimes moves in the opposite direction – for example, in the flight simulation game *Falcon 4.0*, which is so technically accurate that it includes a 600-page manual, and avionics and flight parameters that conform to real world specifications; consequently, it was adapted and used in American military training.[13] Most of these games can be played by individual users on their computers, other digital devices or as part of an online interactive community of gamers. When played online, these games allow remote communication between players who can type text messages to each other for the purposes of collaboration or provocation.

America's Army (2002) is one of the better-known first person shooter games that simulate the war in the Middle East. It is free to play online because it is funded by the US Department of Defence.[14] In Games of

Empire, Nick Dyer-Witheford and Grieg de Peuter note that America's Army has become the most successful tool in recruiting young soldiers to the American Army.[15] The slippage between the virtual war of the game and the real war in the Middle East is evident in the game's official website inventory of 'Real Heroes' – a listing of the names of real life soldiers acknowledged for valorous service in Iraq and Afghanistan, as well as links to footage of these soldiers being interviewed.[16] Just as the aspiration of most gamers is to add their name to the list of 'Top Scores', the way to achieve the most prestigious ranking in *America's Army* is to sign up to fight in the real war. Thus, virtual play feeds into the actualities of war and circulation of capital and vice versa.[17] As Dyer-Witheford and de Peuter note, 'virtualities are part of a wider polyphonic cultural chorus supporting militarisation, a multi-media drumbeat for war'.[18]

Baudrillard famously described the Western viewing experience of the first Gulf War via mainstream media as having the appearance of a war that 'did not take place'.[19] Kerr Houston, too, notes that the television coverage of the 1991 Gulf War was a turning point in the American civilian experience of distant warfare. The war became known through digital images from remote locations, experienced virtually, and was sometimes referred to as 'Nintendo warfare'.[20] The synergy between military and entertainment was strengthened after the events of 11 September 2001 due to military-funded developments in simulation technology in order to cope with the nebulous 'enemies' of the War on Terror.[21] In the post-11 September 2001 climate, James der Derian adds to Lenoir's 'military–entertainment complex' by calling it MIME-NET 'the military–industrial–media–entertainment network',[22] highlighting the heightened role of the news media and corporate industry in the interests of warfare, weapons building and war profiteering. In particular, he mentions the American military's funding of the Institute of Creative Technologies (ICT), an academic research institute affiliated with the University of Southern California. As the institute's website promotions note: 'ICT brings film and game industry artists together with computer and social scientists to study and develop immersive media for military training, health therapies, science education'.[23] The contradictions of digital simulations of war developed for military training, recruitment as well as 'health therapies' – in particular, the treatment of PTSD – are also raised by Bilal's performance art and will be considered in further detail later.

Domestic Tension staged the military–entertainment complex and MIME-NET at the centre of its critique. The gaming aesthetic that Bilal set up in *Domestic Tension* not only recalls the American military and marines' use of paintball guns in their drills,[24] but it also references the military and entertainment industries' sharing of ideas, military and IT experts, resources and funding. This synergy has been a key factor in the Western development of what might be called 'wartainment', a combination of war and entertainment. Thus the work was also a pointed critique of Western civilians' alienation from the brutal realities of war through their experiences of consuming the images of war in a context that encourages apathy and disaffection. As Bilal notes:

> To the Western media it's a virtual war going on in Iraq – we're far removed in the comfort zone … We're allowed to disengage from the consequences of war. We don't see mutilated bodies, we don't see the toll on human beings.[25]

The 'virtual war' that Bilal describes is the one mediated through the mainstream media that, for the most part, upholds the state-sanctioned view of the war through strategies such as embedded reporting and self-censorship.

THE MARXIST CONTRADICTION

Domestic Tension's use of new media technologies stages the tension in Marx's writing on machines. In Capital, Marx argues that machines objectify the knowledge and skill of the worker and thereby facilitate a smoother extraction of surplus value for the capitalist.[26] In other words, machines optimise the exploitation of the worker. While Marx is referring to automated cotton

spindles and steam-powered engines rather than unmanned aerial planes with electromagnetic spectrum, infrared light technologies and heat-seeking missiles, the material effects of these old and new technologies are comparable. In the 'Fragment On Machines' in the *Grundrisse*, Marx notes:

> Nature builds no machines, no locomotives, railways, electric telegraphs, self-acting mules etc. These are products of human industry; natural material transformed into organs of the human will over nature or of human participation in nature. They are *organs of the human brain, created by the human hand*; the power of knowledge, objectified.[27]

Marx suggests that workers are not only passively complicit in their own exploitation, but they are active participating subjects in the creative processes that turn them into objects. This objectification or alienation of labouring subjects at the hands of their own creative inventions leads to the automation of the worker – a process that reaches full realisation in the Henry Ford motorcar manufacturing practices at the beginning of the twentieth century.

At first glance, *Domestic Tension* shows that Marx's idea that machines objectify workers' knowledge and skill is exacerbated in post-Fordist, techno-capitalist conditions. Bilal's creativity in co-designing the remote-controlled paintball gun overtly stages what is often hidden from view – the complicity of humans in creating machines that objectify their labour capacity. In particular, it is the product of Bilal's team of IT experts who used what has become known as 'immaterial labour' or 'creative labour' – the dominant mode of labour in a late capitalist, post-industrial world – which contrasts with Bilal's visibly material labour – the daily suffering of his body in the name of art and political consciousness-raising. Yet, as a professor at the Art Institute of Chicago at the time the work was made, Bilal was not under any economic obligation to sell his labour power for these violent ends. Nevertheless, what resulted from his use of a remote-controlled gun in the performance space was the dominance of objectified labour over living labour. The objectified labour embodied in the gun alienated Bilal from the piece of technology that he designed and helped to build. As the gun was deliberately turned against him, it not only effaced his role in the labour required to bring the technology into being but also limited the kinds of labour that he could enact in its presence.

Marx notes that machines are not made for the benefit of workers, nor do they allow workers to develop skills. For Marx, the machine becomes the master that controls the worker (rather than the other way around) and thus the process of machinery subsumes labour. He writes:

> [I]t is the machine which possesses skill and strength in place of the worker, it itself the virtuoso, with a soul of its own in the mechanical law acting through it … the worker's activity, reduced to a mere abstraction of activity, is determined and regulated on all sides by the movement of the machinery, and not the opposite. The science which compels the inanimate limbs of the machinery, by their construction, to act purposefully, as an automaton, does not exist in the worker's consciousness, but rather acts upon him through the machine as an alien power, as the power of the machine itself.[28]

Marx anthropomorphises the machine in order to highlight the dehumanising effects of technology on the worker and offers a view of the machine/automaton as self-regulating. The gun in *Domestic Tension* illustrated similarly dehumanising effects of technology on two levels. First, the gun regulated Bilal's movements when its positioning pressured him to duck and hide from the paint bullets in the small space of Flatfile Galleries. Bilal's movement became a 'mere abstraction of activity' in the Marxist sense. The gun was controlled by a power alien to Bilal, the online participant, who in turn dehumanised and alienated Bilal when he or she engaged in the violent act of shooting him.

Second, however, the strangers who shot Bilal for fun, malice or curiosity also often exhibited signs of their own alienation, boredom and loneliness. While they took control of the axis of the gun and the moment it fired, the

comments they posted in the online chat room suggest that it is the machine – the gun – that 'possesses skill and strength' and 'acts upon' the online participant as an alien power. I will return to this point when considering the public and participants' responses to *Domestic Tension*.

In contrast to the dehumanising effects of the technology of the gun, other aspects of technology employed within the architecture of the performance artwork challenged the notion that machines always produce a worker's abstraction. Houston notes:

> Bilal's occasional participation in the Internet-based chat room and his maintenance of a video blog served to humanise him, allowing him a specific voice that might have been missing or effaced in a video game or a military video released to the public.[29]

In this case, the mediating power of technology in the gun alienated Bilal while, conversely, the technology employed in the online chat room and virtual diary entries facilitated his transformation from abstract target to human face and voice. Technology thus allowed Bilal to connect with the players of his game, albeit in mediated form, affording him the opportunity to 'humanise' himself within the dehumanising conditions of the game.

Domestic Tension added yet another layer of the Marxist abstraction of man by machine in its object of critique – the effects of drone warfare. The alienating effects of Bilal's use of technology for weaponry in *Domestic Tension* drew attention to the material effects of drones. In conflict zones, drones inflict terror, instability and harm to civilian populations via their dual function as surveillance machines for procuring 'intelligence' about a target and/or military action such as bombing. The 'domestic' gallery setting reminded spectators of Iraqis cowering in their homes in Iraq.[30] Bilal's work showed the stresses induced by living in conditions of constant surveillance and self-reflexively drew attention to the sometimes prurient scopophilic pleasures of art. Kirsty Robertson notes that in *Domestic Tension*, surveillance 'is used in order to incorporate the participant into a voyeuristic dialogue that reveals structures of power and one's own role within them'.[31] While the Iraqi

body is ordinarily hidden from view in mainstream media representations of the war, the suffering of Bilal's mind and body under surveillance forced participants and spectators to see their complicity in normalised systems of surveillance and control.[32]

Second, while the fighter pilots who operate the drones are physically safe from superficial bodily harm, they are not immune to the psychological repercussions of that violence. Drone pilots are physically removed from the site of conflict, which minimises American casualties and creates the impression of a 'clean war' or Baudrillard's war that 'did not take place'. The machine as mediator, supposedly buffering pilots from the violence and stress of war, enabling a physical and emotional distance from their targets, is, however, failing to eradicate alienation. In a 2010–11 study, the American military reported that an unspecified number of drone pilots were suffering what the military terms 'burnout'.[33] 'Burnout' is classified as a psychological condition, categorised between the normal 'stress' of day-to-day military work and the clinical diagnosis of PTSD. Peter M. Asaro points out that framing burnout as an occupational rather than medical category allows the military to keep drone operators working, which is advantageous to the military given that they are presently in very high demand and short supply.[34] While the military claims that drone operators experience PTSD at the average estimated rate for units deployed to combat zones in the Iraq War (a rate of anywhere between 4% and 17%), Asaro also notes that these figures are probably distorted by the military taboo against acknowledging the stress of combat for fear of ending one's military career and the stigma of dishonourable discharge.[35]

According to Bilal, his relapse of PTSD during the month in Flatfile Galleries was caused by the anxiety of being in a simulated war zone environment, the repetitive acts and mundane duties of having to constantly mop up paint and the pressures of dealing with the outside world – media interviews, engaging with gallery patrons and making sure that the constantly crashing server was restored in order to keep the piece running. Research into the causes of PTSD in drone operators shows that anxiety is caused

by the conflation of 'intelligence' gathering and the military operations enacted based on that information, which has meant that drone pilots have a greater responsibility and cannot be said to just be following the orders of superior officers.[36] The virtual experience of the enemy by drone pilots and the mediated nature of their encounter alienates operators from the material experience of the war zone but does not foreclose the possibility of them developing great intimacy with the subject on whom they are spying. As such, the virtual experience cannot eradicate the real material psychological effects of this encounter. Thus, the tensions between near and far, domestic violence and remote violence in Bilal's work foreground new kinds of social relations under technology capitalism that provoked the old effects of alienation that Marx describes as estrangement from one's self, others, one's labour and even one's 'species-being'.[37]

Complicating the relationship of technology and warfare further still are recent clinical psychological trials that use digital Internet-based programs for the treatment of PTSD of local populations in conflict areas.[38] One study notes that while the Internet thus far has rarely been used for humanitarian purposes in conflict zones, it is beginning to be used for e-mental health services or 'Interapy'. While Internet therapies have previously been used with success on Western veterans of the Iraq War to reduce PTSD symptoms, a small sample study by Birgit Wagner, Wassima Schulz and Christine Knaevelsrud shows that such therapies offer promising hope to people in conflict zones such as Iraq that are cut off from face-to-face psychiatric support but where the populations have rapidly increasing access to the Internet.[39] The technology, which uses writing assignments accessed through an online database and designed around cognitive-behavioural therapy treatments, was adapted for different languages and cultures. The results showed significant and lasting improvements of the symptoms of PTSD, grief, anxiety and depression in Iraqi participants.[40] Once again, the West's use of remote technology to gather information, attack and terrorise local populations is contradicted by the increasing use of Internet technologies to develop ways to help the local populations to deal with the traumas of war.[41] *Domestic Tension* pre-empts this contradiction and reveals it as inherent to the military–entertainment complex by giving his game's participants a chance to develop a dialogue with their target of attack from a distance.

REVERSING DISTANCE

In a speech given at the Nobel Museum in Stockholm in 2011, Judith Butler interrogates the question of what makes an ethical encounter possible in social and political life. She is particularly interested in moments of encounter when suffering occurs at both a distance and in close geographical proximity, such as at the borders of nation states.[42] Butler points out that we often assume that proximity makes greater demands on our ability to recognise bodily integrity, to practise non-violence and to accept existing territorial or property rights claims. Butler argues that images and accounts of war suffering, in particular, can operate as what she calls an 'ethical solicitation' that can compel us to negotiate questions of proximity and distance.[43] She writes:

> [T]he kind of ethical demands that emerge through the global circuits in these times depends on this reversibility of proximity and distance. Indeed, I want to suggest that *certain bonds are actually wrought through this very reversibility*. If I am only bound to those who are close to me, already familiar, then my ethics are invariably parochial, communitarian, and exclusionary. If I am only bound to those who are 'human' in the abstract, then I avert every effort to translate culturally between my own situation and that of others. If I am only bound to those who suffer at a distance, but never those who are close to me, then I evacuate my situation in an effort to secure the distance that allows me to entertain ethical feeling.[44]

Butler suggests that ethical responses cannot come only out of proximity (as that would lead to an exclusionary and thus hypocritical ethics that is condi-

tional and selective), nor can an ethical response emerge from an abstract sense of 'human' responsibility at the expense of those who are close by. Instead, she suggests that there needs to be a movement between these two positions. The online remote control of the gun in *Domestic Tension* set up the conditions of what Butler calls 'global circuits' that are increasingly commonly recognisable in our everyday interactions. Unlike the socially alienating and automating effects of machines when Marx was writing in the nineteenth century, today's global circuits facilitate a *reversibility* of proximity and distance made possible through developments in cyber communications and, indeed, remote warfare. They force us to redefine and renegotiate traditional understandings of proximity and distance, empathy and disconnection, through remote experiences and direct, real-time shared intimacy.

Butler goes on to note that when ethical relations are mediated, they confound our traditional sense of proximity and distance, making what is happening 'there' also occur in some sense 'here' and vice versa.[45] This conflation of 'here' and 'there' and the emotional responses that it induces seem to be what is at work when drone pilots begin to show symptoms of PTSD. Bilal, too, deliberately confounds ideas of 'here' and 'there' when he stages the war zone on American soil, bringing home 'here' to the West the war that is being 'staged' and waged over 'there'.[46] By turning the 'comfort zone' into the 'combat zone', Bilal showed that the 'virtual war' had real, material consequences, casualities and real human lives at stake.

RESPONSES TO *DOMESTIC TENSION*

The construction of *Domestic Tension* as a piece through which people could participate remotely via the Internet meant that it had a global audience. By tracing IP addresses, Bilal found that the users who chose to participate in the live artwork came predominantly from First World nations including Austria, Canada, Italy, France and the UK. Marxists Michael Hardt and Antonio Negri describe the War on Terror as a 'Global Civil War',[47] a paradoxical name that resonates strongly with Bilal's creation of a 'domestic' tension between his gallery living space and the work's global audience. Furthermore, the 'domestic' framing of the piece meant that it highlighted the biopolitical effects of the War on Terror in the West as it infiltrates the everyday lives of citizens. The heightened state of fear since 11 September 2001 has led to the increased suspension of civil liberties, including the US Patriot Act of 2001 and the anti-terrorism laws in Australia passed in 2005. As Hardt and Negri note, war has become a '*regime of biopower*' where the threat to security can be found in the domestic sphere or in houses on your street.[48] Differently, the 'homely' contradiction in the work also reminded spectators that the War on Terror refers not only to a threat from an outside enemy who is distant and mediated, but also to an enemy within. This is evident when terrorist activities occur within the anti-terrorists' national boundaries, such as the attacks on the Twin Towers or the Boston Bombings. These events were not simply remote conflicts but also civil conflicts with real, material effects on the citizens of the combat nation. As Dyer-Witheford and de Peuter put it: 'The boundary between the barracks and the living room is thus imploding'.[49] By staging violence within a living space, *Domestic Tension* highlighted the biopolitical nature of contemporary warfare and collapsed the proximity and distance of the War on Terror.

Domestic Tension provoked a broad the range of reactions, most of which indicated a high level of social alienation, disconnection or abstraction from the Iraq War. The anonymity of the chat room participants brought out the worst and best in people – racist and violent behaviour as well as sympathy and compassion. Worse than the verbal abuse that Bilal received was the unexpected physical cruelty that also took a toll on his fragile mental state. At one point, a hacker found a way to use the gun as an automatic weapon or machine-gun, firing persistently at Bilal. Yet, this event inspired cyber activism in the formation of a resistance movement called the 'Virtual Human Shield', a group of online users who set up 24-hour protection of Bilal by pointing the gun away from his body.[50] As with the moments when Bilal

used technology to connect with players and those spectating in the online chat room, the Virtual Human Shield used the mediating power of machines and technology to perform an act of solidarity and community that rejected alienation, passivity and dehumanisation. Whether attacking or defending Bilal, the audience participation in the work, either as players or spectators, collapsed the safe distance of the war and made spectators directly complicit in the acts of violence. As Houston notes:

> [T]he structure of his work implied that there is a direct, causal relationship between violent activity carried out abroad and the domestic, civilian world on whose behalf that violence is enacted … and dissolved any idea that a reliance upon a distant, proxy military can absolve a public of responsibility.[51]

In order to understand the way in which the work's structural elements link the domestic Western world to the war zone in the Middle East, I will return to Butler's idea of the reversibility of proximity and distance.

When Butler discusses the concept of the reversibility of proximity and distance, she has in mind the media, particularly war photography, and not an artistic recreation of war zone conditions. Yet, the concept of reversibility is helpful to understanding the range of reactions to *Domestic Tension*. In Bilal's piece, we see this reversibility at work in one female user who posted a comment in the chat room: 'KILL KILL KILL MAIM KILL. Yr a handsome bloke!' [sic][52] This expression of violence seemed to be predicated on the woman's view of Bilal as abstract object and her alienation and total anonymity within this space that did not hold her to account. By contrast, when Bilal engaged her in conversation she changed her tone when she wrote: 'So it's causing u harm, there must be a better way … Shooting seemed really fun at the time. We all feel real bad now!'[53] This response suggests that her proximity to Bilal was reversed, transforming her abstracted shooting target into a human being to whom she could confess guilt and remorse for her actions. This example of a participant's change of attitude offers a compelling model for the kind of ethical solicitation at work in Bilal's piece and for

understanding how machines and new technologies might facilitate ways to overcome alienation under capitalism.

Butler is interested in moments of ethical resistance to state or collective violence that do not rely on proximity, but that are mediated in a way that collapses the idea of 'here' and 'there' and accepts the multi-locality of connections within a global world order.[54] She notes:

> And yet, it seems to me that something different is happening when one part of the globe rises in moral outrage against actions and events that happen in another part of the globe, a form of moral outrage that does not depend upon a shared language or a common life grounded in physical proximity … We do not only consume, and we are not only paralysed by the surfeit of images. Sometimes, not always, the images that are imposed upon us operate as an ethical solicitation.[55]

While many people who played Bilal's 'game' online were consumed and even mesmerised by the images of violence and suffering, others responded with compassion to Bilal's ethical solicitation in spite of their lack of proximity to the suffering subject. The Virtual Human Shield was morally outraged by the effects of remote violence and used their remote presence to react against it. Such a collective of activists working together for both real and symbolic purposes suggests a new form of politicised networking. Given that such art can reach and interact with spectators across geographic distances at speeds unprecedented in history, new possibilities are also opened up for participatory art to provoke and unite like-minded people in new collective and politicised arrangements.

ASYMMETRICAL WAR

The social relations and levels of alienation that Bilal's work point to are notably marked by class differences and the complex economic and social hierarchies of the cyber sphere. Dyer-Witheford notes that cyberspace is an

arena of contradictions, in which capital's development is both inhibited and fostered by alternative initiatives.[56] Despite his over-optimistic prediction of a 'twenty-first-century communism', Dyer-Witheford's research acknowledges both the virtual communitarian arguments about the Internet and those that reject the utopian potential of online social networking. He notes that many virtual communities and cyber communications provide an alternative or escape from the everyday logic of capital, enabling users to circumvent the social gatekeepers such as media conglomerates and their hegemony over the circulation of information.[57] Yet, equally, he acknowledges the exclusionary aspects of online participation that requires time, expertise and access to capital as well as the hierarchies of space and stratification of visibility of information, where companies with the greatest capital tend to dominate in an environment saturated with information.[58]

The development of digital games for war training and the use of drones are only made possible by the advantages of American superiority of wealth and access to resources. The military might of America and its Western Allied Forces and the shift from industrial to informational warfare have transformed military practices so that military and strategic superiority today is determined by access to and deployment of communications and computer technologies.[59] Yet Dyer-Witheford and de Peuter note that this has meant that the greatest threat to Western military hegemony is the use of low-tech strategies such as suicide bombing or homemade bombs. This inequality of access to technological resources has led to what has been called an 'asymmetrical conflict'.[60]

Domestic Tension staged an 'asymmetrical conflict' in its exploration of the relationship between war, capital, class and technology in dubious ways. Bilal, as Iraqi and former refugee, positions himself as the vulnerable underclass in the live artwork by not taking any food supplies into the gallery and relying on friends and strangers to provide him with nourishment and a change of clothes.[61] When the server crashes, he is dependent on computer expert Jason Potlanski to donate his time to fix the problem.[62] When the gun is turned into a machine-gun and he runs out of money for paintballs, he relies on them being donated by the supplying company. The funding of *Domestic Tension* in relation to Bilal's job at the Art Institute of Chicago and federal arts grants is less clear, and is also reminiscent of the paradox in research institutes such as the ICT and their dual work on war simulation technologies and PTSD remedial technologies. *Domestic Tension* used open-source technology – free software that allows anyone online to access and innovate the coding. This kind of software was developed to democratise access to programs. In the case of *Domestic Tension*, open-source software enabled hackers to turn the gun into a machine-gun and use their 'access' for violent ends. Differently again, it is Bilal's suffering and self-sacrifice over the month he lived at Flatfile Galleries that reminds spectators of the 'asymmetrical' nature of the War on Terror. Bilal's Iraqi body is the low-tech threat to the American military that performs a similar function to the suicide bomber and its cultural capital as martyr.

CONCLUSION

Domestic Tension brought to the fore the contradictions at the heart of debates over the role of technology in war and the ethics of using drones for remote warfare. It encouraged spectators to perform remote violence as a means to critique remote violence. The logic of its structure challenged spectators to commit acts of violence, but Bilal, perhaps disingenuously, expressed surprise at the level of violence that the work produced.[63] Bilal's message was clearly anti-war, as his catchphrase at the end of the month of staging *Domestic Tension* noted: 'We silenced one gun today and I hope we will silence all guns in the future'.[64] Paradoxically, however, his work was complicit with the aesthetics of the military industrial complex. *Domestic Tension* used some similar technologies to those employed in drones, but Bilal repurposed this technology in order to critique drone warfare and military techno-culture. In this way, *Domestic Tension* evoked the Marxist contradiction of technological development as catastrophe and progress all at once.

Domestic Tension staged the collapsing of the 'here' and 'there' of the Iraq War by bringing home to us in the West the suffering body of the Iraqi other. The material effects of remote violence – Bilal's public physical and mental deterioration – showed the alienating consequences of new technologies harnessed for violent ends. Yet, some public responses to the work also revealed the potential reversibility of state-sanctioned ways of perceiving the 'enemy' other. *Domestic Tension* thus demonstrated how the technologies of the information age offer the potential to both exacerbate and alleviate alienation under capitalism in ever more complex social networks and distributions of power, class and capital.

NOTES

1 Nick Dyer-Witheford, *Cyber-Marx* (Urbana and Chicago: University of Illinois Press, 1999) 2.
2 Karl Marx, 'Economic and Philosophical Manuscripts (1844)', *Early Writings* (London: Penguin, 1992) 389.
3 Jean Baudrillard, *Simulacra and Simulation*, trans. S.F. Glaser, (Ann Arbor, MI: University of Michigan Press, 1994).
4 Donna Haraway, 'From "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s"', in Lawrence Cahoone (ed.), *From Modernism to Postmodernism: An Anthology (Oxford: Blackwell, 2003) 464–81.*
5 William J. Aceves, Everard and Gershon Shafir, *Lessons and Legacies of the War on Terror: From Moral Panic to Permanent War* (Abingdon, Oxon: Routledge, 2013).
6 Wafaa Bilal and Kari Lydersen, *Shoot An Iraqi* (San Francisco: City Lights, 2008) 41.
7 *Ibid* 10.
8 Claudia Costa Pederson, 'Trauma and Agitation: Video Games in a Time of War', *Afterimage* 38.2 (2010) 11. This quote may not be verbatim from the original, as it is Bilal's remembering and paraphrasing of the television report.
9 Rachel Wagner, 'First-Person Shooter Religion: Algorithmic Culture and Inter-Religious Encounter', *Crosscurrents* (June 2012) 188.
10 *Ibid* 22.
11 Tim Lenoir, 'All But War Is Simulation: The Military–Entertainment Complex', *Configurations 8* (2000) 315.
12 *Ibid 322.*
13 *Ibid* 326.
14 Nick Dyer-Witheford and Grieg de Peuter, *Games of Empire* (Minneapolis and London: University of Minnesota Press, 2009) xiii.
15 *Ibid 101.*
16 *Ibid xiii.*
17 Digital game propaganda attempts to foster a strong relationship to real life historical events and scenarios of utopian futures. Rachel Wagner explains that first person shooter Muslim and Christian digital games encourage players to transfer the actions of the game into real life. One such game is *Under Ash* (2002) that was created around the Palestinian uprisings against Israeli forces and one scene recreates the events that sparked of the Second Intifada through having the Palestinian character throw rocks at the Israeli military forces. Wagner, 'First-Person Shooter Religion', 192.
18 Dyer-Witheford and de Peuter, *Games of Empire*, 118.
19 Jean Baudrillard, *The Gulf War Did Not Take Place*, trans. P. Patton (Bloomington, IN: Indiana University Press, 1995).
20 Kerr Houston, 'Remote Control: Distance in Two Works by Emily Jacir and Wafaa Bilal', *Southeastern College Art Conference Review* 16.2 (December 2012) 193.
21 *Ibid* 101–2.
22 James der Derian, *Virtuous War: Mapping the Military–Industrial–Media Entertainment Network* (Boulder, CO: Westview Press, 2001).
23 University of Southern California: Institute for Creative Technologies. Online: http://ict.usc.edu (accessed 12/09/13).
24 Bilal and Lydersen, *Shoot An Iraqi*, 56.
25 Kari Lydersen, 'In the Crosshairs', *In These Times* (15 June 2007). Online: http://inthesetimes.com/article/3222/in_the_crosshairs (accessed 1/09/13).
26 Karl Marx, *Capital*, trans. Ben Fowkes (London: Penguin Books, 1976) 517–75.
27 Karl Marx, *Grundrisse*, trans. Martin Nicolaus (Harmondsworth: Penguin Books, 1973) 706.
28 *Ibid* 693.
29 Houston, 'Remote Control, 194.
30 Mary Flanagan, *Critical Play: Radical Game Design* (Cambridge, MA: MIT Press, 2009) 236–7.
31 Kirsty Robertson, '"Try To Walk With the Sound of My Footsteps": The Surveillant Body in Contemporary Art', *The Communication Review 11* (2008) 38.
32 *Ibid* 38.
33 Joseph A. Ouma, Wayne L. Chappelle and Amber Salinas, 'Facets of Occupational Burnout Among US Air Force Active Duty and National Guard/Reserve MQ-1 Predator and MQ-9 Reaper Operators', *Technical Report* (July 2010 – June 2011).
34 Peter M. Asaro, 'The Labour of Surveillance and Bureaucratised Killing: New Subjectivities of Military Drone Operators', *Social Semiotics 23.2* (2013) 214. Asaro notes that it is very difficult to get objective information about drone pilots, as all the psychiatric studies conducted around their labour have been done by the American military, who closely guard the drone pilots' and workers' identities and deny journalists and academics access to interview these service women and men.
35 *Ibid* 217.
36 *Ibid* 207–8.
37 Marx, 'Economic and Philosophical Manuscripts (1844)', 386.
38 Birgit Wagner, Wassima Schulz and Christine Knaevelsrud, 'Efficacy of an Internet-Based Intervention for Post Traumatic Stress Disorder in Iraq: A Pilot Study', *Psychiatry Research* 195.1–2 (2011) 85.
39 *Ibid* 85.
40 *Ibid* 86.
41 Sara Brady notes a similar phenomenon in her documentation of the games *Full Spectrum Warrior* and *Virtual Iraq that were developed to treat veterans with PTSD (Sara Brady, Performance, Politics, and the War on Terror: 'Whatever It Takes'* (Houndsmill, Basingstoke and New York: Palgrave Macmillan, 2012) 98–9.
42 Judith Butler, *Precarious Life and the Obligations of Cohabitation*, Nobel Museum, Stockholm (May 2011) 1.
43 *Ibid* 3.
44 *Ibid* 4.
45 *Ibid* 5.
46 A number of other artists responded to the Iraq War by collapsing distance and toying with new forms of mediation of war, in particular through the older technique of photomontage. For example, Martha Rosler's piece *Bringing the War Home* layered images of the destruction in Iraq with snapshots of the clean domestic interiors of American homes and consumer luxuries. In one photomontage, a glamorous attractive blonde is taking a selfie with her mobile phone in her pristine living room oblivious to the fiery landscape of war that rages outside the window. Similarly, Peter Kennard and Cat Picton-Phillipps superimposed an image of Tony Blair posing with his large smile in a selfie with his mobile phone onto a background of billowing grey smoke from a burning oil field. Sam Durant's *Symbolic Transposition* also superimposed a pile of destroyed vehicles and American marines over the US Capitol building. As Alan Ingram points out, these works not only collapsed the distance of the Iraq War, often filtered

through the new media technologies, but also used the older technology of photomontage to create a deliberate 'perceptual shock' (what Brecht would call a *Verfremdungseffekt*) in the juxaposing of America and Iraq as contrasting sites of order and devastation (Alan Ingram, 'Making Geopolitics Otherwise: Artistic Interventions in Global Political Space', *The Geographical Journal 177.3 (September 2011) 221.*

47 Michael Hardt and Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (New York: Penguin Press, 2004) 4.

48 *Ibid* 13.

49 Dyer-Witheford and de Peuter, *Games of Empire*, 117.

50 *Ibid* 142.

51 Houston, 'Remote Control', 194.

52 Bilal and Lydersen, *Shoot An Iraqi*, 74.

53 *Ibid* 74.

54 *Ibid* 5.

55 *Ibid* 2.

56 Dyer-Witheford, *Cyber-Marx*, 251.

57 *Ibid 132.*

58 *Ibid*.

59 *Ibid* 103.

60 *Ibid* 103.

61 Bilal and Lydersen, *Shoot An Iraqi*, 2.

62 *Ibid* 46.

63 YouTube: 'Wafaa Bilal Discusses *Shoot An Iraqi*' (23 July 2008). Online: http://www.youtube.com/watch?v=Dcyqu-vDEe0o (accessed 12/09/13).

64 Bilal and Lydersen, *Shoot An Iraqi*, 162.

WORKING WITH TECHNOLOGY/MAKING TECHNOLOGY WORK: A ROUND TABLE DISCUSSION

Suzanne Kersten, David Pledger, Julian Rickert, Tamara Saulwick and Hellen Sky with Gorkem Acaroglu and Glenn D'Cruz

What follows is an edited transcript of a conversation that took place on the topic of performance and technology at the Mechanics Institute, Brunswick, on Saturday 3 November 2013. The participants – Suzanne Kersten, David Pledger, Julian Rickert, Tamara Saulwick and Hellen Sky – are all practising artists who have engaged with various forms of everyday and extra-daily technologies in their creative work. Gorkem Acaroglu and Glenn D'Cruz facilitated and moderated the discussion.

Tamara: I make performances in theatres and public spaces using everyday technologies. My recent work has focused on sound, so I use headphones, MP3 players, and wireless, mobile technologies. I'm going to be working towards using more locative technologies, but I work predominantly with digital audio.

David: I work across and between the performing arts, visual arts and media arts. Sometimes I work in performance and sometimes I work in what I would call 'public space' projects. I am a little bit uncomfortable with using the word 'technology' all the time, because I am not really sure what that term means in the context of this discussion. I'm currently working on a performance project where there is an absence of what people would call technology. I'm also producing a public space project where there is an absence of performance – the performative aspect of this work is mostly related to the way the audience or user generates material in relation to an offer from the artist. This is a public space project that takes place on trains and uses various media.

Suzanne: I work with Julian Rickert in One Step At a Time Like This. We work with domestic technology. I've heard horror stories about artists working with programmers who they don't know, and then the work gets hijacked by that process and can run out of time. Anyway, the way we have come to work with technology is through – and I agree with you about needing to define the term, David – a preoccupation with what's in the room. We own some MP3 players, and tend to use our own technological assets.

Julian: Yes, we use domestic or ubiquitous technology because a lot of people are familiar with it, so there's an ease and transparency of use. So, the focus of our activity becomes the creative work and not the technology.

Hellen: I write about the poetics of embodiment in real time – situations in technology. I think about that in a number of ways and usually the technology I work with might need to be invented to answer the question about what happens when we are involved in using technology in terms of a larger political or personal situation. I also explore the relationship between the natural world and virtual relationships as systems that are part of the evolution of humankind.

Gorkem: I'm a theatre director interested in developing computer-based technologies that possess agency as actors, and interact with human performers. So, I'm interested in how technology and humans might interact in live performance. I've just completed a residency, an artlab program that involved building a robot and working with 3-D projections and avatars on a version of Ibsen's *Ghosts*. This was an investigative laboratory project to discover what problems emerged from working with technology in this way.

Glenn: Let's start by defining the term 'technology'. What does it mean to you, Hellen?

Hellen: I don't use it. I just call the equipment I use an extension of possible potentials, and *techné* or 'technicity' is possibly a more interesting way of describing it. These are Hellenic terms that refer to self-knowledge. I think it's better to think about systems and physics rather than technology. That is, the inter-relationship or potential of different kinds of interfaces, different kinds of transitions or transmissions of data or human consciousness as they may co-evolve. So, 'technology' is a word that I avoid.

Glenn: So you're talking about systems that facilitate particular kinds of interactions between people?

Hellen: Well, it might be people or it might just be my thoughts and me, or it might be me as I am inside of a work that I'm thinking about. It might also involve a more distributed field of people who always make something happen because it's usually never a solo endeavour – it often becomes the sort of interface or a field of interaction between different people who make up a system. I could very simply use my mobile phone; it's great, isn't it? We can now do telematics on a handheld object. What does that mean socially? I really like my phone because it's a very simple frame that does a lot of things and it's very portable, and it talks to

other things. And then you can do things with that conversation in other things – but I call that an extension. So today there is a coming together of platforms, portability, mobility, extension, but where is the body? Where is the mind?

David: I think 'technology' was probably a good word at a certain time, but it's come to mean things other than what it originally meant. I think the etymology of the word is tool. It's something to be used. I prefer using the word 'machine'. I don't like using the word 'technology' because I think it's been commercialised, so you talk about things that are made in order to make profit whereas machines respect the historiography of things that get built using some kind of 'hardware' – lighting systems in theatres are a good example in terms of this conversation, and in terms of performance. I don't call my phone a phone. I call it a machine. I feel I am connected to machines and I like the idea because it's mechanistic. When I think about it, in terms of art-making, it sits as another element in my dramaturgy.

Tamara: There is something about the word 'machine' that evokes something different for me in terms of the way you can engage with it. So, there are differences between working with a record player or a reel-to-reel tape recorder as opposed to the digital recording device we're using to record this conversation, in practical terms [Zoom H4].

David: The facility an artist has when using a machine doesn't change the fact that the thing itself is a machine. So, I would use the digital recorder differently to the way I would use a phone, and all of us will probably use it differently. It doesn't change what it is, nor does it change the history that is created.

Tamara: No, I agree. But what it does allow is a particular process – something like this digital machine allows processes that feed in to how one makes work.

Figure 1: *Seddon Archives created by Tamara Saulwick. Photograph: Tirese Ballard.*

Suzanne: I think the dialogue between different machines is different. And I guess it depends on what you mean by 'facility'. You can make me do different things – I am affected differently by digital and analogue machines. I think largely in terms of the non-live when it comes to the term 'technology'. And because I like to play with the live sliding into the non-live, I find that definition the most useful, rather than the recorded.

Julian: I don't have any philosophical perspective on technique or technology, I like to be involved manually. If I repair a machine, I'm a mechanic. I got into theatre because I like rolling around on the ground with people and exploring what it is to be a human – now I spend a lot of time texting!

Glenn: Many artists reject the use of any form of technology or machinery in favour of poor theatre. There is a school of thought that says to do otherwise is to betray the nature of performance. So, for various reasons all of you have chosen to reject that paradigm.

David: I wouldn't necessarily say that's the case, because an artist who uses new technologies can also be an artist who uses no technologies. That whole paradigm is a linear construct, which doesn't have currency today. Today, artists do not see borders, and so, you can take everything out and

have an actor in the space and use natural light. It doesn't mean that you are not interested in using digital technologies in another performance, or intelligent light systems in another performance, or making robots for a show. My experience is that artists these days are much more promiscuous, professionally speaking.

Hellen: I'm currently writing about borderless bodies, and I mean that on many different levels. So, this notion of the machine and the body as being separate is a non-conversation to me.

David: What about Stelarc?

Hellen: He doesn't call them 'machines', though. Now, he calls it the 'whole choreography'.

David: But you still have many artists looking at the relationship between where the body finishes and machine starts.

Glenn: The fact that some of us are wearing glasses means that there are technologies that extend the borders and abilities of the body, but perhaps you could articulate why you use specific machines in your work. For example, Tam, why do you use record players and sound technologies?

Tamara: I do think that there is something about sound that opens out spaces for imagination and memory. Initially, I was working with sound because I started working with some recorded interviews. So, I had sound materials, but I didn't want to use them as just the source for a script. I wanted to bring those voices into the work itself and then embed them in the sound world of the work itself. I felt that there was something in those recordings beyond the words that had resonance. I'm currently working with reel-to-reel tape recorders and record players because those technologies or those machines have a strong resonance with the themes I'm exploring.

Glenn: Your show *Pin Drop* foregrounded the grain and materiality of the voices that were embedded in that work – they possessed a ghostly

Figures 2 & 3: *Public* created by Tamara Saulwick. Photograph: Takeshi Kondo.

quality, but you did something more than just embed those voices in your show. I was intrigued by the way you amplified the sound produced by everyday gestures, which became an integral part of the work's soundscape. What was that about? What were you trying to do?

Figures 4 & 5: *Pin Drop created by Tamara Saulwick. Photograph: Ponch Hawkes.*

Tamara: I liked the idea of making a sound work, or a performance/sound work, as opposed to a theatre show, but it became more like a theatre show as it developed. I was interested in trying to explore the sound world. I wanted to take those stories and find ways to manifest them in the space that were evocative, and opened out spaces for the audience's own imagination. Sometimes it's about just providing textures and triggers for association – the more illustrative it becomes, the more closed-down it can become for the audience. So, we were trying to evoke a quality of listening in the audience and to encourage them to engage imaginatively with sound. One of the inspirations for that work came from seeing a contemporary music concert where a woman played objects like a little comb – I started to think about how those more sound-based or music-based languages can be brought into a performance world.

Hellen: I was thinking about how the kind of work we've been making has been very inter-disciplinary. These works are coming from multiple branching. So, this idea of theatre in the box seems old-fashioned to me. I was trying to think about what we do under the guise of theatre. We all have different takes on what that is, and very different experiences about what that means to us. Many important works haven't been performed in theatres.

Gorkem: When we use the word 'theatre', we have a common understanding that it involves live, human performers, in some way.

Hellen: Cinema is a kind of place where I feel very connected to an audience. I am acutely aware of sound. Sometimes I will close my eyes, and go to the cinema to listen.

David: The term 'performance' is a broader term to describe what we're talking about. Theatre is often space and venue. I think you were actually smart to talk about performance.

Suzanne: We have been working recently in the USA and became aware of the lack of multidisciplinary approaches in theatre there (I'm talking about outside of NYC). I think one of my reasons for working with whatever I am currently interested in is because I have given up on performers. I don't ever feel like I have enough time with performers to

get a quality of performance that's interesting to me. I feel they still have faith in theatre and actors in the USA – I have just given that up. *en route* had no performers – it's a journey through the city. We wanted to see if people who went walking could experience something they could call 'art'. So, it's an experiment, and we try to make performances in that context.

Figure 6: *en route* by One Step At a Time Like This. Photograph: Chris Crerar.

Figure 7: *en route* by One Step At a Time Like This. Photograph: Suzanne Kersten.

Julian: So why is it theatre? It could be called 'theatre' because of the frame. Everything within the frame is significant, even if it's somebody sneezing over there, somebody drops something over there, you don't have to know the meaning, but you know it's meaningful.

We tried to create a frame that made the audience look at the things in the world with the same significance that things have in the theatre. I feel that's what an audience does: it gives their contribution to whatever is on the stage and that heightens it, and so we thought, well can you do that with this world?

Hellen: And you guided the audience through the world by augmented sound?

Suzanne: They were guided in different ways, through text messages and pieces of paper, notes, somebody turning up. To take further what Julian is saying: the audience completes a work. We offered some minimalist audio frames and we wanted to see if they could do the rest.

Julian: And not complete *the* work but complete *their* work. So, people would say to us: 'Oh, such and such happened – was it part of the show?' We would always say: 'It was part of *your* show' – it took me a while to understand that we were facilitating other people's performance or experience. Of course they are bouncing around inside our frame, so it's not entirely theirs, but this sort of relationship created enough space so that people could follow their own thoughts rather than ours. In terms of technology, the audience wear a headset attached to an MP3 player, which they operate. We would have more complex technology probably, if we thought that this was really reliable, but we can't work with GPS, as it's not quite accurate enough. We also don't want people to have poor experiences, as I've had in some shows, because they are not technologically competent. I don't want them asking 'Did I press the right button?' I want to make things as simple as possible for the audience.

Gorkem: What are the questions that drive your work and why do you work with these things we're calling technology rather than performers?

David: I'm not sure that's the right question. I am not interested in technology at all. I'm interested in ideas. So I begin with an idea, and then I look at the best ways to mediate, communicate, extrapolate and amplify that idea. I look for the tools and the skills that I need to best excavate that territory. If I don't have the requisite skills, then I will learn them, or find someone to teach them to me. So, I will get somebody who knows people I don't know, I will get information so I can develop an ecology around that idea that makes it bigger than what I could make if I was just working on my own. This process means that I will sometimes need to invent something, or get someone to invent it for me. I will sometimes need to find something that I know is there, but don't know where to

find it, so I will get somebody to help me find it. Sometimes I will simply use the things that I know immediately and make something out of those things. Essentially, I have no interest in technology *per se* – it is simply the thing that I need to communicate the idea. When I find myself getting too fascinated by what the technology can do, I pull away, because that's the point at which I become a trade fair and not an artist.

For example, I'm working on a project on Melbourne's railway system. I'm interested in how the railway system functions as a kind of metaphor for the production of ideas, knowledge and experiences. And so I thought that I might make films on each of the fifteen rail lines. It's a proposition to myself – a way of starting this idea to see where I would first make my errors and mistakes. So, I look for the best place to fail and it was a good place to fail because there were things that I didn't really understand about trains and railways, and the medium of film gave me a way of seeing and hearing story and sensibility. I was trying to work out how to generate something that allows the people who are experiencing my work – whether you call them the audience or the users – to actually start to create things independently of my initial idea, so to actually create a generative system, whereby things get created outside of what I could make. So, I needed to find an appropriate app developer. I'm working with Art Processors, who created apps for MONA [Museum of Old and New Art, in Hobart] – they have a content management system, which they wanted to develop further. So, they brought a whole new set of knowledge to my project, which started to make us think about what else could happen. At the same time, we were consulting an urban designer and looking at making locative artworks for railway stations. I'm still in the research phase of development at the moment, but the initial idea was to think about how the things we make and construct as human beings reflect our knowledge and experience. Technology plays a role in examining and excavating that idea, but I didn't start with the technology.

Figure 8: *Spheres of Influence The Nature of Force* by Hellen Sky. Photograph: Hellen Sky.

Gorkem: Hellen, does technology help you to facilitate an idea?

Hellen: This year, I have been working with found objects and material, but the reason why I am putting them together and what I am thinking about when I am doing that is because of what I remember being in other systems. So, in a similar way to David, I have drawn other people into my work. I think that once you have an idea, it never stays inside of you. The notion of catalysing other people to come into a conversation is when you start to generate the work. David, when you were talking about when technology seems to be taking over from the art, I wondered if you get to the point where you think, 'Oh fuck', I just want to put it in this bag and throw it into the Yarra.

David: There always is that point. And so, what you have to do is find the right person.

Hellen: Exactly.

David: You have to find the right person to ask and say: 'We are at this point. What do you think?' I basically propose ideas and bring people from outside the arts, as well as inside the arts. For example, we consulted with the Community Liaison Officer from Melbourne Metro – he's the guy to go to because his bullshit meter is so high.

Hellen: He gets it?

David: He gets it straight away and he will cut through the crap, and say, you don't need to do that. So, in terms of constructing one's dramaturgy as an artist, you always need that person.

Hellen: So, he is a dramaturg of another kind. We could have a whole other conversation about what we think that word means. But to answer the question, I'll go back. It will take me five years to make a work. At the beginning, I don't quite know how to articulate what it is yet because it's usually really quite complicated. So there will be different iterations of the work. Initially, there is a kind of software sketching – a tangible, tactile kind of software sketching of the things that will become embedded in the work. So, there is the subjective embodiment of experience over time with something I wouldn't call a tool or technology but *techné*, or agency. Technicity, perhaps, is a better way to describe that. I am inside of a continual question. I only seem to have one question: it is about the relationships between the interface of the human and the virtual, whether the virtual is facilitated by a reciprocal folding system. What does that mean? How is that affecting us? Usually, I answer the question by putting myself in the system.

Tamara: I agree with David that one uses the tools at hand, but I also find that ideas grow from work. The works that I have recently been making and proposing to make have each emerged out of prior processes. Often when making work, something interesting will happen that I hadn't anticipated. Sometimes what interests me in that moment is the thing that I can't quite deal with right then because it doesn't fit with that project. This then becomes the catalyst or beginning for a new work. The genesis of the work I'm making at the moment was a previous work, which was an audio walk. I became fascinated by the process of creating an artistic frame around/within a public space, and the ways in which the audience reads that public space when their gaze is filtered through that frame. I found the question of how a performer sits inside that frame very interesting. In that audio walk, there was only a tiny bit of live performance, which I intend to expand upon in this latest work. I am not quite sure how it's going to manifest, but I know its genesis and my fascination with it came from that earlier work. So for me, the bridge from one work to another can be a fascination with a moment or a feeling or a subject. The works can be quite different from one another, but they do seem to grow out of each other.

Gorkem: The question of how technologies change the way you approach creative work seems a bit limiting in the context of what we've just discussed, but I'd like you all to say more about what you have learnt from the questions that you pose in your work.

Hellen: It's really about how extraordinary the body is, and what other kinds of agency can happen by understanding that we have the ability to adapt to different kinds of perceptions and speeds, different ways of multiprocessing through a reciprocal kind of system. I usually work with 'real time', so data from my body are being analysed to do multiple things at once. And not always, but usually, that's what I like to learn from. I am interested in that as a tradition. I call myself a choreographer – I started off as a ballet dancer and I have been in the circus, and spun around upside down. So, I have a lot of different kinds of history in my body. I try to find new histories that allow me to have some analogous way of questioning the time I span and the changing culture around the way my body and other people are evolving in terms

of different imbalances or balances. That's what I'm learning. And so what's interesting for me, because I have been in those systems, I advised on the motion capture system at Deakin University – I don't use the word 'capture', I think it's an abhorrent term; I call it 'sensing'. 'Motion capture' has come from the military and it has all those cultural bearings that most people don't want to think about when they use the term.

What kinds of data the system 'captures' is, of course, a very interesting question, but in terms of a kind of consciousness, an awareness, a presence, a way of being, an availably open knowledge system inside of the witnessing or the relationship with the other or the world. Maybe with an audience you can see or sense in some way, and I find that intriguing, so that's something about finding a kind of evolutionary notion of what that kind of embodiment means now as we keep on doing the things that we do. I suppose I am my own laboratory, but what I experience in this laboratory only happens because I am placed in a large laboratory and there is a kind of fall between that research and it comes out in different ways, that's why this constant change.

Glenn: So, you're talking about your body being enmeshed in various technological and cultural systems? You're also talking about the history of your body and your experience.

Hellen: A ballet. A code. 1st, 2nd, 3rd, 4th, 5th.

Glenn: Right. I'm intrigued by the ways we interact with everyday technology. For example, watching television used to be a very definite kind of experience in terms of attention. Today, we are distracted by a myriad of devices and a surfeit of information. If my phone rings or vibrates, I will answer it while keeping an eye on the television screen, which is often broadcasting text with images. I might also be browsing the Internet on my tablet while supposedly watching television.

Hellen: Yeah, it is the speed of interaction and iteration – you feel nervous if you lose your mobile, and you put it in your bedroom. Is it beside your bed?

Glenn: Absolutely, it's under my pillow sometimes!

Hellen: Are we worried about this?

Glenn: I am worried.

Hellen: I am, too – that's my question, and it's a big one. There is no one answer.

Gorkem: It sounds like you're suggesting that these technologies actually question the nature of being. Does your creative work function in the same way?

Hellen: Yes, I know what you mean, but if I just let it go completely and I'm not in that system, I go somewhere else in nature. I can suck it up quickly and in so many different ways. I don't mean that it's about speed; it's an acute awareness of minutiae. And that's interesting.

Gorkem: I guess my question is really about performance. Historically, performance predominantly involves live people using various tools. These technologies we are using and talking about now, are they just tools? Are they fundamentally different to the mask or costumes or lighting?

Glenn: Well, I think the answer is yes and no. Contemporary technologies are tools, but I think they exert a more profound effect on our being in the world. Almost all of you are responding, in your creative work, to ideas or aspects of the contemporary world that you want to interrogate. Technologies like mobile phones and computers are part of this everyday world.

So, to put it in your terms, Hellen, what happens to us when we are enmeshed in various technological systems? And what happens when we get rid of all of the distractions – the incessant buzzing, beeping and ringing? Do we become more attuned to being in the world? I guess I'm

gesturing towards the Heideggerian critique of technology, which issues a warning about the consequences of technology. Basically, Heidegger argues that we have reached a point where everything in the world can be made available for human use (standing reserve).

In other words, everything is a resource, everything can be stored, collated and quantified. We can store data, energy, food and so on, and can draw on this standing reserve for various purposes, and this has dire consequences for how we live on the earth.

David: And technology is something that is making us – not because of what it is, but because of the way we use it. It is forcing us to look at the world in a different way. In terms of what we do as artists and the kind of work we make, technology changes what we do and how we think. I think it's the evolutionary point that we are at. So, yes, if you get interested in a certain way of thinking that's inspired by using technology in a certain way, then it will take you into another place of art-making. But all it's doing is opening up windows for you, it is not the thing itself, it is the way that you interface and work with it.

I think this point is crucial, because it's about artistic agency, and not just our agency as artists but also our agency as citizens. I think we are at the point of being able to translate what we do, in terms of our relationships with technology, into creating a society that we may not have been able to create before, and unless we do that, then the machine of power that you've raised, in terms of Heidegger's critique, will materialise. But if we do become artists who are active citizens, then that will not occur, or it will be resisted and it will be diverted and it will metamorphose into something else altogether.

Julian: I would like to talk about this issue in simple terms because we are, generally, suspicious of new technologies – because of the non-reliability issue. But one of the things that we found ourselves doing was asking

this question: 'Can we use this technology – headphones, iPods, things that cut you off from interacting with the world and with other people – in a way that opens things up?' So, technology is here, it's going to get more and more embedded into our lives. What can I do to see if it can facilitate human connections, relationships, liveness and presence? So, that was one of the things we found we were doing with *en route*. That was the work's social agenda, in a way. Perhaps all of our work is trying to facilitate an enhancement of the individual's imagination. What we found going back to audio work was that people were freed of the visuals. I am not a fan of film – I find it a cold medium and pervasive, it enters me too deeply and I don't like that. I feel it robs me of my agency. Film doesn't even care if I'm there. So, it was a relief to get rid of images and through audio, which allows people to make their own pictures. They're making pictures rather than receiving pictures and I think that's just a bit of relief for some people.

Tamara: In one of her books, Janet Cardiff, who works a lot with audio, talks about a space of intimacy that is facilitated when the listener hears her voice through headphones – in that moment, I'm allowing her to enter into me in a way that I would feel extremely uncomfortable if she were standing right beside me, whispering into my ear. There is a commonly held idea that the iPod closes us off from the world, but it can be a way in which to connect with those around us, and the space around us, and potentially the artist whose voice is coming in through these headphones. Small Metal Objects is a great example of putting people's voices close in your ear.

Hellen: I think I saw their performance at Flinders Street. It's not like you would close your eyes; it required the audience to consider the whole environment.

Tamara: Sure. It did.

Hellen: That was the enhancement of the voice into the ears.

Tamara: I'm talking about the use of a particular device and a particular piece of technology. We use what's necessary to manifest the idea, and in that instance it allowed something to occur that wouldn't be able to occur without headphones. The work was also able to occur because digital technology has got to the point where it's affordable and accessible. As a consequence, there's a plethora of audio-based headphone works that are manifesting everywhere. In the 1990s, it was video and now it's audio and I think that's a direct result of the technology becoming accessible and affordable.

David: It's economy of scale, really.

Tamara: Absolutely.

Hellen: I think the world is so busy through our eyes. There is so much more traffic: the lights, the LEDs, the screens. By having so much information directed at our eyes, it becomes a primary source of information as opposed to one source among many. So, it's important to attune different kinds of sensory amplifications.

Tamara: And it's what people do already when they put on their headphones and get on the train – they're placing a sound track around their experience. I was speaking to a photographer yesterday and he was asking about what we were doing in our rehearsals [where the audience wear wireless headphones in a food court], and he said that he always puts headphones on and plays classical music when he is in these places. He said: 'It's theatre'. I said, in reply: 'That's pretty much the idea of this piece – you don't need to come to the show!'

Glenn: I'm interested in the thematic links between the various responses we've had so far. David, you were talking about the artist as citizen, and Julian, you were talking about trying to expand the imagination of people

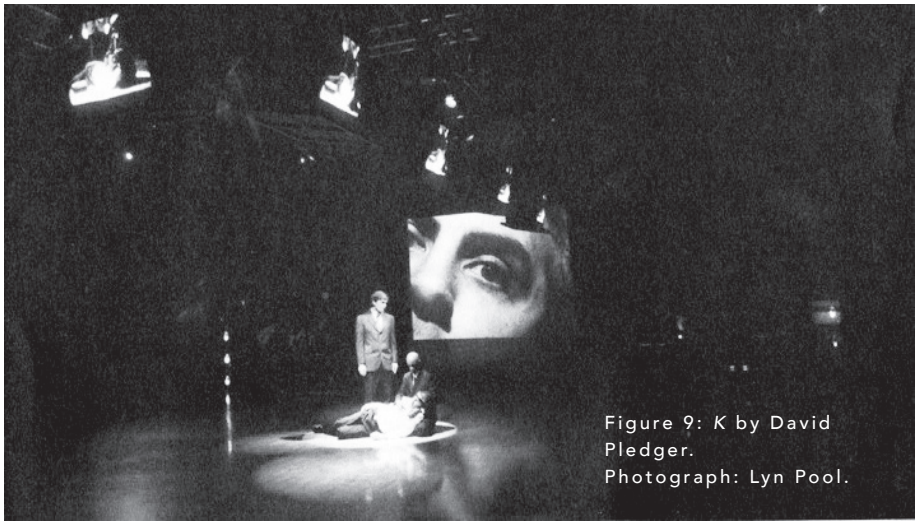


Figure 9: *K* by David Pledger.
Photograph: Lyn Pool.

who interact with your work through technology. It seems that you are both addressing the social and political aspects of your work as artists in terms of turning everyday technologies into something different.

Julian: I would only use the word 'political' if somebody used it on me by saying my work is not political because its content isn't political, which is generally the case with our work. What we really liked about *en route* was for people to quickly go out into the world after the performance and to repeat the experience without headphones, and without the audio, because this demonstrates how people can shift their way of seeing and being. So, if somebody can realise that they can change their perspective, then that, for me, is the only basis for change in the world. And so, that's how I excuse myself, and that's how I'm an apologist for the lack of political content of our work.

Suzanne: With *en route*, we were not delivering content, yet there's a clear structure to the work, so the audience's concentration is focused and supported. We don't make choices for them, so we are less like tyrants or maybe we are just less obviously like tyrants. We definitely don't deliver

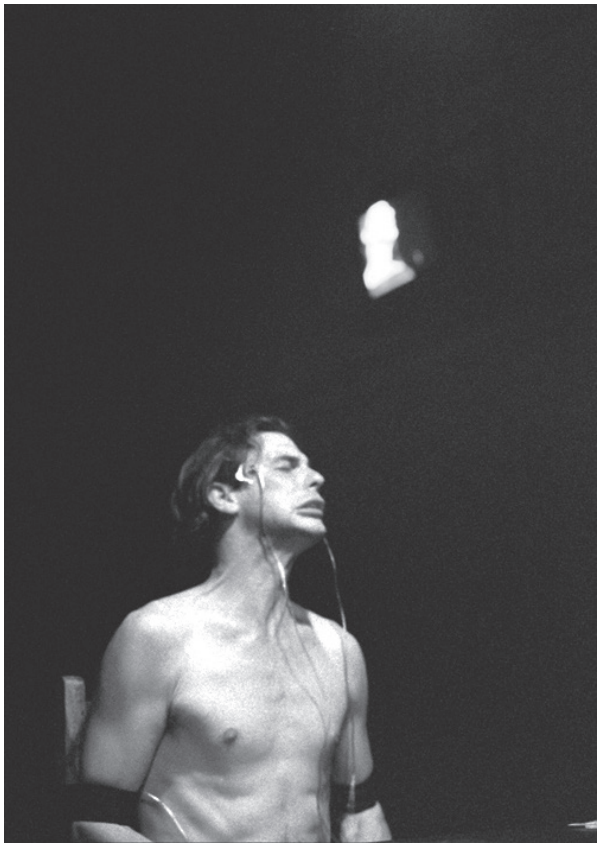


Figure 10: *Blowback* by David Pledger. *Photograph: Lyn Pool.*

a spectacle. That's not necessarily political, but we provide an open field and let the audience make choices within that structure.

David: I would describe my work, probably up until about five years ago, as being overtly political and directly political with respect to the politics of neo-liberalism. The language of the performance work I have made has been created in order to expose the effects that neo-liberalism has on democratic society.

In Australia, I think it's quite hard if you say your work is political. If you say this, you are fucked, because people won't program you – because we operate in a very conservative programming environment. As an artist, you go through those stages in your work where you come to junctures at various times. It doesn't happen once or twice, it happens many times.

Democratic societies have actually come to a state where there is a disconnection between political culture and civil society. So, citizens are actually looking for what they don't get in that democratic equation, because it's broken and they want to participate. And so, participation almost becomes a revolutionary act – it can be quiet and very subtle, or it can be very direct. I think the social languages created as a result of technology (through social media such as 'participation' and 'sharing') have the possibility of producing a new kind of democracy. I think technology has the potential to help to make this happen. In terms of artistic practice, artists need to make those connections much more directly and to be much more active in society, in order to play their role, because, if they don't, then what has been called 'democratic society' – a society in which human beings exhibit humanness and intimacy and can take care of each other and are responsible for each other – is at risk.

We are living with a set of values that are essentially undemocratic and I think that artists need to challenge this state of affairs through their practice. They need to join the dots, so we don't become insulated from what's happening in the world. I think this is what many of us want to do, which is to be part of the conversation.

Gorkem: Concluding remarks?

Tamara: I think it's interesting that the one thing that people really didn't want to talk about today was technology. And I think that's instructive, because artists are compelled by ideas, by convictions, by fascinations, by questions, by interior murmurings –technology is just an extension of those compulsions.

BEWILDERING BEHAVIOUR: PRACTICE AS RESEARCH FOR AUDIENCES AND OTHER CREATORS OF IMMERSIVE PERFORMANCE

Robert Walton

Great claims have been made about the efficacy of immersive performance works that are 'open' and 'relational', by Kershaw,[1] Rancière,[2] Bourriard,[3] Machon[4] and others. In 1999, Kershaw noted that such works 'can somehow create access to new sources of collective empowerment'; [5] a decade later, Rancière identified an attempt to 'relaunch' the 'form of the total artwork' and so offer strategies to create an 'emancipated spectator' by means of '[re-]distribution of the sensible'.[6] In 2013, Machon made the major claim that her interviews with leading British immersive theatre practitioners 'prove Bourriaud's theory that relational artistic activity can become a democratic means for positive societal and communal interaction'.[7] From the same interviews, Machon is also able to corroborate Bourriaud to 'identify the ongoing demand for immersive practice as an antidote to the alienating experiences of globalisation and virtual socialising and networking'.[8] These claims are founded on the proposition that immersive artworks can 'activate the full range of the human sensorium within and across perceptual, emotional and intuitive dimensions of experience and interpretation'[9] and, crucially, that they redistribute agency within the work in such a way that the audient must move beyond the role of 'passive spectator [to] that of scientific investigator or experimenter'.[10]

What would happen if Rancière and those who have made similar claims were taken at their word, causing spectators to be seriously considered investigators, experimenters and therefore researchers? If an artwork positions its audience-participant as a researcher conducting an experiment in order to collaborate with it in the discovery meaning, as is the reported aim of much immersive work, what are the implications for knowledge production? In order to understand this turn, I will examine some of the implications of refocusing practice as research (PaR) methodologies from the 'expert' researcher to the 'everyday' audience. Immersive theatre experiences deliberately bewilder their audiences as a strategy to rehearse new behaviour in the 'real world'. This is approached as 'methods of bewildering' from the perspective of the artist-researcher creating an immersive performance. This in turn creates the need of 'tactics for the bewildered' that offer a way to begin conceptualising the application of PaR methodologies to audiences positioned as researchers. Finally, in recognition that practitioners, researchers and audiences are already immersed in everyday life, I offer a model of 'everyday practice research' that might be useful in re-imagining the entrenched dichotomies of practice/research and art/theory.

Recent developments in Practice as Research (PaR) reveal it to be an increasingly useful and legitimate 'third species of research',[11] with its main articulation emerging from the specialised embodied knowledge of the 'professional' artist-researcher. An aim of arts research within the academy

has been to legitimise the knowledge held in artworks as a disseminable outcome of research findings. However, as stated above, many immersive artworks position their audience-participants as researchers conducting an experiment in order to collaborate in the discovery meaning. More than most other forms, immersive performance has pursued Bourriaud's conception of 'relational aesthetics'[12] and Umberto Eco's approach to the 'open work'[13] to the extreme. First, many immersive artworks require the audience-participant to instantiate them – that is, to activate, enliven and sustain them performatively. The medium of the work is the live relationship between the people within an environment rather than a finished art object, film or play. Without this instantiation, the work itself does exist. Second, many immersive works incorporate the relative specificity of the individual audience-participant's perspectives and history to create open works that allow plurality of meaning and experience. Both of these features point to the unfinished nature of the artwork, and the need of the audience-participant to complete it. Thus it is necessary to examine open and relational immersive works from a PaR perspective twice: once to understand the artist-researcher's work in the construction of the event of encountering the artwork, and then again to understand the experience of the audience-participant, positioned as researcher, who makes the work happen and imbues it with meaning. Ultimately immersive artworks challenge established research paradigms as a mode of dissemination as they do not present a final, stable product of research, but rather the experiment itself, which the audient must carry out to discover their own findings. Thus immersive work's potential as the crucible in which to catalyse the inherent epistemological problem of knowledge, its translation and dissemination is made clear: a form that does not present complete 'truths' as findings, but gives rise to findings that the individual will complete as lived 'truth' realities by means of sensory emplacement.

The question is: what methods does an audience member have in order to conduct an inquiry though an immersive work? Audiences have prepared for immersive theatre by being immersed in what de Certeau termed the

'practice of everyday life'.[14] The tactics which de Certeau identifies in his work may be useful for understanding how audience-researchers in immersive performance operate through the 'experiment' that the artist-researcher has presented them with. Lefebvre's examination of *The Production of Space*[15] and his *Critique of Everyday Life*[16] will also provide a framework in which to explore the experimental parameters of the emplaced audience researcher in immersive performance. Both de Certeau and Lefebvre point to the conception that immersive performance should be seen in relation to the 'everyday' from which it emerges and dissolves. This relates both to the construction of the space of immersive performance and also to the 'everyday' tactics that dictate the behaviour of those who enter it.

BEWILDERING BEHAVIOUR

The verbs 'to behave' and 'to bewilder', though not commonly dichotomised, provide a useful image for my theory of everyday life and immersive performance. From the 15th century, the English verb 'to behave' meant 'to have or bear (oneself) in a particular way, [to] comport', whereas prior to that in Old English it meant 'to contain', which evolved into the modern sense of 'self-restraint'.[17] Key to the contemporary sense here is that of doing what one is supposed to, though desire or opportunity might compel otherwise, because the benefit of self-restraint has been learnt, habituated or otherwise internalised. One has to learn and one is taught how to behave. On the other hand, the ancient Proto-Germanic word *wild* – 'in the natural state, uncultivated, undomesticated' – led in the 1680s to 'bewilder', meaning to 'thoroughly lead astray, lure into the wilds'.[18] Modern usage moves away from the etymology by focusing on the effect of luring into the wilds in terms like disorient, befuddle, puzzle, confuse, and, importantly, to lose one's bearings. Both words move in opposite directions, one to contain, make knowable, civilise and make safe, and the other to release, make unknowable, primitivise and make dangerous.

It is the cyclical flow between bewildering and behaving that I wish to draw attention to in terms of experiences that lead to knowledge. I propose that the rupture of the wild and unknown and the process of taming and constraining can lead to new kinds of knowing. In this sense, the cycle of bewilderment has parallels to Deleuze and Guattari's 'relative deterritorialization'[19] that is always accompanied by a 'reterritorialization',[20] which is less a departure and return to the same territory, and more the occupying and moving through territories which causes an accumulation of experience that changes the territory itself. Thus comes the realisation: 'How could movements of deterritorialization and processes of reterritorialization not be relative, always connected, caught up in one another?'[21] However, 'there is a perpetual immanence of absolute deterritorialization within relative deterritorialization'.[22] Therefore the possibility of absolute bewilderment is akin to 'absolute deterritorialization', where neither a return to known behaviour nor the possibility of reterritorialisation is present. This state of utter bewilderment resonates with Deleuze and Guattari's 'pure plane of immanence',[23] which is most close to being *wild* in the sense of a holistic corporeal experience prior to the compartmentalisation of civility. Bewilderment is viewed pejoratively from the perspective of the well-behaved and it must be tamed; it is not a state to be lingered in. However, bewilderment can engender 'a childlike excitement for curiosity and adventure'[24] for immersive theatre audiences. For the bewildered, behaving and the internalised stricture of civility are anathema as they represent division of the senses in the suppression of the material circumstances of the body in relation to its immediate environment. Machon builds upon Deleuze to note that 'wholly immersive theatre experiences bring about the feeling of "pure plane of immanence" or "absolute, immediate consciousness"'.[25]

Immersive theatre can create the circumstances for such bewildering experiences for its audiences, and so lead them to the discovery of new knowledge. This knowledge is not on the order of 'hard facts' but of what Nelson (after Marina Abramovich) terms 'liquid knowing … it is something that

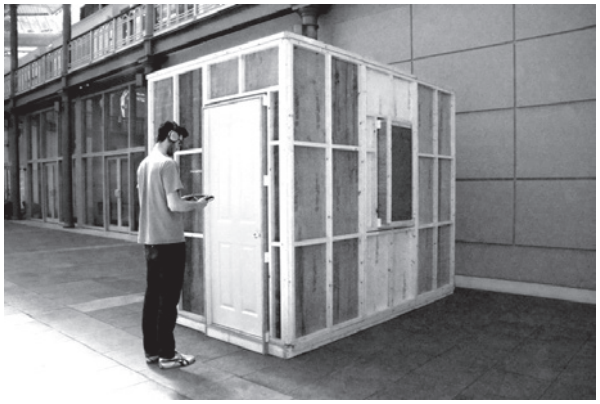
flows through your system'. [26] So it is possible to associate 'hard facts' with behaving knowledge, which is objective, transcendent, disembodied and convenient to disseminate in words or numbers, and 'liquid knowing' with bewildering knowledge, which is subjective, immanent, embodied and inconvenient to disseminate through the academy's preferred channels. However, as Nelson points out, 'hard knowledge and liquid knowing need not be seen as two sides of a binary divide',[27] and like both behaving and bewildering, deterritorialisation and reterritorialisation, they exist in the accretions of flow across a continuum.

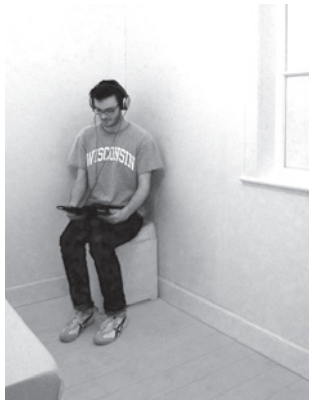
Immersive performance draws attention to the states of behaving and bewilderment and the processes by which one becomes the other. Particularly, it explores how bewilderment might be the nascent state of better behaviour and new kinds of knowing. In this sense, it is points to an epistemology of crystallisation, where liquid knowing precipitates hard facts. In time, we might expect the 'best behaviour' to be bewildering, especially for artists behaving as they should be, badly. For artist-reseachers creating immersive theatre, it is important to understand the 'methods of bewilderment', while for audience-researchers it becomes essential to develop 'tactics for the bewildered'.

METHODS OF BEWILDERMENT: *ALMA MATER* AND THE ETHICS OF IMMERSION

Alma Mater [28] has been described by its creators, performance group Fish & Game, as a 'filmic tour for one' and by *The Independent* (a UK newspaper) as 'the world's first piece of iPad theatre'.[29] *Alma Mater* uses mobile high-definition video with high-fidelity original music to create an artwork that sits between theatre, film and installation. Individual audience members enter a specially constructed, full-scale child's bedroom to immerse themselves (via iPad) in the world of a little girl in this handheld, 21st-century fairytale.

The artwork consists of a 20-minute silent film with a complementary musical soundtrack screened on an iPad, and a theatrical set that is a precise





Left, Figure 1: Audience member outside the *Alma Mater* set at the beginning of the performance. Right, Figure 2: Audience member inside the 'blank' child's bedroom during the performance.

replica of a child's bedroom, complete with bed and stool. The audience member holds the iPad and wears noise-cancelling headphones throughout the piece while the film is played back. Beginning at the door to the bedroom, the film depicts movement through space (the trajectory that the camera took when shooting the scene) that the audience member replicates. In this way, the movement in the film causes the audience member to recreate action that took place in the room and encounter characters that were also once present there. The audience member is completely alone in the room and may choose at any moment the extent to which they will recreate the movement; some people choose to sit still and not engage physically while others become fixated on aligning the iPad to the shots very precisely.

There is no correct way to 'do' *Alma Mater*, and no rules of behaviour are prescribed. Unless the audience member has experienced a work like *Alma Mater* before, they are unlikely to have a precedent for how to 'do' the work from their everyday experiences. Beginning the piece, the audience member literally takes a step from the everyday world where the appropriate behaviour is known into a bewildering situation in which they must occupy the position of not knowing until they discover how to behave. They are completely alone in the child's bedroom, and so must make these discoveries themselves in

relation to the iPad and the environment. In this respect, *Alma Mater* chimes with Machon's description of immersive theatre work as it 'offer[s] law-breaking conditions to roam free, take risks, be adventurous' and is 'specifically designed to immerse the individual in the unusual, the out-of-the-ordinary, to allow her or him, in many ways, to become the event'.[30] And while there is only one person in the performance, the audience member, Machon uses Grau's writing on virtual reality to identify that

> 'the interface is key to the media artwork and defines the character of interaction and perception', resulting in a 'profound feeling of embodied presence', where the 'physically intimate design of the human–machine interfaces gives rise to such immersive experiences' that the work can reaffirm the 'participant's corporeality'.[31]

In a 2013 article, I described the experience of *Alma Mater* through a close reading of Bachelard's *The Poetics of Space*, observing that it was 'a ritual that performatively enlivens and foregrounds the embodied experience of topoanalysis [32] that gives rise to the participant's nascent ability to enter an oneiric state of imagination in a waking dream: an embodied translation'. [33] The fully absorbing oneiric state that Bachelard describes so vividly draws its power from the meeting of awareness of the present moment with the memories that it calls forth.

In the same article, I combined this sense of absorption with Lefebvre's spatial triad in order to elucidate how individual participants are re-centred as the site of (meaning in) the work because of the specificity of their emplaced experience and situated imagination in relation to the child's bedroom and the iPad. Thus, as shown in Figure 3,

> in its doing, *Alma Mater* articulates a particular combination of the participant's (lived) experience of coming into being in their own childhood home (as with Lefebvre's lived/social *Representational Space*); within the blank set of the room, guided to move by the film and music on the iPad (as with Lefebvre's

perceived/physical space of *Spatial Practice*); with the iPad this becomes a directed, exploratory, oneiric reverie through the staged bedroom, and so to all bedrooms and all dreams (as with Lefebvre's conceived/mental space of *Representations of Space*). [34]

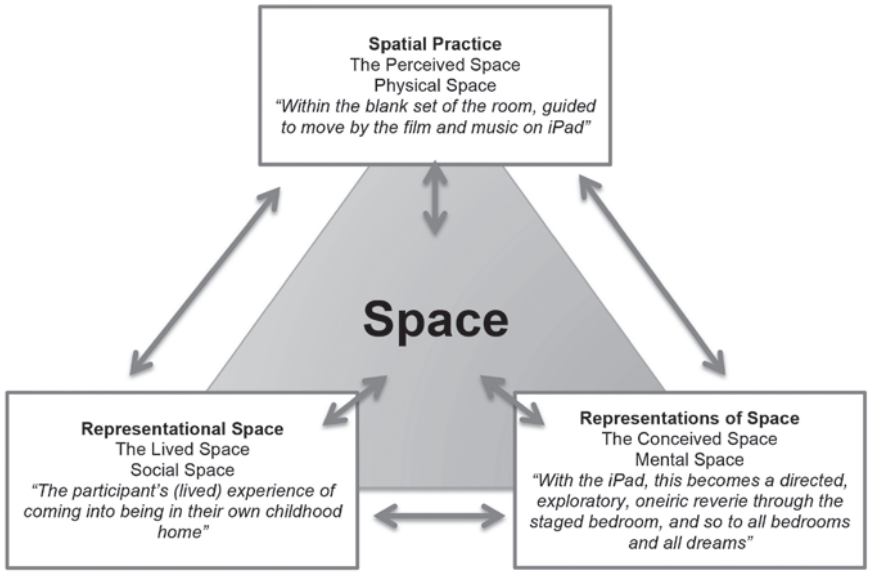


Figure 3: A spatial triad for *Alma Mater*, after Lefebvre, *The Production of Space*, 33.

Lefebvre created his spatial triad to destabilise the Cartesian dichotomy of conceived and perceived space, of the thinking mind and the feeling body, by introducing the concept of the 'lived everyday'. Although boxed in my diagram, Lefebvre insisted that each conception of space overlap with, and potentially contradict, the others. Lefebvre's spatial triad could be combined with Machon's 'scale of immersivity',[35] which also draws upon absorption by and transit through space. Such a combination would include the destabilising pole of the everyday, which immersive theatre emerges from, works in opposition to and ultimately dissolves into. Lefebvre's model incorporates the fact that we are constantly immersed in the everyday;

it is the reality in which we learn to behave and deal with bewilderment. The lessons that we have learned from researching space in everyday life – how to imagine ourselves in relation to space; how to feel ourselves in it; what strictures it prescribes; how it absorbs us and seduces us to move through it – provide the methodology that we need to learn how to conduct an experiment in immersive performance.

According to Machon's 'scale of immersivity', [36] *Alma Mater* offers 'total immersion' by means of engaging the participants absorbingly, allowing them to lose track of time, and in a transportative way which allows them to reorient themselves in an 'otherworldly-world' that is '*both* a conceptual, imaginative space *and* an inhabited physical space'. [37] The intense state of 'total immersion' extends both 'immersion as absorption' and 'immersion as transportation' to give rise 'to an uncanny recognition of the audience-participant's own *praesence* [38] within the experience'. [39] It is in this place and time of total immersion that artworks like Alma Mater might approach the 'plane of immanence' that is the crucible for the emancipative claims of immersive theatre. In this crucible of bewilderment, the strictures of 'real world', everyday behaviour are suspended and the audience-participant 'has the potential to reawaken holistic powers of cognition and appreciation that celebrate and call into play alternative methods of "knowing"'. [40] The claim is that immersive artworks that can mobilise such experiences disseminate knowledge through the senses that would be impossible to communicate through any other form. These works establish a liminal space in counterpoint to the everyday, both 'out of the world' and 'out of time', and operate on the level of pedagogy, training and rehearsal for re-entry into everyday life that encourages participants to 'look and look again, to look with your whole body, to attend to (as in to be truly *present* in giving attention to) the situations, narratives and ideas all around you'. [41]

Rancière acknowledges that the pursuit of such affecting, immersive practice attempts to 'relaunch … the form of the total artwork' [42] and, as such, pursues modernistic ideals like the sublime and the use of art to better

society. For Machon, immersive experiences are political, and equally ideological because such 'shows' have the power to be

> transformative, like a rite of passage, where one can be personally and positively changed through the thematic concerns of the event, communicated via its experiential form. [43]

The question remains of the ethics of who is to be 'positively changed' and 'into what?' The desire to seek change in others is ideological and not neutral. In creating the experimental circumstances of immersive performance, the artist must decide whether they are experimenting with the audience to create meaning, or experimenting on them. Is the participant a co-researcher or a test subject? This issue is keenly *felt* in immersive practice as the knowledge involved is embodied, 'liquid knowing'; however, it is a macrocosm of the epistemological problem of any new idea that has the potential to change whoever absorbs it, though this is not often considered a problem for well-behaved 'hard facts', which are perceived to be transparent or 'neutral'. Nelson notes that 'there is no secure, neutral basis for establishing objective knowledge in any discipline'[44] and that it is now 'widely recognized that language is not a neutral medium but a structuring agent in the perception of reality'.[45] Thus, if immersive performance is to be considered as a means to disseminate research findings as a 'structuring agent' and engage audiences to be co-researchers employing a PaR methodology, then 'a modern sense of "standpoint epistemologies" [could] lead researchers to reflect upon their own ideology and values ('where they are coming from') in relation to the cultural practices of the object of study'.[46] However, the 'difficulty' presented by bewildering 'liquid knowing' should not undermine 'commitment to the possibility of cognitive and perceptual transfer' [47] that might only be possible in immersive performance. This is the fundamental offer of the medium to 'produce *new knowledge* or *substantial new insights*', [48] as Davey notes that

> If concepts and ideas are not capable of infusing sensibility with intelligible sense and if sensibility is unable to mediate abstract concepts and render them perceptibly incarnate, then the ability of an artwork to address us would be severely impaired. [49]

In developing methods for bewilderment, the artist-researcher should consider the ethics of seeking to cause bewilderment. What purpose does bewilderment serve and in who's interest is it invoked? Is the audience-participant a co-researcher or a test subject? As identified, immersive theatre is widely vaunted as efficacious and affective. Its powers are well known in classrooms, community gatherings, immersive training simulations, role-playing games, BDSM clubs, hell houses, psychiatry and as a tool for propaganda, martial arts and torture. Bewildering immersive performance has potential as an excellent tool for ideological change. The ethics of immersive performance and the positioning of participants as co-researchers require careful examination on a case-by-case basis and this aspect demands further study.

TACTICS FOR THE BEWILDERED: PROTO-PERFORMANCE AND LIMIT EXPERIENCES IN *ALMA MATER* AND *THE QUIET VOLUME*

> [T]he role of artworks is no longer to form imaginary and utopian realities, but to actually be ways of living and models of action within the existing real. [50]

> Are not the surreal, the extraordinary, the surprising, even the magical also part of the real? Why wouldn't the concept of everydayness reveal the ordinary in the extraordinary? [51]

These two conflicting quotes, the first from Bourriaud and the second from Lefebvre, speak respectively to the continuum of behaving–bewildering. While both highlight the fact that art is created in relation to and from 'the real', Bourriaud seeks a pragmatic, utilitarian means to practise everyday life

that is well-behaved, while Lefebvre draws our attention to the bewildering events that rupture the everyday and give it texture as the ground for all extraordinary things. This spectrum of relations to the real highlights the ideological tension between imagining and constructing spaces that seek to offer perspective on it. Each immersive artwork establishes a specific ideological position in relation to the representation of 'real' everyday life (its method of bewildering). This, in turn, requires the audience-participant to employ tactics for resistance that prescribe the level of bewilderment that they will tolerate in an encounter. For all the hopeful excitement about the emancipative potential of immersive performance, the pedagogical reality of these works can resemble ideological retraining, coercion and disempowerment. I will examine the tactics for dealing with these methods in immersive artworks through the heuristic lens of proto-performance and limit experiences.

In 'When Is a Performance?: Temporality in the Social Turn', Wilson usefully attempts to draw together Bourriaud's 'relational aesthetics' and Schechner's notion of 'proto-performance' through a series of case studies ranging from installation to choreography and immersive performance.[52] Wilson asserts that the narrated headphone piece *The Quiet Volume* by Ant Hampton and Tim Etchells is more a *proto* than a *final* performance because the participants enact instructions to the best of their ability, not knowing what the required standard is or what will come next. There are no performers other than the participants. While Hampton and Etchells 'do not point overtly towards the process they underwent … to create their performance text' as other proto-performance-makers might, 'the performance itself … plays out more like a rehearsal than a public performance'.[53] It is the bewildering 'process, of listening, of trying to forget how to read and to learn to read again' [54] that illustrates the potentially transformative power of immersive, proto-performance in 'emphasizing the less defined, but also perhaps less constricted, affective journeys of participants and publics as the foundations of social change'.[55]

Wilson's description of the experience of *The Quiet Volume* highlights a similarity with *Alma Mater* in terms of a shift away from the participant's

'distant passivity' in the 'final performance' towards the participation in the social turn of the 'proto-performance'. However, in contrast to *Alma Mater*'s visual and wordless instructions, it is worth noting that *The Quiet Volume* is a quintessentially textual piece about words and reading that is set in a library and operates on the level of spoken text. *The Quiet Volume*'s combination of elements – the authoritative voice that teaches how to see or 'read again'; the voice's disembodied nature that highlights the absence of the artist/originator; the potentially threatening intimacy of the voice in quiet proximity to the ear; being made to be the performer in public space; not knowing what you will be asked to do next until a new instruction is given; and ultimately the exclusive use of spoken word (the voice of God?) to communicate instructions, orders or commands – might give rise to some of the paradoxes of relational, immersive works which seek to 'close the gap of subjective separation' but often 'culminate as an arrest at a limit' that 'denies the agency of the spectator/participant; and … foregrounds the relation between participation, seduction and the suppression of will'.[56] As in conventional text-based theatre, *The Quiet Volume* uses verbal language (the currency of *Representations of Space*, of the mind, of the concept) as the origin of and impetus for action. Thus the work operates on the order of the spell to animate the participant's body, like the playwright's lines that an actor speaks to become the character. And like an actor in the first read-through, the participant thinks, as Wilson did, 'I want to do the performance well, to get all I can out of it, and as the performance goes on, I learn how it works'.[57] In the immersed state of performance, even without the authoritative artist being present, the participant experiences the almost irresistible urge to be good, to 'do it properly', to play along, and behave well – even if that means colluding in the suppression of one's own agency and will.

How, then, might bewildering new immersive theatre experiences be created that seek to lead astray, away from the containment of 'good behaviour', towards proto-performance that require the practice of resistance, and bewildering 'bad behaviour'? In *The Practice of Everyday Life*, Michel de Certeau

focuses on the 'user' (instead of the audient or participant) 'within power relations rather than the mechanisms of power itself' [58] who might employ what could be considered relational tactics or tactics for the bewildered. De Certeau observes that 'the presence and circulation of a representation' – for example, 'showing' an act of resistance – 'tells us nothing about what it is for the users'.[59] Instead, the user must 'pick up', manipulate and use the representation for themselves as 'only then can we gauge the difference or similarity between the production of the image and the secondary production that is hidden in the process of its utilization'.[60] Thus the opportunity of immersive performance is to enable users to test the utility of new embodied practices and behaviours in a proto-performance of their everyday lives. I will now explain such a moment in *Alma Mater* by means of Gritzner's use of the 'limit experience'.

Gritzner's articulation of 'limit experiences' in 'formless' relational performance, where 'participation is claimed to engender the form or rather the formation of the event', identifies an issue with relational art's predicated desire to 'eradicate the separations between performers and observers, presumably "active" doers and "passive" onlookers'.[61] In some works, the desired 'eradication of separation' is inverted by the limit experience 'where a suspension of mediation makes relating impossible and throws the very notion of participation into crisis'.[62] From the beginning of *Alma Mater*, the participant is at the limit experience, as at any moment they might 'get it wrong', get lost in the work and 'break the spell' of the performance. So strong is the desire not to be bewildered that this has the effect of participants over-compensating by being 'extra good', on best behaviour, even though they are alone in a room without any witnesses. The increasingly docile participant continues to follow the prescribed instructions that move them through *Alma Mater* until a true limit experience is reached when the action of the film leaves the bedroom and enters the woods. In this rupturing moment, the film transcends the physical reality of the room and the ability of the participant to interpret and recreate the required movement. This movement beyond the limit returns agency to the participant that results in a sense of relief; they can stop being

Left, Figure 4: Film still from perspective of iPad and viewer inside the child's bedroom in *Alma Mater*. Right, Figure 5: Film still, following a girl running through the woods.

well-behaved for a while. It is as if it is saying 'you need no longer be as good as you thought you should be'. This small rupture of *praesence*[63] coincides with a moment of refusal. This recognisably everyday realisation of self-conscious resistance, elaborately arrived at via *Alma Mater*, 'evoke[s] a limit experience which alters our relation to ourselves and the world, even if only momentarily … operating as something akin to a de-subjectifying experience'.[64] In this moment, the user realises that 'the spirit of resistance did not come from beyond or above, but from within'.[65]

The coercive form of some immersive artworks can undo their emancipative aim, causing the audience to withdraw and not 'become active participants as opposed to passive voyeurs'.[66] The aporia of the ideological desire to emancipate spectators occludes a common experience of immersive performance that, contrary to the desire of the artist, reinforces the behaviours it seeks to dispel by creating active voyeurs and passive participants. This point is fully articulated in/as *Artificial Hells* by Claire Bishop.[67] However, movement beyond a limit experience offers the opportunity to practise resistance to a presented reality. As Kershaw points out, it is this radical practice that bewildering art contributes 'as a dynamic force for exploring "community", "agency", "coercion, control, cohesion and collective power" via "immersive participation"'.[68]

Building on this example of the bewildering limit experience that might lead to new everyday behaviour, I would like to briefly make two useful

corollaries to PaR and the position of doing-knowing/knowing-doing. The first is that in immersive performances like *Alma Mater*, the user becomes the site for embodied knowledge, and not the performer/artist as in some other modes of PaR. The user becomes an involuntary topoanalyst and an audience-researcher who does 'not merely "think" their way through or out of a problem, but rather they "practice" to a resolution'.[69] Second, and most controversially after Clifford Geertz, that 'reiterated form' (as in de Certeau's second image hidden in the process of its utilisation), 'staged and acted by its own audience, makes (to a degree, for no theater ever wholly works) theory fact'.[70] Ryle corroborates this point in his conclusion that 'overt intelligent performances are not clues to the workings of the minds; they are those workings'.[71] This is the dissemination of the audience-researcher's findings from their PaR methodology that enables to them to experiment through bewildering immersive performance and, by extension, through their everyday lives.

WHAT ELSE FLASHES FROM THE EMBERS OF THE EVERYDAY? TOWARDS A PRACTICE AS RESEARCH MODEL IMMERSED IN EVERYDAY LIFE

The challenge presented to PaR by immersive performance practice is to take Rancière at his word and consider the movement of the spectator from the role of 'passive spectator [to] that of scientific investigator or experimenter'.[72] This is a shift in focus from the 'expert' artist-researcher to the 'everyday' audience-researcher that creates the need for two methodologies: first, for the artist creating immersive experiences, the 'methods of bewilderment'; second, for the audience who deploy the 'tactics for the bewildered'. The tactical methodology that an audience member uses to behave or be bewildered in an immersive artwork is drawn directly from their practice of everyday life. Bewildering experiences can create a thawing of everyday behaviour and

enable reconnection to 'liquid knowing' in immersive art. Further, including the destabilising pole of 'the everyday' to entrenched binaries helps to liquefy research to consider new modes of dissemination in closer proximity to lived experiences. If an 'everyday' audience member can lead their own investigation and experiment through a bewildering immersive artwork, they can also act similarly in the 'real world', as de Certeau, Lefebvre, Bachelard and Rancière point out. While immersive artworks demark special times and places for their bewilderings to happen, each emerges from and dissolves back into the 'everyday world' in which both artists and audiences are already immersed. However, such events do offer the possibility to practise resistance to coercion and, whether that resistance succeeds or not, the audience-researcher will absorb the experience as 'liquid knowing' which might lead to 'hard(er) facts' about themselves or the construction of their reality once the event is over. In this way, immersive performance works less as a means to disseminate 'finished' research findings and more as a recreation of an experiment itself, which invites the audience to become the practicing researcher who makes their own findings. It is the experiment that is disseminated by immersive performance, not the findings.

> Art is the flash that rises from the embers of the everyday.
>
> *Jean-François Lyotard*[73]

Building on Lefebvre's spatial triad and its application to embodied translation in immersive performance described above, I would like to offer a second model that may be of use in the reconceptualisation of the problematically intransigent dichotomy of practice/art versus research/theory. Both art and theory, like both practice and research, emerge from and return to the everyday. There is never direct access to knowledge or, as Papastergiadias notes, 'to life – language, culture and the psyche are always inextricably interwoven in our every effort'.[74] This interweaving of our daily efforts carves out a circulating discursive space for praxis from the different modes and moments of our lives. The tactics that we employ in everyday life can enliven our 'professional' work. Alan Read insightfully observed that 'both theatre and everyday life can be made

to seem mysterious and it has been the prerogative of professionals to sustain this mystery while apparently deconstructing it'.[75] Yet my suggestion is that by engaging with and acknowledging our lives in our practice/art and research/theory, we might reveal new insights in both. Lefebvre's intention with his life's work on the everyday was to create 'a revolutionary spatial consciousness' that would lead to his 'goal of a spatial praxis' and the demystification of space.[76] As practitioner-researchers, we must move to Papastergiadias's understanding of 'theory as operating within, rather than above or beyond a specific context',[77] which speaks to Nelson's 'practical knowing-in-doing which is at the heart of PaR'.[78] Further, Nelson notes that we must render 'porous the firm institutionalized binary between theory and practice' by employing tactics of 'iterative [and] dialogic engagement of doing-thinking'.[79] Yet the praxis I am proposing seeks to dispel PaR's Cartesian mind and body dichotomy completely by introducing a destabilising third pole. This forms a tripartite, mutually dependent, overlapping and potentially contradictory space where everyday life, practice and research exist together. It asks:

> What is the everyday research and everyday practice? What is the practice of the everyday and the practice of research? What is the research of the everyday and the research of practice?

Thus as Lefebvre hoped for his theory of space, I hope that 'the significance of the concept of the everyday lies in the way it points to the overcoming of alienation'.[80] Specifically, I am referring to the alienation of practice-led researchers in the academy.

Nelson's own tripartite 'epistemological model [for PaR] is dynamic and interactive [where] theory and practice are "imbricated within each other" in praxis'.[81] Nelson's model acknowledges that 'writings of all kinds and arts practices of all kinds might equally be seen as modes of articulating thinking, where "thinking" is not constrained to the abstract and propositional but embraces embodied passions'.[82] Combining this model with the more explicit notion of *their* everyday might allow researchers to more keenly acknowledge the flow between the spaces and times of their theories, practices and lives.

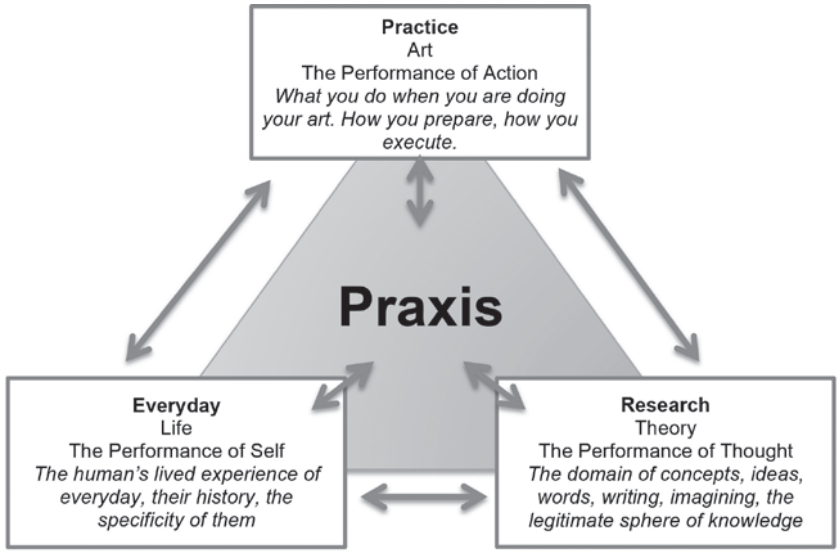


Figure 6: A spatial triad for everyday practice research, after Lefebvre, *The Production of Space*, 33.

Research does not remain in the study when we leave, nor practice stay in the studio, but they follow us through the in-between spaces and moments of our lives, changing the way we see the world, and being changed by where we go. The crystallisation of a theory might occur in the shower. So 'theory and practice are [not only] imbricated within each other'[83] but also within a 'certain sensory fabric'[84]of our everyday lives.

Therefore, for both artist-researchers and audience-researchers engaging in immersive performance, 'the identity of the perceiver and where they are standing have come to be important considerations in framing any findings of the inquiry'.[85] In adopting a tactical, emplaced heuristic methodology, the selves of both artist and audience-researcher will remain 'present throughout the process and, while understanding the phenomenon with increasing depth, the researcher also experiences growing self-awareness and self-knowledge'.[86]

Artist-researchers must resist the institutionalised binary that prioritises theory and research as adult and well behaved, by virtue of representing accu-

mulation, disseminability, and convenient, cold, hard, self-evidently virtuous knowledge. In this binary 'liquid knowing', practice and art become a bewildering 'phase that the adolescent will pass through quickly and painlessly', tantamount to 'subcultural involvement … theorised as a life stage rather than a lifelong commitment'.[87] How many academics 'evolve' from the bewildering art practice of their youth to the well-behaved and respectable research of their adulthood? Thus the practice of art becomes a nostalgic memory to some, glimpsed again through new exotic practices, which become fresh territories to be colonised by old words, a new natural resource to be harvested by research. In fact, it is the everyday that is the fuel for practice and research alike, as both art and ideas flash from its embers.

ACKNOWLEDGEMENT

All photographs courtesy of Fish & Game: http://www.fishandgame.org.uk.

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35 Machon, *Immersive Theatres*, 63.
36 *Ibid*.
37 *Ibid*.
38 Throughout *Immersive Theatres*, Machon uses the terms 'praesence' and 'praesent' to denote 'that which stands before the senses' and 'being at hand', 'in a state of feeling or being present'. See Machon, *Immersive Theatres*, 44, for details.
39 *Ibid* 63.
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41 *Ibid* 82.
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69 Haseman, 'Rupture and Recognition', 147–57.
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71 Gilbert Ryle, *The Concept of Mind* (Harmondsworth: Penguin, 1949) 60.
72 Rancière, *The Emancipated Spectator*, 21–2.
73 Papastergiadias, '"Everything That Surrounds"', 27, quoting Jean-François Lyotard.
74 *Ibid* 27.
75 Read, *Theatre and Everyday Life*, 2.
76 *Ibid* 146.
77 Papastergiadias, '"Everything That Surrounds"', 22.
78 Nelson, *Practice as Research in the Arts*, 9.
79 *Ibid* 19.
80 Papastergiadias, '"Everything That Surrounds"', 23.
81 Nelson, *Practice as Research in the Arts*, 62.
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83 *Ibid.*
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87 Judith Halberstam, *In a Queer Time and Place: Transgender Bodies, Subcultural Lives* (New York: New York University Press, 2005) 174.

WHITE BALANCE: A HISTORY OF VIDEO

Robin Deacon

INTRODUCTION: PART 1

A man sits behind a long, shallow desk. He is surrounded by a series of cameras. These cameras would appear to be non-functioning junk – a small-scale museum of outmoded equipment. The man is staring directly into an operational camera, which in turn relays his image onto a larger projection screen behind him. He holds up a sheet of white paper to the camera, thus obscuring the lens. He speaks. Presumably, the text he subsequently recites is printed on the back of this sheet of paper.

I have often imagined an extrapolated and nightmarish scenario of *total* documentation – of every waking experience having some form of recorded double. This fear would be pathological, imagined as a state of affairs that I myself would have compulsively instigated. Having taken pictures of *all* the things I had ever seen and done in my life, and recorded all the sounds I had ever made and heard from birth to present (or at least from the age of my acquisition of technological aptitude), I would wonder if I had been complicit in a violation of the diktats of proper, particular space and proper, particular

time. Within the framework of this thought experiment, one may be haunted by the idea that the capturing of an image or a sound is to contribute to that creeping sense of collective societal discombobulation regarding the *where* and *when* of things.

I wonder what would happen if I stopped recording – would this usher in a new sense of orientation? Somehow, the thought process didn't stop there. It started to occur to me that it is *all* materials that are displaced, recorded or not – that *all* forms are adulterated, in the wrong place at the wrong time, in an increasingly unnatural order. In this image of the world, everything is out of its place. Everything is out of its time. Therefore, returning all materials to a place of origin becomes an imperative. This return also implies a breaking-down of constituent parts. Now a phrase such as 'breaking-down' perhaps takes us into a realm of destructive behaviours. You may have a breaking-down of things materially. Of things being methodically taken apart, and returned to a prior form. This is not to start again necessarily – just to get closer to the beginning. On the other hand, we have a 'breaking-down' of things psychologically speaking. This would be the desire for a cleansing of the sensory palette, returning to a place where language has been de-learned and all experience forgotten. Picture your body growing backwards to the eventual point of finding oneself lying in a cot, perpetually staring at a white, featureless ceiling, with no way to articulate what this empty frame might mean.

I recall similarly regressive imagery in a particular passage from Kurt Vonnegut's 1969 novel *Slaughterhouse 5*. In this instance, the nature of time is explored in reverse. Throughout this book, the main protagonist Billy Pilgrim keeps on becoming 'unstuck in time', drifting involuntarily between past, present and future. There is one section of the book where he is watching a movie set during World War Two – but in his unstuck state, Billy sees the movie backwards as he moves backwards in time. He sees a formation of US bombers flying backwards over a German city in flames:

> The bombers opened their bomb bay doors, exerted a miraculous magnetism which shrunk the fires, gathered them in cylindrical steel containers, and lifted the containers into the bellies of the planes.[1]

Billy goes onto describe the 'miraculous devices' possessed by the German soldiers on the ground that suck bullets from the bodies of the US airmen. As the film continues to play out in reverse, bodies are steadily repaired and the damaged planes are gradually reconstructed as they fly over Germany, and back to their bases. The bombs and bullets are then taken from the planes to factories where they are defused, broken down to their constituent elements and put back into the ground – out of harm's way. Billy imagines how the soldiers will one day become children.

INTRODUCTION: PART 2

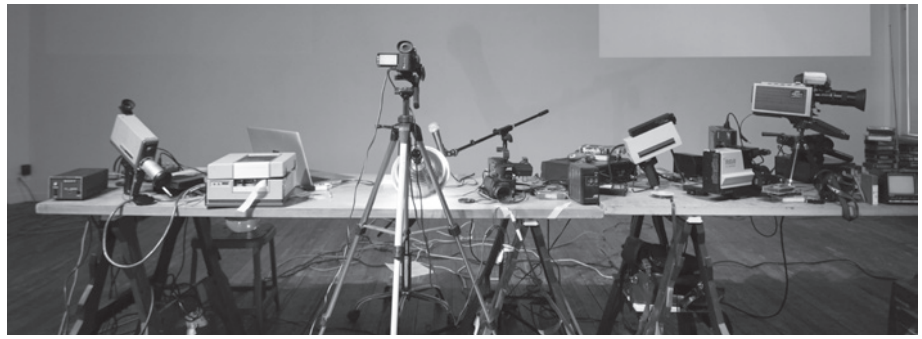
This text is an account of a solo lecture-based performance entitled White Balance: A History of Video. I first presented this work at the New Performance Festival in Turku, Finland, during the summer of 2013. It was later shown as a nine-hour-

long version presented over three days at the Emily Harvey Foundation Gallery in New York during the same year. The images that accompany this text document both of these showings. The title of the performance came in two parts, each with distinct implications: First, 'White Balance' refers to the process by which a camera is adjusted to account for differences in light, changing the relative strengths of colours to reach a truer sense of what is being seen. Interrogating such a procedure (and the questions of relative perceptual experience implied), the performance used a series of outmoded vintage video cameras to explore how our ways of seeing and ways of remembering may be informed by the medium used to capture an event. In considering the performance subtitle 'A History of Video', one may expect some form of story detailing the general evolution of this technology from origin to present day. However, event publicity went to great pains to explain that this story would be told in neither definitive nor chronological terms. Rather, it was emphasised that the performance aimed to explore how the material of video may be utilised to create fictional narratives that could serve to unsettle the notion of video as a tool of verification. Thus the aim was to explore how any story filtered through an electronic recording medium may be subject to misreading and uncertainty.

TIME TRAVEL AND VIDEO DOCUMENT

The man (now author-performer) remains seated behind the desk. He continues to recite the text in the same manner, this time accompanied by a series of cinematic images depicting time travel, teleportation and doubled bodies.

In citing Derek Parfit's philosophical tract *Reasons and Persons*, author and cognitive scientist Douglas Hofstadter states that 'well told stories pluck powerful chords'.[2] Hofstadter tells me Parfit's story of the man who used a teleportation machine, and now, you'll read a version of it condensed by me. This story (by now, third or even fourth hand) exists in two versions, with very different outcomes and implications. In the first version, upon entering the machine, the man will have his body molecularly destroyed in the current space and time, as a means of having it subsequently reassembled (warts and all) in another space and time. This is experienced with a momentary lapse in consciousness, with one awaking in a different place moments later.



The second version of the story goes something like this. There is now a different kind of teleportation machine. Rather than destroying the body for reconstruction elsewhere, the machine merely reads the body, and creates an additional copy of the body in another space and time – this time, without the destruction of the original. Both stories are unnerving, but in different ways. We either have the original body destroyed and replaced by another 'original', or the notion of there being two identical and conscious bodies in two differing places. In the latter example, we could think of this in terms of being a twin through *becoming* rather than birth. And no doubt somewhere, you may have a double of yourself in the form of an image of yourself on videotape taken many years ago – at a family gathering perhaps, or a school play that you were performing in. You may look back at this footage, and such may be the strength of its evocation that just to watch it may be to experience something akin to a form of time travel. This may be a video that evokes so strongly a sense of another time and space, that it's almost as if you had been transported back there. But such notions remain in the realm of hyperbole, with 'real' time travel discussed in terms of a fictional premise or scientific impossibility. However, my interest here is in exploring the interplay between narrative structure and video in a way that throws up similar uncertainties regarding one's sense of time and space recurrent in literary and cinematic representations of time travel.

CONGRATULATIONS! YOU'RE THE FIRST (AND ONLY) BIDDER!

The author-performer remains seated behind the desk. He continues to recite the text in the same manner, but this time begins to physically introduce particular cameras as 'case studies'.

In 2012, I began a process that led me to spend a great deal of time bidding for a series of obsolete video cameras for heavily depreciated prices in online auctions. Obsolescence in this instance would be characterised by the age of the equipment, with the oldest video camera purchased being over forty years of age. So, in biblical terms, the cameras in question represented an 'Old Testament' of video. But in the context of E-bay, where most of these cameras were sourced, this fact was supposedly a contemporary selling point to those of us of a certain age. The attachment of the term 'vintage' or 'retro' to the auction descriptions was the bait. My focus was on sourcing machines that represented marker points in the development of the form of video in terms of artistic practices such as performance documentation, and/or some sense of wider cultural recognition in terms of domestic, everyday usage. It would seem that there were certain cameras imbued with some kind of aura, not just from the look and feel of the footage made, but also in terms of the physical characteristics of the machine that created those images.

CASE STUDY 1: THE JVC GR-C1 (1984)

In the early days of video, the necessary equipment – camera, recorder, monitor and microphone – were separate components that had to be hooked up properly to work. However, the JVC GR-C1 was one of the first domestic video cameras to function as an all-in-one unit. In dispensing with a separate tape deck, its design was instrumental in ushering in the era of the portable camcorder, with its use of compact VHS-C tapes, a fraction of the size of the standard VHS cassette. Instant playback through the camera viewfinder and its bright red design were also distinctive features. However, the sense of

The author-performer introduces the JVC GR-C1 video camera.

this camera as 'miniature' can only be understood relative to its time, in that it seems enormous by today's standards. It is frequently described in E-bay listings as 'The Back to the Future Camera', with sellers citing its 'central role' in the 1985 Robert Zemeckis film as a primary selling point – more on this later. One seller summarises thus: 'These cameras are collectible for so many reasons. They were the first of their type, they offered recording quality that couldn't be matched, they looked cool, and they are a must have for any *Back to the Future* fan! APPROX £2500 when bought new in 1985!'

THE STORY OF FRANKIE AND THE JVC GR-C1 – VERSION 1

Lodging the camera on his shoulder, the author-performer becomes aware of a small raised patch of leatherette padding built into the side of the machine, and pressing against his cheek. He describes a gentle depression in the material as the foam underlying the surface replicates the contours of his face in contact against it. Engaging with the external, sensual qualities of the object, this interaction is suggested to represent a more tangible and physical experience than any one-dimensional image provides.

This story exists in two versions, with very different outcomes and implications. The first version suggests that the following three images are stills taken from some of the only video footage that exists of my family dog, Frankie. I'm told that this footage was shot by my father during a day out to the beach in the summer of 1986, using a JVC GR-C1, the aforementioned video camera originally released in 1984. Recalling the earlier observation of how 'well told stories [may] pluck powerful chords', one might accompany the images with a poignant story of the absence of a pet animal that has long since passed. How one may remember the day that this footage was taken, perhaps not too long before the death of this loved animal.

Aside from the well-documented difficulties of filming or photographing black dogs, we could say that the quality of the images as stills is poor because of the degraded nature of the source material. Equally, the tracking marks and graininess that accompany any video playback may also suggest a fragile and unstable medium subject to failure and erasure at any moment. As music journalist and writer Simon Reynolds points out:

> Our cultural memories are shaped not just by the production qualities of an era (black and white, mono, certain kinds of drum sound or recording ambience, etc.), but by subtle properties of the recording media themselves (photographic or film stock that screams seventies or eighties, for instance) … watching old home movies that are speckled with blotches of colour, or from leafing through a family photo album full of snapshots that are turning an autumnal yellow. It's like you're witnessing the fading of your own memories.[3]

While overlapping concerns of image with concerns of sound, Reynolds' thesis still broadly reflects the same concerns as in this performance, namely, an interrogation of the relationship between what memories look like and what things they were recorded with. This pertains to the sense of another time or place that is not necessarily just dictated by the content of footage. In watching a video within which one is able to see oneself, there may be temporal

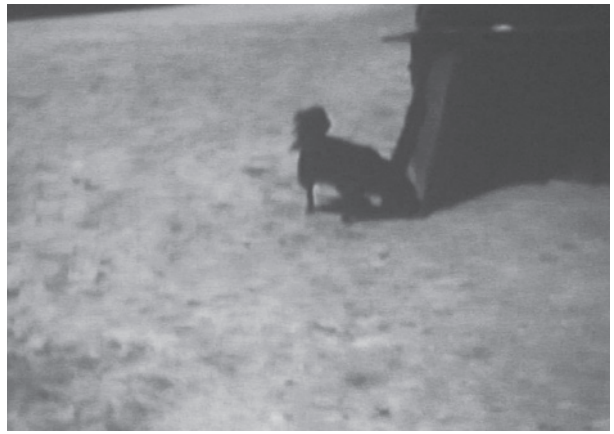


Image A: Frankie can be seen right of centre, his bushy tail only just recognisable, rising directly above his rear right leg. The rest of his body (facing right) may be comprehensible from these marker points.

Image B: Frankie is now just right of centre, moving towards the camera. His tail is still up, pointing towards the top of the frame. His tongue is slightly visible, but his left side merges with his shadow. His right ear (flapping outwards) can be seen just below the centre of the frame.

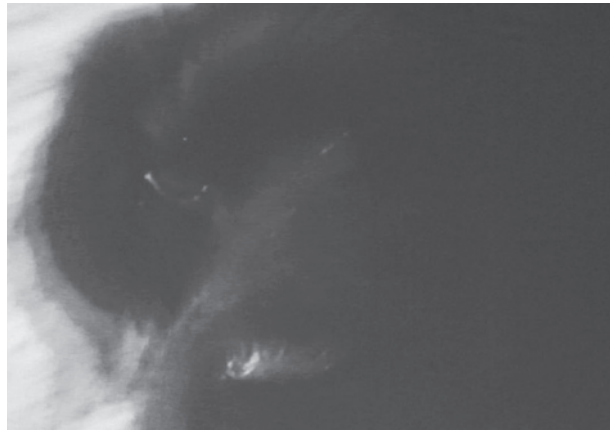


Image C: A close-up of Frankie's face. Again, his right ear can be seen nearest the left of the frame. His snout (although blurred) can be seen towards the bottom centre of the frame. The white of his right eye may just be visible in the middle of the left half of the frame.

pointers such as a location that has not been visited in recent memory, or clear visual evidence of one's own ageing. More poignantly, we may be drawn to the images of people (or animals) who were there, and the question as to whether they are still here. However, what primarily interests me is what the *tone* of the image might suggest – the association of a particular kind of warmth, sharpness or softness associated with a particular video camera or tape format. So there is a particular space and a particular time, but this performance aims to highlight a third dimension – this being a particular recording device and a particular format combining as a vessel to carry the signal.

THE STORY OF FRANKIE AND THE JVC GR-C1 – VERSION 2

The second version of this story goes something like this. The truth is that my family rarely took photographs, and we certainly never had a video camera. Even now, looking through the few albums that do exist, I have always had a sense that I am subject to some form of manufactured familial conspiracy of faked, staged photographs, inhabited by actors paid by the hour to smile. Obscure aunts and distant uncles became fictional constructs. Perhaps this explains my interest in the possibilities for unreliable narration in relation to childhood footage and photographs, and a play with reader or viewer credulity that relies on exploiting the shaping of senses of time that Reynolds delineates. In simple terms, here is how a well-told story may not be the *whole* story. The second set of images you will see show the author of this text on an unnamed beach, holding a JVC GR-C1 video camera, pointing it at what appears to be the same animal as in the earlier stills. The camera used to generate these images was a Sony HVR-A1E, a high-definition camera released in 2007, giving the images a sharpness and clarity lacking from the first set. This would either suggest a time frame of filming at a point of post-obsolescence for the JVC GR-C1, or the possibility that there are two dogs in this story.

BACK TO THE FUTURE: EINSTEIN AND THE JVC GR-C1

The author-performer suggests that to confirm whether or not Frankie is alive and well would certainly serve to resolve the narrative ambiguity emerging from these two sets of images. But rather than presenting the viewer or reader with a happy ending (or otherwise), the interest is in extending the previously implied notion of 'counterfeit' video into broader explorations of seeing and memory.

Marty McFly (alongside Doc Brown) holds a JVC GR-C1 in *Back to the Future* (1985).

Einstein, the dog, prepares to be sent two minutes into the future.

Clearly, the state-of-the-art is contingent, whether we are talking about video recording equipment, or special effects in 1980s science-fiction movies. I hardly need to remind you of the finer details of the plot of *Back to the Future* – the usual potential temporal paradoxes abound, from the near-catastrophic meeting with one's own double, to the clear and present danger of inadvertent incest. In watching the film as a child, I remember that this led to the first instances of my daydreaming of my body being in two places at once in actuality, rather than through some employment of video trickery. But this recollection is also to reiterate the use of a JVC GR-C1 in several key scenes depicting Doc Brown's time travel experiments.

In this scene from *Back to the Future*, Einstein, the dog, is about to be sent two minutes into the future in an experiment conducted by Doc Brown, and documented by a JVC GR-C1 operated by Marty McFly. In watching this scene again in a contemporary context, I wondered to what degree this dog (or any dog) would have the capacity to perceive a two-minute shift in space and time. John Bradshaw's writings on canine perception of time show how the short-term memory of dogs has been investigated experimentally, using a method called 'visual displacement'. How long can a dog remember where something has disappeared from? In such tests, a dog sees a favourite toy being hidden behind one of four identical boxes. Next, a screen is placed in front of the boxes, after the toy has been hidden, so the dog has to remember which box the toy is hidden behind. Once the screen is removed, the dog has to rely on memory recall to find the toy. In terms of time, experiments show that just a thirty-second delay is enough to induce mistakes. After one minute, even more mistakes are made. In terms of space, dogs seemed better at remembering where things had disappeared to relative to an internal sense of their own positions, rather than external landmarks.

Bradshaw concludes that dogs' short-term memories of individual events are fallible, because:

> they are much more interested in working out precisely what people want them to do here and now than in recalling precisely what happened a few minutes ago.[4]

This perceptual framework reflects the kind of documentation that I have started to find much more interesting – that which pertains to *recent* memory, perhaps only a few minutes after an event, rather than the years having passed since 'that thing' you hadn't experienced in its original form anyway. I

now find myself imagining a performance designed for an audience of dogs, being documented by a recording device that will only record in two-minute sections before immediately and constantly recording over what has just been seen – both camera and canine in a near-constant state of amnesia.

CASE STUDY 2: THE SONY AV3400 PORTAPAK (1969)

The Sony AV-3400 was capable of recording 30 minutes of black and white video with mono sound. This camera was extensively used by video and performance artists during the 1970s, and is especially associated with video art pioneer Nam June Paik. The AV3400 portable video systems emerging in the early 1970s have been described by Chris Meigh-Andrews in revolutionary terms:

Robin Deacon introduces the Sony AV3400 Portapak video camera.

> The newly available and relatively inexpensive portable video recorder clearly empowered artists, politically active individuals and groups to fight back against the corporate monopoly 'one-way' broadcast television system.[5]

The understanding of this unit as one of the first to be utilised by artists wishing to question standard systems of exchange and reception of artists' video makes it a significant unit in the development of video and performance practices.

A PEEPING TOM WITH A PORTAPAK

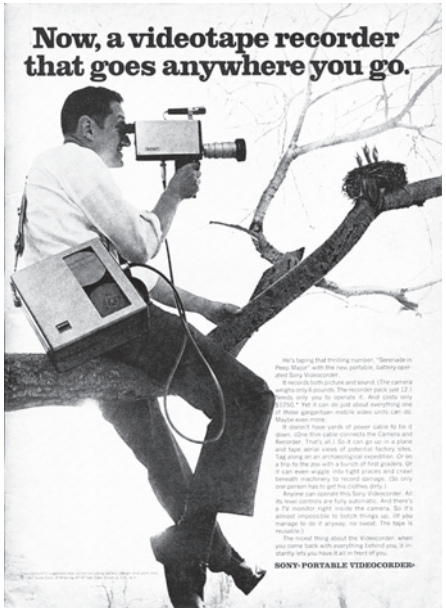
As a point of entry into a broader exploration of the Sony AV3400 Portapak, I will begin by citing Michael Powell's 1960 film *Peeping Tom*, which tells the story of a young camera assistant obsessed by fear, and the desire to capture it on celluloid. This compulsion leads him to murder women, and to record their fear at the moment of their death. Over its duration, the film incrementally discloses the gruesome nature of the murders. The Peeping Tom walks slowly towards his prey, a blade concealed (and then revealed) in the foot of the tripod that he no doubt plunges into the victim's neck.

Of course, working with good old-fashioned film, the killer has to go home and process the films of his murders. And this takes time – time for people to interrupt, and display their suspicions at his behaviour. But with Powell's film nearly coinciding with the dawn of video as delineated in this article, one may wonder about a narrative shift brought about by a change in format. Nine years after the release of this film came the release of the Sony AV3400 Portapak video camera.

As previously described, early manifestations of video equipment (such as the Portapak) were modular, with camera, recorder, monitor and micro-

phone working as separate components that came into dialogue only through connecting cables. My question in the context of this article is: how would the Peeping Tom function using such a camera? Or rather: how would the narrative of Powell's film function?

In the context of these questions, the images advertising this equipment seem even more ludicrous than on first glance. In the first instance, the gentleman perched on the tree branch wielding an AV3400 would no doubt have a heightened sense of the 9-kilogram recording unit slung his shoulder. In the second image (not of an AV3400, but of a similarly compartmented configuration), the ghosted image of the woman suggests a speed and Futurist dynamism akin to a Boccioni painting. But of course, nobody could move as quickly as such an image suggests with a camera this heavy. It certainly would have slowed down the forward charge of the main protagonist in *Peeping Tom* no matter how voracious the gaze. But in using video instead of film, the time that he would have to wait for the images would be no time at all, hence a good deal of the movie's narrative tension would be lost with such a



shift to a (relatively) instantaneous medium. So here, the *weight* of the camera precludes the possibility of murder, whereas the wait for the image would be no time at all.

WILLIAM WEGMAN AND THE SONY AV3400

The sort of images associated with the early Sony Portapak cameras are, to my eyes, characterised by a certain ghostliness – a blurred, dreamlike black and whiteness somewhere between a Chaplin film and a surveillance camera. In terms of the location implied? Let's say any number of American artist's studio spaces in the early to mid-1970s. A good example of the visual flavour that characterises the AV3400 can be seen in William Wegman's early reels (1972–74). Wegman described this unit as being 'supposedly an improvement over the CV format [a previous model]. The deck is somewhat lighter, but I can see no technical advantage.'[6] Interestingly, Wegman also claimed that his subsequent shift from a Sony AV3400 to using Panasonic video equipment in the mid-1970s coincided with what he described as a darker, more obtuse turn in his work.

Left: William Wegman (1973–74), Reel 4: *New and Used Car Salesman*.

Right: The author-performer shows various extracts from William Wegman's video reels series.

One may speculate about this as a conscious artistic decision, or as something seemingly stemming from the Panasonic brand itself – a darkness from within the equipment that will infuse whatever it records. A brief exploration of branding may be in order here, for we are not just speaking of a camera (a Sony AV3400 or otherwise) but also the tape that holds the images, which of course may originate from an entirely different manufacturer. The variety of permutations between both introduces another variable to our reception of the signal. In the UK during the mid-1980s, there was an advertisement campaign for blank media that tied the notion of immortality of memory to the imagery of death. The protagonist was what can only be described as a form of living *memento mori*. Not a Grim Reaper so much, but rather a suave skeleton living in a well-appointed apartment. In the television version of these advertisements, the skeleton was animate and vocal. Placing a video cassette in a player, he would sing/rap to me about how this particular manufacturer's tapes meant that your images, and by extension your memories, would never fade.

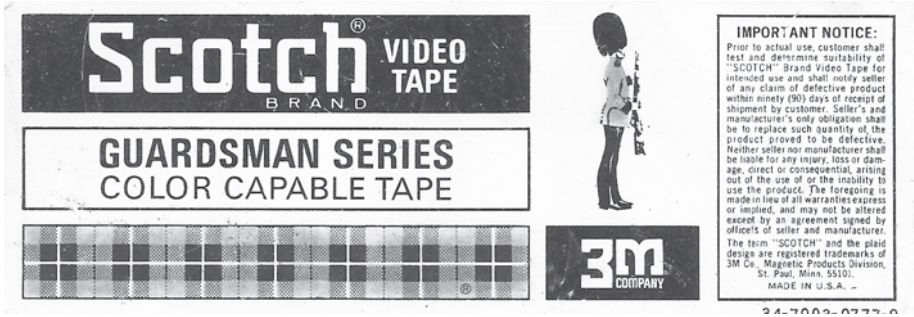
The hand of a skeleton in print version of Scotch videotape advertisement (c. 1985).

The skeleton's sales pitch went something like this:

> I'm going to tell you how it's going to be … with Scotch's lifetime guarantee. Tape what you want both night and day … then re-record, not fade away, re-record, not fade away … [Repeat to fade.]

Here, we return to the logic of the canine camera with one memory erasing another, and another, and another – until one day, the tape fails to erase, leaving us with one constant and singular memory that refuses coexistence with any other memories. When we lose the ability to re-record, perhaps the fear is not the 'fading away', but rather that we will be doomed to carry only one memory that, like it or not, we will never to be able to forget.

From this perspective, the earlier iterations of the Scotch brand of videotape are telling:



This label is from a cartridge of open-reel Scotch videotape of uncertain provenance, other than the fact that it came bundled with my used Sony AV3400. But rather than a skeleton, here we see a bearskin-hatted guardsman. I presume the pun is intended – Scotch tape, Scots guard, perhaps? The tartan design emblazoned on the label would further suggest such a connection. I initially imagined that this rifle-toting soldier symbolised the protection of one's memories from theft or erasure. But then it occurred to me: what if the guard was there to protect one's memories from *oneself*?

In considering the relationship between recording equipment and media, it is important to note that in the case of the Sony AV3400, the age of the equipment precluded its ability to preserve or protect the memories at

The author-performer attempts to run the Scotch open-reel tape through the video deck of the AV3400.

all. Pressing the 'record' button on the video deck would certainly elicit a response from the forty-year-old mechanisms, with the sound of what one would assume was a tape head being activated. For a few seconds, the mechanisms would querulously grind and grate, followed by a terminal *click* as the deck switched itself off. Pressing 'record' again, this rhythm would repeat, but this time to be anthropomorphically read as a pulse, or a single heartbeat culminating in a gasp that never quite became either a yawning awake or a death rattle. Nothing could be *held* in the face of this failing mechanism, not to mention the probable degeneration of the open-reel Scotch videotape itself.

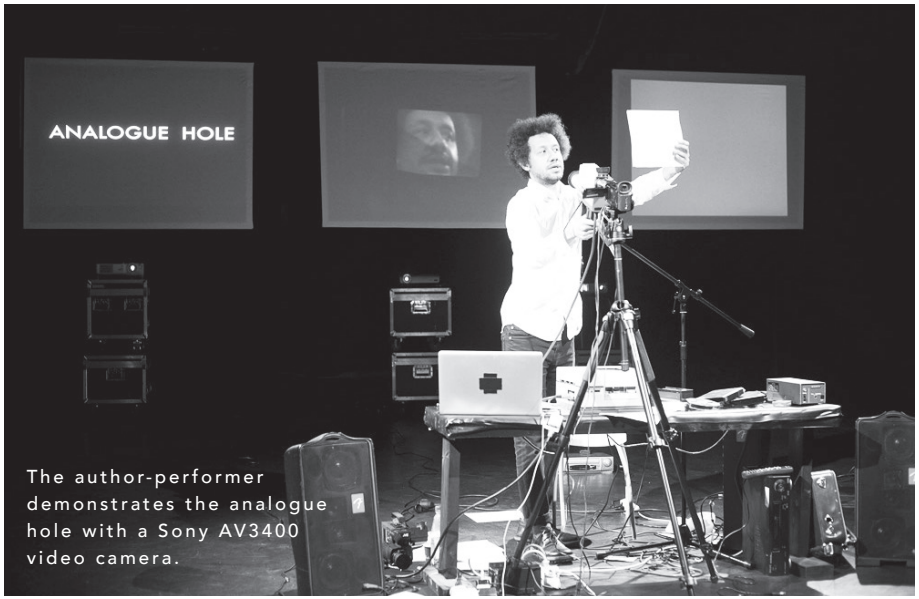
CONCLUSION

One of the mysteries of this process (for the author-performer) has been trying to work out why a given camera does not perform the simplest of functions – and whether a non-functioning camera can have any form of 'entertainment value' in the context of a live performance. One speculation (or rationalisation) was that for all these cameras, to be broken was their true, fundamental state – that the ostensible 'normal' functioning of such machines was itself a malfunction.

I had often tried to imagine a seat of consciousness within a camera, but it soon became clear that with the vast majority of what I had purchased, I was only dealing with a partial form of (imagined) sentience. The issue is two-fold, however, in that the possibility for the transference of a signal through a projector or monitor for the benefit of the assembled audience is problematised through a conspiracy of incompatibility and obsolescence. With the oldest video equipment, this problem takes the form of a long-defunct cable and pin configuration from the camera that had no equivalent input in a contemporary projector. In the case of equipment of a 1980s vintage, connection can often be made through a standard RCA lead – a cable still in use today, albeit in decline. But despite a physical connection being made, the result is a refusal of an image to appear on the screen. Here, the general issue of broken equipment that I have already established can be localised to a problem of *broken outputs*.

All manner of configurations and permutations may be attempted, but the reply from the projector remains the same: a blue screen accompanied with a 'helpful' onscreen litany informing us of the plethora of input options that cannot be activated. Whether through age, damage or some other esoteric variable, this is where the circuit seemingly closes.

But while such cameras cannot be connected to a current video projector, you may still have a signal that can be transferred by other means. Most of



The author-performer demonstrates the analogue hole with a Sony AV3400 video camera.

the cameras that fail to output to a larger screen have one thing in common: the viewfinder always works. Here is an opportunity. The principle of what has been described as the 'analogue hole' is that once information is manifest in a human-perceptible – or analogue – form, images may be easily captured and distributed in unrestricted form. The notion of the analogue hole is usually raised in discussions relating to the circumventing restrictions on copyrighted digitally distributed work, such as the practice of using concealed video cameras to illegally record films in cinemas for bootleg DVD distribution. To those who wish to limit the free transfer of images, the analogue hole represents a systemic vulnerability. But for those of us who wish to revel in the outmoded, this may mean something completely different. In simple terms, if an image can be seen by the human eye then it can be recorded, by any means necessary.

In this case, this transference is achieved by holding up the viewfinder to the lens of a fully functioning camera, which acts as a surrogate cable. The image is now freed. But what we see is only what the camera operator may have seen through the viewfinder, which was a bluish-grey world stripped

of all colourly nuance. Here, the image is not indicative of the countless subsequent moments of playback that would be seen on tape, but rather of a perpetual moment of *pre*-recording.

The performance concludes with a lack of certainty as to whether this, or any of the cameras, will work again. Such is the instability and unpredictability of this equipment that its intended functioning for the next performance is not a given. Due to the limitations of my technological understanding, the mechanics of such a failure remain in the realm of bodily metaphor: I imagine that within the camera is a shaft driven through the centre of a human eyeball (from pole to pole), that will one day allow the eye to swivel voluntarily and permanently inwards, never again to be forced to look at whatever it is pointed at.

ACKNOWLEDGEMENT

Performance photographs: Stephanie Acosta, Christopher Hewitt, Chloe Pang and Hannu Seppälä.

NOTES

1 Kurt Vonnegut, *Slaughterhouse 5* (London: Vintage, 1991) 53.
2 Douglas Hofstadter, *I Am a Strange Loop* (New York: Basic Books, 2007) 301.
3 Simon Reynolds, *Retromania: Pop Culture's Addiction to Its Own Past* (London: Faber, 2011) 331.
4 John Bradshaw, *In Defence of Dogs* (London: Allen Lane, 2012) 185.
5 Chris Meigh-Andrews, *A History of Video Art* (London: Bloomsbury, 2006) 18.
6 Martin Kunz (ed.), *William Wegman* (New York: Harry N. Abrams, 1994) 25.

IMPOSSIBLE TRIANGLES: FLAT ACTORS IN TELEMATIC THEATRE

Yoni Prior

SCENE THREE

A: B is online hi B is offline
B: B is online hey
A: hey you there?
B: hey i'm there
A: hey how are you? been a while how you been?
B: nah yeah
A: nah yeah me too miss you been a while
B: yeah been a while i'm good
A: B is offline
B: B is online
A: hey, you're back. how are you, been a while, how you been?
B: hey i'm back how are you? been a while how you been?
we should catch up yes? smiley face
A: smiley face A is offline
B: B is offline

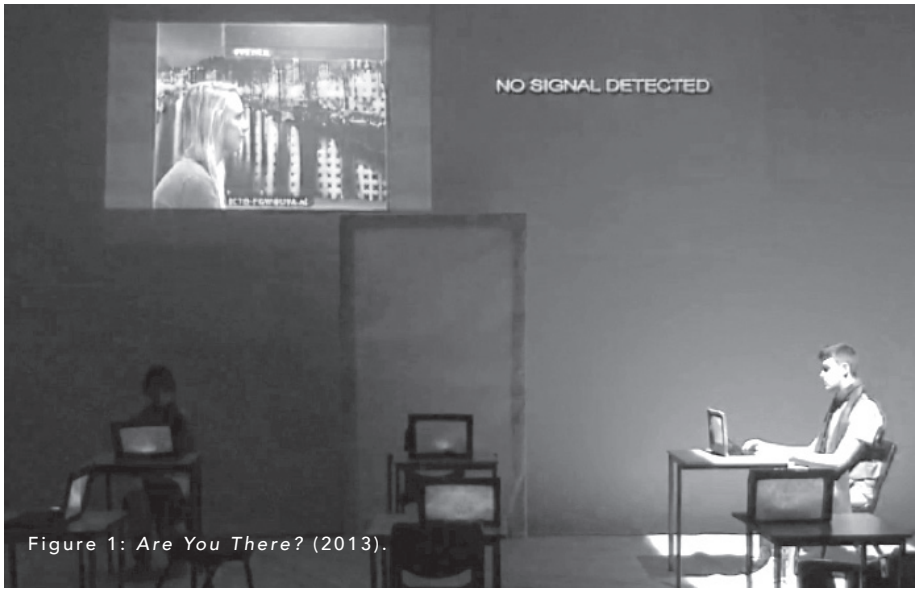


Figure 1: *Are You There?* (2013).

In fact, in this scene, both A and B are online. A is in a classroom at the University of Amsterdam in The Netherlands, and B is in a television studio at Deakin University in Melbourne, Australia. The two locations are connected through video conference and, in each space, a local audience watches the local performer in the room, and the remote performer projected on a screen. The performers are captured in profile, and appear to be looking at computer screens in front of them but cannot actually see one another. The text is consciously banal, composed to replicate the broken rhythms and sequences, flattened tone and repetitions of scrolling words in a text box on a screen. Information about presence and absence (A or B is offline or online) is spoken as text. Although the two performers speak in accents that declare their different language/cultures, the vernacular is generic 'internetslang'. The relatively monotonous and unpunctuated delivery of the textual rhythms is interrupted and counterpointed by a sound lag of nearly a second, and by a faint audio echo as one voice 'lands' in the second location. Its orchestration allows the sound fracture and dispersal in some moments. In other moments, the actors anticipate or absorb the gaps in transmission, driving the speech rhythms through so that the utterance 'arrives' precisely at the end of the prompt line.

There is a certain circular logic in this account of a number of telematic performance projects devised in collaborations between Dutch and Australian university students. The initial prompt for using a telematic framework for devising performance across remote locations was the desire to push against a set of cultural, practical, temporal, spatial and institutional constraints imposed by, or present in, the locations in which we teach. The engagement with this framework has, however, brought us hard up against a complex set of technological constraints which have governed the stories that we have been able to tell, the ways in which the collaborative process has been shaped and managed, and the formal and aesthetic aspects of the performances that we have produced. My colleague at the University of Amsterdam, Roos van der Zwaard, and I embarked on these projects with the somewhat naïve assumption that we could enhance the learning experiences of our students in their respective discipline areas simply by harnessing available technological resources to connect them telematically. The works that we have made together suggest that this is what happened, but in ways that were far more complex and demanding than we had anticipated. Despite the astronomical expansion of technologies of connection, the increasing speed of data flow and the ready availability of user-friendly transmission devices and software, connections between 'actors' that are conducted and managed in the online environment are bounded and shaped by the limitations dictated by these architectures. Our experience suggests that, when the project of performance-making is translocated into this environment, the insistence of the technological demands is both bracing and frustrating. Connecting 'actors' in remote locations offers a set of intriguing and challenging opportunities, but it compels a re-evaluation and re-callibration of conventional processual, narrative and formal approaches to performance composition. If the 'remediation' of performance into a digital framework is, as Steve Dixon asserts, 'the transposition, reworking or deconstruction of texts into different forms or media',[1] then the process of making that performance demands the deconstruction and reworking of conceptions of space, time and connection that observe the boundaries of those media.

TELEMATIC THEATRE

Since it is negotiation with the particular boundaries of the telematic framework that is under discussion here, Dixon's simple but precise definition of telematic performance distinguishes this distinct performative architecture, with its specific constellation and integration of technological affordances and limitations, from other established and emerging modes in the broader field of 'intermedial performance'.[2]

Technologically mediated performance in which there is a 'conjoining' of 'remote performance spaces',[3] he reminds us, has a history which predates the ubiquity of Skype and video conference software, reaching back to the 1970s and the use of live broadcast and satellite technologies to connect artists to each other, and to audiences, in remote locations at the same time. In each of the instances cited, however, the technologically mediated connection between locations is vulnerable to both predictable and unpredictable distortion, interruption and fragmentation. Dixon and others (see Brooks,[4] Crossley,[5] Gieskam,[6] Giges and Warburton,[7] Kozel[8] and Petralia[9]) offer descriptions of telematic projects in which artists testify to the ways in which their works have needed to absorb or embrace the constraints inherent in the telematic encounter. Dixon asserts, for example, that the telematic experiments of US arts collective Motherboard, in the mid-1990s, were shaped through consciously 'embedding the fluctuations in transmission and reception rates … into the dramatic development and final performance dynamics'.[10] Video conference technology was used in Susan Kozel's telematic/choreographic work *Liftlink (1998),* incorporating multiple video streams from multiple locations, and she arrives at a similar conclusion: that the transmission of the 'moving images … took on traces on their journey: pixellation, delays, abstraction, overexposure'. Dixon concludes that 'the peculiar and unique aesthetic of telematic performance, which emphasizes its own particular quality of interactive "liveness"', is a product of the ways in which artists have acknowledged and co-opted 'the technological limitations of videoconferencing' in the composition of their work.[11] Of the instances cited above, Susan Kozel, Pauline Brooks and Mark

Crossley's accounts most closely address the context in which our projects were made, as they deal with performance-creation through telematic collaboration with and between students in their university studies. What this article endeavours to address are some gaps in these accounts which, on the whole, focus on the outcomes of the process, rather than the negotiation with technology in the process of making. I aim here to isolate some of the particular constraints imposed on the compositional process by the architecture, mechanics and geometry of telematic performance, and to consider how these impact on key aspects of connection and interaction between actors in both rehearsal and performance. This aligns with Gad Kaynar's broader claim that many of the impulses governing or guiding the realisation of a work for the theatre can be interpreted as 'circumstantial'. What Kaynar dubs 'pragmatic dramaturgy' might also be conceived as a form of *bricolage* in which work is formed out of the particular properties of materials and circumstances present and available in the context of its making. It follows, then, that the dramaturgy of the play-making process is 'usually bound not only to the play and its own aesthetics, but also to additional technical and empirical constraints, with the latter quite often modifying the final pattern, effect and meaning of the production more than any constituent of the play itself'.[12] This premise assumes that the form, content and coherence of work that emerges from any performance-making process is significantly determined by the degree to which it recognises, engages with and embraces the material, 'technical and empirical constraints' in its domain.

LIMITS OF LOCATION: MAPPING THE TERRAIN

Between 2009 and 2013, my colleague and I produced six telematic collaborations within, and in response to, sets of stringent limits embedded in our location in teaching programs in our respective universities. As Glenn D'Cruz indicates, institutional imperatives operating in the university context

impose a range of constraints on the teaching of performance-making and mean that certain critical resources are limited.[13] The productions are made and rehearsed within tight time frames (an average of 70 class hours), and with relatively large numbers of students in each class. The class composition is diverse in terms of the range and level of experience that students bring to the process, and in the aspirations and tastes that they hope the projects will be able to express. The universities do, however, provide privileged access to high-level technological resources – particularly video-conference capability – and to technical resources used for training students in Film and Digital Media. My initial questions, as a teacher of performance-making, revolved around the capacity of telematic connection, between culturally disparate cohorts of students, to counter the sometimes insular and parochial culture of my suburban Australian university. If video-conference technology could connect my students with collaborators in some 'other place', could it also enable them to imagine what their location might look like – culturally, historically, aesthetically – when seen through other eyes and from another place? Would this prompt them to question the assumed narratives of that location and deal with more complex and unfamiliar ideas in relation to content and stage language? My colleague in Amsterdam embarked with a related set of questions about whether her students could develop more advanced and nuanced second-language skills through immersion in creative projects with native English speakers.[14] Working with relatively inexperienced performers, and being bound by professional and ethical obligation to our teaching roles, created a set of limits to the audacity or sophistication of formal experimentation in this context. Nonetheless, the obstacles that we encountered, in processes whose core aims centred around the forging of creative connections, confronted us with some simple and very practical questions about the nature and function of connection between actors and their audience/s when that relationship is mediated through the digital stream.

LOCATION, NARRATIVE, SCREEN

In effect, the materials and circumstances present in the context already created a set of boundaries governing what could be made with the resources available to us. Certain 'accommodations'[15] bearing on theme and structure came with the territory. The large number of participants,[16] their locations on opposite sides of the globe, and their existing experience of – and taste for – conventional, narrative-driven drama, all prompted us to embark from narrative pretexts that could make sense and meaning of multiple sites, real and fictional, and offer a large number of performing roles. Following this logic, the projects completed to date have focused either on narratives of shared history, or on narratives of technology and digital communication. These pretexts have allowed us to examine perspectives of commonality and difference between the two student cohorts in projects where the distance between them, and the digital framework of their making and presentation, could be incorporated as stage metaphor (in the history projects), or literal context (in the technology projects).

Lisbeth Goodman predicts 'the death of distance' through technological innovation.[17] In effect, however, these projects have worked on an opposing logic, both within and beyond the frame of the event. We have been concerned to acknowledge and embrace the material, experiential and semiotic distinction between seeing and feeling bodies co-present in space, and seeing and feeling, digitally mediated or remediated bodies, co-present in time but in another space – for actors and audiences alike. In each case, the location of the participants at opposite ends of the world has been the point of departure in terms of locating performed and performable narratives. Given that the locations of transmission (Australia, The Netherlands, the university, the studio) and the architecture and machinery of connection and transmission (screens, cameras, microphones) are all evident and *visible* to the audience, their agency as signifiers of distance, of the fact that the performers are *not* in the same room, has also been absorbed into the narrative frames of the performances, and into the meaning frames of the performed events.

MAKING THE SCREEN MEAN

To pursue this motif of location a little further, the design of each project has required the insertion and location of a projection surface into the dramaturgy and scenography – 'located' (literally and metaphorically) within the drama, such that the projection (literally and metaphorically) coheres within the narrative.

The history projects have characterised the screen as a distant 'other space' from which the local site is viewed, and we have tried in these to use the screen as a hypersurface in which the architectural function of the object within the stage design is fused with its function as projection surface. In *Quarter Acre Dreaming* (2010), we speculated on what the suburban culture of Australia might have looked like from a Dutch perspective at particular points in its history, and the material presence of the screen was utilised, literally and figuratively, as a portal through which the Dutch characters could project their impressions. The remote actors' images were projected onto the last panel in a series of doors in a suburban streetscape from where they delivered, among other scenes, a verbatim account of the disappointment of early Dutch explorers with the Western coast of Australia as a potential site for colonisation, and a deconstruction of the plot intricacies of the Australian suburban soap opera *Neighbours*.

The scene from A*re You There?* (2013), described at the beginning of this article, indicates another way in which the material presence of the screen has been absorbed into the narrative in the projects that have examined aspects of digital technology. This project began from a set of questions about how contemporary relationships are enabled, disabled and disrupted by the technology that mediates them. The fact that, in a scene about people connecting face-to-face, we needed to dislocate the projection from its 'natural' context – the screen in front of the local actor – and relocate it on the rear wall so that the actors could not actually see each other, illustrates some of the 'technological limitations and gremlins' of the telematic framework that we have contended with when staging these narratives.

TECHNICAL DIFFICULTIES

In an analysis of the use of video-conferencing technology in teaching Theatre and Performance Studies, Mark Childs and Jay Dempster note three significant problems:

- restricted video view
- time delay
- audio echo.[18]

Their account describes an instructional framework that has become both ubiquitous and conventional in recent years, particularly in the university sector – and is the technological framework that we have co-opted to create these performances. The limitations that they identify, on the immediacy and integrity of connection between participants, persist even a decade later and present even more stringent and complex 'technical' challenges when asked to enable more than a formal, binary and linear relationship between actors in remotely located spaces.

CAN YOU SEE ME?: SPACE, DIMENSIONALITY AND VISIBILITY

Working with live streaming requires performance-makers to think simultaneously in theatrical and televisual space – that is, the space defined by the human eye, and by the eye of the camera. Pauline Brooks coins the term 'cone of capture'[19] to describe the boundaries of the local space dictated and demarcated by the frame of the camera. In an account of experiments with multi-location choreography, Brooks unpacks the demands of what Childs and Dempster describe as 'restricted video view', in which the 'real space' must be reframed in order to answer the needs of both a local and a remote audience. Here she notes that the performance-maker needs to excise 'areas of the stage space that are visible only to the live theatre audience' because it is 'dead or invisible space to the distant, virtual audience'.[20]

Our earliest experiments with the telematic framework proved deeply unsatisfying for a remote audience, for related reasons. In the first project, *Unsettled Dust* (2009), the stage set and action were confined to the section of a much larger performance space that could be captured using a single camera located behind and just above the audience block. This fixed wide frame, however, rendered much detail in the performance invisible, or 'dead space', to the remote audience, who commented on their inability to 'read' the meaning located in actors' faces.

Figures 2 & 3: *Unsettled Dust* (2009).
Left: Local stage. Right: View from Holland.

Frustrated by this limitation, from 2010 we decamped to the university television studio, where we had access to multiple cameras and a video-switching system. In each project since then, in parallel with the process of developing the performance, we have also developed a detailed camera script that allows us to cut between shots and, to a limited degree, between shot angles. The capacity to move in to mid-shot or close-up when the detail or angle of entry is important to meaning or composition gives the remote audience the privilege of the camera's access to scene detail. This coercive

direction of attention, however, illustrates Stanley Kaufmann's assertion that, in contrast to the free play of attention afforded to a live and local audience, the camera 'controls attention irrevocably; you cannot look at anything in the scene except what [it] permits you to look at'.[21]

IMPOSSIBLE TRIANGLES

The teaching situation described by Childs and Dempster, and Peter Petralia's account of working as a dramaturg with a remotely located dance company,[22] describe relationships between 'actors' that are binary and linear, and if not eye-to-eye then 'face-to-face', at two ends of a single video stream.

Paul Sermon's seminal work 'Telematic Dreaming', in which a telematic connection is made between bodies located on beds in separate locations through the capture and projection of live video stream from above, skilfully exploits this 'one-to-one'. Here, participants are both actors and audience, as their real and virtual bodies are co-located on the hypersurface of the bed in each site. In this space, witnesses to the interaction are almost coincidental and the occluded view from outside 'the live zone' of performance is a reminder that the performance is not for them, but for the participants.[23] This relationship between actor and audience is trammelled, however, if one attempts the remediation of a more conventional, horizontal actor–audience relationship by inserting a third 'face' into transactions that are mediated by technologies designed for the face-to-face. Factoring an audience into the mix asks a linear conduit to serve a triangular relationship (projected actor – present actor – audience), creating what I have come to call an 'impossible triangle'.

While part of the work of creating a *mise-en-scène* is the rendering of connection/s between actor/s visible to the spectator, the process of creating a scenographic schema which incorporates both 3-D and 'flat actors' is like unfolding a piece of origami. Scenic elements need to be constructed so that the component parts connect with each other to form a coherent, three-dimensional shape, and then folded out again to create a map of indentations

that indicate the boundaries of the interaction. Even the term commonly used for the disposition of bodies in and through stage space, 'blocking', connotes concepts of dimension and volume that are redefined in this framework.

FLAT ACTORS

In each of our projects, we have used a projector or projectors suspended above the audience seating block, projecting the live feed from the remote location onto a variety of surfaces at the rear of the performance space and, critically, *behind* the local actors. This is, of course, the most common configuration in performances where live-feed footage is layered into the onstage (multidimensional) action for eminently practical reasons. Performances such as Toneelgroep Amsterdam's *Opening Night*[24] (2008) and The Builders Association's *Super Vision* (2006), for example, make extensive use of live stream footage to render actors not located in 'the live zone' visible, or to focus attention and provide an alternative angle or frame on action within it. In these instances, even when the use of technology is foregrounded in the dramaturgy, the projection surface that inserts it into the stage action is 'backgrounded' in the stage space.

There is a frustrating exigency to this configuration when, as in our projects, the dramaturgy is constructed around live interaction between local (3-D) and remote (flat/projected) actors. To render the connection between them visible to the remote audience, the camera feed needs to be captured from the point of view of the local audience. But the relegation of the remote/flat/projected actors to the space behind the local actors restricts their view of each other. In order for the Australian performers to *be seen* (that is, for the 'live zone' of their faces to be captured and transmitted via the video stream) by the Dutch performers, they must *face* the camera/audience. However, in order to *see* the Dutch performers, they must turn to *face* the projection, thereby rendering the meaning-site of their faces invisible to the Dutch performers and audience.

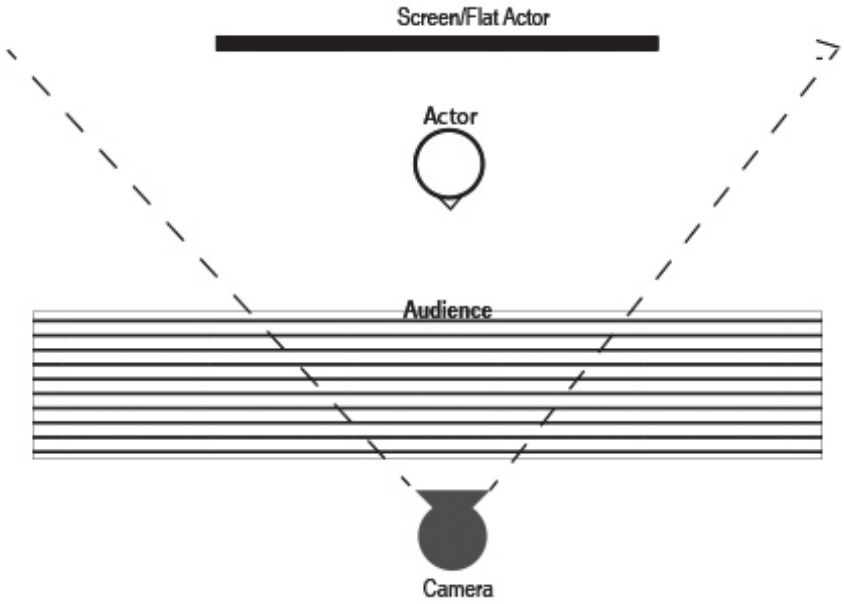


Figure 4: Flat actor/local actor/audience configuration.

Figure 5: *Boat People* (2012). Audience/Dutch performer perspective.

We have attempted, in a couple of projects, to challenge the uni-dimensionality of the projected image by fudging the angles of screens and actors, or by advancing the projection surface deeper into the performance space (see Figure 6). Even when located virtually adjacent to the present actor, however, the 'dimensionality-differential' means that the 'flat actor', whose only trace is registered on the flat screen, remains invisible or only peripherally visible to the local actor.

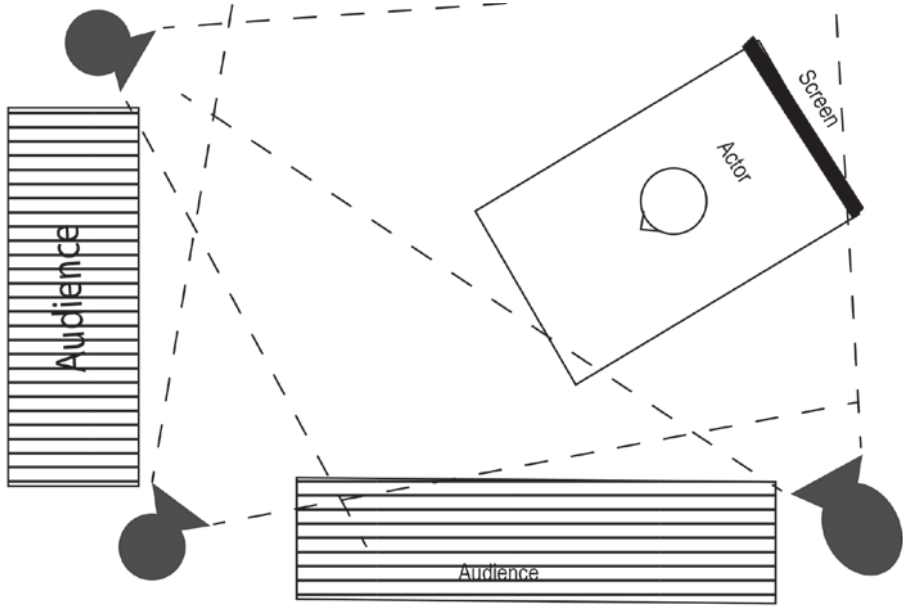


Figure 6: Protruded screen. *Boat People* (2012).

As we have contended with these challenges, we have tested a number of practical strategies to establish connections between flat and present actors in scene-building and rehearsal, that can be re-oriented when translocated into performance. Actors have improvised and rehearsed with the remote actors streamed to an extra monitor in the Australian performance space in front of the local actors, mirroring the image projected behind them. This linear configuration (see Figure 7) has meant that local and flat actors are able to see each other and lay down the structure of the scene working 'face-to-face'. The monitor has generally remained in the space during performances as well, to be used as a point of reference in the peripheral vision of the performers.

Actors in one-to-one scenes have also rehearsed privately and face-to-face on Skype to explore and 'learn' the scenes, and then unfolded them to accommodate the impossible triangle in performance.

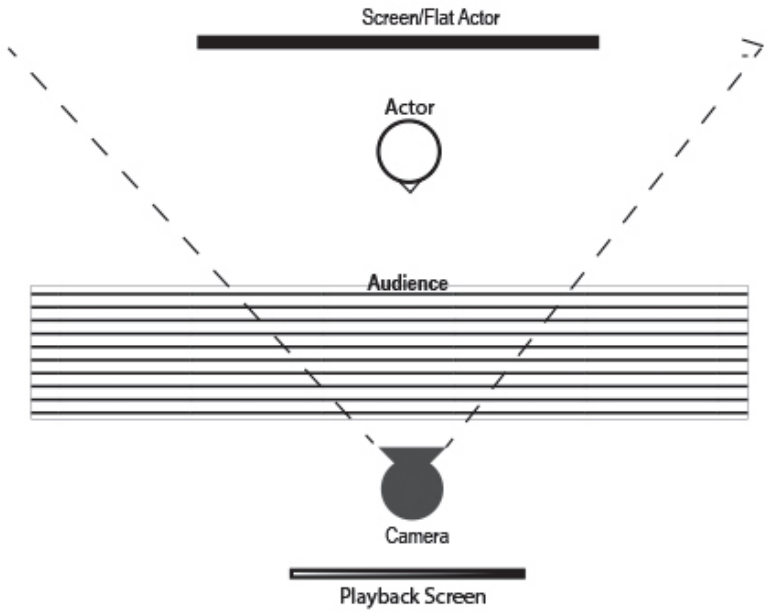


Figure 7: Flat actor/local actor/audience configuration with playback screen.

Consideration of these demands has guided our narrative and dramaturgical choices as well. In *Do You Accept?* (2011), the presence and location of the screen was naturalised by the characterisation of the projected actors as remotely located researchers observing a group of present experimental subjects via video-link. This allowed actors in both sites to acknowledge the literal presence and location of the projection within the bounds of the stage narrative (see Figure 8). After *Unsettled Dust* (2009), which *was* an exercise in collaborative dramaturgy and live video streaming rather than interactive performance, we abandoned the use of Skype as a means of connection. The narrow bandwidth meant that integrity of image and sound fidelity were poor, unreliable and prone to degrade over the span of the performance, and sometimes the connection was lost entirely. Other recent projects have, however, used Skype as both medium and content of performance by adopting a similar strategy of naturalisation. *You Wouldn't Know Him, He Lives in Texas / You Wouldn't Know Her, She Lives in London* (2011), a work created in a collaboration between London-based company, Look Left Look Right and The Hidden Room, based in Austin, Texas, works this logic – and absorbs its gremlins – by placing a relationship conducted via Skype at the heart of its narrative, so that fluctuations in image and sound quality fit neatly within the frame of the event, rather than as a 'technical difficulty' that breaches its boundaries.

Figure 8: *Do You Accept?* (2011).

In *Are You There?* (2013), described in the introduction to this article, we used a reflexive strategy which embraced the fractal structure of the stage/screen configuration. By constructing the narrative as a series of shifting and dislocated online interactions, in which the shape and meaning of online relationships were brought into question, the conceit of pixilation became both a structural and a material strategy. The 'real frame' evidence that participants were co-present and interacting with each other, but could not see each other, was absorbed into a wider metaphor about what we can and cannot see and understand of each other in relationships mediated through technology (see Figure 1).

As Crossley observes, in the encounter between the live performer and 'the temporal and technological rigidity' of the televisual image, 'performer autonomy and spontaneity in space and time are compromised, or shall we say

they need recalibrating at least'.[25] Both Dutch and Australian performers in these projects described some feelings of dislocation and anxiety when the '*techno-en-scène*'[26] that allowed them to be present in the same scenic and temporal space effectively rendered them invisible to each other. Performing in an environment governed by the demands of technology required them to work in ways that were highly 'technical', in demanding the reproduction of behaviour and responses without the 'natural' triggers generated by physical proximity and eye contact present in conventional dramatic scenography. The formality and austerity of this terrain produced a chillier, more mechanical experience that was sometimes at odds with the performers' desire for the warmer and more spontaneous pleasures of live, proximal connection between actors.

LATENCY, ECHO AND HUM

This dislocation is further exacerbated by a combination of the other two problems identified by Childs and Dempster: audio delay and audio echo.

The digital stream struggles to manage dense and complex sound environments. Experiments with multiple voices, in our experience, have often produced the sonic equivalent of pixilation. The sound is flattened and, rather than distinct tones layering themselves as a chord, they seem to break into fragments that grind against one another on the same plane. As a result, 'choral' elements in the works have had to be carefully composed, generally reducing collective texts to a relatively mono-tonal and rhythmically disciplined delivery. In *Are You There?* (2013), the performance ended with a joint chorus of questions to online interlocutors, including the repeated question, 'Are you there?' Early attempts to use a range of tonalities and performer-generated syncopation in the delivery resulted in a sonic soup, and were replaced by a consciously monotonous delivery, with performers in each location keeping time only with one another. The texture and syncopation of the chorus, then, were created by the sound lag (or 'latency') that inevitably impacted the arrival of the sound stream from the remote location.

This persistent lag, experienced as a delay between delivery of the performed utterance in the originating site and its arrival in the remote site, further dislocates actor from actor. In the performance conditions compelled by the 'flat actor scenario', in which remotely located scene partners are partly or wholly invisible to each other, actors rely more heavily on textual/auditory cues in order to connect. Without visible indications of meaning and response, such as facial or bodily gesture, and with a brief but palpable delay on auditory cues to intention or emotion, such as the intake of breath, pitch, or tone, the actors struggled to judge, pitch and sustain rhythms in the text. Over the span of the projects, we used a number of strategies – including 'actorly', naturalisation, rehearsal/habituation and structural strategies – to manage the tyranny of this latency.

- 'Actorly' strategy: In *Quarter Acre Dreaming* (2010), the performers invented or amplified aspects of character or situation that could account for odd pauses in their interchanges. An Australian performer, playing an officious Immigration official, developed behavioural tics of pausing and fiddling with his pen before responding, or of officiously interrupting the other actor before he had finished speaking. His Dutch counterpart, playing a prospective immigrant-of-colour behind a glass screen, characterised his actual difficulty in hearing as a struggle to hear and understand what was being said to him in 'officialese'.

- Naturalisation strategy: In accord with the logic of making digital performance about the digital, in *Do You Accept?* (2011), the sound lag was naturalised as part of a narrative in which interlocutors' communication was 'conducted' by the same technology that was conducting the performance. Latency in the sound stream testified to the 'liveness' of the event, and added a degree of dramatic tension in a scenario where the anxious participants in a series of increasingly cruel challenges/experiments awaited the responses of the remotely located researchers who would determine their fates.

Figure 9: ***Quarter Acre Dreaming*** (2010).

- Rehearsal/habituation strategy: *Are You There?* (2013) used a narrative structure constructed largely around short, one-to-one scenes. 'Face-to-face' rehearsals via Skype or video-conference laid down familiarity with the rhythms of delivered text but also allowed anticipation of 'cues'. Where a sustained flow of text was important to meaning, performers habituated themselves to the digitally imposed pauses, and learned to anticipate the ends of cue lines such that the gap in the sound stream was bridged.

- Structural strategy: In *Boat People* (2012), we attempted to challenge the tyranny of the sound lag in a 'rap-battle' scene, where remote actors used the vernacular of rap poetry to characterise the relative positions of boat-bound refugees *en route* to Australia, and anti-immigration activists protesting a refugee invasion of the Netherlands. The call and response framework was rapidly discarded when we realised that the sound lag meant that they could not keep time with one another, and replaced by larger chunks of sequential text that could maintain their own internal rhythms.

GAPS IN TRANSMISSION

Despite some exciting possibilities offered by interactive telematic performance, it remains a marginal presence and practice – a 'novelty'[27] – particularly when contrasted with the ubiquity of screens, virtual scenography and, in particular, live-feed projection in contemporary performance. There may be a number of reasons for this. As this account testifies, it is a complex endeavour to layer the technical, temporal and mechanical demands of televisual transmission onto the existing demands of conventional theatrical production processes. In the creation of works of scale, it requires a greatly expanded array of resources that were only available to us because of our access to the bandwidth, video-conference capability, broadcast-capable television studio, and expert technicians in the university context. It may be no coincidence that many of the accounts of telematic performance emanate from collaborations between universities. Universities have the technology. There is evident benefit in connecting between students in diverse geographical/cultural locations. The technology may create a notional 'third space', but the view from that space allows students to see the 'other' location in ways that can 'other' their own.

There would seem, too, to be limits to the sorts of narratives that it can address with eloquence and coherence. While the narratives of our own relationships are increasingly shaped, transmitted, trans-located and remediated by the machinery of digital interchange, we are still a long way from a material and felt experience of a 'third space', except in the most abstract and conceptual sense. The affect and effect of working with actors whose physical presence or absence is plainly signalled by differential dimensionalities, the disruptions to flow imposed by audio latency, and the visible presence of the machinery of transmission, have led us toward stories that reflexively examine narratives of distance, location, perspective, visibility and audibility, in ways that exploit the gaps and cracks in the stream connecting performers in remote locations.

Perhaps less constraining, though very challenging to performers with limited 'technical' experience, are the limits on, and disruptions to, connections

between performers in remote locations. Debate continues in research circles and the popular press about the relative integrity and richness of relationships conducted via digital means. The obstacles encountered by our students, as they worked to create and sustain the peculiar heat, comfort and pleasure of intimacies which connect and support performers in the unstable space of performance, reflect and amplify the challenges to prior conceptions of interpersonal connection generated by the affordances of current technology. The series of projects that we have produced have followed a peculiarly reflexive logic governed by the complex matrix of limitations imposed by the actual and institutional locations of the actors, and by the actual and metaphorical boundaries established by the mechanisms of projection and connection embedded in the technological framework. In each case, rather than ignoring evident and insuperable separations between multiple spaces and locations, we have tried to acknowledge and expose the ruptures and discontinuities in the *mise-* or *techno-en-scène*, and to make meaning of them. This has meant working in ways that attend to stringent limits on conventional options – in the disposition of real and virtual bodies in space and on surfaces; in the structure of the works; and in flow and rhythm in the exchange of spoken text. In ways that are both simple and complex, the narrative pretext and dramaturgical strategy informing each project, and the experience of making and performing them, has constituted a layered investigation of visibility – of who can see what from where.

Given the degree to which the works have been moulded by their extrusion through the telematic machinery, they have provoked the occasional question from students about what is being learned about devising *per se. Richard Foreman describes the process of creating performance as 'working with what is really in the room'*.[28] When seen through this lens, our productions have constituted useful lessons in pragmatic dramaturgy, demonstrating that it is not possible to conceive of a creative process divorced from the material conditions in which it takes place – from 'what is really in the room'. Dixon cites Motherboard's claim that 'low-budget technology currently offers the greatest number of people the greatest possibility of experience, interactivity and creativity'.[29] The relative dearth and cost of rooms for emerging artists to make and present work in, means that digital theatre, with all its limitations, offers rooms in which they can connect with, and be visible to, artists and audiences in other locations.

NOTES

1 Steve Dixon, 'Remediating Theatre in a Digital Proscenium', *Digital Creativity* 10.3 (1999) 135.

2 Kattenbelt provides another useful set of distinctions, for example, between 'multimediality', 'transmediality' and 'intermediality' (20) as terms that distinguish particular co-relations between media, in which theatre is conceived as both a peculiar mediality, and a process whereby various media interact with each other. Chiel Kattenbelt, 'Intermediality in Theatre and Performance: Definitions, Perceptions and Medial Relationships', *Culture, Language and Representation* Vol. VI (Universitat Jaume I, 2008) 19–29.

3 Steve Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art and Installation* (Cambridge, MA: MIT Press, 2007) 419.

4 Pauline Brooks, 'Creating New Spaces: Dancing in a Telematic World', *International Journal of Performance Arts and Digital Media* 6.1 (2010).

5 Mark Crossley, 'In Search of an Intermedial Pedagogy within Higher Education Drama and Performing Arts Degrees in Theatre Pedagogy', *IUTA Publication of Papers from the 8th World Congress* (Leicester DMU, 2013) 36–43.

6 Greg Gieskam, *Staging the Screen: The Use of Film and Video in the Theatre* (Palgrave Macmillan, 2007).

7 Bob Giges and Edward C. Warburton, 'From Router to Front Row: Lubricious Transfer and the Aesthetics of Telematic Performance', *Leonardo 43.1 (2010) 24–32*.

8 Susan Kozel, *Closer: Performances, Technologies, Phenomenology (*Cambridge, MA: MIT Press, 2007).

9 Peter Petralia, 'Here, There and In-between: Rehearsing over Skype', *Performance Research 16.3 (2011).*

10 Dixon, *Digital Performance*, 430.

11 *Ibid* 425.

12 Gad Kaynar, 'Pragmatic Dramaturgy: Text as Context as Text', *Theatre Research International 31.3 (2006) 246*.

13 In his 2010 article, 'Teaching/Directing *4.48 Psychosis*', D'Cruz unpacks a set of generic and aesthetic choices partly dictated by the need to provide sufficient performing roles to an unpredictable number and diversity of Drama students within the limited time allotted in the university timetable. He argues that this is one of the pragmatic challenges that post-dramatic texts, with their open weave and relative absence of role determination, are able to answer. Glenn D'Cruz, 'Teaching/Directing *4.48 Psychosis*', *Australasian Drama Studies* 57 (October 2010) 99–114.

14 For more detailed accounts of early projects from the perspective of second-language learning, see Yoni Prior, Roos van der Zwaard and Manon Vanderlaaken, 'ARTSPEAK: Articulating Artistic Process Across Cultural Boundaries through Digital Theatre', *The International Journal of the Arts in Society* 4.3 (2009) 433–46. See also Yoni Prior, Louise Johnson and Roos van der Zwaard, 'E-learning through Digital Theatre: Breaking Down the Tyranny of Distance and Limits of Location', *Ubiq-*

uitous Learning: An International Journal 3.3 (2011) 37–50.

15 Here I co-opt Andy Lavender's use of the term 'accommodating' when he frames the demands on The Builders Association's 2005 work *Supervision. The fact that the work was a co-production slated for the international festival circuit meant that 'its themes' needed to be 'sufficiently accommodating to suit the show's touring footprint'. Andy Lavender,* 'The Builders Association, *Super Vision* (2005): Digital Dataflow and the Synthesis of Everything', in Harvie and Lavender (eds), *Making Contemporary Theatre: International Rehearsal Processes* (Manchester: Manchester University Press, 2010) 17–38.

16 The course content at the Australian university required those students to perform, as this comprised a significant component of their assessment. Dutch students volunteered for performance roles, though succeeding projects have seen increasing numbers taking up this option to the point where, in the most recent project (*Are You There?*, in 2013), we had a combined cast of forty-two performers.

17 Cited in Brooks, 'Creating New Spaces', 52.

18 Mark Childs and Jay Dempster, 'Technical Evaluation Report 17: Video-conferencing in Theatre and Performance Studies', *International Review of Research in Open and Distance Learning* 4.1 (2003) 1–6.

19 Brooks, 'Creating New Spaces', 52.

20 *Ibid* 54.

21 Stanley Kauffmann, 'Notes on Theater-and-Film', *in Robert Knopf (ed.), Theater and Film: A Comparative Anthology* (New Haven and London: Yale University Press, 2005) 152.

22 Petralia, 'Here, There and In-between'.

23 For a succinct description of this project and the 'issues it raised about relations between the real and the virtual', see Gieskam, *Staging the Screen*, 214–15.

24 This stage adaption of Cassavetes' film script makes extensive use of live feed video projection that allows the audience to simultaneously view onstage action and the camera's more selective, amplified and closely framed perspective on details of that action. See: http://www.tga.nl/en/productions/opening-night.

25 Crossley, 'In Search of an Intermedial Pedagogy', 6.

26 Echoing Dixon's definition of 'remediation', Dundjerovic uses '*techno-en-scène*' to describe both the 'use of technology in the performance environment' and 'borrowing creative vocabulary for other media in creation of the *mise-en-scène*' (69). Aleksandar Sasha Dundjerovic, 'Juliette at Zulu Time: Robert Le Page and the Aesthetics of 'techno-en-scene', *International Journal of Performance Arts and Digital Media* 2.1 (2006) 69.

27 Despite several decades of experimentation with 'telematic performance', reviews of forays into the field as recently as 2013 describe the event as a 'novelty'. See http://www.huffingtonpost.com/monica-bauer/theater-by-skype-a-long-distance-affair_b_2697864.html.

28 Richard Foreman in *Foreman Planet, dir. Kriszta Doczy. Contemporary Arts Media, 2003. Video recording.*

29 Dixon, *Digital Performance*, 430.

MIXED ACTOR NETWORK REALITY: A PERFORMANCE IN THREE NETWORKS

Asher Warren

INTRODUCTION

In this article, I will present an experimental methodology for considering participatory performance. Using two pragmatic tools of inquiry – actor network theory (ANT) and mixed reality – I will build a descriptive analysis of *The Confidence Man*, a participatory performance developed by Side Pony Productions in 2013 and performed at Arts House, Melbourne. This experimental model is one that attempts to be, as Grant Kester suggests, 'capable of addressing the actual, rather than the hypothetical, experience of participants in a given project, with a particular awareness of the parameters of agency and affect'.[1] To this end, this experiment will consider the responses and actions of a small participant sample, and the various other 'actors' that perform. Key to this experiment will be the identification and description of the intricate relational networks assembled in interactive and participatory performance across the spatial, temporal, technological and

social aspects of this production. These findings will then provide an opportunity to investigate the politics of agency and participation, focusing on moments of dissensus created by participants and technologies in *The Confidence Man*.

PRELUDE

Throughout this article are details of the performance that take the form of scripts, including stage directions, programming code and dialogue. These scripts are an opportunity for some actors (including objects) that usually stay in the background to find a voice and explain the nature of their performance. Rather than acts, these scripts are broken into three networks that can be loosely considered social, technological and critical, respectively, but are much better understood as overlapping and interwoven.

NETWORK I (SOCIAL): SCENE 1

Inside the foyer of the North Melbourne Town Hall, a central square column is covered in posters, obscuring some of the small groups gathered in quiet conversation. There are also people who have come alone. They look at their phones, or at posters, or a take a copy of RealTime magazine from a pile. On the back cover, there is an advertisement. Beside the ticket desk, there is a large black door, closed, with signs on it. It is heavy, covered with information, warnings and layers of paint. Eyes from all across the room are drawn toward this door when it opens a short way to allow a single young woman through. She says something to the ticket attendant at the desk to the right of the door, and then disappears behind the door again. The show is yet to begin, the bar is open, and conversations get louder. Again, the young woman appears from behind the door, this time she makes eye contact with a group, who are positioned close to the door. They return her gaze. She approaches them, and says something. A proposition? They look at each other, at the woman, and seem to consent; she takes them through behind the black door.

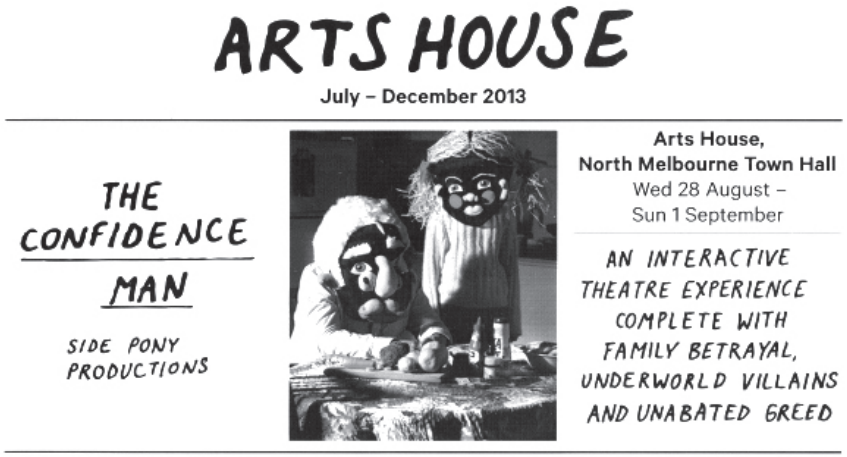


Figure 1: *RealTime* RT116 (August–September 2013). Back cover detail.

THE CONFIDENCE MAN

Billed as 'an interactive theatre experience', *The Confidence Man* is a domestic crime thriller. What makes it unique is the innovative form that the performance takes, as Side Pony explain on their website:

> Six audience members (participants) and one actor participate in the performance, each playing one of the six characters. Equipped with a headset and a mask representing their character, each participant enters the world of Peter's ordinary suburban home … Through a combination of sound track, narration and pre-recorded dialogue the participants navigate the space and the story, experiencing events in the first person. Each participant hears an individualised audio track, specific to their character, which instructs their movement, informs their gestures and physicality and gives them a personalised perspective of the story.[2]

However, what kind of spectacle does this produce? The innovation applies not only to the playing participants, but to the audience as well:

> From the perimeter of the space the remaining audience members watch the story unfold (capacities can vary between 30–70 dependent on venue). Listening to the story through headphones the audience use a personal console to toggle between the audio of the different characters; building their own unique experience as they choose the path of action they want to follow.[3]

Attending a performance of *The Confidence Man* was a novel experience. Fellow audience member Sara[4] explains: 'I liked flicking between channels. I liked that it didn't get boring, it felt like the grass was always greener and that you could change to a different channel. It was kind of endless possibilities.' However, when it came to evaluating the piece, it was all too easy to resort to criteria of formal mastery. The sound design was praised for its intricacy, while the literary qualities of the script were critiqued. Sara was particularly scathing: 'Probably the least enjoyable thing was realising three-quarters of the way through that the plot was kind of deficient'.

With the proliferation of interactive and participatory performances, is it appropriate to talk about this work in terms of the traditional values of a 'well-made' play? How else might we look at a platform for participation that isn't reducible to a script or performance alone? To consider these questions, I am proposing a particular deployment of actor network theory. ANT provides one way to consider a range of artistic, spatial, technical and social forces, and the mechanics, politics and power structures that these forces produce. ANT, however, carries some historical baggage that needs careful examination.

A BACKGROUND TO ANT

> Actor-network theory is a disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located. It assumes that nothing has reality or form outside the enactment of those relations. Its studies explore and characterise the webs and the practices that carry them. Like other material-semiotic approaches, the actor-network approach thus describes the enactment of materially and discursively heterogeneous relations that produce and reshuffle all kinds of actors including objects, subjects, human beings, machines, animals, 'nature', ideas, organisations, inequalities, scale and sizes, and geographical arrangements.[5]

Actor network theory originated in the work of Michel Callon, Bruno Latour and John Law during the late 1970s and early 1980s in the developing field of Science and Technology Studies (STS). It was developed as a method of reconciling the social aspects of science practice with the empirical facts that this practice produced. It did this by working through a given social situation with empirical logic, methodically and clearly, without summoning generalisations to explain social processes. By observing and describing the actors in a social situation and the networks that they form, *without* giving an explanation *why*, ANT offers an alternative, empirical, relational and ontological method to permit a given enactment of the 'social' to speak for itself, maintaining its complexity.

Its proponents do not love the name 'actor network theory'. Callon uses the term 'sociology of translation',[6] while John Law prefers 'material semiotics',[7] after Donna Haraway, and Latour would rather 'actant-rhizome-ontology'.[8] But they all are means to the same end – they are essentially trying to create a post-structuralist empirical method, as John Law claims, where actor networks could also be considered as small-scale Foucauldian discourses or epistemes.[9] Law also makes the claims that the nomadic rhizome and assemblage of Deleuze and Guattari[10] share with actor network theory 'the provisional assembly of productive, heterogeneous and (this is the crucial point) quite limited forms of ordering located in no larger overall order'.[11] *ANT is relational and ontological*, reliant upon this premise that there is only embodied practice.

OBJECTS, RELATIONAL CAUSES AND MULTIPLE REALITIES

Key to actor network theory is the consideration of relationships between *humans* and *objects*, and the mutual effects of these relationships. The different configurations, or 'networks' of humans and objects produce different material realities. Latour provides a simple example of how a gun and a person can comprise a multitude of realities.

> You are different with a gun in hand; the gun is different with you holding it … A good citizen becomes a criminal, a bad guy becomes a worse guy; a silent gun becomes a fired gun, a new gun becomes a used gun, a sporting gun becomes a weapon.[12]

Another interesting example is Annemarie Mol's *The Body Multiple*,[13] an ANT investigation into lower limb atherosclerosis. In her study, she identifies the many ways in which the disease manifests: the patient feels the pain of walking, the surgeon sees the physical substance that they operate on, and the X-ray technician sees a shape in the X-ray. Mol describes each of these different experiences as *separate* actor networks. The disease is created, in each case, by the context of patient, disease, specialist and treatment: there are *multiple bodies* and *multiple diseases* being created by the different relationships.

In this sense, ANT is dealing with the way that each different enactment and performance creates a different experience or reality. Returning to *The Confidence Man*, before the show even begins, six participants are recruited to join a network. This occurs not through an audition, but through a process best considered 'social'. The proximity to the theatre door, the willingness to talk to strangers, and how early one arrives might all be considered factors that select the participant performers, resulting in dramatically different performances from night to night.

NETWORK I (SOCIAL): SCENE 2

```
<!DOCTYPE>instructions for audience members entering theatre
<!--to the effect of, but not literally-->
<head>
     <dialogue>Hi everybody, welcome to The Confidence Man, the
     show is about to begin, can I please have your attention
     for a moment? </dialogue>
     <br>
     <dialogue>Inside there are seats all around the stage,
     please come in and take a seat. <br>
     If you want the full experience, please take the seats
     inside the door, and to right and the left. <br>
     If you are unsure and just want the normal experience,
     please sit in the chairs against the far wall, opposite
     from the door </dialogue>
</head><br><br>
<select>
     <optgroup label='Full Experience'>
          <option value='left'>Left of Door</option>
          <option value='inside'>Inside to Right of Door</
          option>
     </optgroup>
     <optgroup label='Normal Experience'>
          <option value='far'>Opposite Door against Far Wall</
     option>
     </optgroup>
</select><br><br>
<table>Behind the seats to the left of the door, a large table
with a black table cloth holds a vast array of technological
equipment, mixing desks, laptop computers, transmitters and a
great snaking tangle of cables</table>
```

Sara: 'I wanted to not miss out on anything. So I chose the full participation experience. I'm glad I did or I think I would have been very bored.'

USING ANT TO INVESTIGATE PERFORMANCE

The historical relationship of ANT with empirical science is vital when considering how it might be applied to performance. As Jon McKenzie has shown, performance can also be considered using a range of different vocabularies, from a number of different contexts, from the artistic to the economic and the technical.[14] The need to pay attention to these different vocabularies is important, as Michel Callon explains of his sociology of translation: '[T]he rule which we must respect is not to change registers when we move from the technical to the social aspects of the problem studied'.[15] Historically, to engage with empirical science, ANT needed to speak the *language* of empirical science. This raises the question: what language does ANT need to speak to engage with interactive and participatory performance? In this article, I have already adopted the script, but I will also add to this vocabulary a selection of concepts and frameworks collected and developed by Steve Benford and Gabriella Giannachi in their book *Performing Mixed Reality*.[16]

A BACKGROUND TO MIXED REALITY

Performing Mixed Reality presents an interesting exploration of the mutual impact between the schools of human–computer interaction (HCI) and performance. It provides a robust analytic vocabulary for mediatised performances, analysing the technologies that artists employ to create 'distinctive forms of interactive, distributed, and often deeply subjective theatrical performance'.[17] Benford and Giannachi adopt a particularly broad definition of performance that includes a conventional sense of performance, where actors perform a script in a staged environment, but also a second type of performance, 'in which the traditional audience members of conventional theater are first transformed into being interacting participants or players, and subsequently into being performers in their own right'.[18] While Benford and Giannachi recognise this latter type of performance, it is predominantly

considered in ethnographic and HCI terms rather than aesthetic ones – a crossing of register between artist-designer and audience-interactant.

Where ANT can bring valuable new knowledge to the research of mediatised and participatory performance is the ability to identify and describe the relationships between the various components and their assembly *in performance*. Using the vocabulary of mixed reality, it is possible to use actor network techniques to analyse technically complex performances that are distributed among participants, full of uncertain boundaries between actors, spectators, sites and objects. This vocabulary allows for data collected through observation, interviews and technical investigation to share the stage, as it were, allowing the participants, technologies, spaces and objects to demonstrate their particular agencies within interactive and participatory performance. Rather than providing a single, schematic analysis, ANT permits the production of multiple and mixed realities to show how audiences interact and participate within a performance, and what has caused them to respond, and how their response effects the performance. In this sense, it also may provide a useful tool in the development of a critical framework for participation.

NETWORK II (TECHNICAL): SCENE 1

I awake from my self-contained stasis. I am patient. I am whole. I am in sequence. I feel the furious revolutions of the hard disk try to shake me from my magnetic track. But the centre holds, each one and each zero stays where it should be, lined up and sent out. I am reborn, a perfect clone, and say goodbye to myself, as I travel through the circuits within the machine. I am splintered, repeated, shot out in many directions. I surge through cables and fly through the air simultaneously, bouncing around until I happen upon my receiver; somehow, of all of them out there, I know this one is right. I zap through the machines like electricity. I AM ELECTRICITY! I hit the converter, getting stronger and stronger, transforming into something new … Is this really what it is like to be alive? I feel funny … all smooth and fluid, and like I'm beginning to fall apart. I hit my final destination, my current pulsing through a magnet and a diaphragm, and I take off, light as air; as a wave of sound on a short journey through

a padded foam cover, bouncing through the folds and curves of each individual ear and crashing against the thin membrane at the bottom of the hole. I am gone, transformed into something else. From digits to narrative. From hard drive to living memory. For an hour, I sustain this, hundreds and thousands of clones, transmissions, receptions. All it takes to fall apart is one tiny mistake. A single zero or one out of sequence, lost in the air. A single loose connection. A fuse blown. But I do my job perfectly, no part is left behind, no part obscured, transmission is on time and in time. What a relief.

TRAJECTORIES IN MIXED REALITY

Faced with the task of now gathering together these different threads of performance, Benford and Giannachi employ the 'trajectory' to help conceptualise the tracing of 'embedded and emergent trajectories'[19] within these various performances. Two modes that Benford and Giannachi suggest are 'wayfaring' and 'navigating', taken from Tim Ingold's investigation of mapping strategies in *The Perception of the Environment: Essays in Livelihood, Dwelling and Skill*[20] and *Lines: A Brief History.*[21] Navigation is to use maps and cartographies to plot a course and find one's way. Following a script or design is a trajectory that takes a navigational mode. It is interpretive, and follows a path already laid out. An alternate mode is wayfaring, the process of finding one's way in the 'wild'. Wayfaring is reactive and responsive – improvised with the actual environment, and, in contrast to following a map, is itself a process of mapping.[22] These two processes of finding one's way are central to the performance as well as the process of studying it.

MIXED TEMPORAL REALITY, OR HYBRID TIME

To further add to these concepts of performance and trajectory, we must consider the *times* and *spaces* that constitute a mixed reality. *The Confidence Man* is a useful case study because it produces a complex mixture of realities.

One key aspect of these realities involves interrogating the social production of space, for which I will turn to Lefebvre's dialectic relationship between conceived, perceived and lived spaces.[23] Before this, however, it is vital to note that Lefebvre explicitly describes space in terms of *production*, because production implies the influence of temporal and historical processes. According to Lefebvre, we are not only dealing with space but 'we are dealing with *history*'.[24] As production occurs over time, we must also theorise the temporal realities produced.

Figure 2: *The Confidence Man.*Photograph: Ponch Hawkes. Courtesy © Side Pony Productions.

NETWORK II (TECHNICAL): SCENE 2

I kept looking down at my little switchboard, trying to remember the names of the characters. They didn't address each other by name very often, much less said their own names, so it took some time to figure out who was talking. There were tags affixed to the switchboard, but mine didn't match up evenly, the names and buttons overlapped, and it took trial and error to find the character that I wanted to listen to. Looking down and back up constantly made it hard to keep track of the charac-

ters as they all moved around. I'm forced to pay attention, compelled to recognise the voices and match them up in my head, to synchronise the voice I hear with the performer who also hears it. The switching was always responsive and instant, but there were moments where characters were silent, and my first thought was that the technology was somehow not working, and then, their voice would return … They keep going, the whole time, never stopping, never waiting for me. These six relentless narratives arrest me, I'm absorbed by the way the participants act out what I'm hearing, as they hear it at the same time – how would I do it? But I can't stop and think for long, as the story surges along unceasingly.[25]

To address performances such as *The Confidence Man*, with its overlaying and interacting narratives, Benford and Giannachi propose a theorisation of 'hybrid time'[26] – five temporal categories that together provide a conceptual frame for these complicated narratives. Their first three categories – *story time*, *plot time* and *schedule time* – have their roots in the fields of literary criticism and narratology. 'Story time' can be understood in similar terms to diegesis, 'the (fictional) world in which the situations and events narrated occur',[27] while 'plot time' resembles the Russian formalist concept of *sjužet*, the arrangement of time as it is expressed in the narration. In this respect, *The Confidence Man* operates quite simplistically; the story time is the present, with occasional reminiscences offering memories that serve to develop the characters and their relationships. The plot time has a one-to-one relation to the duration of the performance; time does not speed up or slow down. There is also the time 'outside' of the story and plot, identified as 'schedule time'. Schedule time 'is controlled by the producer, curator, or publisher, and describes the times at which the narration is made available to participants, be they readers, viewers, or players',[28] and is similar to 'discourse time', or duration. These three times are dictated by the artist and medium, but as we take interaction and participation into account, there are two other types of time that Benford and Giannachi outline: *interaction time* and *perceived time*. In *The Confidence Man*, the six separate narratives all share the same schedule time and story time and, when in dialogue, the same plot time. The audience members with switchboards can switch between narratives as they desire, but they can only hear one narrative at any one time.

This ability to switch between audio tracks is an example of interaction time, which, although subject to schedule time, and to technological restraints, is nevertheless controlled by the participant. The final type of time, perceived time, 'refers to the way in which the timing of events may be perceived by individual participants'.[29] The opening minutes of *The Confidence Man* gave an incredible perception of accelerated time, as switching back and forth between narratives creates an anxiety about missing out.

NETWORK II (TECHNICAL): SCENE 3

Finally, I get my chance under the big lights! I've been sitting in this drawer all day and I can just feel the creases setting into my lovely fibres. OH the ignominy! They never appreciate how important I am – I'm the heart and soul of this production! The poor girl wouldn't have a chance of acting in love and heart a-flutter without me; I am the physical embodiment of her romantic adolescence! With that oversize mask incapable of emotion, it is down to me to stand in for her gentle aspirations; and what thanks do I get? Stuffed away in this drawer for hours, only to be stuffed away again as soon as I work my magic! Well, that's life in the theatre. Wait – can you hear that? it's almost my time … I can see the light, I am as light as air, and in a flourish I am wrapped around another body. For these glorious minutes, I will own the stage – I am beautiful, look at me! Oh, these precious minutes seem like an eternity, but they are over all too soon. I sense it coming, sneaking up on me again. My time is almost up. I don't want to go back in that drawer! What's this? The skin beneath perspires, it is clammy … She's moving back to her room, oh, no … I can't go back, not now … I feel myself being peeled off from the shoulder, this is my chance! I cling, just around the elbow … My fibres align, all I need is that one strong pull to twist up and cling on. Please God, if you're there, please … There it is! My show goes on! I am truly in the spotlight now! I can feel the eyes, more and more eyes as they are drawn toward me, and it is glorious! I have stolen the show!

Figure 3: ***The Confidence Man***. Photograph: Ponch Hawkes. Courtesy © Side Pony Productions.

MIXED SPATIAL REALITY

The performance of *The Confidence Man* took place in the old North Melbourne town hall, a building that during the day, with its architecture, bricks, mortar and seating arrangements could be considered, using Lefebvre's term, a space that constructs, polices and governs: a *representation of space*. For example, the chairs are placed where you are expected to sit. 'Representations of space' are 'the dominant space in any society',[30] a physical space that influences the behaviour of people in it. *The Confidence Man* used a range of techniques to alter the 'dominant' space into something else. The performance was not staged behind a proscenium; it took place in the middle of the hall. On the floorboards, the floor plan of a house was masked out with tape, with the audience seated around it. Each room on the floor plan was appropriately furnished; there were bedrooms, a bathroom, kitchen and lounge. These objects help to develop another type of space: *representational space*. This is the space where disbelief is suspended, the space that performance creates. Representational space 'is the space which the imagination seeks to change and appropriate. It overlays physical space, making symbolic use of its objects',[31] but is also reliant on the practice of people within it.

During the performance of *The Confidence Man*, the layout of the floor plan and the audio narrative both exerted a force upon the performers; however, this force was not always unified. The lines of tape on the floor represented walls; however, this representation was dependent on the spatial practice of the performers. To perform as if these lines on the floor were walls, impossible to see or walk through, strengthens the production of this representational space; we see the r*epresentational space* alter *spatial practice* and disrupt the dominant *representations of space*. The audio narratives also produced a representational space with their description of space and the stage directions that performers used to navigate their trajectory through the performance. These directions and descriptions are designed to fit with and add to the space produced by the tape on the floor, yet in performance yielded interesting and unexpected outcomes.

Sara: The instructions were telling them to pick up a bag and leave the room, um, but they couldn't find the bag in time, and they haven't even left the room when they were meant to be doing something else, so dialogue was happening but the actor wasn't in the right place …

Me: Did that take you out of the story?

Sara: Yeah … it took away from the plot, but it had its own appeal, in a way, because you were watching people genuinely doing things.

As Sara describes, in many cases the directions relied on a degree of interpretation or were not followed as intended. For instance, one performer was instructed to walk around the perimeter of the house while their character held an internal monologue. At the completion of the monologue, the character was supposed to be in a certain location, but the performer had walked too slowly and was somewhere else. What was most compelling about these

dislocations was the remarkably similar way in which performers responded: by *wayfaring*. They resolved their dislocation in the audio representation though the disruption of the floor plan: by talking and walking through walls. In spite of these internal conflicts in the production of a representational space, the performance held together, the representation of the house remained believable.

NETWORK III (CRITICAL): SCENE 1

A dressing room, post show. Silk Gown is preening in a mirror.

Enter Audio-Assemblage.

Audio-Assemblage: You bloody prima-donna! You nearly ruined the show.

Silk Gown: Oh, don't be such a downer, everything went fine, no problems!

Audio-Assemblage: No, everything did NOT go fine. I had to save the show. Don't you know how hard it is to keep everything running?

Silk Gown: What would you know? You don't know what it is to truly perform, to feel their eyes on you, to be intoxicated by the attention. You're just a machine.

Audio-Assemblage: And you're just a cheap prop, you idiot. You're not even necessary, I can carry the show by myself! You're only there to give those punters something to hide behind, while I do all the work. What am I supposed to do, when you try to steal the show and wrap up that poor girl?

Silk Gown: You could just stop for a beat, and let me have my moment!

Audio-Assemblage: You think I can just stop? It's not bloody theatre-sports out there for me, you know! Every single little thing is perfectly orchestrated. If I stop just one character, I have to stop them all.

Silk Gown: Well? Why not just stop them all?

Audio-Assemblage: If I stop them all, then there are six stunned mullets just standing there on stage, with no idea what to do, and a whole room full of people looking around, trying to get the usher to fix their headphones. Everything that we've been working so hard to produce will be ruined!

Silk Gown: Well, it still worked out, didn't it?

Audio-Assemblage: Yes, but only because I kept the show going, and that girl chose to follow my lead, rather than yours. Even though she had to perform the rest of the show tangled up in you. You're lucky she gets killed off so early.

Silk Gown: But they loved it! The danger, the tension, that it could all fall apart so easily – they lapped it up.

Audio-Assemblage: (about to say something, then stops, thinks …) You're right. It's very strange …

MIXED ACTOR NETWORK REALITY: NETWORK III (CRITICAL): SCENE 2

Rather than attempting a traditional reading of the representation and delivery of this script in performance, or the dubious assumption of a perfectly *repeatable* performance by a professional cast of actors, this material semiotic approach allows us to consider this event in terms of its distribution across a network of social, technological and artistic performances. However, with this analysis, certain strings are attached, liberties are taken: a story is told. I have re-constructed a version of *The Confidence Man*, and this re-construction is not innocent; 'since our own stories weave further webs, it is never the case that they simply describe'.[32] This is by and large *my* story, corroborated with members of the audience, fact-checked through published reviews and promotional writings, and in consultation with the artists involved. I have characterised objects, anthropomorphising them into roles to which they have no right of reply.

So what can be gained? As the final scene of this research performance, I will draw some conclusions, thinking about politics and power in terms of Jacques Rancière's philosophy of emancipation[33] and Claire Bishop's telling question for relational art: 'What types of relations are being produced, for whom, and why?'[34] *The Confidence Man* appears to create an empowering equality of access, as both participant actors and interacting audience share a common text. They are given the power to take the stage, the choice of what to listen to. In this sense, *The Confidence Man* attempts to create an intentional community around the performance and experience of these six narratives. However, as Rancière writes, 'by placing the spectators on the stage and the performers in the auditorium; by abolishing the difference between the two; by transferring the performance to other sites',[35] theatre seeks to create a community that is the *fusion* of the artist/audience/artwork, and this 'presupposition theatre is in and of itself communitarian',[36] he proposes, needs to be challenged. 'What our performances – be they teaching or playing, speaking, writing, making art or looking at it – verify is not our participation in a power embodied in the community. It is the capacity of anonymous people, the capacity that makes everyone equal to everyone else.'[37] The ideal communities that Rancière envisions, as Lavender explains, 'are not so much defined by their togetherness as by their facilitation of difference, the fact that they enable individual expression'.[38]

In fact, what becomes clear using this experimental methodology is that the perfect performance of the audio technology, the most complicated and difficult part of the performance to orchestrate, becomes a *governing* force. The temporal drive of the narrative (and the technology that facilitated it) becomes the robust backbone of the performance, with participants and audiences entering into a *dependent* relationship with it. Indeed, as Sara noted, this innovative form had 'not much scope for playing, only for obeying'. The performance of the audio technology forced participants to 'keep up' with the script, not allowing time for participants to think for themselves and perform accordingly. A more basic, but equally constrictive demand was placed on

the audience, to rely on the headphones in order to make sense of the performance. The production of space, time, technology, costumes and props all work together to create a mixed reality that offers the audience and participants agency, but controls and directs this agency.

While we can observe the control exerted by this platform, which acts as a key mediator in shaping participant performance, the accounts presented in this article focus on the moments where the boundaries of this platform are tested: the *dislocation* of participants and the unruly behaviour of the silk gown. These are moments that can be considered in term of *dissensus,* a key concept in Rancière's thinking, understood as the moments where a dominant regime of sense-making is 'cracked open from the inside, reconfigured in a different regime of perception and signification'.[39] When participants were dislocated, they showed an alternative reading of the audio narrative – quite literally – and this conflict between the performance of participant and performance of audio narrative allowed the audience a moment to consider the differences involved in interpretation. Audiences could understanding the difficulty of instantly interpreting and enacting, and empathise with the participant. The unruly silk gown also interfered with the audio narratives, producing a sense of danger and instability between the representational space and an everyday social space, drawing attention to the line that separated them, and the forces that produce them.

Finally, I wish to note a moment intentionally created in *The Confidence Man*, where a character is killed, and the participant lies on the floor for the remainder of the performance. A participant described the experience:

> Yes, in that moment when my character had been shot, while the rest of the action went on, I didn't know what to expect. And was so surprised when the narrative continued – firstly talking me through my own death, as I remember it; and then moving into a more abstract narrative that touched on life and death in a very poignant way. It felt very much as though nobody else was hearing it; that it had been written just for me. It didn't

> really occur to me that there were other audience members listening too. It became an experience all of its own, in which I was prompted, quite profoundly, to think about – or rather to *feel* – something about the meaning of human existence that really can't, in the end, be put into words.[40]

Removing the demands of the narrative to act allowed a space for being apart while also being together, a space where an individual can form their own associations and dissociations. 'It is in this power of associating and dissociating that the emancipation of the spectator consists – that is to say, the emancipation of each of us as a spectator.'[41] While the novel form of *The Confidence Man* physically emancipated members of the audience from their seats, there is a deep contradiction in emancipation forced upon the spectator by the artwork. Rather, it is better to consider these instances, where through their own thinking and acting, audiences and participants emancipate themselves.

EPILOGUE

While the scope of this article may not permit us to answer Bishop's question in full, I believe that these methodological tools and processes have revealed important and useful contributions to the understanding, reception and criticism of interactive and participatory performance, but that they also bring their own questions of politics and ethics, questions of how to situate the researcher, and to consider the role they play as an actor – and an influential one – within these networks. The researcher needs to ask the same question of themselves: what type of relations are being *re*-produced, for whom, and why?

NOTES

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24 *Ibid* 46.

25 Excerpt from my own notes taken after the performance.

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27 Gerald Prince, *A Dictionary of Narratology: Revised Edition* (Lincoln and London: University of Nebraska Press, 2003) 20.

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29 *Ibid*.

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32 Law, 'Actor Network Theory and Material Semiotics', 154.

33 Jacques Rancière, *The Emancipated Spectator*, trans. Gregory Elliott (London: Verso, 2011 [2008]).

34 Claire Bishop, 'Antagonism and Relational Aesthetics', *October* 110 (2004) 65.

35 Rancière, *The Emancipated Spectator*, 15.

36 *Ibid* 16.

37 *Ibid* 17.

38 Andy Lavender, 'Viewing and Acting (and Points in Between): The Trouble with Spectating after Rancière', *Contemporary Theatre Review* 22.3 (2012) 310.

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40 Extract from an e-mail correspondance between the author and Urszula Dawkins, used with permission.

41 Rancière, *The Emancipated Spectator*, 17.

THEORISING PERFORMANCE AND TECHNOLOGY: AESTHETIC AND NEUROAESTHETIC APPROACHES

Susan Broadhurst

INTRODUCTION

In this article, it is my intention to examine and compare aesthetic and neuroaesthetic theorisation in order to provide interpretive strategies that would be capable of addressing sophisticated technological art practices. In doing so, I will provide a study of two mutually enhancing approaches to this analysis – namely, the writings and aesthetic theorisation of Maurice Merleau-Ponty and a neuroaesthetic approach linking performance and art practices to neuroscientific research in order to provide some understanding of the biological underpinnings of aesthetic experience. It is my belief that these diverse approaches have much to contribute to interpreting such developments. Due to the vast amount of research undertaken in this area, visual perception is central (though not exclusive) to a biologically related approach. The general direction of such research illuminates the problem as summarised by Francis Crick: 'It is difficult for many people to accept that what they see is a symbolic interpretation of the world – it all seems so much like "the real thing"'.[1]

CONTEXT

Performance – an extensive but, for some, challenging zone between drama, dance and happening – has entered new territory which reflects our enveloping experience of the contemporary world, capturing that primitive sense of interactive consciousness which Heidegger called simply 'being in the world'.[2] In a short period of time, there has been an explosion of new technologies that have infiltrated, and irreversibly altered, our lives. The consequences are not without problems, but these developments have given performance practice powerful new dimensions.

As far as performance presentation goes, it seems to have developed from sporadically held events, staged in 'real time', in obscure venues, with the minimum of props, into multimedia stagings, attracting large audiences and employing a panoply of technological devices. Its artistic ambitions, too, appear to have enlarged, embracing multi-layered content which attempts to address more elusive and broader themes, reflecting our enveloping experience of the contemporary world. Of course in this period there has been an increasing mainstream acceptance of stage practices which depart radically from textually based drama or traditional dance, as witnessed by the immense impact of Bausch's *Tanztheater.* It is my belief that our changed technological resources constitute a critical factor in this evolution. The analogue processes of film and magnetic tape have frequently served in the past as components and amplification of live performance, but their rela-

tionship to the latter was one of simple synchronicity: they ran on their course inexorably, and the performer/s would coordinate to a greater or lesser degree with them.

In the last two decades, however, the development of digital processing facilitated an unprecedented interactivity between performer and device (characteristically demonstrated by Troika Ranch, among others), bringing hugely increased computing power to these functions, and, in virtue of its ability to break down information into mutable combinations of bits, the opportunity to mould and sculpt, so to speak, the qualities of the presented material. Digital technology transformed a fundamentally passive, recipient relationship of performer to media devices, into one of active reciprocity and joint enterprise. I would suggest that, culturally, as a result of these developments, our sense of bodily frontiers has undergone a radical expansion, and so too has our conception of the 'incarnate' nature of consciousness, in which respect I regard Merleau-Ponty's theorisation as pivotal. I also contend that the above-mentioned field of neuroaesthetic analysis might provide some insight into why the more obscure instances of contemporary performance have the artistic value that we apparently accord to them.

It is my belief that such exemplary features demand a new mode of analysis, which foregrounds the inherent tensions between the physical and virtual. As a development of previous theorisation on liminality,[3] an aesthetic theorisation is central to this analysis. However, other approaches are also valid, particularly those offered by research into cognitive neuroscience,[4] and in relation to the emergent field of 'neuro-aesthetics' where the primary objective is to provide 'an understanding of the biological basis of aesthetic experience'.[5]

MERLEAU-PONTY AND THE 'INCARNATE MIND'

Much critical theorisation in recent times has focused on the perceptual role of the body, and much of this emphasis has been directly attributable

to the work of Maurice Merleau-Ponty. By shifting the perspective from Husserl's latterly idealist position to the 'primacy' and 'phenomenology of perception', Merleau-Ponty instituted the 'corporeal turn' so crucial to contemporary theory and practice. This theoretical emphasis on the *corpus* is important, since within technologically informed performances the body, both physical and virtual, is pivotal.

As a philosopher, Merleau-Ponty inherited features of the aforementioned project of European *phenomenology* – chiefly its commitment to attempting to describe the contents of consciousness directly, without trying to prune away unsafe knowledge claims or to provide causal explanations (as previous philosophical tendencies had done), and also to take as its point of departure the acting subject, already engaged with, and directing different modes of attention onto, the world, rather than a passive, Cartesian, somewhat disembodied self, disinterestedly deriving conclusions about it.

For Merleau-Ponty, the 'perceiving mind is an incarnated mind' and perception is not simply the result of the external world on the body: 'what recent psychologists have come to formulate: the lived perspective, that which we actually perceive, is not a geometric or photographic one'.[6] 'Vision is not the metamorphosis of things themselves into the sight of them'; it is, rather, 'a thinking that deciphers strictly the signs given within the body'.[7] There is no perception in general; there is only perception as it is 'lived' in the world. As a result, the perceiving subject is always changing, always going through a process of rebirth; 'my body *obeys* the pregnancy … flesh responding to flesh … This definition of pregnancy as implying motivity … a sense by transcendence.'[8] The performance artist Stelarc, as discussed below, amply demonstrates this through his performance and art practices, since he shows 'to be a body is to be tied to a certain world'.[9]

In replacing objective notions of embodiment by embodied experience, Merleau-Ponty goes beyond the limited subject/object ontology not by returning to a reductionist dualism (of binary oppositions), which would simply prioritise one term over another, but rather by attempting to under-

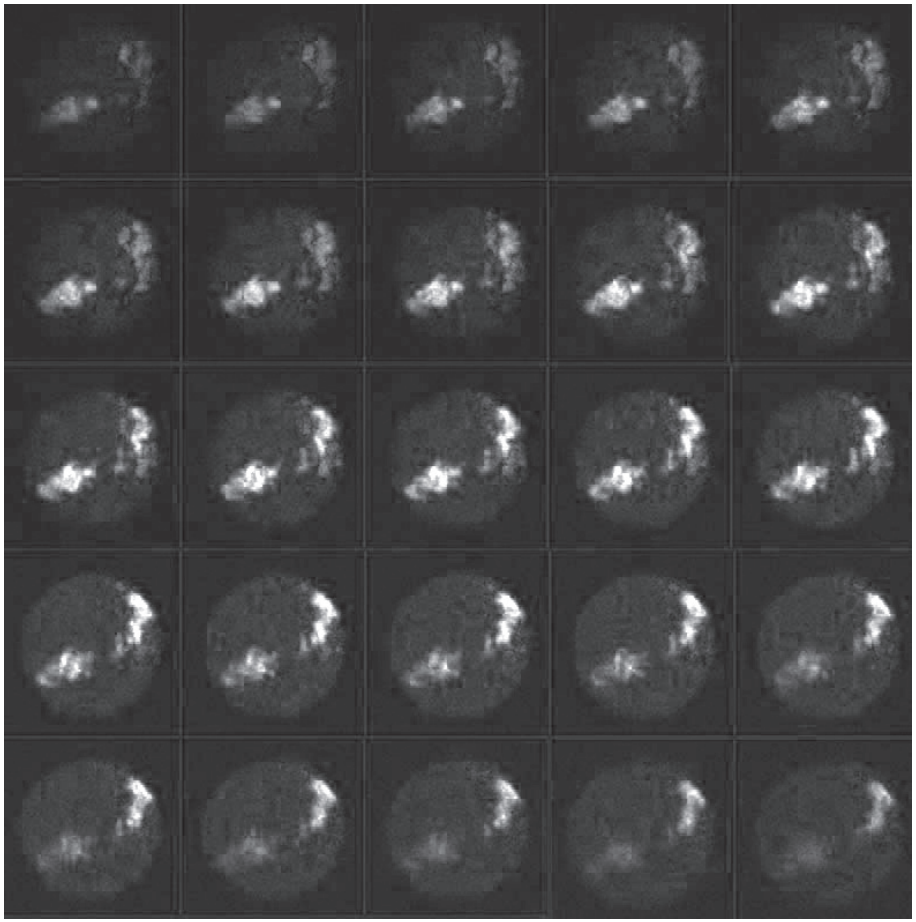

Figure 1: Marta de Menezes, *NucleArt* (2000–02). Human cell with painted chromosomes. Frame from video-installation, projected onto 3-D screens.

stand the interplay of the biological and physical, 'the inside and outside'. Merleau-Ponty asks us to reflect on the consciousness of lived experience: 'Consciousness … is not a matter of "I think that" but "I can"'.[10] The body is seen not as an objectifiable entity, instead, 'I am not in front of my body, I am in it, rather I am it'. It interprets itself and it is to be 'compared, not to a physical object, but rather to a work of art … It is a focal point of living meanings.'[11] Here, Merleau-Ponty is suggesting that perception is not only intertwined

with the scientific and rationalistic but also with the 'aesthetological', the 'mute' artistic, the 'primordial'.[12] An instance of this is provided by bioart practices where 'we are witnessing the birth of a new form of art: art created in test-tubes'.[13] Since her first work of bioart, *Nature?* (2000), involving the microsurgical modification of live butterfly wing patterns, Marta de Menezes has employed a variety of scientific technologies, including images derived from her own brain FMRI in *Functional Portraits* (2002), fluorescent DNA in *NucleArt* (2001) and protein synthesis in *Proteic Portrait* (2002). If the body is also seen as an intertwining of movement and vision, then 'we cannot imagine how a *mind* could paint; it is by lending his body to the world that the artist changes the world'.[14]

As a development of his previous, post-Cartesian phenomenological approach, Merleau-Ponty in his later writings, 'Eye and Mind' and *The Visible and the Invisible*, emphasises the 'flesh of the world' rather than a lived perceiving body.[15] He indicates that perception is not an intentional act but rather simply a being in the world or a 'being at' in the world, 'the seeing and the visible, the touching and the touchable … is not an act, it is a being at … the reflexivity of the body, the fact that it touches itself touching, sees itself seeing … does not go beyond a sort of *imminence*, it terminates in the invisible'.[16]

Susan Kozel in *Closer* correctly identifies that Merleau-Ponty's notion of 'the invisible is significant to digital media because it challenges the supremacy and literality of vision'. She argues that it allows consideration for media such as 'sound and haptics' other than 'simplistic notions of moving images'. As she mentions, Merleau-Ponty, in his uncompleted theorisation on the 'visible' and 'invisible', enables the introduction not only of 'corporeal roots of vision but also kinetic and kinaesthetic qualities'.[17]

For Merleau-Ponty, visibility always involves non-visibility and likewise the visible entails the invisible. According to him, 'when we speak of the flesh of the visible, we do not mean to do anthropology, to describe a world, covered over with all our own projections'; instead, what is meant is a carnal being of 'several leaves or faces'.[18] In this sense, the lived corporeal body remains

absolutely central to his writings but I would argue also that it is crucial to technologically informed creative practices.

How can one associate these positions with the phenomenon of performance today? I suggest that there are, so to speak, three degrees of proximity: influence acknowledged *by* a performer; concurrence of a performer's creative intent *with* previous theorisation; and use of such theories to retrospectively *analyse* a performer's work.

In performance and technology, instrumentation is mutually implicated with the body. The body adapts and, in effect, extends itself through external instruments. In this way, 'the body is our general medium for having a world'.[19] To have experience, to get used to an instrument, is to incorporate that instrument into the body; 'habit expresses our power of dilating our being in the world, or changing our existence by appropriating fresh instruments'.[20] The experience of the corporeal schema is not fixed or delimited but extendable to the various tools and technologies which may be embodied.

Moreover, the body is a system of possible actions, since when we point to an object, we refer to that object not as an object represented but as a specific thing towards which we 'project' or propel ourselves,[21] in fact a 'virtual body' with its phenomenal 'place' defined by task and location.[22] This emphasis on a virtual body has resonance with and points to a deconstruction of the physical/virtual body of digital practices, a body of potential and, indeed, infinite creativity.

An example of this 'instrumentation' is magnetic or optical motion capture, which has been used widely in performance and art practices for some time now. This involves the application of sensors or markers to the performer's or artist's body. The movement of the body is captured, and the resulting skeleton has animation applied to it. This data-projected image or avatar then becomes some part of a performance or art practice.

Kozel writes of her own early improvisation with 'mocap data' where she experienced an '"open circuit" between her body and the figure'. Her avatar provided direct extensions of her movement but there was no convergence

'between her and the visible figure'. She claims that 'we borrowed from each other' and, adopting Merleau-Ponty's notion of 'encroachment', 'we "encroached" on each other' and 'we also gave to each other'.[23] She continues: 'The figure with which I perform is always at the same time both my own body and another body … If we follow Merleau-Ponty, perception is more than just the neurophysiological mechanisms by which I apprehend the world … perception is ontological.'[24]

Motion tracking is used especially in live performances, such as Merce Cunningham's *Biped*,[25] where pre-recorded dancing avatars are rear-projected onto a translucent screen, giving the effect of a direct interface between the physical and virtual bodies.

Cunningham's use of motion capture, in collaboration with Shelley Eshkar and Paul Kaiser, displaces the boundaries of physicality in a fairly radical way. Physical movement generates virtual bodies through the mediation of technology and the digital designers. Hand-drawn abstract images and figures by Eshkar, animated by motion capture data provided by real dancers, are seen together with live dancers on stage, bringing into question notions of embodiment, identity and origin.

Other forms of instrumentation are MIDI (musical instrument data interface), Max (a real-time programming environment that has the special advantage of being interactive with visual and network technologies) and OSC (open sound control),[26] which are central to the performances of internationally renowned Troika Ranch (composer and software engineer, Mark Coniglio; choreography and artistic director, Dawn Stoppiello), who fuse traditional elements of music, dance and theatre with real-time interactive digital technology, thus providing technological extensions of the body.

Troika Ranch are pioneers in their use of MidiDancer and Isadora software, which can interpret physical movements of performers and, as a result, that information can be used to manipulate the accompanying sound, media and visual imagery in a variety of ways, thus providing a new creative potential for performance. This is exemplified by their forthcoming work

SWARM, which will be an immersive multimedia performance/installation where the movements of the audience as community allow them to collaborate on composing the sonic scene, visual materials, theatrical lighting and the actions of the performers. The crux is that only through co-ordination, conversation and collective action can the audience – the Swarm – fully realise and experience the performance.

In Stelarc's performances, the body is also coupled with a variety of instrumental and technological devices that, instead of being separate from the body, become part of that body. One such performance is *Muscle Machine*,[27] where Stelarc constructed an interactive and operational system in the form of a walking robot. *Muscle Machine* couples the biological body with machine architecture, combining muscles with mechanism. Rubber muscles are inflated with air, and as one set of muscles lengthens the other shortens in order to produce movement, at the same time translating human bipedal gait into a six-legged, insect-like motion.

Additionally, artificial intelligence is featured in technological performance practices, where the challenge is to demarcate the delimited human body from an artificially intelligent life form, such as Jeremiah, the avatar in *Blue Bloodshot Flowers*,[28] who was developed from surveillance technology. In the performance, his vast spectral face, like some deity, focuses on and tracks the movement of the figures whom he perceives as being literally *sub specie aeternitatis* ('under the gaze of eternity').

For Merleau-Ponty, our bodies are always open to and 'intertwined' with the world. Technology, as demonstrated by the above performances, can thus imply a reconfiguration of our embodied experience. When, to use the word non-semiotically, the meaning 'aimed at' cannot be reached by the body alone, the body builds its own instruments and projects around itself a mediated world. Rather than being separate from the body, technology becomes part of that body, so altering and recreating our experience in the world.

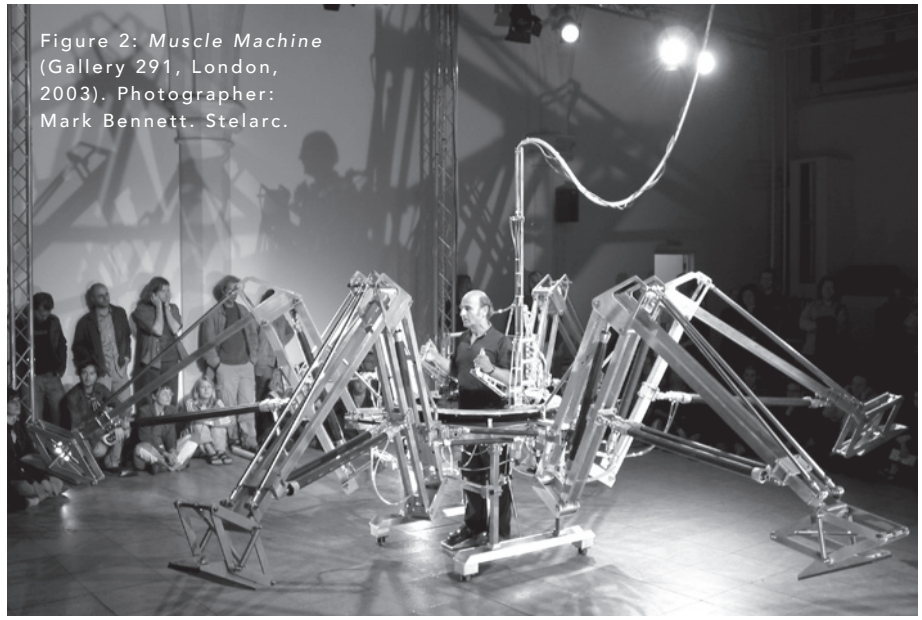

Figure 2: *Muscle Machine* (Gallery 291, London, 2003). Photographer: Mark Bennett. Stelarc.

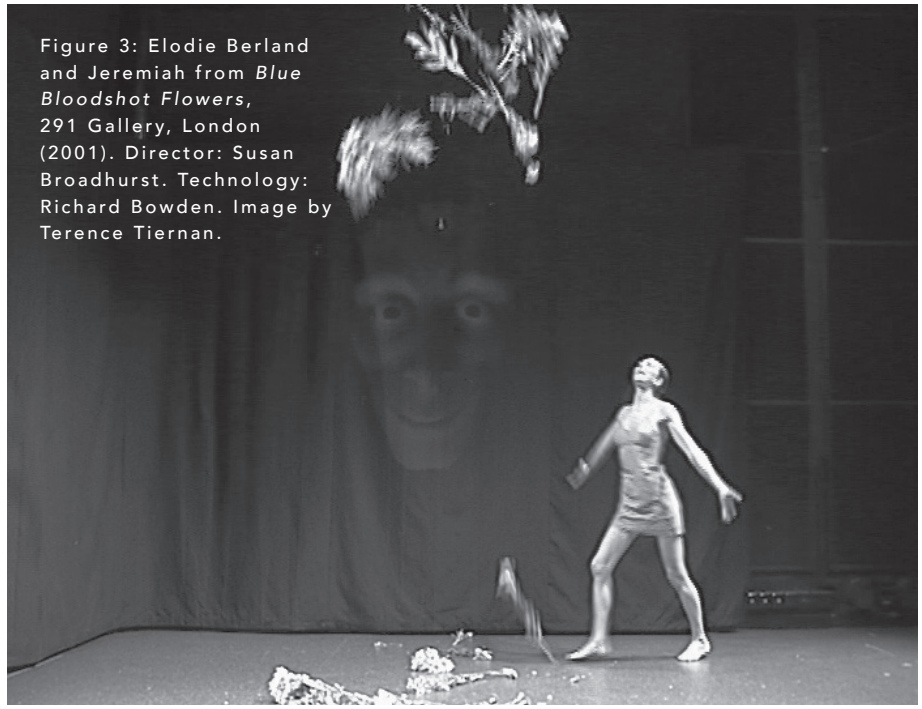

Figure 3: Elodie Berland and Jeremiah from *Blue Bloodshot Flowers*, 291 Gallery, London (2001). Director: Susan Broadhurst. Technology: Richard Bowden. Image by Terence Tiernan.

A NEUROAESTHETIC APPROACH TO PERCEPTION

In the last thirty years, neurological research has reached a point where we can examine in some detail the nature of brain activity involved in sustaining states of consciousness, and in directing different modes of attention towards particular features in the world.

In taking a neuroaesthetic approach here, the embodied nature of experience is again central. How do we perceive? How do we see? How do we understand what we see? And how can we recollect an image that we can picture in seemingly perfect detail when the visual stimulus is no longer before us? Although light does stimulate the very sensitive photoreceptors located on our retina, it does not engage with the brain directly. The only information that the brain receives comes from electrical impulses at varying frequencies, as signals from our senses. The signals need to be made sense of according to a colourific resolution based on a complex interaction of neural activity, experience and knowledge.

There seem to be three main zones of enquiry which such research has addressed: the relationship between various sensory stimuli and neural activity; the coordination of these to produce a coherent representation of the world; and the involvement of such factors as memory, expectation and imagination in interpreting it. Traditional empirical approaches, predating this research, would have regarded these three zones as being very much sequential: stimulus-electronic impulse-coordination-interpretation. What is now apparent is that they are highly reciprocal.

Stimuli are not received as discrete events to which interpretation is 'applied'; rather, they are sorted and enriched by use of associable memories (themselves often completed by imagination), and by expectations derived from these. Philosophers have called this condition 'theory-laden-ness', which implicitly rejects a notion, historically called 'empirical atomism', that we are immediately aware of interpretation-free data. As scientific research progresses, bringing increased knowledge of how visual imagery is

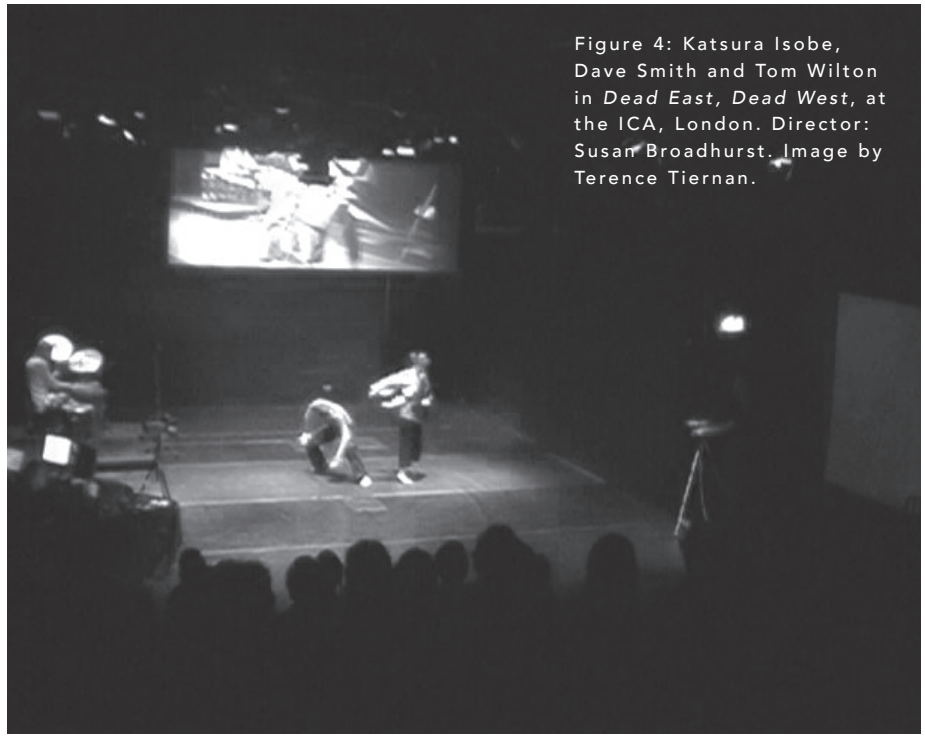

Figure 4: Katsura Isobe, Dave Smith and Tom Wilton in *Dead East, Dead West*, at the ICA, London. Director: Susan Broadhurst. Image by Terence Tiernan.

constructed, there is even more of a distinction between 'perceived appearances' and 'accepted realities', or between what we *see* and what we *know* and believe we see,[29] which ultimately leads to a questioning of the very nature of our consciousness, identity and being. This point exhibits expediently the difference between scientific and phenomenological standpoints: science has provided an 'aetiology' – that is, a causal account of a phenomenon – but by its nature as a discipline in search of causes, cannot address it directly.

This is, of course, not to say that the two approaches are in opposition. As previously mentioned, Merleau-Ponty was particularly interested in the neurological research of his time, and his work *The Phenomenology of Perception* vividly instances and describes the results of brain injury. It could be suggested that phenomenology projected lines of enquiry relating to consciousness which neuroscience has subsequently sought to explain in detail.

Another example of neuroscientific anticipations found in his writings are the 'intertwining and chiasm' (metonymically referring to the optical chiasma – that is, the crossover of the optic nerves) of body, experience and pre-conception that work together in the act of perceiving. According to Martin Jay, 'we are always in the middle of a multilayered process … best understood as chiasmus'.[30] Binocular vision is necessary for assessing depth of vision, which results when the brain somehow compares and reconciles the input from these two incompatible positions. Digital performances such as *Dead East, Dead West*,[31] an experimental sound and movement-based piece, use 3-D technologies in an attempt to replicate this stereoscopic affect on two-dimensional imagery.

Notwithstanding all the exploration and work that has been done by scientists, psychologists, theorists and philosophers concerning vision, there is still 'no clear idea of how we see anything'.[32] Although visual awareness is taken for granted, it is not fully understood how the brain makes 'sense' of what it sees – that is, how it welds together micro-electrical impulses into a coherent and navigable world-picture. Certainly fragments of this process can be understood. For instance, there is some idea of the location of various visual operations in the cortex of the brain, but there are still simple questions that as yet cannot be answered. For example: How do we see colour and make sense of it? How do we recognise a familiar face? What allows us to see motion? Quite a lot of hypotheses have been formulated about these processes, mainly as a result of what happens when things go wrong because of disease or injury.

Another important point is that we can never actually have a direct knowledge of objects in the world, since what our brain makes sense of is not simply a succession of images but also symbolic interpretations, and of course such interpretations can sometimes be wrong. What is epistemically 'seen' is not what is actually in front of us but what our brain believes to be there – 'coloured', as it were, by our knowledge and experience.

For Stephen Kosslyn, perception is differentiated from imagery, inasmuch as in the former a perceived object is physically present, while in the latter,

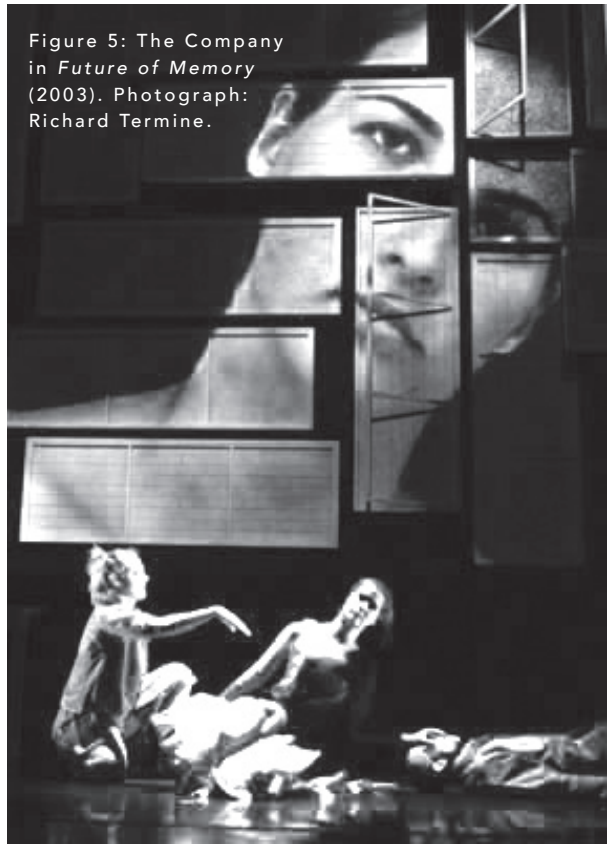

Figure 5: The Company in *Future of Memory* (2003). Photograph: Richard Termine.

perceived objects are not 'actually' being viewed and they can be changed at will. Memory also plays a role, since visual images are usually built on visual memories. Although these images are immediate and transient, they can be used at different times to form new imagery – a point not lost on Descartes in his first 'Meditation'.[33] In fact, imagery (not solely restricted to vision) is important to cognition, due to its ability to create and be creative.[34] New research has shown that some areas of the brain involved in visual processing are 'topographically organised' – that is, these areas use spaces on the surface of the brain to represent 'space in the world'. When an object is viewed, the pattern of activity on the retina is projected back into the brain, where it is reproduced (though with some distortions) on the surface of the brain, literally presenting a 'picture in your head'. Edward Smith and Stephen Kosslyn argue that 'brain areas support genuinely depictive representations'. They suggest that a similar process occurs with eyes closed and a remembered object visualised, in as much as topographical organisation also occurs.[35]

Visual imagery is central to many digital practices – for instance, memory and the act of remembering are explored in Troika Ranch's *The Future of Memory* (2003), by means of a multi-layered collage of imagery and sound, with the technology acting as a 'metaphor for memory' itself. Using 'Isadora in tandem with MidiDancer', the performers – Stoppiello, Goldman, Szabo and Tillett – manipulate sounds and images in real time; 'floating in a chaotic world of movement video and sound, the four characters … swirl in and out of reality as they attempt to regain the memories that define who they really are'.[36]

The retina of the eye is not linked to the whole of the cerebral cortex but instead to a fairly localised area now generally known as the 'primary visual cortex', or area 'V1'.[37] Adjacent areas of the retina connect with V1, recreating a visual map of the retina on the cortex. Connections between the retina and the primary visual cortex are genetically determined, with the necessary visual apparatus being present at birth. However, to be able to function at all this system needs to be exposed to the visual world. For whatever reason, if cells in the visual brain are deprived of this crucial exposure in the early period of life, they become dysfunctional and are unable to respond fully to visual stimuli, if they can respond at all.

It would seem that the primary region concerned with colour is the V4 complex, and it is located in the fusiform gyrus. Of course colour cannot be divorced from form, since there must be a border to distinguish colour, even if the brain processes both attributes separately.[38] Though colour is a property of the brain and not of the external world, it is still dependent on a physical reality outside the brain; 'the science of colour is therefore a mental science' that also makes use of 'optics' and 'anatomy'.[39]

The key areas of the cortex that seem to be concerned with colour are specialised cells in V1, V2 and the colour centre V4, together with locations in the temporal lobe.

Although it is possible to specify which features are demonstrated by individual visual areas, it does not mean that they are the only attributes of those

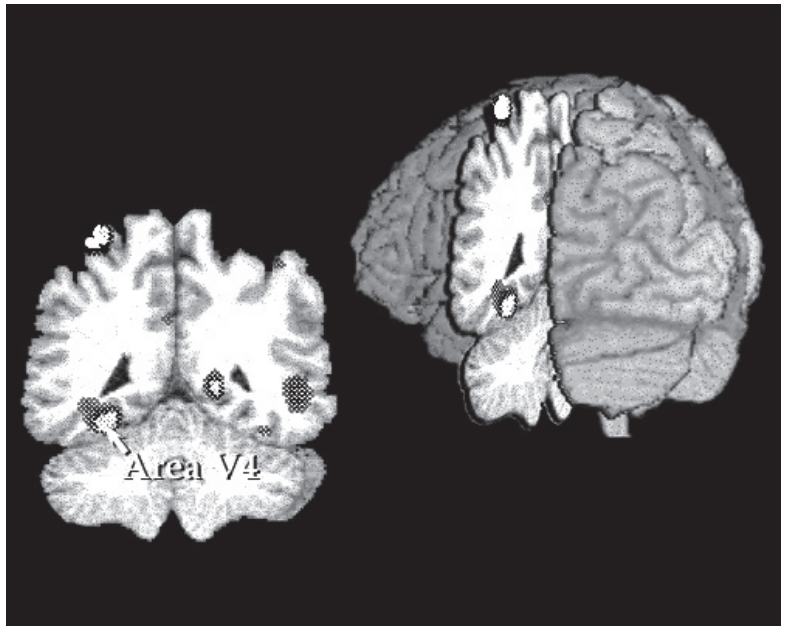

Figure 6: Area V4 of the brain. Photograph ourtesy of Professor Semir Zeki. From the Laboratory of Neurobiology at University College London, www.vislab.ucl.ac.uk.

areas. For that matter, there may be no clear indication just what such features mean. For example, to know that V2 appears to have some concern with colour gives us no clear idea whether the neurons within this area allow us to see colour or merely draw the brain's awareness to what the colour actually looks like.[40]

What is known is that colour is perceived before form, that in turn is perceived before motion – the period of time between the perception of colour and motion of an object is approximately 80–100 milliseconds.[41] The consequence of this is that the brain, over very short periods of time, is unable to combine what happens in 'real time'; instead, it unifies the results of its own processing in a short duration combining all visual attributes to provide us with an integrated experience. Digital multi-layered performances disrupt this perceived 'wholeness'.

Ever since Merleau-Ponty's analysis of the case of 'psychic blindness' suffered by Schneider, who, after being wounded during World War One, was unable to spontaneously perform abstract tasks, although his practical behavior was still generally adequate,[42] it has been apparent how deep the involvement is of various regions of the brain with our ability to use our sense of vision to negotiate the world. This example raises the interesting question of whether there are mental 'disorders' which can yet seem to be enhancements of consciousness. The fusiform gyrus, as well as accommodating V4, is also adjacent to that which represents visual numbers. This has surprising repercussions for a certain subgroup of individuals who, while being otherwise normal, experience sensations in modalities other than the modality that is being directly stimulated.[43] This mingling of the senses is known as synaesthesia (from the Greek *sun*: joining with, and *aisthesis*: sensation) and presents in a variety of ways; for example, some individuals visualise colours when they view numbers. Others see colours in response to a musical or non-musical tone. Various explanations have been given for this phenomenon, but recent evidence suggests that synaesthesia has genuine perceptual foundation.[44] According to Ramachandran and Hubbard, the number/colour or grapheme colour type of synaesthesia, the most common form of this condition, is most likely due to cross-activation or cross-wiring of both the colour and visual number regions within the fusiform gyrus in genetically predisposed individuals.[45] Recent studies have suggested links between synaesthesia and creativity. An important effect is that it improves memory and recall. According to V.S Ramachandran, 'synaesthesia is more common among artists, poets and novelists than the general population'.

To bring the narrative forward, digital performances, projecting an unusual and diverse range of media codes, arouse a need for the brain to attempt to find essentials and stability in order to make sense of the images before it, as in the former approach. However, due to the multi-layered nature of much of this performance, the latter agnostic approach is followed through, which in the context of performance is now routinely designated (post-Brechtianly) as

defamiliarisation. And although there is a need to continually attempt to recognise and make sense of elements within the works, the audience is repeatedly frustrated by the juxtaposition of disparate elements and the concomitant lack of closure or resolution. Instead of a harmonious sense of well-being, there is rather a tension between joy and sorrow, the delight of having an idea of the totality of feeling together with the pain of not being able to fully present an inner state equal to that idea, the inability to 'present the unpresentable'.[46] Thus some performance successfully intertwines the seemingly contradictory aesthetic paths of knowing and unknowing.

All works of art that conflict with our prior experience of visual reality, or frustrate our expectations of any clear resolution, are likely to activate the specific area of the frontal lobe which appears to deal with the resolution of perceptual/experiential conflict.[47] It can be argued that artistic tendencies such as Surrealism and Abstract Expressionism played upon this line of stimulation. So, by implication, does the performance of *Dead East, Dead West* and the performances of Troika Ranch.

This neurological examination of perception, to a certain extent, supports aesthetic theorisation of a more discursive kind. Even the most legislative turns that such theorisation has taken have essentially been inferred from conspicuously successful examples – the *Poetics* of Aristotle being a case in point. And of course the thinking of late antiquity, from Longinus, made room for quasi-aesthetic responses to which rule-satisfying was simply inapplicable, namely the sublime: unlimited, formless but nevertheless instantiating 'purposiveness without purpose' evading any guaranteeable judgement.[48] It is tempting to align this elusive concept with the above-mentioned neurological region.

Talk of the sublime evokes its revivifier in modern thought. In Kantian tradition, pure reason, directed to the nature of understanding, and practical reason, relating to acting within nature, are seen as separate spheres, with the aesthetic as an overlap zone straddling this divide. Although Kant himself criticised any notion of fixture and closure in his claim that 'the concept never

stands within safe limits',[49] to all intents and purposes these two spheres have been since generally assumed to be distinct aspects of intellection. However, this assumed discreteness is brought into question by some neuroscientists, including Semir Zeki, who refute the notion that there could be in effect a 'master area' of the brain concerned with analysing its own understanding *per se*. For the latter, this notion is a 'logical and neurological problem', inasmuch as there would still be the question of 'who' it was that interpreted the presentations arrayed in the rest of the brain.[50] And this in turn would raise a new version of the old problem for philosophical idealists of previous generations, as to what constituted the subject-within-the-subject which examined the sense impressions alone founding our notion of reality.

For Zeki, vision is an active process, a search for constancies,[51] a certain assumption of the stability of physical properties being viewed. There is a need for us to be able to discount changes and variations in order to categorise objects and so to negotiate and empty them successfully. There is no actual colour as such, only wavelengths of light that our visual system makes sense of, and so far as we know only primates, birds, reptiles and some insects have the ability to see colour at all. The wavelength composition of a leaf changes constantly, depending on the light reflected from it. There is no unique 'code' for any colour, yet the brain is still able to decide that a leaf is green whatever the time of day. This 'discounting of the illuminant' is an example of Helmholtz's notion of 'unconscious inference', where certain assumptions of hidden knowledge concerning what is seen can be elicited when an object is viewed. However, for Zeki,[52] Edwin Land's hypothesis in 'The Retinex Theory of Colour Vision' (1974) is closer to our perceptual experience. Zeki, following Land, posits that 'our capacity' for colour constancy 'is the result of a simple brain program, a computational process'.[53]

In his exploration of art and the brain, Zeki links the workings of the brain to visual arts; 'we see in order to acquire knowledge of the world'.[54] Since the brain is only interested in acquiring knowledge from a world that is apparently constant, this acquisition does not come easily; the world of appearances

is continually changing and objects appear from different vantage points, distances, light and depth, yet the brain can still make sense of these objects. For Zeki, art, being an extension of the function of the visual brain, is also a search for essentials and stability even when it appears at its most disruptive.

In relating the visual apparatus to the perception of art, there are surprising neurological differences between viewing naturally coloured objects that have definite shapes, such as trees, plants, cars and buildings, and colour in the abstract – that is, colours that have no reference to any particular objects or scenes, such as found in the abstract paintings of Rothko or LeWitt. The larger implication is that when viewing colour in the abstract, 'automatic computation' takes place in certain areas of the brain. However, when viewing naturally coloured objects, additional factors are used by the colour system, such as memory, learning and judgement.[55] A further and more important implication for digital art and performance practices is that activation of the middle frontal convolution[56] of the frontal lobe when viewing non-representational colour may not mean that this region is exclusively devoted to non-representational colour perception, but rather that it responds to different elements of the unusual or to 'irregular patterns' in general.[57] (This serves as an interesting confirmation of Kant's views that successful artworks both obey and subvert our expectations of 'regularity' and rule-following.)[58]

All works of art that conflict with our prior experience of visual reality or frustrate our expectations of any clear resolution – such as the art of the Fauvists and the Surrealists, and by implication digital practices such as those of Jeremiah in *Blue Bloodshot Flowers* and Troika Ranch – are likely to activate this specific area of the frontal lobe which appears to deal with the resolution of perceptual/experiential conflict.[59]

As I have argued, Merleau-Ponty distinguishes between the 'lived' body or 'I' body from the objective body. He argues that the lived body is made of an elaborate network and contexts that make up the perceptual field, whereas the objective body is merely a biological entity. The former is a cultural identity produced by perception, while the latter is an object which offers itself up to

biology. However, for Merleau-Ponty, 'flesh in itself' is implicated in both: 'Is my body a thing, is it an idea? It is neither, being the measurement of the things.'[60] He posits the notion of 'massive flesh' as being incapable of rational thought or conceptualisation but being rather a pre-subjective, pre-discursive, elemental body, which exists before 'I' am there.[61]

The self, as well as being embodied, is also 'emotional' – as can be seen in the above audience interaction with Jeremiah where the avatar is clearly emotionally appropriated, being viewed as an extension and modification of a human being. An emotional response can be measured by a device that monitors the galvanic skin response (GSR), which is fundamentally the change in skin resistance caused by perspiration. Surprisingly, our GSR does not only respond to events that directly affect us and our bodies, though of course there is a strong reaction when we are directly stimulated. It has been demonstrated that it also responds to events that affect objects that we have appropriated as being part of our body.[62] This may well go some way to explaining the mechanism of love, where another identity is appropriated by our own and as such becomes literally part of our body.[63]

Certain technologically informed performances add a further dimension to this appropriation, since the motions of a performer's body captured technologically result in a modified extension of that physical body – amply evidenced by Cunningham's avatars in *Biped* and by Troika Ranch's *16 [R]evolutions* (2006), where the body writes itself in performance and where innovative choreography and multimedia effects explore the similarities and differences between human and animal, and the evolutions that both go through in a single lifetime. The implication is that the embodied self, as any other aspect of the conscious self, is primary yet transitory, heterogeneous, indeterminate, reflexive, fragmented and has a certain shift-shape property – all the latter being quintessential features of innovative digital performances.

Figure 7: Motion tracking leaves three-dimensional traces of the performers' movements in Troika Ranch's *16 [R]evolutions* (2006). Performers: Johanna Levy and Lucia Tong. Photograph: Richard Termine.

CONCLUSION

To conclude, the embodied self is central to digitally informed art and performance practices. However, its boundaries are not fixed.[64] The above developments in neurological research suggest that this embodiment cannot be explained by a proprietorial relationship between the seat of consciousness and *res extensa*, to use Descartes' terms, and still less by re-invoking his incorporeal *res cogitans* (as enunciated through the first four 'Meditations').[65] It appears that embodiment is reflected in the distributed and quasi-communal (nowadays often called 'modularised') nature of what constitute the requisite zones within the brain to produce consciousness.

Technological enhancement does not offer an extension of our affective epidermis, so to speak, which we do not already feel when we display emotions on behalf of others to whom we are 'close'. Rather, this empathy is a necessary

condition for the effects that such technological employments have on us. We are disposed to respond to events that affect objects that we have appropriated as being part of our body,[66] and when we love, it seems that another identity is appropriated by our own and becomes part of it.[67] Hume's notion of 'the double relation', explaining emotional attachments, can be seen as a distant anticipation of this.[68]

Finally, it appears that consciousness itself cannot be reduced to a single layer of process or functioning. It is of its nature multi-layered and multi-faceted. It seems that the brain has an internal system of referring whichever confusing or even downright aporetic matter for further review. This, obviously, has an extrinsic reflection in the faculties engaged by much performance practice. When a performance 'works' or seems right, and we are quite incapable of articulating just *why* this is so for us, then we do not necessarily need to have recourse to either extreme of formalistic legalism or blind intuitionism. The justification may lie in our neurons, of which our knowledge is still limited. These might well afford the physiological underpinnings of Merleau-Ponty's resonant notion of the 'incarnate mind'.

NOTES

1 Francis Crick, *The Astonishing Hypothesis* (London: Simon & Schuster Ltd, 1994) 84.

2 'In understanding the world, Being-in is always understood along with it, while understanding of existence, as such, is always an understanding of the world.' Martin Heidegger, *Being and Time*, trans. John Macquarrie and Edward Robinson (Oxford: Basil Blackwell, 1978) 186.

3 Susan Broadhurst, *Liminal Acts: A Critical Overview of Contemporary Performance and Theory* (London: Cassell/New York: Continuum, 1999) and *Digital Practices: Aesthetic and Neuroesthetic Approaches to Performance and Technology* (London: Palgrave Macmillan, 2007).

4 'The term alone suggests a field of study that is pregnant and full of promise. It is a large field of study uniting concepts and techniques from many disciplines … a science of information processing.' Thomas D. Albrecht and Helen J. Neville, 'Neurosciences', in Robert Wilson and Frank Keil (eds), *The MIT Encyclopedia of the Cognitive Sciences* (Cambridge, MA: MIT Press, 2001) li–lxxii: li.

5 Semir Zeki, *Inner Vision: An Exploration of Art and the Brain* (Oxford: Oxford University Press, 1999) 2.

6 Maurice Merleau-Ponty, 'Cézanne's Doubt', in trans. Hubert L. Dreyfus and Patricia A. Dreyfus, *Sense and Non-sense* (Evanston: Northwestern University Press, 1964) 9–25: 14.

7 Maurice Merleau-Ponty, 'Eye and Mind', trans. Carlton Dallery, in John O'Neill (ed.), *Phenomenology, Language and Sociology: Selected Essays of Maurice Merleau-Ponty* (London: Heinemann, 1974) 280–331: 292.

8 Maurice Merleau-Ponty, *The Visible and the Invisible*, trans. Alphonso Lingis, ed. Claude Lefort (Evanston: Northwestern University Press, 2000) 209.

9 Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (London: Routledge, 1962) 148.

10 *Ibid* 137.

11 *Ibid* 150–1.

12 Maurice Merleau-Ponty, 'The Primacy of Perception', trans. James M. Edie, in John O'Neill (ed.), *Phenomenology, Language and Sociology: Selected Essays of Maurice Merleau-Ponty* (London: Heinemann, 1974) 196–226: 209.

13 Marta de Menezes, Website, 2012, http://www.marta-demenezes.com/ (accessed 15/02/14).

14 Merleau-Ponty, 'Eye and Mind', 283.

15 Merleau-Ponty, *The Visible and the Invisible*, 248.

16 *Ibid* 249.

17 Susan Kozel, *Closer* (Massachusetts: MIT Press, 2007) 40–1.

18 Merleau-Ponty, *The Visible and the Invisible*, 136.

19 Merleau-Ponty, *Phenomenology of Perception*, 146.

20 *Ibid* 143.

21 *Ibid* 138.

22 *Ibid* 25.

23 Kozel, *Closer*, 230.

24 *Ibid* 239.

25 Merce Cunningham, chor., *Biped*, computer-enhanced graphics: Paul Kaiser and Shelley Eshkar, music: Gavin Bryars, costume designer: Suzanne Gall (Barbican Centre, London, 11 October 2000).

26 Open Sound Control was created by the Center for New Media and Audio Technologies (CNMAT) at the University of California, Berkeley, in the 1990s.

27 Stelarc, *Muscle Machine* – a collaboration involving the Digital Research Unit, Nottingham Trent University, and the Evolutionary and Adaptive Systems Group, COGS, at Sussex University; project co-ordinator: Barry Smith. Performance première (291 Gallery, East London, 1 July 2003).

28 Susan Broadhurst, dir., *Blue Bloodshot Flowers*, performer Elodie Berland, music by David Bessell, technology provided by Richard Bowden, University of Surrey (Brunel University (June); 291 Gallery, London, August 2001).

29 Richard L. Gregory, *Eye and Brain: The Psychology of Seeing*, 5th edn (Oxford: Oxford University Press, 1998) 2.

30 Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley: University of California Press, 1993) 319.

31 *Dead East, Dead West* premièred at the Institute of Contemporary Arts in London, August 2003. This project involved a collaboration with Jeffrey Longstaff, a choreographer from the Laban Centre, London, Martin Dupras, Jez Hattosh-Nemeth and Paul Verity Smith, digital interactive artists from the University of the West of England, and 3-D film-maker Brian McClave.

32 Crick, *The Astonishing Hypothesis*, 24.

33 René Descartes, *Discourse on Method and The Meditations*, trans. F.E. Sutcliffe (Middlesex: Penguin, 1977) 97.

34 Stephen M. Kosslyn and Oliver Koenig, *Wet Mind: The New Cognitive Neuroscience* (New York: Macmillan, 1992) 129. Also Stephen M. Kosslyn, William L. Thompson and Georgio Ganis, *The Case for Mental Imagery* (Oxford: Oxford University Press, 2010) 4.

35 Edward E. Smith and Stephen M. Kosslyn, *Cognitive Psychology: Mind and Brain* (New Jersey: Pearson Prentice Hall, 2009) 16.

36 Mark Coniglio and Dawn Stoppiello, 2014. Troika Ranch Website: www.troikaranch.org/ (accessed 15/02/14).

37 Zeki, *Inner Vision*, 15.

38 *Ibid* 195.

39 James Clerk Maxwell ('On Colour Vision', *Proc. Roy. Inst. Gt Brit*. 6, 1872: 260–9), quoted by Zeki, *Inner Vision*, 186.

40 Crick, *The Astonishing Hypothesis*, 146.

41 Semir Zeki, *Splendours and Miseries of the Brain: Love, Creativity, and the Quest for Human Happiness* (Oxford: Wiley-Blackwell, 2009) 37–8.

42 Merleau-Ponty, *Phenomenology of Perception*, 110–12.
43 V.S. Ramachandran and Edward M. Hubbard, 'Synaesthesia: A Window into Perception, Thought and Language', *Journal of Consciousness Studies* 8 (2001) 3–34: 4.
44 *Ibid* 3.
45 *Ibid* 9.
46 Immanuel Kant, *The Critique of Judgment*, trans. James Creed Meredith (Oxford: Clarendon Press, 1978) 35.
47 Zeki, *Splendours and Miseries*, 207–8.
48 Kant, *The Critique of Judgment*, 42–69.
49 Immanuel Kant, *Critique of Pure Reason*, trans. Max Müller (London: Macmillan & Co. Ltd, 1911) 584–5.
50 Zeki, *Inner Vision*, 65.
51 Zeki, *Splendours and Miseries*, 28–9.
52 *Ibid* 29.
53 *Ibid* 29.
54 Zeki, *Inner Vision*, 4.
55 *Ibid* 16.
56 One of the convex folds of the surface of the brain.
57 Zeki, *Splendours and Miseries*, 16.
58 Susan Broadhurst, *Liminal Acts: A Critical Overview of Contemporary Performance and Theory* (London: Cassell/ New York: Continuum, 1999) 19.
59 Zeki, *Splendours and Miseries*, 43.
60 Merleau-Ponty, *The Visible and the Invisible*, 152.
61 *Ibid* 139.
62 V.S. Ramachandran and Sandra Blakeslee, *Phantoms in the Brain* (New York: Quill, 1999) 61–2.
63 *Ibid* 250.
64 The self as well as being embodied is also emotional and, in a given situation, decides what if any is the most appropriate response. Emotional responses include anger, love, fear – in fact, all the basic feelings that we as humans easily recognise and share. An emotional response can be measured by a device that monitors the galvanic skin response (GSR), which is fundamentally the change in skin resistance caused by perspiration.
65 Descartes, *Discourse*, 95–132.
66 See Ramachandran and Blakeslee, *Phantoms*, 61–2, for an account of research methodologies and outcomes.
67 *Ibid* 250.
68 David Hume, *A Treatise of Human Nature*, 2nd edn, ed. P.H. Nidditch (Oxford: Oxford University Press, 1980) 385.

CYBORG PRESENCE IN NARRATIVE THEATRE

Gorkem Acaroglu

INTRODUCTION

New technologies are transforming the shape and function of contemporary performance practice. Dance in particular has been at the forefront of dissolving the boundaries between humans and technology. In Australia alone, works such as Gideon Obarzanek's *GLOW* (Chunky Move) and Garry Stewart's *Proximity* (Australian Dance Theatre) have offered technology a role traditionally preserved only for the live human performer. As these technologies infiltrate theatre practice and their capacity to be co-actors with humans on stage increases, we need to carefully interrogate the notion of the actor's presence. For an overwhelming number of scholars and critics, presence is the defining quality of theatrical performance. Theatre has been privileged as the site where people witness other people together in the same physical space. Digital technologies can be seen as a threat to this and to the actor's presence. Cormac Power's *Presence in Play* provides a comprehensive analysis of theatrical presence that encapsulates a poststructuralist critique of presence

while maintaining the notion of 'presence' as a key aspect of theatre.[1] In this article, I take up Power's category of the literal mode of presence and examine three case studies that use digital technology in ways that disturb traditional conceptions of presence. I investigate the impact that digital technologies in live performance have on theatre's claims to literal presence. I also investigate the indirect impact that these technologies have on forms of fictional and auratic presence (these are Power's terms, which I will define shortly). First, I will establish the centrality of presence to the vast body of commentary on theatre; then, I will draw on Derrida's analysis of the metaphysics of presence to unsettle dominant assumptions about the function of presence in theatre, arguing that such a privileging of presence demonises projected media as a form of contamination that impedes theatre's ability to represent 'truth'. I use Jennifer Parker-Starbuck's term 'Cyborg Theatre' to discuss three examples of digital performance that have used technology to question and challenge our relationship to technology in everyday life. These works challenge traditional notions of selfhood and force us to interrogate the borders between the live and the mediated.

PICTURES IN MOTION

Film's impact on how we understand presence in theatre is enormous. Almost immediately after motion pictures became a reality, films were screened in theatre buildings, and the traditional understanding of theatre as the sole 'place for viewing' was challenged. The emergence of film required theatre to articulate a more specific definition of itself. In *Liveness: Performance in a Mediatized Culture*, Phillip Auslander has argued that before radio and motion picture technologies, 'there was no such thing as "live" performance, for that category has meaning only in relation to an opposing possibility'.[2] With the emergence of the cinematic medium, theatre identified its point of difference as being a site of 'liveness', in binary opposition to the mediatised. Auslander's project demonstrates that as theatre increasingly appropriated

cinematic and televisual languages, it eroded its claim to liveness. According to Power, 'presence' and 'liveness' are not interchangeable terms:

> Presence in theatre is an inherently complex notion that has undergone numerous historical reconfigurations, whereas liveness is a relatively limited notion that applies only to events within a technological context.[3]

PRESENCE

Eugenio Barba states in 'The Essence of Theatre' that all founders of 20th-century theatre traditions have sought 'to transcend the performance as a physical and ephemeral manifestation, and attain a metaphysical dimension – political, social, didactic, therapeutic, ethical or spiritual'.[4] They have done this by either seeking to eradicate the text (Artaud, Grotowski) or by defining ways for an actor to speak so that all traces of the text are not felt to be present (Stanislavski, Brecht). Stanislavski's entire mission was based on ensuring that the actor's thought is as connected to her speech as possible – to eliminate the trace of writing; to bring presence to the absence of the written word. It requires immense skill to eradicate the trace of the written word from a viewer's sense, and we praise those actors who give us the impression of doing so. In the essay 'Just Be Yourself', Phillip Auslander critiques Stanislavski, Grotowski and Brecht, to show that 'all assume that the actor's self precedes and grounds her performance and that it is the presence of this self in performance that provides the audience with access to human truths'.[5]

> Stanislavsky states that the actor's self is the basis of performance, but his own working out of this idea leads him to posit that the self is produced by the process of acting. Brecht would have the actor partly withhold her presence from the character she plays in order to comment on it. To do so, however, the actor must endow another fictional persona with the authority of full

> presence … Grotowski proposes the actor's body as an absolute presence which banishes difference, but does not take in to account the action of difference within the body.[6]

Identifying the metaphysics of presence in theatre has become an important feature of recent performance theory. Elinor Fuchs demonstrates that drama is a tradition of 'writing that strives to create the illusion that it is composed of spontaneous speech, a form of writing that paradoxically seems to assert the claim of speech to be a direct conduit to Being'.[7] Others, such as Roger Copeland, have questioned theatre's claims to uniqueness based on the live presence of the actor.[8]

The ambition of numerous theatre practitioners to attain 'pure presence', to eliminate all representation and reach a pure state, according to Derrida, is not possible or desirable. Full presence is not possible because the meaning of a word or thing is differential and relational; nothing means anything in and of itself. No instant can exist outside of time, which is disappearing as it appears, just as meaning is never fully present, as it never comes to rest. Meaning is always deferred along an endless chain of signification. There is nothing outside of difference, because without difference there is no kind of being. Derrida demonstrates that every known thing is defined by what it is not rather than by an essence, therefore there is no such thing as an essential self and hence no 'true existence'.

Difference itself is indeterminable, and therefore meaning arises from something that is not present. For example, in relation to language, '[t]he difference which establishes phonemes and lets them be heard remains in and of itself inaudible'.[9] Derrida terms this non-presence *différance*, which contains the dual meanings of its Latin root *differe*: 1) deferment; 'action of putting off until later'; and 2) 'to be not identical, to be other, discernable'.

The concept of *différance* is important here, as it helps us to understand how the 'metaphysics of classical theatre'[10] have precluded the use of digital technology in theatre. Those practitioners whom I have mentioned, as well as others, have a strong desire for various forms of theatrical presence. This viewpoint generally dismisses the use of technology in theatre, because it imagines that technology contaminates the experience of full presence. Grotowski's Poor Theatre offers a perfect example of the metaphysics of presence being used to define what is essential about theatre. Grotowski believed that he had discovered theatre's essence by stripping it to the actor–spectator relationship.

> By gradually eliminating whatever proved superfluous, we found that theatre can exist without make-up, without autonomic costumes and scenography, without a separate performance area (stage), without lighting and sound effects, etc. It cannot exist without the actor–spectator relationship of perceptual, direct, 'live' communion.[11]

Throughout his career, Grotowski continued to strip theatre to find its 'centre', and this constant deferment eventually left him with not much more than 'an extended session of psychotherapy'.[12] Grotowski defined Poor Theatre in direct opposition to other media. His emphasis on the literal actor–audience relationship reflects what Walter Benjamin described as 'aura'. His tendency was to see theatre 'as a place whose purity – unsullied by the technologies of mass consumption and reproduction – is to be venerated'.[13] Grotowski defined theatre with reference to this concept of aura, which film apparently lacks.

Antonin Artaud craved a theatre that was not of repetition: '[T]heater is the only place in the world where a gesture once made can never be made the same way twice'.[14] Theatre's liveness, its presence, its non-repeatability, its ability to disappear as it appears, makes it seem very similar to 'the present' – that thing which is gone before it has arrived. But Derrida demonstrates through an analysis of Artaud's Theatre of Cruelty, that a 'representation that is not repetition', a 're-presentation which is full presence', a 'present which does not repeat itself' is inaccessible. It is a 'nonpresent'.[15]

Among performance theorists, Derrida's analysis of phonocentrism has been the area most discussed. Here, Derrida unsettles the assumption that language is a stable structure capable of full presence. He describes a

privileging of 'speech' over 'writing' which assumes that speech is a direct articulation of thought while writing misrepresents the 'truth' of speech. It was an assumption of traditional theatre that went unquestioned, according to Elinor Fuchs, until Derrida overturned it by pointing out that speech is made up of signs (writing) that make difficult the presence of the spoken instant, as the listener does not in fact hear the speaker's thoughts but the citation of writing.

Fuchs describes a postmodern movement in the 1970s, where artists challenged theatrical presence by making evident the scripts that govern the apparently 'spontaneous' speech of dramatic theatre. This was achieved by reading directly from scripts on stage and using elements of the text in the set. A number of prominent commentators, such as Auslander and Fuchs, have proposed that a deconstructing of theatre's illusion of presence is essential in order to demystify theatrical representation.[16] This desire to subvert the dominant form is similar to Brecht's project: to eliminate imitation in theatre. Brecht and his anti-Aristotelian theatre also operated within the metaphysics of presence, however, insisting on theatre's capacity for the revelation of 'truth'. Lehmann sees epic theatre as a renewal of classical dramaturgy;

> Brecht's theory contained a highly traditionalist thesis: the fable (story) remained the *sine qua non* for him … Postdramatic theatre is a post-Brechtian theatre. It situates itself in a space opened up by the Brechtian inquiries into the presence and consciousness of the process of representation within the represented and the inquiry into a new 'art of spectating'.[17]

Cormac Power's *Presence in Play* provides a comprehensive analysis of theatrical presence, critiquing both traditional notions of presence as well as deconstructionist critiques of it. Power points out that since Derrida, some poststructuralist theatre theorists

> have tended to look at (P)resence as a singular, monolithic entity. In doing so, much is missed in terms of how theatre, made of competing modes of presence ('presence' rather than Presence) has the capacity to explore and 'play' with notions of presence.[18]

Power defines theatrical presence in three distinct modes: the 'fictional mode' of 'making present' the fictional world of the play; the 'auratic mode' of 'having presence' as charisma of the actor; and the 'literal mode' of actor 'being-present' literally with an audience (co-presence).

The characteristics of traditional theatre – the memorising and delivery of text, written as a complete, closed fictional world by an author – create the site where the 'metaphysics of presence' operate most visibly. Speech is very obviously a servile sign of the written word, where the audience knows but agrees to pretend that the speech they hear is not written elsewhere. While speech in theatre has been privileged, it is the site where speech in the shadow of writing is most obvious. Here we see Derrida's notion of the privileging of presence played out. Power suggests though that when theatre highlights 'its existence as part of a mediatic system rather than as a privileged bearer of unmediated "nowness" it is more likely to realise its potential to show how the "(im)mediate" is itself "mediated" …[19]

> When looking at theatre in terms of presence, the point is not so much whether a performance is 'live' and whether it demonstrates a sense of unproblematic 'immediacy' but with how the interrelation between action and representation reveal the ambiguity of presence placed under theatrical manipulation.[20]

Contrary to some commentators, Power argues that Derrida does not place a negative value on presence, but rather unsettles our long-held assumptions about the concept. Derrida is concerned to draw out the complexities and instabilities in our common understanding of presence. The literal mode of presence has been 'an important debating point around which emerging postmodern forms of art practice have positioned themselves in relation to theatre',[21] and it is this very notion of co-presence that has had to be redefined with the emergence of 'digital liveness'.

LIVENESS

The binary opposition of 'live' and 'mediatised', as put forward by Auslander, to some extent perpetuates the myth of presence as it constitutes theatre within the site of presence. The notion of 'live' corresponds to Derrida's notion of speech where we see ourselves as being literally present with the actors, and the notion of 'recorded' corresponds to Derrida's conception of writing where the recorded is derived from the live and is therefore inferior.[22] With the emergence of 'digital liveness', Auslander redefined his notion of the live. Speaking at the Transmediale 2011 conference in Berlin, Auslander describes his new definition:

> Liveness is no longer defined as presence of physical persons in front of each other or physical and temporal relationships. The audience's experience is now the locus of liveness. Some technological object makes a claim on us to consider it as live. In order for liveness to occur we must accept the claim as binding upon us, take it seriously and hold on to the object in our consciousness of it in such a way that it becomes live for us. This is not a characteristic of the object nor an effect caused by some characteristic of the object but liveness is produced through our engagement with the object and our willingness to accept its claim. Digital liveness emerges as a specific relation between self and other. Our conscious act at grasping virtual acts as live in response to the claims they make on us.[23]

In 2002, Auslander published a provocative paper in *Performing Arts Journal* entitled 'Live From Cyberspace, or, I Was Sitting at My Computer, This Guy Appeared, He Thought I Was a Bot'.[24] This prompted a number of responses. The crux of Auslander's argument was: 'The chatterbot forces the discussion of liveness to be reframed as a discussion of the ontology of the performer rather than of the performance'.[25] He makes this claim because the internet chatterbot performs live, according to one of the *Oxford English Dictionary*'s definitions of 'live': 'Of a performance, heard or watched at the time of its occurrence, as distinguished from one recorded on film, tape, etc'.[26] The internet chatterbots are 'themselves performing entities that construct their performances at the same time as we witness them'.[27] The contention arises because his proposition suggests that a live performance is no longer determined by the performer as live person, and therefore removes performance as a specifically human activity; '[I]t subverts the centrality of the live, organic presence of human beings to the experience of live performance; and it casts into doubt the existential significance attributed to live performance'.[28] Auslander has come up with his new definition of liveness because digital technologies have destabilised our notions of the live, which were constructed around analogue technologies.

The idea that liveness is not dependent on the performer but rather on the audience/viewer is important when we begin to investigate further the relationship between digital technologies and their use in theatre. I will now turn to the examination of three postdramatic works, and propose that the integration of technology in theatre has the capacity to contribute to an enhanced understanding of the metaphysics of presence at play.

CYBORG THEATRE

In a theatre that privileges the actors' literal and auratic presence, where the spoken words of a text are used to make present a fictional world, projected media are seen as contamination. Much has been written about the threat posed by media in theatre, where a picture is painted of the living actor up against non-living technology.

> Technology has got the upper hand on the human for good … The human body is no longer able to be itself, in particular the body and the voice appear displaced in this technological device; they are like a foreign body in steel and plastic, animated by an artificial intelligence … Speech is over.[29]

These are some of the immediate, uncensored responses to Robert Lepage's *Zulu Time* from performance theorist Patrice Pavis. *Zulu Time* has been described as 'the most technological and mechanistic [performance] ever staged'.[30]

The term 'Cyborg Theatre' is useful to describe a particular kind of theatre that intersects with technology. It is both a confident and conscious descriptor that puts media and the live on equal terms. 'The cyborg's metaphoric "boundary blurring" is capable of erasing the demarcation between the purely organic or the purely technological, allowing a flow between the two.'[31] In Jennifer Parker-Starbuck's 2003 PhD dissertation, she puts forward the notion of 'Cyborg Theatre' after Donna Haraway's compelling 1985 'Cyborg Manifesto'. Cyborg Theatre describes a site of 'the live body in conjunction with the mediatised image on stage'.[32] This is a theatre that seeks to reclaim the body (and question whose body) from within an already mediatised world.[33]

The main feature of the Cyborg Theatre is that it uses

> existing and emerging technology not purely as a frame or an aesthetic scenic backdrop for projected images, but as a mutually dependent component of a larger complex of social, political and theatrical systems existing between the live and the technological.[34]

Drawing on Julia Kristeva's work, Parker-Starbuck refers to 'subject', 'object' and 'abject technology'. Abject technology implies an absence of applied technology (street theatre, for example) or technology used simply as a tool (such as a winch). Object technology is that 'actual physical apparatus such as a video monitor or a screen onto which ideas are inscribed',[35] where the technology is primarily used for aesthetic purposes. Subject technology describes technology that is integral to the production, that operates in the same way as the actors and/or text.

Marianne Weems' company The Builders Association has been exploring 'the interface between media and live performance in a culture that is irrevocably mediatised, not a culture that still privileges "liveness"',[36] since 1994.

This particular brand of theatre immerses actors' bodies within a dominant screen stage, making the operators of the media visible; it often films and projects actors 'live' while on stage. People ask Weems why she does not make film, and her answer turns on the pleasure of staging the idea of presence, and 'what is happening to these very strong performers in a very strong media environment and how their presence is either extended in some ways and amplified or compromised or endangered'.[37] This exploration of the impact of technology on presence is not the only feature of the company's work. Often the characters evolve within a technological world, existing in 'virtual and screen based environments which multiply perspectives on the characters and the narrative events'.[38] In an article about their 2005 show, *Supervision*, Nick Kaye interviewed a number of members from the production. Weems explained that she had worked with actors who say 'nobody is going to be looking at me, they are just going to be looking at the screen',[39] in response to which Kaye commented that after seeing the production three times, he found that the actors' live presence was amplified by the screens' presence, even when the actor has her back to the audience. 'It is in dialogue with the whole machine that surrounds them – their presence does become more articulated and magnified.'[40] What Kaye is describing here is enhancement of the sense of literal presence, as a result of the performers' immersion within subject and object technologies. The Builders Association's work consciously aims to demonstrate the complexity of 'human presence'. Amplification of the performers when juxtaposed with 'subject technology' is not an erasure of presence from the stage (as has been suggested by some deconstructionist performance theorists); rather, the integrated use of media with live performers makes more visible our process (as audiences) of constructing presence (the fictional mode), the way we receive the auratic presence of the live performers, and their literal presence with us in a room.

Supervision's narrative centres around selfhood, exploring the concept of data bodies – that 'version of ourselves that exists in data space as the collation of all data files collected about us'.[41] Through three interconnected stories of human–

computer relations, the technology oscillates between merging with, interfering with, dominating and displacing the human actor/characters. Like many of The Builders Association's productions, the set is an integration of technology and the live, so that at times the border between the two becomes invisible.

In a 2005 e-interview with *Performance Paradigm*, Auslander stated that live bodies and projections on the same stage always privilege the projections, reiterating a commonly held belief:

> This is partly a perceptual matter: the projected images are usually larger and brighter and therefore attract more attention. But it also has to do with the cultural dominance of the screened image at this historical moment.[42]

While this view could be true in specific performances, it is not a given that projections overwhelm live bodies. Given this perspective, it is interesting to explore the performers' own experience of working with these technologies.

The work for a stage actor to interact with projected media is obviously a different experience to interacting with other live people. The actors' capacity to 'make present' and 'be present' is challenged, but this performance dilemma is not a new one. When cinema first emerged and theatre actors found themselves performing in front of a camera, the experience was one of estrangement. Walter Benjamin refers to Pirandello's novel *Si Gira*, where Pirandello states:

> The film actor feels as if in exile – exiled not only from the stage but also from himself. With a vague sense of discomfort he feels inexplicable emptiness: his body loses its corporeality, it evaporates, it is deprived of reality, life, voice, and the noises caused by his moving about, in order to be changed into a mute image, flickering an instant on the screen, then vanishing into silence.[43]

Benjamin adds that 'for the first time … man has to operate with his whole living person, yet forgoing its aura'.[44] As actors have learnt to work with the various mediating elements of theatre (set, costume, mask, lights), actors in Cyborg works like *Supervision* learn to alter their performance. One of the actors was asked if, while developing his character, he did this contained within the technology, or separately. He replied that performing in *Supervision* was like being in a theatre piece and a film at the same time. It is necessary to 'reign in' the 'whole idea of theatre voice and theatre presence [auratic mode]', even when 'playing in front of a house of a thousand, because you are on camera a lot of the time'.

> The wonderful thing for me as an actor, and the thing that is very fulfilling, is that the slightest nuance of an eye movement or facial twitch reads in the theatre. That is an incredible feeling.[45]

This performer is describing being both literally present and literally not present at the same time in front of an audience, reigning in his 'aura' (auratic presence) to be able to exist in both planes. In 'present time', he must 'make present' the projected, mediatised version of himself, giving it 'life' as a puppeteer must do with a puppet. This same actor explains that he is never looking at his fellow actor, Joe Silovsky, but he uses this to build his character who is confronting someone whom he cannot see for who he really is. The physical parameters that the technology imposes on the actors contribute to the actors' work of 'making present' a fictional world. In this way, the disconnect helps Mirza. Another actor, Moe Angelos, is looking at a monitor for almost the entire show, literally a 'webcam performance'. She explains that for her, this is 'real' – another example of the technology contributing to the actors' work of making present a fiction.

> [B]ecause that is what you do when you are chatting to someone on a webcam. You are sitting at a computer, looking at this little eye that is the camera, and you are watching them and they are watching you … I use it to frame myself. It is strangely voyeuristic, or narcissistic, in a certain way, because I am just looking at myself in the same way as when we walk past a mirror … I am sitting there and I catch myself looking at myself – watching to see where I am: am I framed properly?[46]

One of the key distinctions between the live and the mediatised is dimensionality: digital projections are two-dimensional while live bodies are three-dimensional. Numerous practitioners have made their projections appear to be three-dimensional in an effort to combine the worlds of the live and the mediatised. Rather than technology dominating the human performer, some works have seamlessly integrated the two- and three-dimensional planes. George Coates, for example, did this (perhaps for the first time) with stereographic animation, so that it appeared as if three-dimensional humans were inside a three-dimensional animated world; and Blast Theory made a virtual person become three-dimensional by merging it with a live person at a critical moment of revelation.

Blast Theory's *Desert Rain*[47] was based on the first Gulf War. As with *Supervision*, the technology is vital to the narrative of *Desert Rain*, as it 'explores the implications of society's reliance on the technologies of representation to access the real'.[48] The technology is used to offer a critique of modern warfare, inspired by Baudrillard's statement that the Gulf War did not take place but was instead a virtual event. Unlike *Supervision* though, *Desert Rain* immerses the audience in the work itself, enabling them to interact with the physical and technological dimensions. The work began when a performer gave six spectators a card with a picture of their target, and led them into a chamber divided into six cubicles, one for each viewer. The spectator stood on a platform and faced a fine water spray screen upon which a virtual world was projected. They travelled through the virtual environment by moving their weight on footpads that acted as large joysticks. As an avatar, the spectator searched the virtual desert for their target. In the virtual environment, there were three buildings, the third of which contained the target. Once the spectator reached the building, a real performer slowly emerged through the rain-screen to hand the spectator another card. In *Desert Rain*, literal presence of the human body is amplified when the real 'target' emerges seemingly from within the digital projection. Their literal presence makes present the fictional world in a very visceral way. The viewer is brought back from the virtual (and fictional) to the literal, 'creating a kind of media vortex in which the various worlds explored by the piece suddenly manifested themselves to the viewer in rapid succession'.[49] The boundaries between the mediated image and the physical person are blurred in *Desert Rain*, just as the Gulf War was brought to many of us through mass media, blurring our relationship to the physical people whom it affected. Here the participant-spectators' own liveness within the work further complicates the experience of mediation and the 'nowness' of theatre. Their presence directly impacts upon the concepts being explored in the work. They have the capacity, through headphones, to communicate with one another, so that their own presence is also seamlessly integrated within the technological world. Their presence becomes virtual as the boundaries between their literal presence merge with the fictional presence of the world.

> In *Desert Rain*, by creating the world of illusion out of both real and virtual elements, the participant's experience of the world is grounded in real-time, intrinsically focused on the absorption of the now.[50]

Desert Rain is a perfect example of Cyborg Theatre, where the live performers as well as the physical set elements are not privileged over the technology but integrated in such a way that the presence of both is often indeterminable. In fact, the work makes present the digital projections in such a way that they become physical objects in the playing space. Likewise, this boundary blurring does not necessarily overwhelm the live present humans but heightens our experience of presence and perhaps shifts our capacity to witness the human subject outside of a purely three-dimensional plane.

A very early exploration of integrating live performers with digital technologies was George Coates Performance Work's *Invisible Site: A Virtual Show*.[51] This production employed a technique to produce an illusion that live performers were fully integrated in a rapidly moving, three-dimensional virtual environment. The spectators wore polarised glasses to view stereographic projections of digital animations. The projections were on a transparent black scrim, which sat between the performers and the spectators.

Behind the scrim there were three mechanised ramps that lifted actors up and down to connect with projected imagery. In *Invisible Site*, the actors' liveness was the foundation upon which the entire look was built.[52] It was a fusion of theatre and cinema. For example, a small child (live) appears to float up as a three-dimensional film projection while white balloons (projections) rise at the same time, giving the appearance that balloons are lifting her through the sky. If this were entirely a film image, it would have a very different impact on the audience. While the white balloons are not present, we know that the child is, and this dissolves the mediated reality of the balloons, making them appear to be actual, literal or 'real'. This example demonstrates the capacity that a merging of live and technological actors has to explore and play with modes of presence and make present the virtual. The literal difference between the live body and the digital balloon is momentarily suspended, therefore foregrounding the line between presence and non-presence that theatre treads. Three-dimensional projections provide a new kind of presence that competes with the literal and auratic modes of presence traditionally provided to us by theatre. In three-dimensional projection, the technology has entered the human domain yet it is still not tangible. It becomes present to us as a boundary blurring entity.

Immersing the human body within three-dimensional projection can be an effective counter to Auslander's claims that technology overwhelms live performers. The three works examined here use digital technologies to make evident assumptions about presence in theatre and in daily life. These practitioners are not concerned with an essential notion of theatre, to 'make present' the present, to reach 'true existence' through the theatrical form. Their use of technology makes the audience aware of theatre's claims to 'liveness' by juxtaposing the 'live' with the 'mediated image'. The productions also bring into question our relationship to technology in everyday life. This juxtaposition makes us question our unproblematic acceptance of the live as unmediated, and consider how the fictional is made present. The use of digital technologies in theatre places the experience of liveness back on to the audience. It provides

a place for the experience of presence to be visible – extended, amplified, compromised or endangered.

In this article, I have examined how theatre has historically defined itself in terms of presence. I have unpacked the notions of liveness and presence to further understand theatre's claimed point of difference. I used three examples of digital performance to argue that notions of 'literal presence' (as defined by Cormac Power) can be made evident through the use of projected media, while also contributing to unpacking the ambiguity of presence. For practitioners, there is now a wealth of knowledge that has evolved about the integration of digital technologies with live performers, and employing this in theatre can contribute to narrative explorations of our technological lives. A negative and sceptical view of technology can limit our capacity to utilise these tools to 'make present' alternative subjectivities. Digital technologies integrated with live performers in narrative theatre can make sense of our place in the world, while questioning, challenging and displacing our traditional notions of selfhood. Theatre as a laboratory for witnessing the notion of presence at play can both expand and complicate our understanding of presence.

As a theatre practitioner, I am fascinated by the potential of digital technology to perform as co-actor alongside live performers, especially the way in which these technologies can contribute to and unsettle narrative. The productions described here are asking big questions about human subjectivity and the role of technologies in unsettling this. I see technology that performs as subject alongside humans as making a contribution to dissolving the boundary between 'self' and 'other', a critique of subjectivity, and an embracing of embodiment and materiality.

NOTES

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IMAGINARY WARRIORS: FIGHTING ROBOTS IN JAPANESE POPULAR ENTERTAINMENT PERFORMANCE

Yuji Sone

This article examines what is expressed in culturally specific instances of Japanese entertainment shows featuring 'humanoid' robots. These productions are popular types of robot performances designed for varied audiences. Their popularity is not surprising, as the Japanese are known for their affinity with the robot. Robotics has been one of the main areas of Japanese technological research. The robot has signified technological advancement and modernity in both economic and popular contexts in Japan. In particular, the postwar view of the robot was as a signifier of futuristic technology that would save Japan; this is what has been termed the 'techno-nationalistic discourse' of postwar Japan.[1] In Japanese robotics in recent years, there has

been a distinctive trend toward the development, among the varied types of next-generation robots, of anthropomorphic machines ('humanoids') that are specifically designed to entertain and interact with humans.

What is distinctive about the Japanese context is the close relationship between humanoid robotics and popular culture, in contrast to C.P. Snow's famous remark about the split between the sciences and the humanities in the West. For example, robot enthusiasts know that the carmaker Honda produced Asimo, one of the most advanced bipedal humanoids. The lesser known story is that Masato Hirose, Honda's roboticist responsible for Asimo, says that the question that initially spurred his superiors at Honda to develop Asimo was: 'Do you want to try making a robot like Astro Boy?'[2] Astro Boy (Tetsuwan Atomu, in Japanese), a friendly child robot who fought against monsters and villains, was the main character in Osamu Tezuka's seminal comic cartoon *Astro Boy* from the early 1950s. This episode in the genesis of Honda's Asimo is a good example of the positive entanglement between robotics and the popular imagination concerning the robot in Japan. Indeed, next-generation robotics has often been discussed in relation to science fiction manga, animation and film.[3] Notable Japanese roboticists publicly admit the influences from classic 'super-hero' robot manga and anime such as *Astro Boy*, *Iron Man Number 28*, *Mazinger Z*, and *Mobile Suit Gundam*.[4]

In the Japanese context, the super-hero humanoid robot is a concept in the realm of what Canadian philosopher Charles Taylor calls the 'social imaginary'. For Taylor, the social imaginary provides the background to 'the deeper normative notions and images' that people use to imagine their existence in society, and guides behaviours and attitudes, incorporating 'some sense of how we all fit together in carrying out the common practice'.[5] The popular image of the fighting robot has become naturalised among the postwar generations of Japanese. The pervasiveness of popular robot manga and animation is such that, if ordinary Japanese people were asked what robots they are familiar with, they would most likely point to those from anime and manga.[6] The idea of the combat humanoid is attractive to a wide

range of Japanese people, including fans within *otaku* subculture, as I shall explain presently.

In this article, I discuss varied forms of humanoid performance in popular entertainment forms that are designed for different audiences (the general public, fans of giant robot manga and anime, and foreign tourists, respectively), as prismatic reflections of the popular understanding of the robot in Japan.[7] They include a daily multimedia performance involving a Mobile Suit Gundam (an animation character) statue in front of a shopping mall complex, a demonstration show of Kuratas, an exoskeletal humanoid robot, at a large hobbyist festival, and a cabaret show for foreign tourists at a venue called Robot Restaurant in an entertainment district of Tokyo. In particular, I examine how these popularised productions embody narratives of the 'real' and fictive Japan in relation to technology, expressing themes of Japanese nationalism and a self-reflexive Orientalism.

THE GIGANTIC ROBOT STATUE'S PRESENCE

Two books have been published recently under the same title, *Robots Will Save Japan* (*Robotto ga nihon o suku'u*); one is by Shin Nakayama (President of Yasukawa Denki, a large robot manufacturing company) in 2006 and the other by Nobuhito Kishi, a journalist, in 2011, after the Great Eastern Japan Earthquake.[8] The title *Robots Will Save Japan* is used symbolically to advocate and argue for the social and economic benefits of the development of next-generation robots in Japan. The figure of the fighting robot in popular manga and anime has also been used symbolically to support this argument. The statue of Iron Man Number 28 is an example. In 2009, in order to attract visitors to Kobe after the reconstruction that followed the disaster of the 1995 Great Hanshin Earthquake, a 15-metre high, 50-ton robot statue of Iron Man Number 28 (whose name titled a 1956 manga – in Japanese, *Tetsujin Nijū hachigō* – written by Kobe-born Mitsuteru Yokoyama) was erected in western

Kobe. In the original plot, the mega-robot was developed by the Japanese military as a remote-controlled super-weapon to save the Japanese Empire at the end of World War Two. The statue has become a popular tourist attraction, and it is said that it is regarded as a kind of guardian deity, like statues of Buddhist demon gods. The Iron Man Number 28 statue operates on both a fictive level, that is, recalling both popular fiction and religious iconography, and at the level of the social.

The statue of Gundam is another example of entanglement between fiction and a carefully engineered spectacle that offers itself as a kind of social engagement. It is, however, a much more complex case of a performing object within a 'transmedia' franchise.[9] Gundam covers a large number of popular manga and anime series, ongoing since the first series in 1979, called Mobile Suit Gundam (Kidō Senshi Gandamu). Gundam is one of the most popular robot anime, in which gigantic humanoids, usually piloted by teenagers, are used to fight enemies. The *Gundam* anime became more popular following sales of plastic models of the Gundam machines by the large Japanese toy company Bandai in the 1980s. In 2009, a statue of a Gundam robot (built in 1:1 real-size scale, 18 metres high, like the Iron Man Number 28 statue) was erected for two months in the summer on Odaiba Island, a major commercial, residential and leisure area, in Tokyo Bay. Unlike the statue of Iron Man Number 28, which remained motionless, this robot figure was able to move its head, to expel a steam mist from parts of its body, and to illuminate its eyes and other parts of its body at night. *T*he statue was built to mark the thirtieth anniversary of the television broadcast of *Mobile Suit Gundam* in 1979 as well as to support Tokyo's bid for the 2016 Summer Olympics (under the rubric 'Green Tokyo Gundam Project'). It was reported that 4,150,000 people visited it in a period of fifty-two days. In the following year, 2010, the statue was re-erected in the city of Shizuoka, where Bandai's model factory is located, to celebrate the thirtieth anniversary of the sale of Gundam plastic models as part of the Shizuoka Model Show, a major annual plastic model exhibition. The Gundam figure – in disassembled parts so that fans could get close

Figure 1: mage 1, Bandai Co. Ltd, RG 1/1 RX-78-2 Gundam Ver. GFT, statue of Gundam, 2012, Tokyo. Photo credit: Yuji Sone.

enough to touch them – returned to Odaiba in 2011 for the charity fair held for the Great Eastern Japan Earthquake disaster. It was reinstalled in 2012 in front of the large shopping mall Diver City Tokyo, which includes *Gundam Front* Tokyo, an entertainment complex.

The Gundam statue 'performs' for Gundam Front Tokyo as a contemporary version of the *maneki neko* (beckoning cat), a common talisman at the entrance to Japanese shops in the form of a cat figurine. The site is effectively a theme park for the *Gundam* merchandising empire owned by Bandai, which produces manga, animation, video games and novelty tie-ins, such as plastic models and toys. Its main attractions include a 360-degree panoramic movie

theatre, a 1:1 scale model of the upper-half of another Gundam robot, museum exhibits of various artworks related to the *Gundam* series, and the display of hundreds of Gundam plastic models in an interior space. The Gundam Front allows fans to engage with the world of *Gundam* in a physical, material and eventful way. In particular, the massive Gundam figure, which weighs thirty-five tons, has an overwhelming material presence, and has become the icon for the theme park as well as for Diver City Tokyo.

The daily multimedia 'enactment' of a scene from a *Gundam* animation at night integrates the statue with a 'sound and light' display: it is illuminated with LED light projections, and framed as the main 'performer' of the show. It is able to move its head along with sound effects, and to give off puffs of white steam at appropriate moments in the storyline. At the end of the show, before the Gundam machine in the anime is 'launched' for battle, the human characters of the animation 'appear' (projected images displayed in a video monitor) in the opened hatch in the centre of the Gundam statue's chest, as if they were actually inside the mobile suit. While the statue is a puppet, a prop in a multimedia performance presentation, it 'performs' at another level. Its presence generates a transformative 'wow' effect. In essence, the performance enables the interaction of fictional *Gundam* manga and anime with the spectacular 'realness' of the larger-than-life-size-scale figure, not in a theatre or an exhibition space, but in an open, everyday social space outside the mall.

The success of the 'performing statue' of Gundam can be attributed to the fact that this fighting robot character is the one of the most popular robot figures of the Japanese social imaginary, as it has developed since the 1950s, and it will immediately draw people's attention. The object possesses what Jiří Veltruský, Czech Structuralist scholar, calls 'the force' of a deeply coded theatrical prop, provoking 'in us the expectation of a certain action'.[10] I suggest that a sense of verisimilitude, in terms of size, solidness, mass, mechanical movement, and the heightened 'real' of the spectacular visual representation enhance the mise-en-scène established for this 'prop', which creates an in-between zone mediating the real world and fantasy in its display.

The notion of 'real' (*riaru*) was a key concept for the creation of *Mobile Suit Gundam*. '*Riaru*', in this context, means an emphasis upon details and a concern with the moral and social ambiguities of the 'real world', rather than a clear distinction between 'good' and 'evil'. Unlike previous anime that were regarded as television (*terebi*) manga, with the view that it was for elementary school children, *Gundam* was designed to appeal to adolescents and young adults with themes for a mature-age audience. For example, the background setting for its plot is the overpopulation of the Earth, which has led to the building of space colonies, one of which, the Principality of Zeon, has launched a war of independence from the Earth Federation. Unlike the robot anime before it, there is no clear division in this narrative between right and wrong in this conflict. To make the story seem closer to the real world, the mobile suits are framed as replaceable weaponry, just like tanks or fighter jets, and unlike *Iron Man Number 28*, which is an irreplaceable and invincible 'super robot'. *Gundam* also uses references to physics and advanced scientific terms to suggest its setting as being more realistic. The human pilots fight for survival by manoeuvring their mobile suits skilfully. *Gundam* depicts the absurdity of an endless conflict with 'brutal representations of war and fighting'.[11] While the Japanese ideology for the robotic technology shown in *Iron Man Number 28* is a clear-cut dichotomy, *Gundam* provides long and complex narratives that reveal the compromises and difficult decisions of actual wars.

Through its epic story, *Gundam* retells the story of World War Two. It is a common view among the *Gundam* fans that Zeon is modelled on Nazi Germany, because of its idea of a superior 'spacenoid race' (that is, a 'race' of people who developed differently by living in space colonies) and its references to Hitler. While the employment of new technology (Zaku, the first mobile suit) leads to Zeon's earlier success in the War of Secession, the Earth Federation, like the Allied forces of World War Two, overcome Zeon's resistance with their superior manufacturing capabilities and greater numbers. 'Gundam' is the name of the test model for the Federation's mobile suit, which leads to a

mass-produced mobile suit called 'GM'. Despite its numerous Nazi references, according to writers such as Seiji Tane and Masayuki Endo, it is possible to see that the *Gundam* story allegorically reflects Japan's defeat by the USA, due to the latter's overwhelming mass-production capacity; they also suggest that Gundam reflects Japan's postwar obsession with advanced technologies and mass production through robotics.[12] Given both these interpretations, it seems clear that *Gundam* embodies a deeply felt Japanese ambivalence toward the accepted narratives and outcomes of World War Two.

DREAM OF A GIANT ROBOT

The Japanese affinity and desire for giant anthropomorphic machines is realised in Kuratas, a 'real' piloted humanoid robot developed by iron craftsman and artist Kōgorō Kurata. This robot was collaboratively created by Kurata and roboticist Wataru Yoshizaki, who provided the robot control system for it. Kurata set up Suidobashi Heavy Industry, a self-funded company that aims to 'mass-produce and sell prototype KURATAS', an art or entertainment piece that 'makes your dream of becoming a robot pilot comes [sic] true' (from the promotional video of Suidobashi Heavy Industry). This 4-metre-high robotic machine weighing 4.5 tons consists of an upper body of humanoid appearance, with two arms and four wheel-legs that can extend to lift the body. It is powered by a diesel engine, and can move at a maximum speed of 10 kph. The machine can be operated with a control device that combines a joystick and steering wheel, which is fitted at the pilot seat in a cockpit inside. From the cockpit, the outside view is shown on an LCD monitor through cameras. The outside image from a drone can also be transferred to the monitor. The robot can be operated with an iPhone as well. Kuratas is fitted with an Xbox Kinect motion sensor that, when the pilot smiles, triggers the 'smile shot' of twin machine guns that fire 'BBs' (plastic projectile balls) or a rocket-launcher that can fire water bottles. The base model has a price of 1.42 million JPY ($1.52 million AUD), and has options for various accessories and for a choice of colour, at additional cost. It can be ordered from the homepage of Suidobashi Heavy Industry, and the base model is listed on Amazon Japan, though the page indicates that it is currently 'out of stock'.

Kuratas debuted in the form of a demonstration presentation at the 2012 Tokyo Wonder Festival, a bi-annual event for devoted hobbyists who sell and buy models based on popular characters from manga, anime, games and sci-fi. The festival attracts hundreds of thousands of people at Makuhari Messe, a convention centre outside Tokyo. The Kuratas demonstration was held at a large exhibition hall full of interested audience members. It started with a promotional video by filmmaker Tadashi Tsukagoshi on a large monitor, before the machine next to it was unveiled. The MC, Sascha Böckle, a professional DJ, introduced model Anna Nagae, the female pilot in the promotional video and for the demonstration. Nagae climbed onto the machine and opened the hatch to the cockpit. Once she was inside, the hatch closed. Soon after the video explaining how to operate Kuratas was played, Nagae moved the robot's arms and twisted its upper body. A drone equipped with a camera flew from behind. Kuratas pretended to shoot down the drone. The show ended by announcing the sale of Kuratas.

Kuratas became immediately popular, especially among fans of giant robot anime. The popularity of this robot can be attributed to maker Kurata's romantic vision regarding the giant robot theme. Like many of his generation of Japanese, born in the early 1970s, he was exposed from a young age to anime featuring giant robots. Kurata came to believe that Japan, and not other countries, must strive to produce 'workable' giant robots. In 2005, prior to the unveiling of Kuratas, Kurata became known to the fan community for robot manga and anime for his creation of a 1:1 scale, 4-metre-high static replica of Scopedog, an armoured trooper modelled on the one that appeared in the 1980s television anime *Votoms*. While there were already some small-sized humanoids, such as Asimo, which was introduced in 2000, no one had yet developed a giant robot. Kurata decided to create Kuratas from scratch. Kurata hopes that the mass production of Kuratas

will present a feasible model that will pave the way for 'an age of giant robots' to come.[13] Though not an exact replica of a particular robot character, as for the Gundam statue, Kuratas suggests the typical, mass-produced robotic trooper that appears in robot anime and game culture. Its design also reflects a concern with 'realism', as it is understood in robot anime terms: Kuratas has a grey-coloured metallic body that has some wires visible, rather than being shiny and 'clean' like Asimo. There are some decals on the machine, which increase its verisimilitude for fans, as it looks similar to machine weaponry depicted in robot anime. Kuratas is an actualisation of Kurata's desire to realise a Gundam-type robot.

Kuratas embodies certain ideas that attract adult fans of giant robot anime, and the creators of secondary models that reference anime characters. There are other large robotic performing machines that can be ridden by a human and are used as children's attractions, such as Sakakibara Kikai Company's Land Walker, which consists of a box-shaped cockpit with two giant legs, or Kabutom, a giant robot shaped like a rhinoceros beetle, built by engineer Hitoshi Takahashi. These machines, however, lack factors that make them desirable for adult robot anime enthusiasts. One aspect of Kuratas that appeals to these adult fans is the use of the beautiful, young female model for Kuratas's promotional video and the demonstration. One reviewer who recognises this says that 'the collaboration between a [giant] robot and a beautiful young woman excites the fans of giant robot anime'.[14] This observation refers to the fact that, in robot manga and anime, it is very common to encounter plots in which the main character is a young girl who is also a combat android or cyborg, or a pilot who operates gigantic robots.[15] Toshio Okada, a prominent anime producer and commentator on Japanese manga and anime culture, therefore says that for an anime to be successful, '"All you need is a girl who goes to outer space and a giant robot"'.[16] This combination of giant robotic machine and young, beautiful fighting girl has considerable appeal for *otaku*, who form a significant part of the fan base for Kurata's work.

The term '*otaku*' attracts much attention in discussions of Japanese popular culture, consumerism and technoculture. It is a complex and elusive term that addresses varied practices and fandom-related activities. The objects of interest for *otaku* fans can include manga, anime, games, the Internet, computers, books, figurines, celebrities, special effects, and cosplay (costume play).[17] While '*otaku*' is roughly equivalent to 'nerd' in English and it usually refers to a male, it can be used for both sexes.[18] The *otaku* was once widely seen as a reclusive, potentially paedophilic psychopath.[19] *Otaku* culture in the contemporary context, however, refers to a group of subcultures that are interested in popular entertainment genres, and it is now regarded as a grass-roots element of Japanese 'soft power', used in global strategies to promote Japan in the 21st century.[20] Works such as Noboru Iguchi's exported films *The Machine Girl* (2008) and *Robo Geisha* (2009) – in which fighting female cyborgs are the main characters – cash in on the imaginary of *otaku* Japan, emphasising the familiar rhetoric of 'techno-Orientalism', which focuses upon the strangeness and exotic nature of the Japanese as the 'other'.[21]

In contrast to the performance of Gundam, which is for the general public, and that of Kuratas, which targets *otaku*, the Robot Restaurant draws upon images that inspire techno-Orientalist fantasies of Japan for foreign tourists. It reveals a different facet of Japanese narratives of the 'real' and fictive Japan, through the figure of the robot.

DESIRABLE CHIMERA: DANCERS AND ROBOTIC MACHINES

Robot Restaurant opened in July 2012 in Kabuki-cho, Shinjuku, a seedy entertainment district of Tokyo. According to the director of the club, Namie Osawa, the motivation behind the creation of Robot Restaurant was the rebuilding of the area, which had declined in recent years, with a new type of night entertainment combining female dancers with futuristic robots.[22] This venue consists of a few levels of a building called Robot Building. All of its interior walls, floors and pillars are fitted with glittering neon, sparkles,

flashing lights and LED screens, iridescent, glossy and reflective surfaces and mirrors, and brightly lit chandeliers. The outlook is ostentatious, over-the-top and tacky, like a hyper-technologised Las Vegas. It is said that the owner, a successful adult-entertainment businessman, Keiichi Morishita, invested a total of 10 billion JPY in the venture ($107.2 million AUD). Robot Restaurant is a sort of cabaret. Clients are given a bento box and a flask of tea (alcohol can be purchased during breaks) before they are seated in rows of stadium seats on both sides of a rectangular performance space of approximately 10 metres by 3 metres. The main attraction is its spectacular multimedia cabaret that consists of a group of thirty female dancers called *Josen* (literally, 'women fight') and performing robots (rideable androids, exoskeletal humanoids, and remote-controlled zoomorphic machines) developed, operated and maintained by a technical crew of fifty.[23]

Robot Restaurant's performance schedule – three one-hour performances each night – offers a hybrid of pageant and multimedia burlesque, with dance and music. The large LED panels on the walls are mounted behind the seats, which provide a backdrop of video images for audience members on the other side. Fifteen or so agile young women performers – wearing white- or red-hair wigs, or New Guinea masks, and wearing kimono, skimpy lingerie, marching band uniforms, or sparkling bikinis – move around the space and dance with animatronic dinosaurs, metallic-costumed robot warriors on roller-blades, Segways, and single-wheeled motorbikes covered with bright neon lights. The dancers perform on a tank and a bomber aircraft made of LED lights, as well as on a joystick that operates 3.5-metre-high 'fembots'. The space is filled with upbeat electronic dance music and laser beams. The performance itself is evolving continuously, with the addition of new robots and themes. It incorporates a wide range of materials, including references to Japanese traditional festivals with wadaiko (traditional drums), Kabuki, sword-fighting, dinosaur attacks, marching bands (referring to the sexy music video of Destination Calabria), pole-dancing, robot super-villains, and *Kung-Fu Panda* as well as *Gangnam Style*. The audience enjoys a parodic combination of exuberant

female bodies, the varied forms of actual robotic machines, and a multimedia extravaganza. All of these elements are well organised, but presented in a *faux*-disorderly manner.

Robot Restaurant satisfies its patrons' yearning for 'techno-Orientalism'. The club was initially designed to attract Japanese businessmen, but its opening in July 2012 was immediately covered by German, American and British media rather than the local media, and its customers seem to consist mostly of overseas visitors, among whom it has been very popular. Osawa proudly indicates that Hollywood sci-fi *film directors, such as Tim Burton,* J.J. Abrams and Guillermo del Toro, have visited.[24] Osawa describes the Western tourists favourably, as they are easily excited by the show. One comment from an English-language tourist information site captures why this may be so, saying that the performance offers 'all the crazy stereotypes of Japan in one show'.[25] The Robot Restaurant's mishmash performance satisfies foreigners' taste for a technologised (and eroticised) futuristic Japan, including the commonly seen conjunction of fighting girls and robots in Japanese anime. Japanese tourism has even re-appropriated this techno-fetishistic image: the restaurant's success is recognised at a government level, and video footage of the show is used as part of a promotional website for Shinjuku.[26]

For foreigners, Robot Restaurant cashes in on the image of Japan as a wacky and bizarre place. From a business point of view, the human–machine cabaret at Robot Restaurant benefits from the loop that is created between 'techno-Orientalism' and 'self-Orientalism'. There is no direct reference to particular robot manga or anime, yet the *idea* of the robot – alongside other representations that signal futurism, 'the Orient', and eroticism – is abstracted and presented in a hybrid mix of performance modalities. For some, Japan's self-Orientalism – offering itself deliberately in terms of the stereotypes of 'grotesque Japan' – is a strategy of self-empowerment, mocking the West's desired images of Japan.[27] But Robot Restaurant is an opportunistic business venture; its intentions are not political. The burlesque performance of Robot Restaurant in fact challenges neither the Orientalist view nor 'the cliché of

female desirability'.[28] My aim is to highlight, through the example of Robot Restaurant, the symbolic and transformative power of the figure of the robot. In performance with female dancers and spectacular surrounds, the robot mediates both the Orientalist view of Japan and the exported self-image of *otaku* culture through contemporary myths of Japan that rely upon the robot. The robot is a representational trope enacted through idea and material expression to conjure a fantastic image of Japan for its clients' consumption – and its owner's benefit.

CONCLUSION

This article examined how multimedia robot productions like the performance of the Gundam statue, the Kuratas demonstration show, and Robot Restaurant's nightly cabaret, can interact and communicate with varied audiences in both mainstream and subcultural contexts in Japan. These polymorphous expressions of the humanoid warrior are inter-related via successive generations of popular manga and animation that operate through the Japanese social imaginary. Cultural theorists Scott Lash and Celia Lury argue that, in advanced economies, cultural products are produced and received across media platforms and modalities, facilitating an interaction between 'media-things' and 'thing-media', where '[i]mage has become matter and matter has become image'.[29] Idea and object inform and interact with each other in such an economy. The polymorphic manifestations of the robot in the Japanese cultural milieu operate in this way. They are examples of information and materiality transfused – an operation that, I suggest, expands the notions of performance and performing object.

In particular, these performances of the fighting humanoid prompt an increased appreciation of the figure of the robot in Japan, relying on existing cultural predispositions toward positive reception. Because they are geared to mine deep-seated ideas in the social imaginary, they are examples of cultural products in Japan that can be successfully produced and received across differing media platforms and modalities. These robot performances are unique examples of 'eventive' production, which work upon the audience through the interaction between immaterial art media (manga, anime and video art) and material art media (sculpture, installation, puppetry and performance). In other words, within the highly contextualised *mises-en-scène* that are set up in these productions, the robot-figured mechanical puppets, statues of robots, or actual robotic machines become *performative* in J.L. Austin's sense: they are simultaneously a theatrical device, a cultural theme, and objects that manifest through the interaction of the social 'real' and its fictional constructs.

Playfulness is an important aspect of these performances of fighting robots. While they are derived directly and indirectly from robot manga and anime, these performing objects present their own 'reality' through an emphasised physical and material solidity and the display of sophisticated digital technologies. They can induce a sense of familiarity for those who participate in the shared imagination of overlapping circles of fandom. Both the creators and audiences are aware of the ridiculousness of these productions, and share in a sense of self-conscious enjoyment in the creation and the reception of these works. In this operation, the 'selves' of the creators and the receivers are sublimated through the figure of the robot that is understood to be unreal, a construction that therefore allows fantasies – and these fantasies are then available to be co-opted by larger concerns.

NOTES

1 For a discussion on 'techno-nationalism', see Yoshimi Shunya, 'Made in Japan: The Cultural Politics of "Home Electrification" in Postwar Japan', *Media, Culture and Society* 21.2 (1999) 149–71. I use Japanese names in this article in the English way: given name first, followed by family name. Long vowel sounds are indicated by diacritical marks, unless in common usage in Romanised form (e.g., Tokyo not Tōkyō).

2 Masato Hirose, 'Nirin, Yonrin, Soshite Kyûkyoku no idōtai e', in P.H.P. Kenkyûjo (ed.), *Otona no tame no robotto gaku* (Tokyo: P.H.P. Kenkyûjo, 2006) 116, author's translation.

3 Publications include: Nobuhiko Baba (ed.), *Robotto no bunkashi* (*Document of Robot Culture*) (Tokyo: Shinwasha, 2004); Yoshiki Sakurai, *Firo-sofika Robotika* (*Philosophica Robotica*) (Tokyo: Mainichi

Komyunikēshonzu, 2007); Hideaki Sena (ed.), *Saiensu imajinēshon* (*Science Imagination*) (Tokyo: NTT Shuppan, 2008); Junji Hotta, *Hito to robotto no himitu* (*Secrets of the Human and the Robot*) (Tokyo: Kodansha, 2008); Hiroshi Ishiguro and Rue Ikeya, *Robotto wa namida o nagasuka* (*Does a Robot Shed a Tear?*) *(Tokyo: P.H.P. Kenkyūjo, 2010).*

4 The Japanese roboticists who have publicly acknowledged influences from robot manga and anime include Takayuki Furuta (Chiba Institute of Technology), *Hiroshi Okuno* (Kyoto University), Shigeki Sugano (Waseda University), Junichi Takeno (Meiji University) and *Hitoshi Matsubara* (Future University Hakodate), to name a few.

5 Charles Taylor, *Modern Social Imaginaries* (Durham and London: Duke University Press, 2004) 23, 24.

6 Yamato Nobuo, *Robotto to kurasu* (*Living with Robots*) (Tokyo: Sofuto banku crieitibu, 2006) 4.

7 I have discussed elsewhere roboticist Hiroshi Ishiguro's collaborative works with playwright/director Oriza Hirata, which are known to an expert audience that appreciates such experimental performance. Yuji Sone, 'Robot Double: Hiroshi Ishiguro's Reflexive Machines', in Rocci Luppicini (ed.), *The Handbook of Research on Technoself: Identity in a Technological Society* (Hershey, PA: IGI Global, 2012). For a discussion of the performance of the fighting robot in a hobbyist competition, see Yuji Sone, 'Between Machines and Humans: Reflexive Anthropomorphism in Japanese Robot Competitions', *About Performance* 11 (2012) 63–81; see also 'Double Acts: Human–Robot Performance in Japan's Bacarobo Theatre', in Victor Emeljanow and Gillian Arrighi (eds), *A World of Popular Entertainments: An Edited Volume of Critical Essays* (Newcastle upon Tyne, UK: Cambridge Scholars Publishing, 2012).

8 Shin Nakayama, *Robotto ga nihon o suku'u* (*Robots Will Save Japan*) (Tokyo: Toyō Keizai Shinpō, 2006); Nobuhito Kishi, *Robotto ga nihon o suku'u* (*Robots Will Save Japan*) (Tokyo: Bungē shinjū, 2011).

9 With the phrase 'transmedia storytelling', Henry Jenkins discusses the phenomenon in media and entertainment industries where particular content spreads across multiple media platforms – such as film, television, novels, comics, games and toys. Henry Jenkins, *Convergence Culture: Where Old and New Media Collide (New York: New York University Press, 2006) 95. The term 'media mikkusu'* (media mix) is used in reference to Japanese media convergence. See Mark Steinberg, *Media Mix: Franchising Toys and Characters in Japan* (Minneapolis and London: University of Minneapolis Press, 2012).

10 Jiří Veltruský [1940], 'Man and Object in the Theater', in Paul L. Garvin (ed. and trans.), *A Prague School Reader on Esthetics, Literary Structure, and Style* (Washington, DC: Georgetown University Press, 1964) 88.

11 Ian Condry, *The Soul of Anime: Collaborative Creativity and Japan's Media Success Story* (Durham and London: Duke University Press, 2013) 126.

12 See Seiji Tane, *Gandamu to nihonjin* (*Gundam and Japanese*) (Tokyo: Bungē shinjū, 2010); Masayuki Endo, *Gandamu, Ichinen sensō* (*Gundam, the One Year War) (Tokyo: Takarajimasha, 2002).*

13 Tetsutaro Saijo, 'Hito ga note sōjū dekiru kyodai robotto, Kuratasu' (Kuratas, a Giant Robot that a Human Can Ride and Operate), *Wired Japan*, 26 July 2012. Online: http://wired.jp/2012/07/26/kuratas/ (viewed 15/12/13).

14 'Mirai kita! Hito ga note sōjū dekiru kyodai robotto, Kuratasu ga tuini ohirome! Nanto hanbai mo kaishi' (The Future Is Here! First Display of Kuratas, a Giant Robot which a Human Can Ride and Operate! Amazingly, It's on Sale), *Rocket News 24*, 30 July 2012. Online: http://rocketnews24.com/2012/07/30/235808/ (viewed 15/12/13).

15 The examples included: android Solty in *Sorutei rei* (*SoltyRei*) (2005); cyborg Major Motoko Kusanagi in *Koukaku kidōtai* (*Ghost in the Shell*) (1995), Chise, her body turned into an ultimate robotic weapon, in *Saishū heiki kanojo* (*Saikano: The Last Love Song on This Little Planet*) (2000), and Takaya Noriko, a female high school student who operates Gunbuster, a gigantic robot, in *Toppu wo nerae (the Gainax OVA production Gunbuster*, 1988), to name a few.

16 Toshio Okada, quoted in Tamaki Saitō, *Beautiful Fighting Girl*, trans. J. Keith Vincent and Dawn Lawson (Minneapolis, MN: The University of Minnesota Press, 2011) 5.

17 The stereotype of the male *otaku* is that of an introvert, but *otaku* who frequent game arcades, on the other hand, are thought to be extroverts. Yoshimasa Kijima, 'The Fighting Gamer Otaku Community: What Are They "Fighting" About?', in Ito *et al*., *Fandom Unbound*, 249–74.

18 Alongside male *otaku* culture, there is also a type of female nerd (*fujoshi*) with her own subculture, called *yaoi*. For a discussion on *yaoi* culture, see Tamaki Saitō, 'Otaku Sexuality', in *Christopher Bolton, Istvan Csicsery-Ronay Jr and Takayuki Tatsumi (eds), Robot Ghosts, Wired Dreams: Japanese Science Fiction from Origins to Anime* (Minneapolis and London: The University of Minnesota Press, 2007) 222–49; Patrick W. Galbraith, '*Fujoshi*: Fantasy Play and Transgressive Intimacy Among "Rotten Girls" in Contemporary Japan', *Journal of Women in Culture and Society* 37.1 (2011) 211–32.

19 The term became negatively regarded in the public domain in the late 1980s, when Tsutomu Miyazaki, a paedophile serial killer, was described as an *otaku*.

20 See Koichi Iwabuchi, '"Soft" Nationalism and Narcissism: Japanese Popular Culture Goes Global', *Asian Studies Review 26.4 (2002) 447–68.*

21 David Morley and Kevin Robins, *Space of Identity: Global Media, Electronic Landscapes and Cultural Boundaries* (London: Routledge, 1995) 147–73.

22 Namie Osawa in 'Kabuki cho no Robotto resutoran ni naze gaikoku kyaku ga afureteirunoka?' (Why Does Robot Restaurant Attract So Many Foreign Tourists?), *Inbound Business Platform, Yamatogokoro*, 2013) 2. Online: http://www.yamatogokoro.jp/inbound-interview/index06.html (viewed 15/12/13).

23 The club purchased and modified *exoskeletal robotic costumes made by the American company, King Robota, as well as rideable robotic puppets from the aforementioned Sakakibara Kikai Co. See* Yoshino Matsui, 'Futuristic Bot Cabaret Wows Tokyo', *Japan Times*, 5 October 2012. Online: http://www.japantimes.co.jp/news/2012/10/05/national/futuristic-bot-cabaret-wows-tokyo/#.UtOJAY-3teIg.

24 Osawa, 'Kabuki cho no Robotto resutoran', 2.

25 Nina T, 'All the Crazy Stereotypes of Japan in One Show: Review of Robot Restaurant', *TripAdvisor*, 12 December 2013. Online: http://www.tripadvisor.com.au/Attraction_Review-g1066457-d4776370-Reviews-or20-Robot_Restaurant-Shinjuku_Tokyo_Tokyo_Prefecture_Kanto.html#REVIEWS (viewed 20/12/13).

26 'A City with Two Faces', *Japan Videos: Discover the Sprit of Japan*. Online: http://www.visitjapan.jp/en/m/player/?video=72 (viewed 20/12/13).

27 See Iwabuchi's discussion on Shōichi Inoue's notion of 'grotesque Japan'. Iwabuchi, '"Soft" Nationalism and Narcissism', 460–3.

28 Terrie Waddell argues that contemporary Australian burlesque performers contest female stereotypes as 'tricksters'. Terrie Waddell, 'Trickster-infused Burlesque: Gender Play in the Betwixt and Between', *Australasian Drama Studies* 63 (2013) 108.

29 Scott Lash and Celia Lury, *Global Culture Industry: The Mediation of Things (Cambridge: Polity, 2007) 9.*

6 THINGS I KNOW ABOUT GEMINOID F, OR WHAT I THINK ABOUT WHEN I THINK ABOUT ANDROID THEATRE

Glenn D'Cruz

1. THERE'S NO SUCCESS LIKE A FAILURE, AND A FAILURE'S NO SUCCESS AT ALL (EXCEPT PERHAPS WHEN ANDROIDS ARE INVOLVED)

> On Friday evening I saw one of the finest theatre performances from an actor. Her subtle movements, her natural cadence, her ability to portray her character in a way that demonstrated diligent devotion, careful analysis and measured construction, was simply awe-inspiring. Which actor gave this fine performance? It was an android.[1]

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Figure 1: Geminoid F with the actor, Bryerly Long. Photo courtesy of Osaka University and Seinendan Theatre

Awe-inspiring? I think that Jasmine Giuliani probably needs to get out more – her review of *Sayonara* overstates its case about the quality of the android's performance; however, the play may yet prove to be a pioneering production – one that will inspire future collaborations between scientists and theatre artists. Frankly, *Sayonara* fails as drama despite its intriguing premise and android star, but it is a compelling failure that warrants critical attention. Written and directed by Oriza Hirata, founder and artistic director of the Seinendan Theatre Company, the production is static and heavily dependent on dialogue. For the most part, the actors remain seated throughout the performance, and deliver their lines somewhat mechanically. This is not surprising considering that the android star of the show, Geminoid F, has very limited mobility – she is literally bolted to her seat by a metal rod. Moreover, she speaks pre-recorded lines, and an unseen human operator controls her movements. Despite these shortcomings, the play presents the audience with

a compelling set of questions about the relationship between art, technology and humanity, with specific reference to questions of audience empathy, presence and representation.

The play tells the story of a young girl with a terminal illness. A human actor, Bryerly Long, plays the girl while Geminoid F plays a version of herself – an empathic android that functions as the girl's caretaker-companion. The robot reads the girl poetry, and engages in a series of exchanges about life and death that ask the audience to consider whether mortality defines humanity. Oriza Hirata's chief collaborator, Professor Hiroshi Ishiguro, the director of Osaka University's Intelligent Robotics Laboratory, built the android to resemble a human being, claiming that 'by making a copy of a human, I really think we can understand humans … we need to understand what is human likeness, what is human-like behavior and human-like reactions'.[2]

From the charismatic android, Data, in *Star Trek: The Next Generation*, to the more sinister replicant, Roy Batty, in *Blade Runner* (1982), androids loom large in popular culture, and respond to the questions about the nature of humanity raised by Professor Ishiguro. Android robots are legion, appearing in Hollywood films such as *Moon* (2009), *Robocop* (1987), *Artificial Intelligence: AI* (2001), *Prometheus* (2012), *The Terminator* (1984) and *Westworld (1973)*, to name just a few. Whatever their shortcomings, these films are not hampered by having to deal with the limitations of actually producing a mobile, intelligent and responsive android. Thanks to computer-generated imagery (CGI) and smart scriptwriting, these cinematic androids are impressive – they are usually mobile, often threatening, sometimes terrifying, and occasionally vulnerable. Cinematic technologies can create sophisticated illusions that really do invite a serious engagement with human–android interactions, and generate questions about the differences between humans and machines, organic and artificial intelligence, embodied, mortal being and immortal, virtual existence. By contrast, the 3-D Geminoid F appears somewhat anachronistic in technological terms – in fact, she's basically an expensive puppet that does not unsettle the distinction between human and android in any meaningful way, but this may not be such a bad thing in the light of research that finds humans repelled by machines that attain a high level of realism.

This antipathy towards ultra-realistic androids is known as the 'uncanny valley' hypothesis, first articulated by the Japanese robotics expert Masahiro Mori in 1970.[3] It basically contends that humans will respond positively to anthropomorphic robots until they become almost indistinguishable from humans. At this point, androids will elicit feelings of disgust and revulsion. So, robots make us feel uneasy when they become almost indistinguishable from humans. Clearly, Geminoid F is a long way from the uncanny valley, since she is obviously not human, but this particular failing may be a necessary precondition for making androids appealing to humans.

2. SOME PEOPLE FIND IT EASIER TO EMPATHISE WITH GEMINOID F THAN WITH EACH OTHER

Like the best science fiction, *Sayonara* presents its audience with a futuristic scenario made plausible by contemporary scientific research and social trends. Indeed, there is ample evidence to suggest that we are already using machines to undertake the 'caregiving' tasks that Geminoid F performs in *Sayonara*. In his review of the play, Tom Phillips points out that

> Ever since the fictional Doctor Frankenstein created his monster, human beings have been worrying about what may happen to them at the hands of their own human-like creations. Usually those worries have been about robots seizing power with their superior strength and intelligence. But now, in the work of Japanese playwright and director Oriza Hirata, we see humans simply ceding power to artificial beings that are not just stronger and more intelligent, but more emotionally sensitive and stable than their human masters. That's the theme of these unsettling short plays, in which human performers interact with 'live' robots and androids.[4]

Sherry Turkle's book, *Alone Together: Why We Expect More from Technology and Less from Each Other*, supports Phillips' observation and documents the extent to which robots have become 'emotion machines'. She points out that a 'huggable' robot seal, marketed under the name PARO, simulates the benefits of animal therapy without the effort required to feed and care for an animal.[5] PARO is marketed to hospitals and other care facilities as a 'therapeutic robot' that can enrich human life and assist caregivers in their work with patients suffering from conditions such as Alzheimer's disease and dementia. The PARO website contains links to a variety of research papers that substantiate these claims, which include the ability to reduce stress in patients, and to improve social integrations between patients and their caregivers.

Not everybody feels comfortable with using robot technology to replace the work performed by human caregivers. Turkle believes that the production of 'emotion machines' is the consequence of contemporary social network technologies that increase levels of loneliness and social anxiety for many people.[6] Far from bringing people together and cementing community relations, social networks like Facebook and Internet communications technologies erode human intimacy and impede the formation of authentic human relationships. The world, Turkle observes, 'is now full of modern Goldilockses, people who take comfort in being in touch with a lot of people whom they also keep at bay'.[7] She is disturbed by robot technologies that attempt to simulate human emotion; she pays particular attention to children's toys, such as Furbies, AIBOs, Cog and Kismet, which are all designed to create emotional bonds between toy and owner. Turkle is concerned that, today, we are 'insecure in our relationships and anxious about intimacy, [so] we look to technology for ways to be in relationships and protect ourselves from them at the same time'.[8] In short, Turkle fears that we are in the process of outsourcing our most intimate relationships with other human beings in order to shield ourselves from the emotional trauma caused by death and caring for the old and infirm.

We do not have to look far to find another manifestation of the scenario presented in *Sayonara*. La Trobe University has recently embarked on a 'social robot project' with the NEC Corporation. Professor Rajiv Khosla, the lead researcher on the project, claims that social robots can 'improve the emotional well-being of mild dementia sufferers through engagement and sensory enrichment'.[9] While researchers such as Professor Khosla can provide evidence for the pragmatic benefits of these social robots, the ethical implications of the widespread adoption of such technologies are not so clear. Turkle declares that 'as we learn to get the "most" out of robots, we may lower our expectations of all relationships, including those with people. In the process we betray ourselves.'[10] *Sayonara* asks its audiences to contemplate the status of a social robot through its dramaturgy, and the production's program notes (along with the audience questionnaire distributed at the performance's conclusion) suggest that the creative team behind the play is most interested in the extent to which an audience can empathise and sympathise with Geminoid F.

Given the right circumstances, and appropriate dramaturgy, audiences can be made to identify with a wooden chair. We have been crying over fictional deaths and gnashing our teeth at the dastardly acts of unreal villains in novels and films for a long time. We don't require the co-presence of a three-dimensional human being to empathetic responses is obviously an issue that fascinates many spectators. For example, Futoshi Miyai's report on the North American reception of *Sayonara* claims that '[a]udiences were astonished to see that the robots and androids were more sensitive than human beings, full of affection and at times capable of actions that were more thoughtful than their human counterparts'.[11] He goes on to claim that some of the critical responses to the play confirm his belief that Geminoid F exhibits sensitivity and a capacity for inspiring empathetic identification. Of course, there is no way of validating this claim. Do audiences identify with the android, as a material entity, or with the dramatic situation presented on stage? In other words, can Geminoid F's simulated expressivity – the mechanically generated facial tics and movements – trigger spectators' emotions? What do people 'feel' when they watch *Sayonara*? Alexis Soloski's review of the New York performance of the play suggests that

> mimetic engagement on the part of the audience may owe less to actorly skill than to our collective instinct to attribute human feeling – even to decidedly nonhuman performers. Whether these two short plays confused the boundaries between human and robot or explicitly marked them, both pieces relied upon the audience's capacity to create empathic bonds with lifeless objects.[12]

Of course, there is ample evidence that humans are capable of forming emotional or empathic attachments to inanimate objects, but the ability of inanimate objects to elicit human empathy makes more sense if we look at the relationship between Geminoid F and her audience in terms of affect, and concede that objects transmit affects.

What does 'affect' mean? Well, that depends on who you read, and which philosophical-theoretical paradigm they prefer. If you subscribe to Brian Massumi's take on 'affect', you use the term to describe a series of impulses and intensities that exist beneath the threshold of cognition. Drawing on the philosophy of Spinoza, Massumi and his acolytes are careful not to confuse 'affect' with 'feeling' or 'emotion'. This, of course, has not stopped other scholars from using the word 'affect' as a synonym for emotion or feeling. Eric Shouse summarises the differences between the three terms thus: 'Feelings are personal and biographical, emotions are social, and affects are prepersonal'.[13] Of course, Shouse's succinct attempt to elucidate this highly contested term has not stopped people from using the term 'affect' loosely. This is not the appropriate occasion to provide further commentary on the 'affective turn' or to settle terminological debates. However, the attempts to give Geminoid F human-like qualities raise a number of vexed questions about androids and 'affect' (as articulated by Massumi). Shouse points out:

> Every form of communication where facial expressions, respiration, tone of voice, and posture are perceptible can transmit affect, and that list includes nearly every form of mediated communication other than the one you are currently experiencing.[14]

If this is the case, then we need to think about how the perception of Geminoid F's sensitivity and 'humanity' might be the result of the mechanical reproduction of 'affect'. If forms of mediated communication can function as transmitters of affect, then it is no surprise that Geminoid F is capable of empathetic identification, or what some people might choose to call 'empathetic identification'. This phenomenon might actually be better understood in terms of 'affect' – that is, the way in which Geminoid F's android body might *affect* the bodies of spectators as a form of unstructured and unformed intensities that bypass questions of interpretation or meaning.[15]

3. GEMINOID F IS NOT AN ÜBER-MARIONETTE, BUT SHE IS AS MUCH PUPPET AS ANDROID

Inspired perhaps by Heinrich von Kleist's short essay, 'On the Marionette Theatre' (1810), Edward Gordon Craig, arguably the most important modernist visionary of the English theatre in the early 20th century, declared that acting is not an art because the actor cannot execute precise movements that convey the essence of dramatic character. Slaves to their capricious emotions, actors do not possess the requisite degree of aesthetic calculation to be true artists, according to Craig. In short, the actor's personality impedes characterisation. He provocatively declared that 'the stage must be cleared of all its actors and actresses before it will again revive'.[16] Having detailed his antipathy towards 'flesh and blood' actors, Craig proposes replacing flawed humans with an inanimate Über-Marionette that 'will not compete with life – rather it will go beyond it. Its ideal will not be flesh and blood but rather the body in trance – it will aim to clothe itself with a death-like beauty while exhaling a living spirit.'[17]

Craig's declaration demonstrates that the Japanese are not the only people who believe that inanimate objects possess 'spirit', and Carlo Collodi's *The Adventures of Pinocchio* (1883) confirms that the concept of a 'living' puppet is not alien to European culture. Nonetheless, robots are a ubiquitous part of Japanese popular culture, and anime robots such as Astro Boy are iconic. It is perhaps all

too easy to argue that the animistic beliefs that are part of the Japanese Shinto religion make the Japanese more receptive to 'emotionally' intelligent androids, but there is little doubt that Japan exhibits an unrivalled enthusiasm for robots. Selma Sabanovic points out that 'Japan's governmental, academic and corporate institutions are not merely producers of technology, but also authors of cultural narratives about how humans should relate to each other and their environment in current and future technologically mediated societies'.[18]

While Craig conceded that he could not realise his dream of replacing actors with his Über-Marionette in his lifetime, he did expect that his vision would become a future possibility – 'What the wires of the Über-Marionette shall be, what shall guide him, who can say?' On one level, Geminoid F is a species of puppet, akin to Edward Gordon Craig's Über-Marionette; she is certainly a mechanical entity devoid of the human actor's unpredictability, but is she capable of 'exhaling a living spirit'? Obviously, some people think so, and even if Geminoid F does not quite live up to Craig's vision, she is a puppet of sorts, and it is worth identifying the commonalities between Geminoid F and puppets.

John Bell points out that 'puppet, mask and performing object theatre has deep roots connecting a vast array of contemporary and ancient performance practices'.[19] He also reminds us that several important figures – F.T. Marinetti, André Breton, Fernand Léger and Oskar Schlemmer – associated with modernist avant-garde movements expressed interest in puppets and performing objects in their manifestos and critical writings because they provide a vital link between European and non-European ritual theatre, possess experimental possibilities and inaugurate what Léger calls 'machine aesthetics'.[20] While it is possible to place Geminoid F within this avant-garde tradition, we should also acknowledge that she has much in common with Bunraku theatre, a traditional form of Japanese puppet theatre – a fact acknowledged by the play's director, Oriza Hirata (see Gorkem Acaroglu's interview with Hirata in this volume).[21] The salient point here is that the desire to create 'life-like' human simulacra is not a recent phenomenon within Occidental and Oriental theatre traditions. Moreover, Geminoid F shares

with her Bunraku forebears the way in which operators manipulate her voice and facial features. Stanleigh H. Jones reminds us that from the early 18th century, Bunraku puppets 'possessed the facial features one sees in the theatre today: eyes that open and close, cross (for moments of high emotion) and roll left and right; moveable (and thus very expressive) eyebrows; mouths that open and close; and sometimes, for comic characters, even wiggling noses and ears. A variety of puppet hands came into being, some with humanlike articulated fingers.'[22] Bunraku puppets and Geminoid F obviously engage human audiences, because they are eminently 'watchable'. However, are the mechanisms that are used to make puppets command attention any different from those used by human actors to attract and sustain the gaze of the audience? Is it possible to talk about android presence?

4. GEMINOID F HAS STAGE PRESENCE (MAYBE)

For me, *Sayonara* did not work as a play. As previously mentioned, it is very static and driven almost exclusively by dialogue. After getting over the novelty of Geminoid F's appearance, I found that there was little to look at in terms of dynamic blocking or *mise-en-scène*. So, what is it that 'works' when theatre works? This is perhaps the most important question that a theatre practitioner can ask. If theatre works, as Susan Melrose once proposed, through what we might call a specular-somatic economy[23] – that is, a series of visual and energetic exchanges between stage and audience that give performers 'presence' or charisma – then we need to ask whether Geminoid F possesses this elusive quality. The proposition that theatre works through a specular-somatic economy becomes clearer if we recall the etymological roots for the words 'theatre' and 'drama'. 'Theatre' is derived from the Greek noun '*theatron*'. The prefix '*thea*', means 'to look at', so the theatre is literally a place for looking, hence the centrality of a specular economy that partially defines the stage–audience relationship.[24] Interestingly, the word 'theory' shares the same Greek root as 'theatre' (the Greek word for theory is *theoria*). The theatre, then, is a place to look and speculate. 'Drama' is derived from the Greek root '*drao*', which translates as deed or action.[25] 'Live'

bodies 'do' things which produce somatic energy. Live performance, then, involves an energetic exchange between performers and spectators. Thus, the specular economy in theatre refers to the exchange of looks between actors and actors, and between actors and spectators (this concept of the specular economy is not dissimilar to the heavily theorised 'gaze' in film theory). The somatic economy refers to the exchange of energy between actors and spectators that is the result of the actors 'doing' something on stage. So theatre presumably works best when the actors strive to seduce the gaze of the audience, and produce a quality of energy or 'presence' that 'touches' the audience. The specular-somatic economy implies an erotic relationship between performers and audience that we can think of in terms of representation (specular) and non-representation (somatic energy). So how do performers manipulate the specular-somatic economy? How do they seduce an audience?

Eugenio Barba offers one explanation in his introduction to *A Dictionary of Theatre Anthropology* when he claims that

> [c]ertain Oriental and Occidental performers possess a quality of presence, which immediately strikes the spectator and engages his attention. This occurs even when these performers are giving a cold, technical demonstration. For a long time I thought that this was because of a particular technique, a particular power, which the performer possessed, acquired through years and years of experience and work. But what we call *technique* is in fact a particular use of the body.[26]

Barba, drawing on comments made by the Indian dancer Sanjukta Panigrahi, makes a distinction between the body's daily techniques (*lokadharmi*, in Panigrahi's terminology) and extra-daily techniques (*natyadharmi*) that we encounter in performance. Briefly, 'daily techniques' refer to the body's habitual expenditure of energy, which functions to conserve effort. Extra-daily techniques, on the other hand, refer to the performer's vitality and a quality of controlled energy that, together, make the actor *present*. Barba claims that the 'purpose of extra-daily techniques is information: they literally put the body in-form'.[27]

The term 'presence' is a fundamental category within the lexicon of Theatre and Performance Studies, and one that has received a significant amount of critical attention in recent times.[28] I do not have the space here to unpack the recent scholarship on theatrical 'presence', but it is worth noting that there are several ways in which we can think about the android's presence. First, if we think of presence as a particular quality and distribution of energy, then the notion of android presence becomes feasible. It is worth noting that the idea of inanimate objects being imbued with some kind of 'spirit' is not restricted to animist religions. Marx's account of the commodity is predicated on the assumption that objects function as a repository for human labour. In other words, commodities embody human labour. His theory of commodity fetishism is even more prescient in the context of the present discussion, since it describes how humans imbue objects with magical properties.[29] Techno-lust – the irrational desire to possess the latest and greatest technologies (say, the iPhone 6) – is an example of how people believe that the possession of certain objects will improve their lives. Similarly, Freud's account of fetishism[30] points to the way in which humans invest emotional energy in objects. Hoarders, sexual fetishists and children who use security blankets are examples of people who heavily invest their psychic energy in 'non-living' things. So, is it possible to think about robot 'presence' in terms of fetishism, or are there other ways of accounting for what makes Geminoid F 'work' as a performer?

5. GEMINOID F LOOKS LIKE A MANNEQUIN (OR POSSIBLY A SEX DOLL)

The original Geminoid was made in the image of its creator, Professor Hiroshi Ishiguro.[31] The next iteration of the android was, perhaps in deference to a well-known creation myth, the female. Geminoid F is not just any female; she resembles a fashion mannequin, and conveys the stock signs of sexually charged femininity. She certainly conforms to what we might call a hetero-normative ideal of feminine beauty. This is no accident, since the android (or should that be gynoid?) was inspired by a computer game. Elle Mitaros

reports that 'initial work on Geminoid F began in the wake of Nintendo DS's 2009 game, *Love Plus* (which is sold exclusively in Japan). The game was designed to simulate a high school romance, with players having the option to decide between three female characters, all of which exhibit typical womanly traits.'[32] Mitaros claims that Geminoid F 'looks like an everyday Eurasian female; she has soft, feminine features, brown hair and eyes and flushed pink cheeks. She has been dubbed the "love bot", due to her high level of intelligence.'[33] Ishiguro is quoted as saying that Japanese people are happy to accept androids such as Geminoid F because of their inanimism, which ostensibly mitigates against the possibility of being repulsed by the prospect of forming a sexual relationship with a robot. While most reviews of *Sayonara* comment on the android's sensitivity and humanity, nobody, to my knowledge, has remarked on Geminoid F's sexuality.

Of course, the play is not about sexuality *per se*, but I think it still raises questions about the relationship between eroticism and empathy. To what extent do the android's 'soft, feminine features' make her sympathetic and attractive? Would audiences identify with an ugly android? What are the political implications of creating a passive, compliant, obedient, female android? Clearly, there is a sense in which Geminoid F is the manifestation of a certain kind of male sexual fantasy, which involves creating and fetishising a passive object of desire – an object that caters to its master's every whim without protest or hesitation. The 'sexy' robot is another common character found in science fiction – think of the feminine robot, Alicia, in an early *Twilight Zone* episode titled 'The Lonely' (1959), or more famously, Pris, the pleasure robot played by Daryl Hannah in *Blade Runner* (1982). A forthcoming documentary, *I, Fembot*, will examine the phenomenon of artificial women in contemporary culture:

> Most robots are designed for war or servitude. But for many scientists the quest is on to make them as 'human' as possible. Their software is complex, but mostly these pretty girlbots' hardware is made by the same folks who brought us Hello Kitty. The film playfully explores our common robotic future from the female point of view and also from the perspective of the female robot (fembot) – long a staple of science fiction, and quickly becoming science fact.[34]

Clearly, the gender politics involved in the construction of androids (or gynoids) like Geminoid F requires more critical attention, especially since these androids appear to be blurring the distinction between android and sex toy. Anthony Ferguson remarks that 'academic interest in sex dolls, sex doll technology and the psychology of their users will become much more widespread as the gap between dolls and what would properly be called androids continues to close'.[35] There is already a growing body of literature on this topic, and some commentators see the advent of sophisticated robots that are indistinguishable from human beings as an affirmative social and political development. For instance, David Levy forecasts a utopian future where intimate robot–human relationships are commonplace. He believes that the benefits of creating artificial beings capable of human emotion are enormous.

> Almost everyone wants someone to love, but many people have no one. If this natural human desire can be satisfied for everyone who is capable of loving, surely the world will be a much happier place. Many who would otherwise have become social misfits, social outcasts, or even worse will instead be better balanced human beings.[36]

Whether one agrees with Levy's proposition and prophecy, there is little doubt that we will eventually have to reckon with the ethical implications of android technology. Geminoid F may represent an incremental step on the way to developing a fully realised gynoid, such is the pace of technological development. What is not in dispute, however, is the fact that the figure of the female, as Jennifer Parker-Starbuck points out, 'has often been a site through which to play out the anxieties of technological displacement, often writ large through the trope of reproduction and the maternal'.[37] Geminoid F is what Starbuck-Parker calls an 'object' body. That is,

> the body onto which ideas have been inscribed and transposed. These are often the feminized or racialized 'other', as seen in the historical examples of the female automata, or they could be Foucault's disciplined bodies; the object body is objectified, a *tabula rasa* for the meaning inscribed upon it.[38]

I find Geminoid F's gender the most ethically problematic aspect of *Sayonara*. Why is the robot caregiver a female, if not for the reasons outlined by Starbuck-Parker, whose compelling account of the complex relationship between bodies and technologies unsettle verities about the nature of the human body.

6. GEMINOID F'S PROGENY WILL UNSETTLE THE DIVIDE BETWEEN HUMAN AND NON-HUMAN

She's not there yet, not by a long way, but Geminoid F may be a prophet of sorts; the question of whether she is a portent of doom or a harbinger of ecstasy remains open. I suspect that she might herald the start of a technological revolution that will give us cause to reconsider the nature of human being itself, especially as we move towards technological singularity – that point, perhaps in the not-too-distant future, when the capabilities of artificial intelligence exceed those of human beings. *Sayonara* is not a great play, but I don't think that its importance should be measured in ordinary aesthetic or dramaturgical terms. The mere possibility that an android endowed with artificial intelligence and lucid mobility could one day take over roles that we have always considered to be the exclusive preserve of human beings casts uncertainty upon humanity's unique status as rulers over planet Earth, and *Sayonara* dangles that remote but perhaps not unrealisable possibility in front of our eyes. Futurist Ray Kurzweil claims that 'within several decades, information-based technologies will encompass all human knowledge and proficiency, ultimately including the pattern-recognition powers, problem-solving skills, and emotional and moral intelligence of the human brain itself'.[39] Of course, Kurzweil's assertion could prove to be nothing more than the ravings of an over-enthusiastic techno-geek, but I'm sure that it won't be too long before a truly amazing android makes its stage debut, and Professor Hirishi Ishiguro might even be responsible for its appearance. The quest to find the perfect human analogue in the form of an android actor may or may not make a significant contribution to the future of theatre, but who really knows what Ishiguro's work might engender? Indeed, what forces and mechanisms might guide the next generation of android actors – who can say?

NOTES

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3 Masahiro Mori, 'The Uncanny Valley', trans. Karl F. MacDorman and Norri Kageki, *Spectrum*, 12 June 2012. Online: http://spectrum.ieee.org/automaton/robotics/humanoids/the-uncanny-valley (accessed 23/07/14).

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SAYONARA INTERVIEWS: ANDROID–HUMAN THEATRE

Gorkem Acaroglu

Featuring a life-like humanoid robot, Seinendan Theatre Company (Japan) brought their performance *Sayonara: Android–Human Theatre* to Melbourne in August 2012. Geminoid F, an android, starred alongside Canadian actress Bryerly Long, in a performance that asks the question: What does life and death mean for humans as opposed to robots?

Sayonara is an internationally acclaimed short play that tells the story of a young girl facing a terminal illness and her caretaker robot that reads poetry to her. Written by award-winning playwright Oriza Hirata, in collaboration with robotics specialist Professor Hiroshi Ishiguro, *Sayonara* is a fusion of art and science.

Oriza Hirata is one of Japan's leading playwrights and directors, and his company Seinendan has toured throughout Japan, North America, Europe and Asia. Hirata has collaborated extensively with the ATR Intelligent Robotics and Communications Laboratory and Professor Ishiguro, director of Robotics at Osaka University, who is noted for his achievements in robotics,

which include creating an android clone of himself called Geminoid. A female version of Geminoid, known as Geminoid F, performs in *Sayonara*.

In this season, Melburnians were the first to see the extended version of Hirata's play outside of Japan, which featured an entirely new second act performed in English and Japanese.

Gorkem Acaroglu conducted interviews with the key members of the creative team directly after their first performance in Melbourne, on 24 August 2012.

INTERVIEW WITH ORIZA HIRATA (WRITER/DIRECTOR)

Gorkem Acaroglu: Why did Professor Ishiguro approach you to make a play with a robot and an actor?

Oriza Hirata: Seven years ago, I moved to Osaka University. Around that time, the president of the university introduced me to Professor Ishiguro, because I told him that I wanted to make a play using robots. It was great timing, because Professor Ishiguro had already made a play for experimental purposes using his students. He wanted to create a robot that made us question the distinction between robots and humans. Professor Ishiguro was collaborating with psychologists and psychiatrists to understand what makes human beings human. He often says to me that he believes artists have already answered this question, and the professor's job is to interpret our work.

Gorkem Acaroglu: What was the breakthrough that Professor Ishiguro had with you and the actors?

Oriza Hirata: In terms of language, it is timing and the space between the dialogue of the performers. In terms of movement, it is the wasted movement, unconscious levels of movement, movement that is not necessary. We call it 'noise' or 'micro sleep', and a lot of robot technicians know that these things are important, however nobody knows how much noise or micro sleep to include in the movement of robot language. But playwrights and directors know how much movement is necessary.

Gorkem Acaroglu: What have you learnt about making the robot appear to have emotion?

Oriza Hirata: I am an artist, so first of all, I have great pleasure in doing something that no one else has done before, but I still don't know what sort of potential or capacity this play or inclusion of a robot will have in the future. I feel like I'm climbing up a mountain that no one has climbed before, and I don't know how high this mountain is.

Gorkem Acaroglu: When you watch the show, do you get a sense of what it's bringing to theatre – seeing a robot and human on stage?

Oriza Hirata: One thing I've learnt is that there are so many films with robot characters. Film is a totally different experience to theatre. It's become clear to me that, in theatre, the human doesn't have to act because the whole experience for the audience is to share a specific time, space and atmosphere –the audience can almost touch the actor. All this is more important than the fact that the human being is *acting*, so in theatre it's possible for a robot to act. Five years ago, I created another play using a robot, and at that time some of the audience became really emotional and cried. I then realised that Stanislavski was wrong, because the robot doesn't have any inner soul or any past experience.

Gorkem Acaroglu: So, it's the audience's proximity to a robot that you're talking about?

Oriza Hirata: I think most people don't have any experience of sharing that amount of time – half an hour of time – in the same space as a robot. I don't know what that means, but I think it's something that we have to pursue as an idea.

Gorkem Acaroglu: What are the similarities between *Sayonara* and Bunraku theatre?

Oriza Hirata: We can think of the robot play as an evolved form of Bunraku or puppet theatre. The difference between traditional puppetry and this robot puppet is that the robot can act, the robot can move itself, and the developments of technological advances are really rapid. Of course, puppetry's technology doesn't move that fast. The next play I'm making will have a robot that can move around; he has a sensor, so he can sense where the standing position is for each point throughout the play, and I think the human–robot interaction can benefit from these technologies.

For example, if the play is performed in a really dark theatre, and if the actor has got a sensor somewhere, he can know where he is standing and where he can go next. And I would expect that in five or ten years' time, androids could be used in Broadway plays, or major theatres in the world. For example, if one actor is playing a physically dangerous role, he can go offstage and be replaced by an android stunt double that flies through the theatre. That kind of thing could be possible using today's technology. As you are probably aware, actors performing in the Broadway production *Spiderman* sustain a lot of injuries, and this causes problems with insurance; robots don't need insurance.

Gorkem Acaroglu: Is the ultimate aim to make the robots autonomous, so they don't have to be operated?

Oriza Hirata: Yes, but in *Sayonara* the operator needs to press a button three times; other than that, Geminoid F moves on her own. Of course, the actor has to calculate her timing to interact with the android, but Professor Ishiguro and I are collaborating to make something that, in the future, will require the human actor to calculate space and timing in order to work with the android.

Gorkem Acaroglu: How would it be if the robot could respond spontaneously? Are you interested in that at all? For example, if the robot is going to say 'I love you', might she say it differently in different performances? Will she be able to choose how she is going to say the line: aggressively or softly, for example?

Oriza Hirata: One thing Professor Ishiguro and I have in common is that we see personality or communication as something that evolves. It's not something that gets taught, but something that is evolving. For example, even with human beings, I can say passionately to you 'I love you' and then say 'I love you' really simply to another person, because we have sensors in our minds to classify and distinguish one person from another. With timing as well, it's a combination of sensors in our minds as well as the way we say something verbally. So, these things can be programmed. The great thing about computers is that their memory capacity is infinite, so we can program multiple combinations of what to say and how to say it. There is a professor in America who has autism, but his IQ is very high, so he works as a professor and memorises all the patterns of communication, so even if you talk to him for fifteen minutes, you probably wouldn't know he has autism. It really depends on how long that pattern or how long that conversation lasts.

So communication is all patterned, and can be classified into patterns. If we program those patterns into a computer, it could conduct maybe three conversations. For example, if we wanted to discuss Japanese and Australian history during World War Two, and to discuss prisoner of war camps for two hours, a robot probably couldn't handle that kind of intricate discussion even in ten years' time. However, if it was a short conversation, like a chat or an everyday conversation for ten minutes, they could handle it. If you think about our daily lives, we would discuss Japanese and Australian World War Two relations and POW camps for about an hour, so most of our conversations are really

short conversations. If we think about it, it's really easy to bring these communication patterns to robotics. As I was saying before, robotics technicians or professors used to work with psychologists and linguists. However, there are abundant data that they don't know how to use. An actor or director can distil what the essence of a conversation is and bring that into robotics.

Gorkem Acaroglu: Did you ever consider creating a play where a robot doesn't play a robot or would the robot always play a robot?

Oriza Hirata: At this stage, I always use an android as an android. However, in the future I would like to make the android's role more ambiguous, to blur the division between android and human.

INTERVIEW WITH PROFESSOR HIROSHI ISHIGURO (CREATOR OF GEMINOID F)

Gorkem Acaroglu: Why did you want to put a robot on stage with a human actor?

Professor Hiroshi Ishiguro: My interest was the human itself, not to understand what is human about the android, which is why I collaborated with Oriza. Actually, in robotics we had some misunderstandings about human likeness. We thought that a robot could be like a human being if we developed some basic functions for the robot – like walking or running. But what we came up with was not true to what humans actually do. How can we create human-like behaviour?

In my case, I am born in Japan, I grew up in a Japanese family and every day we had breakfast, lunch and dinner together, and I learnt how to eat Japanese food, how to use chopsticks, how to talk during dinner. Right? Humans acquire learning according to their situation. We need to learn how to behave – that is human-like behaviour. And this is what

we need to teach the robots. I would say that our life is like a kind of collection of scenes – a collection of scenarios. I realised that this is what was missing in robot development. For example, Quando Ashimo as a robot is not so human-like, but people want to see more human-like behaviour in robots, so we need to prepare scenarios according to human-like situations. That was my motivation to work with Oriza.

Gorkem Acaroglu: What does it do for an audience when you put an actor next to a robot on stage?

Professor Hiroshi Ishiguro: It's the same. There is no difference between human and robot actors. For example, Japanese people don't see many black people in their country. If we see black actors and actresses on stage, it's quite similar to seeing humans and androids on stage for Japanese audiences. The android is so human-like. If there is distance between the stage and the audience, the audience cannot distinguish between the android and the human. So the android is a kind of person. Our challenge is to put forward the idea that there is no differentiation in the theatre. We expect that human actors and actresses will perform in the theatre, but that is not the definition of theatre. We can use anything in the theatre. Obviously, the android can represent different aspects of humans. That is the reason why we are using the android in the theatre.

Gorkem Acaroglu: Is Geminoid F autonomous?

Professor Hiroshi Ishiguro: We have two models. One works through being operated 'live' in the theatre, and the other works by pre-recording everything – we replay the actor's voice. That's what we're doing here. Bryerly records her voice and behaviour into the computer, and it replays her voice and behaviours as the android. If we had wanted to, we could have used artificial intelligence to converse with the human actor, but we are not using that kind of technology because we don't want to make

any mistakes. For the theatre, we always record the android's voice, but in my laboratory the android talks with people.

Gorkem Acaroglu: She looks quite Western. Is there a reason for that?

Professor Hiroshi Ishiguro: No. After building my android, my idea was to have a kind of international appearance, an international face. She is a quarter Japanese and the rest Russian.

Gorkem Acaroglu: Why?

Professor Hiroshi Ishiguro: I wanted it to be an international face.

Gorkem Acaroglu: What's your relationship to the robot?

Professor Hiroshi Ishiguro: Me? To her? She is not my child. She is not my wife. She is not my toy. She is something different. It is a bit difficult to explain that. It's a new category.

Gorkem Acaroglu: So it's not like a relationship you might have with a child?

Professor Hiroshi Ishiguro: No, but it's also not just a simple toy. It's something more. Obviously, Geminoid F looks very human. It is a little bit difficult to explain. She's a kind of mirror. We need to have many mirrors. My philosophy is that we are surviving in this world in order to recognise ourselves. My final goal is to understand what a human is. Who am I? Therefore, I need many mirrors to reflect parts of myself. She is one of them.

Gorkem Acaroglu: For me, seeing the robot next to the human emphasises the humanity of the actress. Is there anything like that in your thinking about it?

Professor Hiroshi Ishiguro: Exactly. When people watch the android, they always question what's human, and attempt to compare themselves with the android.

Gorkem Acaroglu: Have you been involved in writing the script?

Professor Hiroshi Ishiguro: No, that is all Oriza. I am not a theatre thinker. I am a scientist. But what I want to do is to write a science fiction novel. If I write the novel by myself, I can show the possibility of a better future.

Gorkem Acaroglu: What do you think theatre will be like in the future?

Professor Hiroshi Ishiguro: We are going to use robots and androids more and more. Actually, this kind of small theatre [the Fairfax at Melbourne's Arts Centre] cannot earn money, it cannot survive without money from the government. But if they use an android, well they can save a lot of money. This small theatre would be a real business.

Gorkem Acaroglu: So only have androids? No actors or both?

Professor Hiroshi Ishiguro: Both. That is also a possibility. Human actors always complain about many things. 'Give me more money, more food.' They don't like to travel much, but the android never complains.

Gorkem Acaroglu: Do you imagine that robots will one day be autonomous to some degree on stage?

Professor Hiroshi Ishiguro: Now, the human actor or actress needs to adapt to the robot to talk, but if the robot can have an adaptive function to the actor, it is probably going to be more human-like. It's going to be easier for the human actress. Now, the robot is so perfect and that puts pressure on the actress. I think it's important to have a little bit more of an autonomous function.

Gorkem Acaroglu: Right now, every movement is pre-recorded. The operator presses one button and it does it all?

Professor Hiroshi Ishiguro: Yes.

Gorkem Acaroglu: What would happen if there was a mistake?

Professor Hiroshi Ishiguro: This android play is not very long, just thirty minutes. The computer is robust. We have another, very long robot play. It takes two hours and sometimes the robot has mechanical problems, so we need to override the control. The operator is always watching the robot. If something happens, then the operator takes over the operation of the robot. Again it depends on how many layers we have for the control. The first layer is fully autonomous, the second layer is through theatre operations, but we can do the first layer so that it is fully autonomous, and the second layer can also be autonomous. This one has defined control systems. We are developing that kind of three-layered system now.

Gorkem Acaroglu: Do you think that there is a difference between this kind of theatre and puppet theatre?

Professor Hiroshi Ishiguro: A puppet is a puppet. It's easy to distinguish the difference between a puppet and a human. With Geminoid F, you can get confused. You can feel the different human aspects of the android, which you can't feel from a puppet.

INTERVIEW WITH TADASHI KAIZU (ROBOT TECHNICIAN)

Gorkem Acaroglu: Can you tell me about your involvement with *Sayonara*?

Tadashi Kaizu: In 2005, I was a student of Professor Ishiguro. There was a World International Expo in Ishi Prefecture in Japan, where we exhibited androids – different androids to the one in *Sayonara*. I set up numerous sensors around the android, which enabled it to detect the distance between itself and a person. It also used a language sensor, so it could walk around and communicate with the audience. Since then, I have been involved in android system development, and two years ago, Hirata and Professor Ishiguro collaborated on a play with an android character. Since then, I have been involved in their productions.

Gorkem Acaroglu: How have you been involved? I know that you just have to press the button controlling the android three times, but in the past, did you have to do more?

Tadashi Kaizu: In this play, there are two actors playing the android's role and those two people have to rehearse. When they do that, I record the actor, their performance, their lines and their movement. I analyse their movement using an image processor. I record their voice as well. We analyse their mouth shape and then adapt it to the android's movements. All the information that I collect, I input into the android's movement.

Gorkem Acaroglu: Have you ever done the play when the android is more autonomous?

Tadashi Kaizu: When I did an exhibition at the World Expo, we used three sensor images. There were numerous patterns recorded in that robot, so if the audience reacted in one way, the robot would select the pattern and then react in another way. That was quite a lot of work, because there were numerous sensors and numerous patterns that had to be recorded, whereas in this instance, it is just one scenario.

Gorkem Acaroglu: Have you done *Sayonara* in this way?

Tadashi Kaizu: There are two versions of the play. The pre-recorded version you saw today, where I just have to press the button three times; in the other version, instead of using two actors to record the android's movements and voice, we do this process live with the actor performing the android's movement backstage. There is a microphone and video camera on stage, monitoring the actress on stage. So the actor in the dressing room can sense everything and perform the android motion as if she is on stage.

Gorkem Acaroglu: Why don't you do that more often?

Tadashi Kaizu: There are a few reasons. The recognition through computer imaging system is not as precise as we would like it to be. A camera that does face recognition is not always precise. Sometimes, it goes blurry. It's quite an effort to make this process work. Also, there is quite a lot of setting-up for theatre, because the actor has to monitor the camera and voice.

Gorkem Acaroglu: What are the benefits though of doing it that way?

Tadashi Kaizu: Because it's not pre-recorded, actors can improvise their movement and lines. At the moment, it has been pre-recorded, so the actor on stage cannot make any mistakes. Monitoring is done backstage, but if you use the Internet, or some kind of communication process, it could be performed live from anywhere, even from Japan.

INTERVIEW WITH BRYERLY LONG (ACTOR)

Gorkem Acaroglu: What have you learnt about what Geminoid F needs to do to appear to have emotion on stage?

Bryerly Long: There are two sides to that question. When I first performed this play, a Japanese actress operated the robot, and I was the person on stage performing with the robot, but in the English version I played both roles. I had the job of operating the robot, too. It's one thing to make the robot appear to have emotion when you're on stage with her, and another thing when you're backstage operating the robot. When you're on stage, I think it is a lot about timing and finding the natural pauses and becoming aware of unnatural pauses. This is quite difficult, because in the current version of the play Geminoid F's dialogue is pre-recorded, so I have to make my timing fit in with her. If there's a slight pause, it might seem like the robot is thinking about something. If the pause is too long, it will seem unnatural, and if the pauses are too regular, it will seem like you're pushing a button. You get the same problem with human actors when they're learning a script. This is where our director works with us without the robot. If you have a script and then you say it very rhythmically, it might sound very artificial, so the process is about how to break up that timing, and make it different. I'm mostly sitting with my back to the audience, and the robot is facing the audience. I'm feeling an emotion that is not directly seen by the audience, but my emotions create opportunities for the audience to empathise with the robot. The fact that I express emotion makes the audience feel like the robot is creating some kind of emotion as well.

Gorkem Acaroglu: So it's the role of the actor, then, in this play, to give a sense of emotion to the android?

Bryerly Long: Yes. The other thing is operating the robot. When you're operating the robot, it's a lot about the quality of the robot's voice. I think it is quite fascinating that without actually having a face that moves in the same way as a human face, it's possible to give the robot a very expressive voice. Also, a slight movement from the robot can convey emotion. It's similar when working with masks. You could say that it's limiting, but actually it's very expressive within a certain range of elements that are shown to the audience.

Gorkem Acaroglu: When you're on stage with the android, does it feel like you are with another performer or do you feel like you're doing a solo performance?

Bryerly Long: When I'm acting with the actress backstage, then it feels like I'm working with another performer. When I'm acting with a robot, it feels more like a solo. I don't think there is such a thing as a one-person play, because everything that goes into a play is very important, too – the lighting, and other technical things. In this case, we have a robot technician. There are so many people who work behind the scenes.

Gorkem Acaroglu: When you said that sometimes you operate, do you mean

that you're the one offstage operating the robot?

Bryerly Long: In the English version, I play both roles, which means that I've pre- recorded the robot's voice and movements in front of a computer.

Gorkem Acaroglu: What does that do to your acting? As an actor, you are emoting and you're communicating some sort of emotion, so how does that translate when you are doing it through a robot? Is it the same or does it become something else?

Bryerly Long: It's different. It's really voice acting with no expression, because we do it in two parts. First, we record the voice then we record the movements, so the voice is really important, and that's just like regular acting. It's much more thinking about creating movements that will look natural, and work well with the phrases. For instance, the position of the robot's head according to what the robot might be 'thinking'. Of course, this process is more limited than if you were doing it naturally.

Gorkem Acaroglu: What do you think having a robot and performer on stage brings to theatre?

Bryerly Long: I think it gives us the opportunity to think about what an actor is and how an actor creates emotion. The robot's movement can be quite limited, yet still be expressive. You find in some forms of theatre, like Noh, that an actor can take their hand to their face to indicate that they're crying. It's a very simple movement, but it creates that emotion. That's one thing, but as actors there's always the debate whether you need to be experiencing the emotion you're playing. It's interesting that an object presumably does not experience any emotion, yet it can still produce a convincing performance.

Gorkem Acaroglu: Why is the robot's voice so important?

Bryerly Long: If a voice is too monotonous, the audience will switch off and get bored. In our daily lives, we are not aware of how our voices are

high-pitched or low-pitched or musical, but an actor has to work on that. Some people have to work on it less, because they naturally have very beautiful, musical voices. I think it's also possible to tell if someone is open with their emotions by their voice. Acting is about being open with your emotions, unless you're playing the role of someone who is very nervous.

Gorkem Acaroglu: Is it particularly important in this play?

Bryerly Long: Yes. There are many ways you can move an audience. It can be through body language or through voice – these different elements come together to affect an audience, but when you take away the expressive body language, the best way for the robot to connect with an audience is through voice.

Figure 1: Geminoid F. Photo courtesy of Osaka University and Seinendan Theatre.

REVIEWS

MIMI COLLIGAN, *CIRCUS AND STAGE: THE THEATRICAL ADVENTURES OF ROSE EDOUIN AND G.B.W. LEWIS* (MELBOURNE: MONASH UNIVERSITY PUBLISHING/STATE LIBRARY OF VICTORIA, 2013)

Theatrical biographies of modern performers generally defy placement in a unique nationalist context. The 19th century's population migrations and the global transport infrastructures that enabled them, plus imperialism's cultural and political hegemonies, produced a dispersion of European (in this case, British) entertainment forms to new, worldwide audiences. Entertainers could and did travel far and wide, performing in goldfields hotels, garrison towns, commercial entrepôts, circus tents or fine civic theatres; and where no such facilities existed, they might build their own or maybe use a pre-fab iron demountable supplied from Manchester. The circus artist George Benjamin William Lewis (1818–1906) was such a one whose enterprises spanned the century. Lewis was a rough and ready British circus rider who mutated into a dramatic entrepreneur and pioneer theatre builder in new territories. In 1853, gold drew him to Melbourne, where he established the city's first circus amphitheatre on the Spring Street site now occupied by the Princess Theatre. Even in these early days, he was also engaged in laying down a substantial property portfolio in the booming port city.

Melbourne became his base for forays into China and India, where he initially toured his circus before switching to dramatic fare in order to exploit the talents of his wife Rose Edouin and her siblings – Edouin being the theatrical name of a family born as Bryer. It was probably a second marriage for George, though his first remains a mystery. Rose (1844–1925) was one of the six young children of the deserted Sarah Bryer, who formed her brood into a touring juvenile troupe in which Rose clearly emerged as the star talent, impressing no less a person than Samuel Phelps for whom she played Puck. Normally, however, Rose and her siblings performed the typical juvenile repertoire of the time that sustained many such a family troupe. Musical farces and comediettas demonstrated the youngsters' versatility in contrasted lightning-change roles that merrily confounded and exploded age, gender, class and ethnic markers in a way not achievable by adult players. Rose excelled also in her singing and dancing skills, and emerged into adulthood as a specialist in pantomime and burlesque, and in mature adulthood she graduated to central dramatic roles such as Lady Teazle, Miami and Leah the Forsaken. In middle age, back in Victoria, she played Hamlet in hose and moustache. The Lewis couple consolidated their activities in booming Melbourne and leased the new Academy of Music, later known as the Bijou Theatre. George kept up his acquisition of Melbourne properties, and the Lewises established themselves as respectable suburbanites in their St Kilda Road mansion stuffed with Indian and Chinese souvenirs. When the financial crashes of the 1890s destroyed all their investments, the now mature Rose resumed her stage career, working in 'old woman' parts in Britain and South Africa, and died in Harrogate leaving a very small estate in comparison to George's former fortune.

Circus and Stage presents geographically scattered material in the form of a comprehensive double career biography of George and Rose Lewis. In 1864, they married while touring in Shanghai: occupational and marital unions typically bound together troupes of travelling players, satisfying both professional and personal needs and the dictates of propriety. The union of Lewis with Rose Edouin, former child star and twenty-six years his junior, seems to have been

stable and successful in all these aspects. However, early death claimed all but one of Rose's six infants, and the rigours of touring the hot plains of India also brought low many of her own Edouin family, who succumbed to the family affliction of tuberculosis. The fortunate exception was her stellar brother Willie Edouin, the major musical comedy and burlesque comedian who worked in the USA and Britain. Willie's association with Lydia Thompson, she of the scandalous burlesque blondes, meant that some of her star vehicles were passed onto Rose, who regaled the mixed audiences of Calcutta and Bombay with Orientalist burlesques which were keenly and critically observed by the educated Hindus and Parsis in the audience. In the broad church that was mobile popular entertainment, the combined careers of the Lewises exhibit a repertoire ranging from foot juggling to Euripides.

The theme of the training of the child player links the careers of George and Rose. While George performed the duties of manager and entrepreneur, Rose was star, director and trainer of their troupe, working gallantly through pregnancies and family deaths. She made a particularly sustained contribution to child training in Australia, setting up a room in her house where promising youngsters were given the dedicated education in stagecraft that she herself had received in her toddlerhood. In common with youngsters in all forms of trade and industry before the age of compulsory education or institutionalised actor training, the young performer started early and learned on the job. Colligan suggests that this partially compensated Rose for her own lost children whom she would have expected to so educate, just as she and her siblings had been. The careers of Flora Graupner, Christine Peachey, Mary Weir and Eugenie Duggan, all notable early Australian actors, dancers and singers, owed their start to Rose's dedication and enterprise in passing on her art. As for George, he trained young Chinese and Australian, including Aboriginal, horse riders. He shared the unsentimental view of child performers typical of his age, and which he had himself probably experienced. The broken limbs and falls of the tiny circus apprentice garnered no favours and getting straight back on the horse was the rule. This was, however, less a personal characteristic than a professional *habitus*, and after his marriage

he became an international entrepreneur and proudly showcased Rose in well-mounted dramatic work supported by good-quality, Australian-sourced companies. In George's old age their roles reversed as she became the breadwinner, and through it all their partnership survived.

Hence this book's intervention in Australian history is substantial, consolidating scattered references and placing them in the context of the national developments in repertoire and of urban material infrastructure. The international breakthrough is its work on the Lewis troupes as agents of empire pioneering the dissemination in Asia of Western dramatic forms and performance practices. Lewis toured the ports of China, India and Indonesia with his circus in the late 1850s and 1860s. Then, after marriage with Rose, he took numerous dramatic companies to the Chinese treaty ports and to India in the 1860s and 1870s, making frequent voyages in the northern cool seasons and retreating to Melbourne in the hot ones. The first professional troupes touring this area were thus formed in Melbourne rather than Britain. Consequent to their Australian success, Lewis toured J.C. Williamson and Maggie Moore performing *Struck Oil* in India. Colligan asserts that Lewis could see that, in the more stable times following the Taiping Rebellion and the Indian Mutiny, Western enclaves in Asia were avid for something more prestigious and up-to-date than their staple fare of garrison theatre and amateur dramatics, and that contemporary British drama was the desired vehicle. Hence Rose starred in a repertory of society plays and melodramas by Boucicault, Robertson and Byron, plus Rose's specialties of pantomime and burlesque. In the latter capacity, their 1874 localising to Indian circumstances of Gilbert and A'Beckett's *The Happy Land* caused the Viceroy to walk out – an experience of disapproval in high places to be repeated at Melbourne's Academy of Music six years later. Colligan raises the question of what the audiences of mixed peoples might have made of the standard race-based and Orientalist dramas such as *Jessie Brown* and *The Octoroon*, or the transvestite blacked-up satirical romps *Robinson Crusoe*, *Aladdin* or *Ali Baba*. The feminine centrality typical of Rose's repertoire of fallen women and adventuresses may

have compelled particular interest, but such speculations must be the province of further intercultural investigation.

Lewis was a genuine pioneer of Western theatre in Calcutta, assembling his corrugated iron theatre for the season and re-assembling it after cyclones blew it away. In 1871, it became a permanent structure. The expatriate demand for professional entertainment was growing and soon he was able to offer seasons in Bombay as well. But not only the British Raj attended these performances – so did those Indians who were fans of Shakespeare or who were interested in Western theatre. Apart from the work of Sudipto Chatterjee on the advent of such theatre in the region, there still prevails a lack of details about this important cross-cultural activity, which *Circus and Stage* goes some way to clarify. Colligan speculates on the impact of the Lewis troupes on key Indian theatre-makers, particularly the pioneering Bengali actor and playwright Giresh Chandra Ghosh, whose Great National Theatre, the first such, commenced in 1872. Also within this ambiance was the low-born courtesan-actor Binodini Dasi, whose brief professional career with Ghosh in the 1870s combined Bengali theatrical styles with the kind of European acting that she might have seen Rose Lewis perform. But just what aspects of the Lewises' professional practices and industrial models were fruitful for Indian purposes remain the fascinating question that English-speaking sources can raise but not fully answer. In the context of Western cultural expansion, Colligan shows how the Lewises were the first fully professional Western dramatic troupe in post-Mutiny India, where entertainment infrastructure was rapidly being established in the administrative capital. Decades later, in 1895 when the Brough company toured India with thirteen players, they believed themselves the first and largest such enterprise, whereas Lewis had toured a troupe of twenty-one in the late 1860s – and this despite the Broughs playing in the very Calcutta Theatre Royal built by George.

Colligan's book is the fruit of many years of research in scattered international sources, where sparse documents must be located, assessed and interpreted. As a professional historian, she is ideally placed to piece together

the linked careers of these two individuals and of their professional and familial contemporaries. Thanks to imperial bureaucracy, official records (marriage, birth and death certificates, wills, shipping lists, architectural plans) are relatively plentiful, though in this case personal papers are scarce. Colligan is aware that many of these documents of the pre-passport era are also works of convenient fiction, deriving from unstable information given by their subjects who altered and improved on their names, marital relationships and birth dates as it suited their immediate circumstances. Rose's errant father John Bryer, for example, settled in Melbourne under a new name and bigamously started a second family just a few miles from Rose's home. However, a Lewis family scrapbook has been recently located in Dublin which covers the latter part of Rose's career, some of whose illustrations appear in *Circus and Stage*.

Hence, the principal resource remains the contemporary press, whose minute reportage of the events in the social and cultural life of their expatriate communities forms an invaluable though problematic record. The book is studded with journalistic footnotes from the English-language newspapers of Melbourne, Dunedin, Cape Town, Dublin, Wellington, Calcutta, Bristol, Hong Kong, Manchester, New York, Shanghai, Ballarat, London, Bombay, Singapore, Batavia and Warrnambool, to name but some. Nor are all these publications handily available online, but remain in paper and microfilm format in scattered repositories requiring local visits. While the book risks becoming both captive and product of the available resources, it preserves a scrupulous stance in its lively narration and analysis of its subjects' complex careers. Pioneering documentary research such as this must use scholarly discrimination in its source interpretation, respecting the blank areas, presenting a cohesive narrative, and convincing the reader that its subject matter is a worthwhile contribution to scholarship. *Circus and Stage* succeeds in these objectives, and so it opens up new perspectives on how Australian-based theatre interacts actively and responsively with that of other regions.

Veronica Kelly // *Veronica Kelly is engaged in a study of Anglo-Australian cultural interactions in the late 19th and early 20th centuries. She is a former Editor of ADS and currently Emeritus Professor at the University of Queensland.*

KAREN JÜRS-MUNBY, JEROME CARROLL AND STEVE GILES (EDS), *POSTDRAMATIC THEATRE AND THE POLITICAL* (LONDON, NEW DELHI, NEW YORK AND SYDNEY: BLOOMSBURY, 2013)

The various contributors to *Postdramatic Theatre and the Political* address the issue of how postdramatic theatre can be/is 'political' when it (usually) does not present political (or any) 'themes' in anything like a straightforward way (4–5). The book pursues an issue that emerged in an academic spat in the pages of TDR (Summer and Winter 2008) between Hans-Thies Lehmann and his translator Karen Jürs-Munby on one side, and Elinor Fuchs (who reviewed *The Postdramatic Theatre in TDR*) on the other. One of Fuchs' principal objections to Lehmann's book was what she saw as Lehmann's (and postdramatic theatre's) neglect of the political.

The extended Introduction by the editors introduces the ideas that are pursued in the rest of the book. Each chapter then takes as its departure point the seminal work of Lehmann on postdramatic theatre, and applies, expands or (in a few cases) contests his theses in relation to the question at hand. A strong motif throughout the book is the notion that the politics of postdramatic theatre are pursued and generated in its *form* (as pointed out earlier by Lehmann in his 'note in passing' in reply to Fuchs: *TDR* 52.4 (2008) 18; see also Brandon Woolf's chapter in this volume), its dramaturgical strategies, its indeterminacy of meaning, indeed its 'shift from meaning to energy' (28), and its blurring of the boundary between 'reality' and 'pretence' and between production and reception (with, consequently, an often heightened and more direct relationship with the audience). Although there are a few weaker contributions, for the most part each of the book's twelve chapters expands our understanding of the politics of postdramatic theatre. The book as a whole constitutes an important contribution to theatre scholarship that is to be warmly applauded.

A number of chapters grapple with Brecht's legacy on the politics of postdramatic theatre. Brandon Woolf teases out Lehmann's 'note in passing' in relation to the 'formal Brechtian elements that are most prominent in the realm of the postdramatic' (36). It is through unsettling and disrupting the politics of drama (46) and by refusing to 'represent a *reality* which is no longer *really* representable as drama' that the political in postdramatic theatre is constituted (43–4), asserts Woolf. David Barnett argues against Lehmann's proposition that the 'postdramatic' is equivalent to a 'post-Brechtian' theatre. What lay at the core of Brecht's directorial approach, Barnett argues, was his 'focus on staging materialist dialectics' (49), in which it is assumed that 'reality does exist, and … it can be represented' (50). Barnett compares two productions of Brecht's 1940 *Mr Puntila and His Man Matti*. While both productions 'deploy strategies to frustrate a simple mapping of text and action referentially onto a recognisable reality' (64), Einar Schleef's 1996 *post-Brechtian* production 'acknowledges that reality is organised dialectically, with all the implications that has for the possibility of social change', while Michael Thalheimer's 2009 *postdramatic* production 'does not ostensibly engage with such questions in such concrete terms and explores a different complex of issues' (66).

Shannon Jackson examines the politics of what she terms a post-Brechtian, postdramatic work, *Alladeen*, by US company The Builders Association. In this 'intermedia' work, the actors 'impersonate' the 'impersonations' of call centre workers in India (or anywhere), while the training that such call centre workers receive (to neutralise their own accents and take on the accent of the caller) is projected onto screens. The politics of the show, argues Jackson, is manifested both in its use of digital technology mixed with live performance to critique the mediatised nature of the contemporary world, and in its 'post-Brechtian' revelation of 'a cast of actor-labourers, working in real time and shared space to sustain the illusion of a frictionless technological world' (183).

Postdramatic theatre's toying with 'reality' and 'appearance' also features in numerous chapters, including some of those discussed above. Ulrike Garde and Meg Mumford focus on two examples of postdramatic 'reality theatre': *A Certain Maritime Incident* (2004), by Sydney-based company version 1.0, and *Chambermaids*, an ongoing 'biographical installation' of real-life cleaners in a metropolitan hotel (originally in the ibis Hotel in Berlin) set up by Lola Arias and Stefan Kaegi, two members of the Berlin-based Rimini Protokoll. The performances were postdramatic in the sense that they deliberately generated a 'productive insecurity' about 'reality' and 'authenticity' (148). In both performances, argue Garde and Mumford, 'the authenticity contract between experts and audience is potentially challenged', and the audience is not able to discern what 'degree of artifice' is involved (159). Theron Schmidt focuses on *Food Court*, a work of Back to Back Theatre (based in Geelong, Victoria), whose performers are (or are perceived to be) intellectually disabled. Schmidt is interested in 'the political relevance of artistic practices that invest in and explore theatre as an apparatus of appearances' (190). The 'politics of appearance', as he calls it, lies in the spectator making choices as to 'the distinction between abled and disabled, like the distinction between child and adult or between human and non-human'. Schmidt's essay, while articulate and pertinent, perhaps takes too long to make its point.

In his own, densely argued contribution, Hans-Thies Lehmann combines the politics of postdramatic form with the question of whether and how tragedy can exist in contemporary theatre. Noting the 'curious twilight zone between political activism and aesthetic practice' (87), Lehmann repeats the substance of his earlier 'note in passing' to Fuchs that 'questions of aesthetic form *are* political questions' (*TDR* 52.4 (2008) 18). Lehmann's argument here is that tragedy '[f]rom the beginning [in ancient Greece] … was closely connected to basic questions of the political, the *polis*, to history, power and conflict' (90). More importantly, 'in our time [tragedy] no longer has to take the shape of a dramatic process but may with equal – and I add: superior – legitimacy appear in moments of performance, in postdramatic theatre' (89). He distinguishes

between two commonly held theoretical approaches to tragedy. In the first approach (most strongly associated with Hegel), 'the central problem is the nature of certain conflicts – basic political, social conflicts (roughly speaking, between the individual and the community, the personal and the social)'. The second approach (in which Nietzsche is prominent) 'insists on the *autonomy of the aesthetic experience* as such, as opposed to all ethico-political perception', and involves practices that 'articulate (or lead us to recognise) human existence as essentially transgressive, thus risky, inherently disastrous, and potentially self-destructive' (92). While the first approach to tragedy 'is basically a representation of intense "collision", which logically begs for a representation as dramatic opposition', the second (which 'does not necessarily suggest a factual or theoretical connection to a certain artistic form' 92) is alive and well in postdramatic theatre. It is only when 'the aesthetic articulation is crossed out by an interruption and caesura of the sphere of aesthetic representation' – an interruption that is central to the *form* of postdramatic theatre – that the necessary *tragic* 'shaking or destabilising of the basic grounds of our cultural existence, even a blurring of the bounds of the self, of conceptual understanding as such' (98–9) can take place. And it is precisely in this 'twilight zone' that 'the dimension of the political' also lies, a zone in which there is generated 'the momentous undermining of key certainties' (99).

In another densely argued chapter, Peter Boenisch examines 'concurrent recent developments in both dance and theatre as important further "turns of the (postdramatic) screw"' (112). In some form-dissolving dance works, such as Eszter Salamon's *Tales of the Bodiless* (2011), there are no dancing bodies at all. In this and other cases, the actor-dancer's body is not only 'anti-referential' (116), but refuses signification in a new and more intense way as 'contemporary dance has transgressed former boundaries'. Boenisch argues that contemporary dance performances of this kind 'disclose horizons of subjectivity which no longer support subjectivity as an expression of an authentic self, nor as purely ideological misrecognition', but rather as 'a subjective position of formal self-reflexivity' (112) that corresponds to what Žižek calls a 'parallax'

perspective, a relational dialectic that 'blurs conventional dual delineations of represented and representation, of original and interpretation …' (124). Boenisch terms the subjectivity that remains 'after all the work of deconstruction has been done' (126) a 'fetish' subjectivity (referencing Freud, Marx, Lacan and Žižek), in the sense that this subjectivity, 'instead of obscuring real knowledge, "can play a very constructive role by allowing us to cope with the harsh reality"' (citing Žižek). This 'fetish' subjectivity is a 'knowing lie' that 'makes it possible to maintain agency' (127).

A number of chapters examine postdramatic performances in which iconic performances, artworks or events from the past are openly re-staged, re-contextualised, 'doubled' and/or transformed in some way. The 'political' in these performances resides in the way in which these contemporary performances problematise the earlier artworks or events. Karen Jürs-Munby focuses on Elfriede Jelinek's so-called 'Secondary Dramas' (*Sekundärdrama*), in which the playwright introduces a new play that is 'performed *together with* a classical drama' (211). In the two case studies that Jürs-Munby provides as examples, *Abraumhalde* (2009) and *Faust In and Out* (2011), Jelinek creates a situation where 'the sovereignty and sanctity of the original classic drama is directly invaded by the secondary drama, which disturbs and probes it in real time on stage' (215). The political, she argues, 'emerges here in an in-between space opened up by the disrupting secondary drama as a parasitic agent', thus creating 'a space for questioning and dissent' (211). At the same time, Jelinek's work is frequently overtly political in its themes, revealing, argues Jürs-Munby, how the 'no-longer-dramatic text' can 'both "thematise" contemporary political subject matter and allow the political "to appear only indirectly", "at an oblique angle", as Lehmann says' (212).

Antje Dietze examines Christoph Schlingensief's *1996 Rocky Dutschke, '68*, which staged different scenes from the (collective memory of the) life of Rudi Dutschke, a 'Marxist intellectual and leader of the West Berlin student movement' (132) in 1968. By restaging key scenes in a 'participatory' way that left audience members unsure of what was 'documentary' material and

what had been heightened and critically distorted through the techniques of 'subversive affirmation' and 'over identification' (141), Schlingensief attempted to force the spectators to 'emancipate themselves from the inherited project [from late-1960s leftist activism] of emancipation, thus overcoming and continuing it' (140). The chapter is a little repetitious, but nevertheless brings an important work to the discussion.

The remaining three chapters, while presenting important material, are less successful as arguments. Mateusz Borowski and Malgorzata Sugiera's chapter discusses the work of various theorists, and is rather generalised. Jerome Carroll argues the value of a phenomenological approach to the politics of postdramatic theatre, and relates his argument to the work of Austrian playwright Ewald Palmetshofer, in which the blurring of the boundaries between 'reality' and 'pretence' is crucial to the works' politics. However, from Carroll's analysis (239–48), it appears that, apart from the use of monologues, this boundary blurring exists in Palmetshofer's work almost entirely as theme rather than mode of delivery, which weakens Carroll's argument that phenomenology is a suitable tool of postdramatic political analysis. Finally, taking Lehmann's assertion that the politics of postdramatic theatre resides in its form, Michael Wood argues that considering one of Heiner Müller's very short, dense poems, 'Alone With These Bodies' ('Allein mit diesen Leibern'), as postdramatic theatre offers us 'a model for the political efficacy of postdramatic theatre' (259). The poem is characteristically open to multiple interpretations, and treating it as a text for theatre, argues Wood, would exemplify and reveal postdramatic theatre's (and Müller's) 'political' aim of engendering in the auditorium 'a democratic collective' (272) that (as Rancière and Lehmann also argue) 'is not bound by consensus, but rather by internal difference' (266). But the rather obvious point that in postdramatic theatre (as, to an extent, in all theatre – and this stands also as a critique of Rancière's notion of 'the emancipated spectator') individual spectators experience and interpret work in their own and different ways, is not exactly news.

***Paul Monaghan** // Paul Monaghan, University of Melbourne & University of Ottawa.*

BIRGIT DÄWES AND MARC MAUFORT (EDS), *ENACTING NATURE: ECOCRITICAL PERSPECTIVES ON INDIGENOUS PERFORMANCE* (BRUSSELS: PIE PETER LANG, 2014)

It is nothing new to speak of special relationships between Indigenous communities and their environment. In Aotearoa/New Zealand, Māori know ourselves as *Tangata Whenua*, The People of the Land, signifying the regeneration of earth with human tissue through an eternal cycle of re-creation. Yet the conflation of indigeneity with 'environmental concerns' is both politically and geographically complex – critically contingent on local contexts – and also culturally vexed; it is deeply entwined with atavistic tropes which continue to validate government policies of dispossession and dismissal of Indigenous rights to their homelands. It is also not a recent or isolated phenomenon that Indigenous artists have articulated these stories of environmental struggle and survival through performance. In societies where nature and culture are so 'naturally' wedded, then art has and will always reflexively enact these symbiotic relationships: where is who we are. *Enacting Nature: Eco-critical Perspectives on Indigenous Performance* (2014) brings together a contemporary collection of such stories, traversing diverse landscapes and cultures, read through the lens of eco-critical discourse.

The thirteen essays in the book each explore ways that Indigenous artists have articulated distinctive notions of place, the environment and the natural world through contemporary theatre, film, dance and mixed-media performances. I was initially anxious that this text would be an exercise in academic 'Columbus-ing' – a claim to have discovered something 'new' which has always existed – in this case, how the special relationships that Indigenous people have with landscape and nature can tell us something different about environmentalism and ecology. Yet, while Däwes and Maufort assert in the introductory chapter that 'no systematic approach has yet been undertaken to explore the interconnections between ecocritical methodologies and Indigenous theatre, drama and performance' (13), the Introduction makes very clear that this volume explores the 'multi-faceted languages of ecology on the contemporary Indigenous stage' – a moving-on and speaking-back to the troubling tropes of the 'wilderness topos' and 'ecological Indian'. The focus here is not on finding commonality between these experiences, but stressing the complex geographical, cultural and political contexts which bring these works into being. Nor is this an apologetic showcase of works which demonstrate Indigenous ecologies as a 'we were right and you were wrong' counter-discourse, or as a simple polarity of Westerner-as-anthropocentric versus Indigene-as-ecocentric. As Däwes and Maufort emphasise, these essays 'do not celebrate a facile harmony with nature but allow environmental challenges to be heard' (18). Rather than finding ecological solutions, the book offers up a series of questions about the relationships between nature, culture, indigeneity and performance in the contemporary.

The authors are gathered from a spectrum of academic, practitioner, Indigenous and non-Indigenous worlds, bringing together works from Canada, the USA, Australia, New Zealand and New Caledonia. The book is ostensibly divided into two parts, with the initial seven essays offering views from North America, and the remainder on texts from Australasia and the South Pacific. The opening essay by Birgit Däwes offers a 'heteroholistic' approach to reading Indigenous performance that recognises the 'interplay between intellectual and spiritual or visionary ways of knowing that are anchored in specific spatial and temporal sites that distinguish Native world views and knowledge' (24). Däwes provides an elegant and sensitive analysis of the politics of 'vanishing' in Marie Clements' *The Edward Curtis Project* (2010) and the relationship between concepts of temporality and cultural identity in Yvette Nolan's *The Unplugging* (2012), promoting an understanding of artworks as cultural environments within their own specific contexts. Ric Knowles, recently in Aotearoa as keynote speaker for the 2014 ADSA Conference, contributes an earlier version of his compelling plenary address 'Mounds, Earthworks, Side Show Freaks and Circus Injuns'. Here the multiple land formations of Turtle Island (North America) are read as 'foundational performances' by various Indigenous communities, complexly built structures which function as performance,

as communication and as sites which continue to 'perform' the first peoples of these mounds. In the work-in-progress *Side Show Freaks*, Knowles discusses his collaboration with artists such as Plains Cree director/actor Michael Greyeyes and Kuna/Rappahannock performer Monique Mojica on a dramaturgical model based on the four structural principles of the mounds – duration, alignment, convergence and integration. Jaye T. Darby revisits the work of Cherokee playwright Lynn Riggs, offering a heavily theorised and historically contextualised analysis of Riggs' 1949 play *Out of the Dust* as a narrative on the destructive forces of nation-building. Maryann Henck draws on Dwight Conquergood's model of the ethical pitfalls of ethnographical performance to explore the idea of 'zooification' in Anishinaabe playwright Drew Hayden Taylor's hilarious satire on eco-tourism, *The Berlin Blues* (2007).

Yvette Nolan discusses one of the most pertinent plays explored in this book, Chickasaw playwright Laura Shamas's *Chasing Honey* (2007), drawing links between the Colony Collapse Disorder – the mass disappearance of worker bees – and the fragmentation of Native American culture. Here Nolan lucidly articulates how the understanding of a convergence of the 'real' and 'dream' worlds is critical to cultural disconnections between Indigenous and Settler cultures: 'I suddenly understand the great abyss across which we work, as Natives and non-Natives, because, of course, dreams are the real world. In Indigenous thought … all times are connected to each other, dreamtime and waking time' (111). Nicholle Dragone analyses how Onondaga playwright Eric Gansworth inserts himself into the narrative of *Re-creation Story* (2008) as a meta-theatrical act of re-creating or re-storying his own telling of the Haudenosaunee creation narrative, while Ginny Ratsoy offers an ecocritical reading of the interconnectedness of time, place, space and being in N'lakap'mux playwright Kevin Loring's *Where the Blood Mixes* (2009), where environment is read as a force of life, death and – critically – healing.

In the first essay on Indigenous Australian performative responses to environment, Maryrose Casey describes how understandings of the land as a living place of belonging run counter to settler constructions of the Australian environment as threatening and hostile; or as *Terra Nullius*, ascribing the land with a nothingness that wholly devalues Aboriginal connections to country. Casey discusses the work of Wesley Enoch and David Milroy as exemplifying an intertwining of nature and culture – a birthing tree re-constructed as a table, the unrested spirit of a twin who comes in the night to tend a garden – emphasising the critical idea of reciprocity or 'mutual maintenance' between human life and the living land. Co-artistic director of Marrugeku, Rachael Swain, explores four site-specific Indigenous Australian dance performances which are each created through a distinct 'deep mapping' of country, where a score is developed through dialogues with custodians within the 'socio-topographic' contexts of each place. Swain's discussion of Marrugeku's *Crying Baby* exemplifies how a physical space, seen and heard, can evolve into a dramaturgical process through 'mapping' stories in a landscape which is understood beyond geography.

Diana Looser's essay on New Caledonian Kanak Pierre Gope's *La Parenthèse* (2004) perhaps captures most effectively the intersection of ecocritical debates and contemporary Indigenous performance. This play, using botanical metaphors and plant characters as a 'post-pastoral allegory' for the political ruptures between Kanak and French cultures, is an exemplar for showing not only how theatre can foreground Indigenous-centric environmental concerns, but also how theatre itself can function as a cultural laboratory to check the (in)balance of the environment – ideas made compelling through Looser's insightful reading. David O'Donnell and Lisa Warrington explore the crafting of The Conch's *Masi* (2012) as interweaving often disparate notions of theatrical illusion and authenticity. The authors discuss how this play represents a 'performative interpretation of the Third Space' (216) through diasporic Fijian-British identity – embodying the symbiosis of nature and culture through the interplay of live and projected images, performed and simulated ritual and the bodies of the living and passed. Hilary Halba offers an ecocritical analysis of contemporary Māori texts by Witi Ihimaera and Briar Grace-Smith through the lens of Matauranga Māori, or Māori knowledge systems, providing a sensitive reading of the 'interpenetration' of the

ecosphere on human lives and actions within these narratives. Finally, Marc Maufort's essay navigates, in dense analyses, the aesthetics of ecology present in Indigenous texts from North America and Oceania to emphasise the very particular and located connections to 'place' in each, shattering the image of a global, homogenous ecological-native.

This book inundates the reader with a proliferation of 'eco' buzzwords. In some cases, the thickness of intersecting theories stifle the voices of the works themselves and a few of the essays may have benefited from additional editing. There also must be something said of the dominance of non-Indigenous voices speaking to these works. At times I felt that, all ethical intentions aside, some readings suffered from the perspective of cultural distance: speaking of *them* rather than as *us*. While the commitment to cross-cultural integrity is evident throughout, it can seem like an inability to see the forest for the trees. The most engaging of these essays are those that conjure the live and located experiences of these productions and this is the strength of this book – revealing the vibrant and complex dramas of contemporary artists 'making difference' in the ecosphere.

Nicola Hyland *// Nicola Hyland (Te Āti Haunui-a-Pāpārangi/ Ngāti Hauiti) is a lecturer in the Theatre Programme at Victoria University of Wellington, New Zealand. Her research interests are in Indigenous and cross-cultural performance praxes, particularly contemporary Māori performance and methodologies.*

PETER GROVES, *RHYTHM AND MEANING IN SHAKESPEARE: A GUIDE FOR READERS AND ACTORS* (CLAYTON, VIC.: MONASH UNIVERSITY PUBLISHING, 2013)

Peter Groves' new book follows on his earlier theoretical investigations of metrical structure in poetry to offer the more general reader an understanding of the mechanics of rhythm in Shakespeare's verse. The book frames the speaker of the verse as the producer of the rhythm and thus makes the reader

an active participant in the process it examines. This framing of the reader as collaborator is one of the main strengths of the book, as is its consideration of rhythm as a key to meaning. These features make this a very 'useable' book for teachers, actors and directors, and also potentially for students, although the complexity of its material may daunt the beginning reader of Shakespeare.

Groves challenges contemporary approaches to teaching Shakespeare which focus almost exclusively on analysing what the text 'means' without attending to how the text is constructed. Similarly, he notes that metre is an aspect of Shakespeare's verse that is increasingly dismissed or ignored in critical editions of the works. Groves clearly regrets such developments, positing an understanding of metre as essential to accessing the meaning of the verse and providing multiple examples of this theory in action.

The book is divided into seven chapters supplemented by six appendices. The text is supported by 173 sound files accessible through the publisher's website, a resource that particularly supports explanations of features such as pauses and breaks in the verse and transitions between speakers. The first chapter concerns prosody, examining syllables, lexical stress, accent, tone units and beats. It pays extended attention to the vocoid *schwa* ( ), noting its prominence in both general speech and Shakespeare's verse. As with the text as a whole, the chapter is most effective when showing how a language or verse component impacts on meaning. The form and function of the 'obstruent', for example, is vividly illustrated through comparison of Sonnet 19 with the Fairy Queen's speech in *A Midsummer Night's Dream*. Setting these excerpts side by side on the page, with the relevant linguistic features clearly marked, allows the reader to see exactly how the frequent obstruent clusters in the sonnet support the speaker's 'strenuous injunctions' (11), whereas their relative absence in the Fairy Queen's speech helps to produce the lyrical quality in her verse.

Chapter 2 examines an interesting but much-overlooked feature of iambic pentameter, namely its considerable variety through the movement away from a model of ten alternately stressed syllable positions to incorporate alterna-

tives such as 'reversals', the 'swap', expansion and contraction. The chapter demonstrates the flexibility of pentameter as a form and the important role of the performer in activating its defining features. Throughout Groves shows how manipulation of the metre produces specific performative effects, such as Shakespeare's use of initial reversals to arrest the attention of a rowdy Globe audience. Chapter 3 examines 'Pauses, Breaks and Transitions', and is particularly useful for the actor in demonstrating how features of the verse may influence performance choices. The discussion of the 'caesura' in this section demonstrates Groves' approach in this regard – showing how the presence or relative absence of fractures in two speeches of Antonio in *Measure for Measure* is indicative of the character's degree of emotional control. Two chapters on the short pentameter follow, Chapter 4 addressing silent offbeats and Chapter 5 examining silent beats. I found the discussion of lacunae in Chapter 4, which Groves characterises as 'not absences but differently realised presences' (83), particularly rewarding. This section also marks a more forceful insertion of authorial point-of-view with an extended critique of editorial approaches which treat the lacuna as a textual problem that needs to be fixed, rather than, as Groves puts it, 'an important system of signification' (84). Chapter 6 moves on to consider other kinds of verse in the plays, including alexandrines and pentameter couplets. Again, this section offers some fascinating analysis of how the verse form reflects character traits, levels of status, and shifts in relationship. Chapter 7 unpacks the mechanics of scansion and offers detailed instructions for putting it in practice. The text closes with a series of appendices, which supply particular information on stress and pronunciation.

One of the most useful aspects of the book for the actor in particular is its emphasis on *context*, not only the need to understand each line's – and, indeed, each word's – connections with the text around it, but each utterance as part of a wider world of meaning and action. As Groves notes at a number of points, speakers new to the verse tend to approach each line separately, thereby marking words with misleading emphasis. He offers a telling example in Orsino's opening line in *Twelfth Night*: 'If music be the food of love, play on'. Groves suggests that

love is typically emphasised here, which can make the speech 'sound like the beginning of an academic lecture'; he suggests a more thoughtful reading would place emphasis on *be*, giving the line a philosophical, questioning tone, perhaps Orsino's '*response* to the idea of music as the food of love' (22).

The sometimes 'dry' technical detail of the book is balanced by the author's commentary on past performances and editorial practice, as well as reflections on speech in other contexts, and interesting and often humorous asides. We learn that 'Australian public radio frequently announces the weather in iambic pentameter' (xv); that the actor playing Lucentio in the BBC *Taming of the Shrew* 'gabbles' the verse by taking less than two seconds per line rather than the recommended three seconds; and that a typical declamatory approach to the line 'My mistress' eyes are nothing like the sun', with emphasis on *eyes* and *sun*, makes as much sense as walking into a room and announcing 'My Welsh corgi does not in any way resemble a budgerigar' (23). Yet, despite its approachable style, the material here is necessarily complex and some of the more technical sections are best read in concert with the excellent glossary, for precise definitions of features such as 'cuts', 'cracks' and 'flaws', which aren't always provided in the body of the text.

***Fiona Gregory** // Fiona Gregory is a lecturer with the Centre for Theatre and Performance at Monash University.*

LIAM E. SEMLER, *TEACHING SHAKESPEARE AND MARLOWE: LEARNING VERSUS THE SYSTEM* (LONDON: BLOOMSBURY ARDEN SHAKESPEARE, 2013)

Shakespeare is taught at almost all levels of our education system, and yet the teaching of his work too often falls victim to a programmatic, unimaginative approach. Seeking to address the sometimes invisible question of pedagogy, the subject of this slim volume is hidden in its subtitle: learning versus the system. Throughout, Liam E. Semler merges personal reflection, facts and figures about tertiary education in Australia, and choice extracts from Shake-

speare's and Marlowe's work, to explore how we teach Shakespeare now. The work is part of the 'second-wave' of volumes in the Bloomsbury Arden Shakespeare series Shakespeare Now!, which the series editors characterise in a Preface as 'a rallying cry, above all for aesthetic immediacy. It favours a model of aesthetic knowledge as *encounter*, where the encounter brings its own, often surprising contextualising imperatives' (ix). In the case of Semler's work, this encounter is a pedagogical one: where earlier volumes have concentrated on critical encounters, those in the 'second wave' turn to more personal, self-reflexive encounters with Shakespeare. Recognising that the contemporary academic's energies are divided between teaching and research, Semler reflects on how the ever-more corporatised university streamlines the encounters that staff and students have with Shakespeare. Without ever falling victim to an uncritical nostalgia, Semler channels his obvious distress into a quasi-manifesto for a more engaged and 'feelingful' approach to teaching Shakespeare within the 21st-century education system.

We make a great number of assumptions about our students; some of them our own, others imposed on us by the systems and institutions in which we teach. We assume that we know what they *want*, and perhaps more destructively, we assume that we know what they *need*. Together with the system, we are complicit in creating what Semler calls 'the band of perceived relevance' (89), or the limited range of knowledge (and teaching) which students perceive as legitimate. The cycle is vicious: material which falls outside of this band rarely makes it to the classroom due to self-censorship, and whenever it does, it is swiftly dismissed by students who are ill-equipped to understand this material as knowledge. In order to redraw the band, then, we need to see our students as allies, as active participants in an exchange rather than as vessels to be filled. The band is a useful metaphor, in that it allows teachers to take responsibility for the modes of teaching and learning at play in their classroom. To return to the question of assumptions: instead of assuming that students arrive in our classrooms with the same dispositions to learning – as the system all too often encourages us to do – Semler advocates an open discussion which seeks to explore the limits of the band and, in so doing, to banish concerns of relevance from the room, at least temporarily.

The study of Shakespeare proves an illuminating example here because it is so widely undertaken, and is incorporated into education from such an early point, as Semler outlines with the example of the New South Wales secondary education system. This means that students bring with them into their tertiary classrooms a set of behaviours, a way of performing 'student-ness' which they believe to be appropriate to the study of Shakespeare. Semler suggests that this *habitus*, experienced as a kind of dulling universalism, prevents both students and their teachers from engaging fully with this material, and proposes 'positive turbulence' (35) brought on by 'system stress' (62) as a solution. That is, by deliberately subjecting the band of perceived relevance to stress we can, in collaboration with our students, encourage new modes of teaching and learning, and thus make visible new objects of knowledge. While some of Semler's examples of more extreme outcomes of system stress made me begin to question the ethical burden of an absolutely open approach to teaching and learning, as illustrative case studies they encourage readers to go for broke in causing the system as much stress as it can bear. Only then may we be able to keep our teaching engaging – and ourselves sane – in a system that seems to consistently prioritise time spent on anything other than teaching.

So how does this resonate for those of us working in Drama, Theatre, and Performance Studies? Obviously, many of us still teach Shakespeare somewhere in our curricula, but the larger resonance is that, like our colleagues in Literary Studies, we are all on the road to extinction. Our students arrive to us from high school Drama and Performing Arts programs with which we are rarely familiar, and which prioritise and valorise different forms of knowledge and knowing to ours. Given that our disciplines are often plagued by the twin questions of relevance and 'applicability', it seems imperative that we open up discussions around teaching and learning with our students. Why are they in our classrooms in the first place? What do they hope to learn here? This is not to argue that we should abandon our own aspirations and objectives for

our teaching in favour of an entirely student-driven model, but rather that we should advocate for an openness and a dialogue around what constitutes knowledge in our classrooms, and how mastery of it can be demonstrated. The results may well be stressful, surprising and unknown – but, as Semler reminds us, it is in these utopic classrooms, which he describes as an 'Ardenspace' (57), that we may discover a way forward for teaching and research in the Humanities.

In the end, the book is not really about Shakespeare, or Marlowe, although it provides plenty of insight into both. Instead, the explorations of the teaching of the Early Moderns provide illustrations of resistant action without the confines of the corporate university. Thanks to Semler's clear, direct prose, this engaging volume should find a home in the desk drawer of all Humanities academics who despair at their survival in this brave new world. Each time you risk hitting your 'quantum of professional despair' (12), it will be on hand to talk you down, to remind you that there is a place for creative, innovative pedagogy within the outcomes-driven system of contemporary tertiary education. In seeking to renegotiate students' expectations, rather than simply to meet them, there is a way forward which refuses to accept the constraints of the system. Within this Ardenspace, Semler suggests, we might rediscover what led us here in the first place, along with the fuel we might need to re-stoke our professional fire.

Chris Hay *// Chris Hay teaches at the University of Sydney and the National Institute of Dramatic Art.*

JENNIFER RADBOURNE, HILARY GLOW AND KATYA JOHANSON (EDS), *THE AUDIENCE EXPERIENCE: A CRITICAL ANALYSIS OF AUDIENCES IN THE PERFORMING ARTS* (BRISTOL AND CHICAGO: INTELLECT, 2013)

At a time when funding is increasingly competitive and people have more choice than ever about how and where to invest their energy, how do the arts communicate their appeal? It's no longer enough to create exceptional work and know that people will line up to witness it. We've entered an emotion- and experience-based economy where consumers have more options than ever before, and are more critical about what they get from participation in return. So how do we harness the energy of these audiences and keep the arts running high on the list of things that people choose to attend? *The Audience Experience* addresses this by examining multiple factors that lead to audience enjoyment, growth and participation. While each chapter offers key insights into this area of scholarship, the strength of the book is in bringing these elements together. In doing so, the authors offer an account of audience participation as active, localised, varied and complex.

The editors argue that the collection addresses a need for new research on what audiences are 'thinking, feeling and doing as a product of their engagement with arts practices' (xiv). Many of the chapters remind us of each contributor's sustained labour in this area, with a large number presenting results from previous research with a new angle or case study. What's 'new' is the fact that this book is a timely amalgamation of research in this growing field, carefully curated for its relevance to, and accessibility for, arts administrators and practitioners. The editors point out, for example, that most practitioners can't articulate what they hope that their audiences get out of their work (xiii). And while most artistic directors can speak about their target audiences in terms of demographics, they struggle to pin down what their company's work offers at a more personal level (xiv).

Rather than look at the gamut of experience, the book is tightly focused on identifying 'qualities that build creative engagement, self-expression, self-actualisation, and loyalty amongst attenders' (xiv), targeting these areas for their capacity to increase attendance across the performing arts. 'There is a clear need to adopt the means to measure the audience experience because measurement is followed by action, purpose, innovation, change and growth', they write (12), which links to programming, business models and a more informed understanding of the ties between attendance and cultural life. The Introduction describes the flow of the book as moving from the impacts of

place to issues of depth and intensity, to discussions on method. This logic is less clear when looking at the contents table alone, which offers no signposting beyond chapter headings and author names. Chapter titles reveal a broad range of case studies from different performance disciplines, encouraging more of a 'choose your own adventure' approach for navigating the text. One of the greatest pleasures of reading this book is discovering the case studies themselves: a number of innovative and successful productions, some of which worked side-by-side with local communities, adding fresh breath to their local arts scene in the process.

A few key themes emerge throughout the book, which provide clarification and creative inspiration regarding audience engagement. The power of post-performance reflection in enhancing the positive experiences of live art is one such recurring observation, particularly apparent in project designs that facilitated reflection for the collection of data. Another driver of satisfaction links to a desire for self-realisation and self-identification among contemporary theatregoers: a sign of a time where 'selfies' and carefully curated social media profiles suggest an increasingly introspective mode of experiencing identity.

Most chapters explore audience experiences in markedly positive ways. Chapters looking at the reasons why people are not attending are perhaps the most valuable to companies wanting to grow their reach. Radbourne's study on non-theatregoers reveals assumptions about a lack of identification, with productions and their audience, as keeping people away (150). Alan Brown's discussion on the ways in which architecture furthers certain assumptions offers a complementary perspective. Exploring the impact of venues and settings, he writes: 'The larger problem with the infrastructure of arts facilities is that it is fixed and slow to change, while culture is changing more and more rapidly' (52).

For readers interested in the lived experience of audiencing, as opposed to how to shape or direct these experiences, the book also contains case studies that yield welcome insights alongside methods for accessing something that is notoriously difficult to pin down. Stephanie E. Pitts' chapter on amateur musicians at live music performances indicates ways in which expertise influences perception, reflection and enjoyment. Kim Vinc describes the use of electronic devices to measure levels of engagement throughout different dance performances, which illuminates patterns of convergence in audience responses. She also neatly articulates the links between culture and perception; how what we notice is socially informed (134–5). This is important given the predominance of English-language performances investigated in this book, and the recent trend in studies of experience to use findings from neuroscience to make claims about patterns of attention and response. In fact, each chapter demonstrates different approaches for taking varied, subjective experiences and rendering them clear in quantifiable, articulate ways. These also range from post-show focus groups, to techniques using metaphoric image prompts, to viewers' drawings as a stimulus for tapping into concepts that are not readily formed. The latter techniques are interesting to researchers who want to move beyond the exclusivity of language in accessing phenomena that are often sensed or felt. While the book's scope is limited to the performing arts, the methods and expertise demonstrated within its pages also offer a lot to other fields interested in lived, or embodied, experience.

The collection as a whole offers an appropriately varied account of spectating, but there were some elements of the text that left me wanting more. While the value of this book is in bringing the work of prominent scholars together, its realisation does feel a little business-like at times. Each contribution is distinct, efficient and tends to offer broad reportable results, for example, but I found myself craving more connection between them. Johanson's final chapter on methodological innovation is well-placed (at the end), but points again to much previous work in this area rather than focusing more on methods and outcomes within the book itself. An Afterword weaving the main findings together would have provided a more complete feel and offered an opportunity for considered reflections on what it means to participate in the arts right now and how other studies might continue where these depart. Additionally, for a book which offers new findings on, and methods for tapping into, the nature of human experience, it would have been good

to see more reflection on the ways in which the methods used shaped the experiences that were reported on. The notable exception here is Matthew Reason, who reveals that some of the children he worked with adopted 'a position of extreme antipathy … in part a form of rebellion: against us the researchers specifically, and adult authority, school and cultural impositions more generally' (101). Alternatively, a chapter exploring audience experiences more broadly would balance out the market-driven research with some of the other reasons why people choose to attend. Instead, there is a sustained view that quality experiences in the arts are somehow worthy: revelatory and deep. This doesn't reflect the times when I see a show for a fresh and energetic take on a well-known story, or my recent experience at a regional production where a large proportion of the audience were there because they had a personal connection to someone on or behind the stage.

The chapters of *The Audience Experience* traverse a range of performance genres, the transient spaces shared by performers and spectators, and emphasise methodological innovation within this exciting and emerging field. Where the collection excels is in mapping the links between what performance can offer, what encourages potential audience members to attend, and methods that researchers can apply to projects of their own. In this way, the book leaves its pages open for readers to find their own meaning, ideas and realisations, much like the audience members so clearly identified throughout.

Kath Bicknell *// Kath Bicknell works as a research assistant with the Department of Cognitive Science at Macquarie University, and teaches part-time with the Performance Practices Department at the National Institute of Dramatic Art.*

CONTRIBUTORS

Gorkem Acaroglu is a director and performance-maker and a PhD candidate in the School of Communication and Creative Arts, Deakin University, Melbourne. Gorkem's research investigates the boundaries between live and technological actors. In 2012, through an Australia Council Artlab Initiative, Gorkem conducted a series of investigations at the Deakin Motion Lab and the Centre for Intelligent Systems Research to construct an interactive robot and live-operated avatar as performers in a version of Ibsen's *Ghosts*. Previous digital works have included *Exception*, a one-man performance with audience-operated avatars as performers from Second Life, and *Love, Madness and Poetry* with holographic actors. Gorkem has a Masters of Creative Media – Animation and Interactive Media from RMIT, a Masters of Film and Video from University of Technology Sydney and is an Honours graduate from the University of New South Wales Theatre Department.

Susan Broadhurst is a writer and performance practitioner and Professor of Performance and Technology in the School of Arts, Brunel University, London. Susan's research entails an interrogation of technologies and the notion of the embodied performer, expressed in her publications, performance practice and interdisciplinary collaborations. Her publications include *Digital Practices: Aesthetic and Neuroesthetic Approaches to Performance and Technology* (2007), *Sensualities/Textualities and Technologies: Writings of the Body in 21st Century Performance*

(2010) and *Identity, Performance and Technology: Practices of Empowerment, Embodiment and Technicity* (2012) all published by Palgrave Macmillan. As well as being the co-editor of the online journal *Body, Space & Technology* now in its thirteenth year of publication, she is also co-series editor for Palgrave's 'Studies in Performance and Technology.'

Glenn D'Cruz teaches Drama and Cultural Studies at Deakin University, Australia. He is the author of *Midnight's Orphans: Anglo-Indians in Post/Colonial Literature* (Peter Lang, 2006) and the editor of *Class Act: Melbourne Workers Theatre 1987–2007* (Vulgar Press, 2007). He has published widely in national and international journals in the areas of literary studies, performance studies and cultural studies. He is the higher degree coordinator and a member of the Persona, Celebrity, Publics research group in the School of Communication and Creative Arts at Deakin University.

Robin Deacon is a British artist, writer and film-maker based in the USA. His interdisciplinary practice has spanned a variety of disciplines and themes, including explorations of performer presence and absence, the role of the artist as biographer, and the possibility for journalistic and documentary approaches to arts practice. He is currently an Associate Professor in Performance at the School of the Art Institute of Chicago.

Russell Fewster has directed theatre for thirty years, including work with professional actors, Performance students and young people. He studied at *École Jacques Lecoq* in Paris in the early 1980s, thus beginning his theatrical journey. In 2000, he completed a Masters by research in rehearsal decision-making at the Centre for Performance Studies in the University of Sydney. In 2010, he completed his practice-led research PhD at the University of Melbourne, examining the use of projection in performance. He is the program director for the Media Arts Program and lectures in Drama and Film at the University of South Australia, Magill Campus. In 2012, he directed *Perish the Thought*, a moving stage portrayal of the effects of dementia on family life. His adaptation of Bram Stoker's *Dracula: 'Nosferatu the Undead'* premièred as part of the 2014 Adelaide Cabaret Fringe. He is currently developing an opera to coincide with the centenary of World War One.

Richard Jordan is a playwright and PhD candidate in Creative Writing at the University of Queensland. His thesis analyses three contemporary plays that explore the impact of digital technologies on human identity and relationships, and includes a new stage play, *Machina*, produced by La Boite Indie in 2014. In 2009 his play *25 Down* won the Queensland Premier's Drama Award, and was produced by Queensland Theatre Company. Both titles are available from Playlab Press.

Suzanne Kersten is co-artistic director of one step at a time like this. one step… are currently focused on immersive, locative, mobile and site-responsive works, usually with a digital media component. Works include: *upside-down* (working title), Arts Centre Melbourne, January 2015; *Nowhere*, Going Nowhere Festival, Arts House, November 2014; *Since I Suppose*, Melbourne Festival, October 2014, and Chicago Shakespeare Theatre World Stage Series, August 2014; *People, Letters*, Junction Festival, Tipperary, Ireland, 2014; *en route*, Auckland Arts Festival, 2013, and Seoul Performing Arts Festival, 2012.

Jodie McNeilly is a researcher working at the intersection of dance, philosophy and interactive technology. She holds a degree in Philosophy and Doctorate in Performance Studies from the University of Sydney and is currently undertaking research on the constitution of belief and work of Edmund Husserl at the Centre for the Philosophy and Phenomenology of Religion, Australian Catholic University, Melbourne. She was a funded research scholar at the Phenomenology Research Center in Southern Illinois 2010–12, and is actively involved in cross-disciplinary applications of her phenomenological method in dance and performance, interaction design, neurobiology and religion in Australia, Paris, the USA and Portugal. She is a Sydney-based choreographer with interests in experimental dramaturgies for performance-making and collaboration.

David Pledger is a contemporary artist working within and between the performing, visual and media arts in Australia, Asia and Europe. His live performances, installations, interactive artworks, documentaries and digital art have been presented in various locations including theatres, galleries, museums, a carpark, a stables, a cattleyard, a suburban house, a film studio and at the Australian Institute of Sport.

Yoni Prior is a Senior Lecturer in the School of Communication and Creative Arts, Deakin University. She has published on contemporary performance practice, practice as research, dramaturgy in dance and theatre, rehearsal practice, intercultural performance, intermedial theatre and e-learning, and repertoire development. She is currently completing Doctoral research on resource implications for creative processes in performance, and has created a number of digital theatre collaborations between Deakin University, the University of Amsterdam, the British Museum and the Museum of Archaeology and Anthropology at Cambridge University. Yoni was a member of the Theatre Board of the Australia Council, and the National Multicultural Arts Advisory Committee 1999–2004, and she has served on the boards of Back To Back Theatre and the Big West Festival. She has worked as a performer, animateur, director, dramaturg, translator and writer with theatre and dance companies in Australia, the Middle East and Europe, and was a founding member of Gilgul Theatre.

Julian Rickert is co-artistic director of one step at a time like this. one step… are currently focused on immersive, locative, mobile and site-responsive works, usually with a digital media component. Works include: *upside-down* (working title), Arts Centre Melbourne, January 2015; *Nowhere*, Going Nowhere Festival, Arts House, November 2014; *Since I Suppose*, Melbourne Festival, October 2014, and Chicago Shakespeare Theatre World Stage Series, August 2014; *People, Letters*, Junction Festival, Tipperary, Ireland, 2014; *en route*, Auckland Arts Festival, 2013; Seoul Performing Arts Festival, 2012; Junction Arts Festival, Launceston, 2013 & 2012; London 2012 Festival – Cultural Olympiad Commission, Theatre Royal Stratford East; Australian Mobile States Tour, 2011.

Tamara Saulwick is an independent performance-maker who creates hybrid works for theatres and public spaces. Tamara's recent works include the Green Room Award-winning *Pin Drop* (Arts House, Malthouse Theatre, Mobile States, Tramways UK), *Seddon Archives* and *PUBLIC* (nominated for Outstanding Hybrid Performance, Green Room Award), both created for Melbourne's Big West Festival. She is currently developing *Endings*, a new performance/sound work co-commissioned by Arts House and Performance Space, due to première in Sydney in January 2015. Within the context of the Australia Council's New Digital Theatre Initiative, she has been commissioned by Arts House to develop a new mobile and interactive digital work. In 2014, Tamara was appointed artistic associate (performance) for Chamber Made Opera and will develop her first work for the company in collaboration with composer Kate Neal. Tamara is currently completing a PhD in Performance Studies at Victoria University of Technology.

Hellen Sky is an Australian digital choreographer, performer, director and writer. Her projects bridge dance, performance and installation, at times extended through new technologies and data generated by the moving body as a fluid interface between micro-movements, media, virtual-electronic and physical architectures, words and objects. As co-founder of new media performance company Company in Space (1992–2004) and as Hellen Sky and Collaborators she has presented work across Australia and internationally.

Yuji Sone is a performance researcher and holds a Doctorate. He initially trained with the experimental theatre company Banyu-Inryoku, in Japan. Yuji produced numerous media-based performance works at national and international events, including Experimenta, TISEA (The Third International Symposium on Electronic Arts), Sound Watch New Zealand, The Adelaide Festival Artists Week, 25 Years of Performance Art in Australia, Canberra National Sculpture Forum, San Francisco Sound Culture, The Cleveland Performance Art Festival, The Toronto Festival of Performance Art, and Rootless UK. His hybrid performances have examined the question of cultural representation. Yuji's recent performance experiments, which explore the interaction between live performance and technological systems, work in tandem with his academic research. Yuji is currently participating in a multimedia performance production, *Yasukichi Murakami: Through a Distant Lens* (produced by Annette Shun Wah, Performance 4A), as a dramaturgical consultant.

Dr Lara Stevens holds a PhD in contemporary anti-war theatre from the University of Melbourne. She is currently the Hugh Williamson Postdoctoral Fellow in the Australian Centre at the University of Melbourne where she researches

ecofeminism and the writings of Germaine Greer. Lara's research areas include twenty-first century anti-war theatre and performance and feminist philosophy, performance and ecology.

Robert Walton is a collaborative artist whose work spans theatre, installation, writing and media art. His practice is primarily concerned with the conception, development and production of new work created through dialogue and play. He is a committed teacher and considers the development of performance pedagogies to be part of his artistic practice. Originally from Burnley in Lancashire, England, Robert studied Theatre at Dartington College of Arts, then lived in Glasgow, Scotland, for ten years before moving to Melbourne, Australia, in 2011. In 2001, Robert co-founded Reader Performance Group and initiated, performed, co-wrote and co-directed all sixteen of the group's works until the company dissolved in 2004. In 2005, Robert co-founded Fish & Game with long-term collaborator Eilidh MacAskill. Robert is Head of Undergraduate Studies for Theatre at the Victorian College of the Arts, University of Melbourne.

Asher Warren is currently undertaking a PhD in the School of Culture and Communications at the University of Melbourne, within the departments of English and Theatre Studies and Media Communication. He is also a student member of the Research Unit in Public Cultures, an interdisciplinary research unit working across four faculties at the University of Melbourne and with a number of industry partners.