

The Relocation of Theatre: Making *UNMAKEABLELOVE*

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Abstract This paper addresses the histories of liveness and performance and of the life of machines by articulating theoretical positions on Samuel Beckett's prose work *The Lost Ones* in relation to a recent new media work *UNMAKEABLELOVE* (Kenderdine and Shaw, 2008). Beckett's prose has been interpreted by a number of leading scholars including Lyotard ('systematic madness'), Schwab ('soul-making') and Porush (Beckett's 'cybernetic machine') who envision the texts' narrative agency as 'a disembodied artificial intelligence' exploring the boundaries between the human and post-human. This paper examines these topics through references to the histories of Automaton Theater, figurative actors, computational agents, the pioneering interactive installation *POINTS OF VIEW* (Shaw, 1983) and the seminal Mabou Mines theatrical production of *The Lost Ones* (1975). *UNMAKEABLELOVE* advances the practices of algorithmic agency, artificial life, virtual communities, human computer interaction, augmented virtuality, mixed reality, multimedia performance to engage 'the body's primordial inscriptions' (Schwab, 2000, p. 16). It focuses and makes interactively tangible a state of confrontation and interpolation between our selves and a virtual society that is operating in a severe state of physical and psychological entropy. Its mixed reality strategies of embodied simulation intricately engage the presence and agency of the viewer, and impel them to experience the anomalies of a perceptual disequilibrium that directly implicates them in an alienated and claustrophobic situation.

Keywords media art, automaton, theatre, virtual communities, Beckett, cybernetic, interactive 'We need machines that suffer from the burden of their memory' (Lyotard, 1991, p. 22).

Automaton Theater Figurines were amongst the earliest signs of human culture, and in thinking about the histories of the life of machines it may well be that the first figurines imbued with agency (automatons) were the Egyptian *shabti* depicting servants engaged in different tasks, equipped with hoes, grain baskets and other necessary tools, who would continue to work for the wealthy and powerful in the netherworld. During the period of the Alexandrian school, Heron of Alexandria produced a number of manuscripts including *The Automaton Theater* that describes a puppet theater controlled by strings, drums and weights. Mechanical, hydraulic and pneumatic automatons then continued to be developed in medieval times in Europe and the Indian subcontinent. In the notebooks of Villard de Honnecourt we encounter an enduring theme associated with the entire history of automata, the notion of a perpetual motion machine – a machine that could run itself for an infinite period. Hydraulics, magnetism and alchemy were variously considered as the likely source of such an inexhaustible and/or renewable energy source (Nocks, 2007, pp. 4–19). 'It is chance that is infinite, not god' (Artaud, 1965).

With the invention of computing machines a pseudo perpetual motion apparatus has come into existence with the capacity to render an 'automaton theatre' that is artificially enlivened by the software algorithms, imbuing its virtual fabrications with agency. This circumstance allowed *UNMAKEABLELOVE*¹ (Figure 1) to undertake a reconsideration of the nature of automatic theatre, and of the existential dilemma's that can be entertained within its realms of simulations and human interaction. Computers also redefined the nature of interactivity between humans and machines, and works like *POINTS OF VIEW*² were able to convert that into a means of theatrical expression.

POINTS OF VIEW

POINTS OF VIEW was an experiment in computational theatre that espoused real time three-dimensional computer graphics and the extended space of real time flight simulation as a dramatic and appropriate domain for artistic formulations and theatrical expression. In the late 70's Bruce Artwick developed the Flight Simulator, one of the first popular game engines that has become the longest running PC game series of all time (Artwick 1975). Early on this game engine only permitted about one hundred low-resolution straight monochrome lines to be drawn, yet by engaging its potentialities and constraints, *POINTS OF VIEW*

could configure an interactive audiovisual three-dimensional virtual world that the viewer was able to freely navigate in real time.

Edward Gordon Craig in his 1905 essay *The Actor and the Über-Marionette* called for ‘a new form of acting, consisting for the main part of symbolic gesture’ (Craig, 1905 cited in Baugh 2005, p. 104). In *POINTS OF VIEW* Egyptian hieroglyphics function as three-dimensional stick figures, constituting a theatre of linguistic symbols that is video projected onto a large screen in front of a seated audience. One member of the audience using two specially designed joysticks can control the action of the work, moving his virtual point of view within a hemispherical space that contains the visual setting: 360 degrees around the stage, 90 degrees up and down from ground level to aerial view, and forwards and backwards from the centre of the stage. In this work the dramatic scenography has little to do with the movement of the hieroglyphic figurines, but everything to do with the movement of the viewer’s point of view with respect to those actors, and it is viewer’s virtual movement that constructs the temporal expression of this work’s dramaturgy. This is also explicit in the sound design of *POINTS OF VIEW*, where it is not the linguistic symbols on stage who are audible, but rather the commentators who are virtually located in the space that surrounds the stage and their voices are heard by the viewers depending on their proximity to those commentators’ positions in the virtual space. These sound tracks are interactively linked to the image via the same joystick that controls the user’s visual navigation – it modulates the various voices in relation to the different spatial positions that the user is taking with respect to the stage scene. The mix of sound tracks thus generates an extemporary conjunction of spoken information that is directed at the shifting visual/conceptual juxtapositions of the hieroglyphic figures. *POINTS OF VIEW* construes a navigable virtual theatrical space populated by its virtual figurines whose novel theatrical expression and temporal dramaturgical articulation is precipitated by the actions of the viewer. The notion of a miniature theatre of figurines is also the central dramaturgical construct in Mabou Mine’s interpretation of *The Lost Ones*, while *UNMAKEABLELOVE* takes this paradigm further by extending the viewers’ modalities of navigation and examination, by enlivening the synthetic actors’ space with autonomous agency, and by translating viewer interactivity into viewer complicity.

Mabou Mines’ *The Lost Ones*

The New York theatre company Mabou Mines³ are considered one of the foremost interpreters of Samuel Beckett’s works. They premiered *The Lost Ones* in 1975, directed by Lee Breuer, designed by Thom Cathcart, performed by David Warrilow and with music by Philip Glass (Figure 3). Richard Gottlieb in the Soho Weekly News remarked ‘I’ve seen many Beckett Hells, but this is the first one I’ve experienced’ (Gottlieb, 1975). Beckett’s prose piece opens with stage directions for an eerie scene, evoking, in postmodern abstraction, a space resonating with Dante’s Purgatorio:

‘Abode where lost bodies roam each searching for its lost one. Vast enough for search to be in vain. Narrow enough for light to be in vain. Inside a flattened cylinder fifty metres round and sixteen high for the sake of harmony’ (Beckett, 1972, p. 7).

The Lost Ones, like works by Kafka and Borges, creates a fictional and somewhat fantastic circumstance of constraint and deprivation. It describes a community of about two hundred people who are incarcerated inside a confined space, and the resulting existential tension of these inhabitants’ lives. Minutely constructed according to geometrical shapes and measurements, *The Lost Ones* is populated by an abject and languishing people whose culture seems to be organized according to an elusive order, if not an unfamiliar harmony, the principles of which have yet to be discovered (Beckett, 1972. pp. 7-8)

The Mabou Mines’ rendition of *The Lost Ones* has become an avant-garde legend, and there are certain aspects that demonstrate strategies of theatrical representation and viewer engagement that, albeit without its new media underpinnings, are synchronous with conceptual and operational methodologies in *UNMAKEABLELOVE*. Cathcart’s stage design encompasses the entire theatre and is a specially constructed cylindrical amphitheater in which the audience members sit, so that they are led to focus on their own circumstance and compare their own state of incarceration with that of Beckett’s protagonists.

This interpolation of real and fictional space that is a feature of *UNMAKEABLELOVE*'s mixed reality, is a tactic that 'puts us in (the play's) own state of ontological estrangement' (Kalb, 1989, p. 139). Mabou Mines' production also follows the traditions of the theatre of automatons by articulating its representation of The Lost Ones' environment and characters as a small architectural model inhabited by tiny centimeter-high stick figures. These figures are manipulated by the production's single actor/narrator who dramatizes his narrative telling of their predicament. In anticipation of the optical immersion afforded by virtual reality technologies, the audience members are each given opera glasses so that they can peer into this micro-world and lose themselves in its estranged imaginary. But like *UNMAKEABLELOVE*, immersive engagement is directly accompanied by techniques that shift the symmetry of real and virtual ontologies into a theatrical condition of paradoxical confrontation that implies the complicity of the viewer. For example, both productions exploit lighting to this effect. *UNMAKEABLELOVE*'s totally darkened space only becomes perceptible via the torch beams that are directed by the viewer's, while at one point in the Mabou Mines' production, the single hanging lamp that illuminates the performance suddenly switches off and plunges everything including the audience into a shared state of pitch darkness. Then as the actor 'speaks his final anecdote to a toy figure balanced on his knee, illuminating it with a penlight, apparently dispending with distinctions amongst contexts, questions arise to threaten to throw all mimetic readings into confusion' (Kalb, 1989, p. 138). These 'vacillations of identities and contexts' (Kalb, 1989, p. 138) is key to both undertakings.

Re-Actor

The history of the cinematic experience is a rich chronicle of viewing and projection machines. Before Hollywood imposed its set of ubiquitous formats, there were a myriad of extraordinary devices, like the Lumiere Brothers Photodrama, the Cyclorama, Cosmorama, Kineorama, Neorama, Uranorama and many more. The Kaiserpanorama – a stereoscopic cylindrical peepshow – is an especially relevant forerunner of a newly configured display system, Re-Actor.

In 1911, Franz Kafka saw a Kaiserpanorama and wrote: '...the scenes [are] more alive than in the cinematograph [] because they allow the eye the stillness of reality. The cinematograph lends the observed objects the agitation of their movements, the stillness of the gaze seems more important. Smooth floors of the cathedrals in front of our tongue' (Kafka cited in Zischler, 2003, p. 25).

David Trotter, media theorist, takes note of Kafka's appreciation of the scene's qualities of 'tactility'. The images are indeed tactile in the specific ways found only in immersive architectures and through stereographic materials. As a machine for reformulating theatre, Re-Actor also resonates with Edward Gordon Craig's 1907 patented radical stage architecture of 'screens' (Figure 5) that set out to transform the 'false scene' of theatre into a 'real place' (Baugh, 2005, pp. 54-55).

Re-Actor (Figures 6 & 7) evolved from Museum Victoria's highly successful Virtual Room4 (Kenderdine & Hart 2003) and the uniqueness of this system was its ability to conjure a persuasive and coherent three-dimensional virtual reality within an architectonic enclosure that the audience could freely circulate around and gaze into. Re-Actor's six rear-projected screens use twelve projectors, passive Polaroid filters and glasses for stereoscopic three-dimensional viewing. It is operated by six workstations that are connected to six pairs of 1050 x 1400 pixel Projectiondesign DLP projectors. The *UNMAKEABLELOVE* installation also has six custom-made torch-interfaces that are positioned in front of each screen and six infrared video cameras are positioned above each screen. These torches enable the visitors to peer into the virtual world; their virtual light beams intersect and illuminate the computergenerated figures that inhabit its virtually represented interior (Figure 8).

UNMAKEABLELOVE in Re-Actor offers a physically immersive three-dimensional space of representation that constitutes an augmentation and amalgamation of real and virtual realities. It is a hybrid location-based manifestation that operates both as an individual and socially shared experience, and its interactive modalities of operation incorporate the kinaesthetic dimensions of human apprehension to establish a 4 The Virtual Room <<http://www.vroom.org.au>>. Last accessed 16 June 2009. congruence of human and machine

agency. To explicitly articulate the conjunction between the real and virtual spaces in this work, the viewer's virtual torch beams penetrate through the container and illuminate other viewers who are standing opposite them on other sides of the installation. This augmented reality is achieved using infra-red cameras that are positioned on each screen pointing at its respective torch operators, and the video images are rendered in real time onto each viewer's screen so as to create the semblance of illuminating the persons opposite them. The resulting ambiguity experienced between the actual and rendered reality of the viewers' presences in this installation, reinforces the perceptual and psychological tensions between 'self' and 'other'. David Porush in 'Deconstructing the machine: Beckett's *The Lost Ones*' (1985) perceives the cylinder as an enormous cybernetic machine controlled from some outside source. In *UNMAKEABLELOVE* 'control' is both illusive and made more explicit. Participants operate through the sensorium of interaction with Re-Actor, its inhabitants and each other. The space that opens: '...facilitates the emergence of hitherto unimagined visions and sensations that exert a unique appeal to the senses and generate an intense cathexis' (Schwab, 2000, p. 73).

Making UNMAKEABLELOVE

The Lost Ones describes a community of about 200 people who inhabit a cylinder that is 50 meters in diameter and 18 meters high. In *UNMAKEABLELOVE* this is scaled down to 30 characters that inhabit Re-Actor's hexagonally shaped room that is 5.5 meters wide and 3.5 meters high. To reflect the body to space ratio that Beckett proposes, its characters are reduced to approximately half life-size. Three actors performed over 300 motion-captured sequences that became the primary resources for the real-time behaviors of the characters in *UNMAKEABLELOVE*. Each character is a 12,000 triangle polygonal model with a 1024 x 1024 pixel texture and is animated by a 53-bone skeleton. Real-time rendering of the characters using the Microsoft XNA game engine allows for dynamic lighting, controlled by the viewers. Six volumetric light beams, casting shadows onto each other and the environment, light the characters.

The almost scientific exactitude of Beckett's text enables it to be analyzed and coded into software algorithms that can then computationally animate virtual representations of his characters. In *UNMAKEABLELOVE* these virtual representations then become the seemingly self-motivated narrative agents of Beckett's scenario. The world of *UNMAKEABLELOVE* consists of the Searchers who are always active and searching in vain; the Sedentary who no longer move around and are only occasionally roused from their lethargy, and the Defeated for whom all hope is gone, slumped and vaguely stirring in the perimeter of the enclosure. Each group with their specific behaviors is largely confined to particular zones inside the hexagonal space and permitted occasional interactions, moving between zones. Violence sporadically breaks out, and now and then they collide in a frenzied sexual encounter. The narrative agency in *The Lost Ones* has been described as a 'disembodied artificial intelligence' (Schwab, 2000, p. 61). One can imagine its denizens as inhabiting a posthuman space, the last humans secluded in a capsule that is, like a nautilus, organized according to a 'self sufficient cosmogony, which has its own categories, its own time, space, fulfilment and even existential principle' (Barthes, 1972, p. 65).

UNMAKEABLELOVE advances the practices of algorithmic agency, artificial life, virtual communities, human computer interaction, augmented virtuality, mixed reality and multimedia performance in a 'polyaesthetic' experience to 'engage the body's primordial inscriptions' (Schwab, 2000, p. 16). It locates Beckett's society of 'lost ones' in a virtual space that represents a severe state of physical and psychological entropy, evoking perhaps a prison, an asylum, a detention camp, or a dystopian Brig Brother show '...the condition of the human at its ultimate vanishing point...' (Schwab, 2000, p. 73). The inhabitants of Beckett's cylindrical space are oblivious to their condition, and we the viewers of their world, with our probing torch lights and prying gaze, are positioned as the 'other' and forced to experience the anomalies of a perceptual disequilibrium that implicates us in this alienated narrative. The resulting ambiguity reinforces a perceptual and psychological tension between 'self' and 'other' generated by the works' mixed reality strategies of embodied simulation that intricately engage the presence, agency and complicity of the viewer.

'There must be no let up, no vacuum in the audience's mind or sensitivity...' (Artaud, 1985, p. 84).

Following from Artaud, Marinetti, and Brecht, *UNMAKEABLELOVE* reframes the central role of audience in theatrical experimentation, but rather than the convivial participations described in *Relational Aesthetics* (Bourriaud, 2002), *UNMAKEABLELOVE* alludes to more troubled evidence of audience behaviour such as the violences that it perpetrated in the Living Theater's *Paradise Now!* (Avignon Festival 1968) and Marina Abramovic's *Rhythm 0* (Studio Morra, Naples, 1974). Facing up to this latent pathology, Terry O'Connor, an actor in Forced Entertainment's *Showtime* (Alsager Arts Centre, Stoke-on-Trent 1996) suddenly shouts at the audience: 'What the fuck are you looking at? What the fuck is your problem? Fuck off! Voyeurs! There's a fucking line and you've just crossed it. Where's your human decency?' (Etchells, 1999 cited in Freshwater, 2009, p. 52). *UNMAKEABLELOVE* interpolates two scenarios for this loss of human decency – one that is evoked in Beckett's existential endgame *The Lost Ones*, and the other that confronts the viewer/voyeur with the explicit experience that they are complicit in both the origin and outcome of this endgame. It is a spectrum that ranges between interpersonal sadism, refugee brutality, and environmental defilement. Conjoined in the narrative extremity of Beckett's *The Lost Ones*, *UNMAKEABLELOVE*'s computational scenography exposes that 'What is tragic is not the impossibility, but the necessity of repetition' (Derrida, 1978, cited in Scheer 2004, p. 44). *UNMAKEABLELOVE*'s torch-lit metaverse correlates with Susan Sontag's observations on Artaud's view of shadows and spectacles.

'Artaud thinks that modern consciousness suffers from a lack of shadows. The remedy is not to remain in (Plato's) cave but devise better spectacles. The theatre that Artaud proposes will serve consciousness by 'naming and directing shadows' and destroying the 'false shadows' to 'prepare the way for a new generation of shadows' around which will assemble 'the true spectacle of life'. It will be a stage of extreme austerity dominated by the 'physics of the absolute gesture, which is itself idea' (Sontag, 1980, cited in Scheer, 2004 p. 88).

Here the rigour of an algorithmically defined and simulated universe of prescribed emergent behaviours aligns with Artaud's contempt for dramatic performativity: '...the uselessness of the action, which, once done, is not to be done, and the superior use of the state unused by the action, and which *restored* produces a purification' (Artaud, 1958). *UNMAKEABLELOVE*'s actors do not strike poses or construct gestures, they respond to events out of computational necessity. As in the Purgatorio, gloominess and indifference periodically lead to 'zeal and fervent affection', and now and then Beckett's vanquished resurrect to perform vain attempts at copulation. In *UNMAKEABLELOVE*, lovers are caught in desiccated bodies whose 'hampering effect on the work of love' condemns them to perform a grotesque spectacle of 'making unmakeable love' (Beckett, 1972, p. 37). Understood as a 'glittering' space of 'cryptic incorporation' (Perniola, 2000. p. 69), *UNMAKEABLELOVE*'s foreverautomated post-human universe is driven by a '... gratuitous and baseless necessity'.

'To think the closure of representation is to think the tragic: not as the representation of fate, but as the fate of representation. And it is to think why it is *fatal* that, in its closure, representation continues.' (Derrida, 1967, cited in Scheer, 2004, p. 46).

Notes

1 UNMAKEABLELOVE Sarah Kenderdine and Jeffrey Shaw (eArts, Shanghai 2008). See <<http://unmakeablelove.org>>. Last accessed 16 June 2009.

2 POINTS OF VIEW, Jeffrey Shaw (Mickery Theatre, Amsterdam 1983). See <http://www.jeffreyshaw.net/html_main/show_work.php3?record_id=67>. Last accessed 16 June 2009.

3 Mabou Mines. See <<http://www.maboumines.org>>. Last accessed 13th September 2009

References

Artaud, A. 1958, *The Theatre and Its Double*, trans. Mary Caroline Richards, New York, Grove Press

- Artaud, A. 1965, 'Fragmentations', in Hirschman, J (ed). *Antonin Artaud Anthology*, San Francisco: City Lights Books.
- Artwick, B.A. 1975, 'A versatile computer-generated dynamic flight display', Aviation Research Laboratory, Institute of Aviation, University of Illinois at Urbana-Champaign, Office of Naval Research. PhD Thesis.
- Barthes, R. 1972, 'The Nautilus and the Drunken Boat', *Mythologies*, Annette Lavers trans. New York: Hill and Wang.
- Baugh, C. 2005, *Theatre, Performance and Technology*, New York, Palgrave Macmillan, 2005.
- Beckett, S. 1971, *The Lost Ones*, trans. (1972) New York: Grove Press. Originally published 1971, Le Depeupleur, Paris: Les Editions de Minuit
- Bourriaud, Nicolas. 2002, *Relational Aesthetics*. Trans. Simon Pleasance and Fronza Woods. Dijon, France: Les Presses du Reel.
- Craig, E.G. 1905, *On the Art of the Theatre*, cited in Baugh, C. *Theatre, Performance and Technology*, New York: Palgrave Macmillan, 2005.
- Derrida, J. 1967 'The Theater of Cruelty and the Closure of Representation' chapter in Scheer, E. (ed.) 2004, *Antonin Artaud: A critical reader*, London: Routledge.
- Etchells, T. 1999, *Certain Fragments: Contemporary Performance and Forced Entertainment*, London: Routledge.
- Freshwater, H. 2009, *Theatre and Audience*, Hampshire, England: Palgrave Macmillan.
- Gottlieb, R. 1975, Review of *The Lost Ones*, Mabou Mines
<<http://maboumines.org/productions/lost-ones>>. Last accessed 30 June 2009.
- Kenderdine, S. & Hart, T. 2003, 'This is not a peep show! The Virtual Room at the Melbourne Museum', in *Proceedings of International Committee on Hypermedia and Interactivity*, Paris, September 2003, CD-ROM, Pittsburgh: Museum Archives & Informatics, available online <<http://www.archimuse.com/publishing/ichim03/003C.pdf>>. Last accessed 30 June 2009.
- Kalb, J. 1989 'Beckett in Performance' Cambridge, Cambridge University Press
- Lyotard, J.F. 1988 'Can thought go on without a body?' in: *The Inhuman. Reflections on Time*, trans. Geoffrey Bennington and Rachel Bowlby, 1991 Stanford California: Stanford University Press.
- Nocks, L. 2007, *The Robot, The Life Story of a Technology*, Westport, CT: Greenwood Press
- Perniola, M., *Art and its Shadow*, trans. Massimo Verdicchio (2004), New York, Continuum.
- Porush, D. 1985, *The Soft Machine. Cybernetic Fiction*, New York: Methuen,
- Schwab, G. 2000, 'Cosmographical Meditations on the In/Human: Beckett's The Lost Ones and Lyotard's 'Scapeland'', *Parallax*, 2000, vol. 6, no. 4. p. 73
- Sontag, S. 1980, 'Approaching Artaud', chapter in Scheer, E. (ed.) 2004, *Antonin Artaud: A critical reader*, London: Routledge.

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