Substitutive bodies and constructed actors: a practice-based investigation of animation as performance

Birgitta Hosea

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Abstract

Fundamental understandings of what animation actually *is* have been changing in the face of material changes to production and distribution methods brought about by the introduction of digital technology. Increasing artistic and academic interest in the field has also contributed to this re-conceptualisation and re-imagining of animation, such as the emergence of Animation Studies, a relatively new branch of academic enquiry that is establishing itself as a discipline.

This research (documentation of live events and thesis) examines animation in the context of performance, rather than in terms of technology or material process. Its scope is neither to cover all possible types of animation nor to put forward a new 'catch-all' definition of animation, but rather to examine the site of performance in character animation and to propose animation as a form of performance. In elaborating this argument, each chapter is structured around the framing device of animation as a message that is encoded and produced, delivered and played back, then received and decoded.

The PhD includes a portfolio of projects undertaken as part of the research process on which the text critically reflects. Due to their site-specific approach, these live events are documented through video and still images. The work represents an intertwining, interdisciplinary, post-animation praxis where theory and practice inform one another and test relationships between animation and performance to problematise a binary opposition between that which is live as opposed to that which is animated. It is contextualised by a review of historical practice and interviews with key contemporary practitioners whose work combines animation with an intermedial mixture of interaction design, fine art, dance and theatre.

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"The über-marionette will not compete with life - rather it will go beyond it. Its ideal will not be the 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."[1]

Edward Gordon Craig

1907

1 Edward Gordon Craig, "The Actor and the Über-marionette," in *The Twentieth Century Performance Reader,* ed. Michael Huxley and Noel Witts (London: Routledge, 2002), 161.

1. Animation as performance: Research context

1.1 Introduction

The room was cold and we sat on the floor, rather uncomfortably, in hushed expectation. It began with a whirr as the projector was switched on. As an unexposed loop of black film suspended from the ceiling by two 100 feet spools continuously ran through the projector, all that could be seen on screen was a black void. A man began punching holes into the filmstrip as it passed through his hands. I watched the dancing white circles of light that resulted from his actions gradually fill the screen, until the filmstrip became so weakened by puncture marks that it broke. Transfixed by the moving circles in front of my eyes, it struck me, "but this is an *animation* that I am watching!" Afterwards, I reached on the floor for the scattered black circles of celluloid that had been punched out of the film. I put them in my pocket. That was all I could do to keep hold of the paradigm shift that I had just experienced in my thinking about animation, film and the live event. I had just witnessed Takahito Iimura's recreation of his 1982 performance, *Circle and Square,* at the Lux Centre in London around 2004. I did not record the exact date.

My interest in the connections between animation and performance has resulted from the journeying that I have done between disciplines. In common with many other digital practitioners of my generation, I was trained in analogue media and then became an immigrant to the digital environment. I studied Drama, Film and Television Studies and then Theatre Design, including workshops at the Scottish Mask and Puppet Centre. As a student, I acted in fringe productions, established a women's theatre co-operative, experimented with photography and VHS video and sang in a punk band before moving on to a career in art direction and design for performance, working in theatre, TV, film and pop promos. In the mid-90s I did a course in Computing and Fine Art, which was run by a former member of the London Film Makers Co-op. This inspired me to take up further study and a new career in digital media, motion graphics and animation. With this experience of having worked across different disciplines,

as well as having been employed in both commercial, fine art and academic environments, I have often felt like an interpreter who is able to speak the specific, technical language of more than one discipline and so is able to journey between different worlds. This research represents my desire to synthesise these different areas that I have worked in, to explore theoretical concepts through interdisciplinary practice and to identify an area of practice that spans 'animation' and 'performance'.

This chapter will introduce the background to the research: the purpose and scope of the study, the methods of investigation that were employed and the context behind the research questions. It will also define the terms 'animation' and 'performance' as they are used in this text.

1.2 Research questions, aims and objectives

From the Internet and mobile phones to television commercials, games and special effects for blockbuster movies: animation is everywhere. The medium of animation now takes many different forms and has permeated the whole of visual culture. The technology used to create animation is evolving and changing at an exponential rate. The competitive nature of the software market results in certain computer programs dominating the market one year and then becoming obsolete the next. Traditional definitions of animation have become redundant in the context of these rapidly changing technological processes. Instead of attempting to come up with a new definition of animation that can reconcile these factors, I propose to focus on a consideration of the site of performance in character animation, which raises the following research questions:

> *Where does a character exist? Is it the animated character that performs? Does the animator perform by proxy? Could a person become a cartoon character? Or is the performing done by the viewer? Could a character be created through interaction with a database?*

Furthermore, I will consider the viewing context and method of delivery. Animation is conventionally seen as a laborious, highly-planned medium of frame-by-frame manipulation, which when played back sequentially gives the impression of movement through the optical illusion known as 'persistence of vision'. Once created, the animation is usually predictably reproduced in a viewing situation. Live performance, on the other hand, has the potential for improvisation, spontaneity, unpredictable outcomes, ephemerality. Contrasting these views of animation and performance leads to the following questions:

> *Is there a fundamental, ontological difference between animation and live performance? What kinds of liminal practice blur the boundaries between 'live' and 'animated'? Could it be possible for an animated character to be part of live, spontaneous, embodied performance? How could this be achieved in practice with the use of digital technologies?*

Thus, this research aims to:

- deconstruct preconceived definitions of animation;
- analyse areas of commonality and difference between animation and live performance;
- examine hybrid practice which has elements of both;

and to test through practice the following hypotheses:

- that the animator is a performer;
- that animation could be live;
- that viewing animation is a performative act.

1.3 The methods

Much of the literature on animation is written from a purely theoretical perspective, informed by the writer's experience as a viewer. This research, however, adopts a practice-based methodology for gaining evidence, in which I have created practice that tests key theoretical concepts and reviewed literature in constant dialogue with the material process of making. As a practitioner, I experiment both *with* doing and *through* doing, try to make *what if...* happen and put theoretical words into action. I consider this a form of *praxis*1 in which theory and practice are not in binary opposition, but form one holistic search for knowledge. Ideas are made manifest and tested out. Knowledge is arrived at through the process of making as well as being embedded in the resultant piece of work.

The structure of my overall approach was shaped by cultural theorist Stuart Hall's essay, *Encoding / Decoding*,[2] which presents the notion that a piece of media is not a static entity, but a message that is actively encoded when it is produced and actively decoded when it is received.[3] With this Hall implies that meaning is not inherent or innate, but a process in which the act of inscription and the act of interpretation are each informed by a historical, economic, cultural and social context.[4] Consequently, I have used 'production', 'delivery' and 'reception' as a framing device. Indeed, in my experience that which we call 'animation' (and that we call 'performance') results from a series of intertwined events that could not all be covered by the scope of this research:

1. an original creative intent;

2. the use of particular materials, tools and techniques;

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1 I am using the term praxis in the Marxist sense as opposed to the original Greek. cf. Raymond Williams, *Keywords* (London: Fontana Press, 1988), 318.

2 Stuart Hall, "Encoding / Decoding," in *Media Studies: A Reader*, ed. Paul Marris and Sue Thornham, Second Edition. (Edinburgh: Edinburgh University Press, 1999), 51-61.

3 Ibid., 52.

4 Ibid., 53.

3. production processes and commissioning policies that result from historical, economic, cultural and social factors;
4. a medium of distribution;
5. a historically, economically, culturally and socially determined site of reception;
6. an individual act of perception.

In the following diagram, I have tried to summarise a number of approaches to the study of animation that could have resulted from these different perspectives. The practice is depicted at the centre, produced by an act of creative intent and then perceived by an individual through a particular form of delivery medium. Both production and reception are shown as externally influenced by wider historical, economic, cultural and social factors.

For practical reasons, I could not cover the implications of all of these within the research and, therefore, I chose to focus on the area in the centre of the diagram: the relationship between the author of animation, the work of animation itself, the manner in which it is delivered and the viewer of animation.

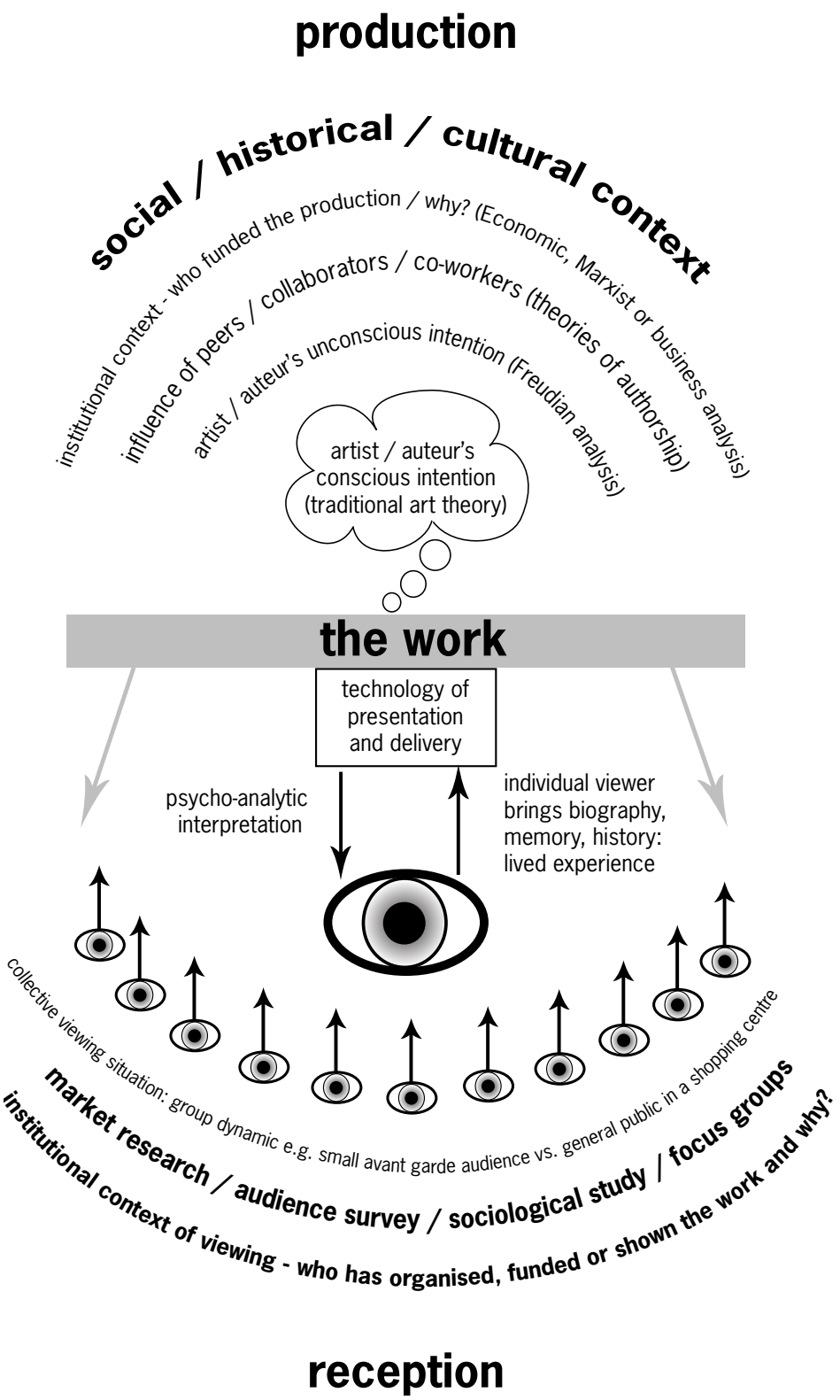

Figure 1. Birgitta Hosea, *Production and reception diagram*, 2008.

My overall approach is based in practice, which facilitates an examination of animation from multiple discourses: as producer, performer, viewer, teacher and critic. As a researcher, I have been interested in participant observation, in being *in* the site of performance myself (as animator or performance artist) or in creating interactive works that invite the viewer to perform. Using performance as a research method, I undertook a range of projects in order to try and work out whether animation could be live and to explore the idea of the performative animator and the performative viewer. I consider the approach that I took to practice to be one of post-animation as I use animation processes, animated characters and animation technology to examine animation conceptually: to deconstruct it, rather than creating it in the classic form of the short film. This aligns my aim of going beyond preconceived definitions of animation with the methodology behind the practice, in which I aim to imagine what else animation could be. The projects I created were live, site-specific events, hence for reasons of practicality, they are documented as video recordings on DVD or in the form of still photographs, designs and scripts. I consider four of them in greater detail - the *Dog Betty* Series, *Out There in the Dark, At Home With Mr and Mrs Smith* and *Lunch with Miss Smith*[1], but will also mention more briefly in passing other projects that arose from the research questions but did not correspond so directly with the specific criteria that I set for the research. These criteria are principally: that the work had to be in dialogue with the key theoretical concerns of this enquiry and additionally to involve:

1. An animated character that is mediated through a form of screen-based technology, (therefore 'pure' puppetry is not considered);

2. 'Liveness' as defined by:

    - Takes place 'now', in the present, in 'real-time' at 'run-time';
    - Involves the frisson of the unexpected: a possibility of either unpredictability, spontaneity or improvisation;
    - The viewer is able to sense her own proximity through her potential

1 These projects are covered in the text in *2.2 The performative animator* on page 36, *2.6 Performing animated presence* on page 74, *3.2 Synchronous animation* on *page 92* and *4.4 The performative viewer in practice* on page 145.

to affect an impact on the work.

Practice-based research founded on personal practice can be subjective and problematic to evaluate.[1] Consequently, I used a variety of research methods to create a holistic view from multiple perspectives: creating and reflecting upon my own practice and that of others; reviewing key literature; interviewing other practitioners about their experience and gaining feedback from the spectators of my own work. I kept a research journal of reflection in action and performative writing to record my experience as both a creator of my own work and a spectator of the work of other people. In my research process, prototypes for projects are developed, tested out on peers and disseminated for feedback. In an iterative process, this feedback then informs reflection on and further development of the work. Various avenues for collecting feedback have been explored: informal conversation with peers; comments on You Tube; reviews by supervisors; anonymous written comments in gallery guest books; video recordings of participation; video-cued recall; semi-structured interviews and discussions, questions and answers that resulted from the dissemination and exhibition of the work at events, seminars and conferences.

In order to contextualise my own post-animation practice, over the following chapters I will present a review of literature and practice that includes four case studies of work from practitioners who transcend the boundaries between animation and performance and are in accord with the research criteria described above. These case studies are based on interviews and my own direct experience of the work. They are drawn from different disciplines: Faulty Optic is a theatre company[2]; Genetic Moo work in digital art[3]; Little Howard is a comedian[4] and *Quartet* was a digital dance piece[5].

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1 cf. Pamela Lomax and Zoe Parker, "Accounting For Ourselves: The Problematic of Representing Action Research" 25, no. 3, *Cambridge Journal of Education* (1995).

2 cf. *2.4 Animation Theatre: Soiled (Faulty Optic, 2003-7)* on page 61.

3 cf. *4.2 Choreographing the viewer: Becoming Starfish (Genetic Moo, 2006)* on page 130.

4 cf. *3.4 Improvisation and the database: Little Howard (Howard Read)* on page 107.

5 cf. *3.5 Performing animation live: Quartet (Margie Medlin, 2007)* on page 113.

Before I present the practice in more detail, in the remainder of this chapter, I will define my terms through critical reflection on the key ontological debates that seek to determine what is specifically understood by 'animation' and 'performance': what is the fundamental essence that sets each apart from other forms. In the chapters that follow, I will present examples of practice that destabilise binary oppositions between the two terms and argue that animation and performance cannot be distinguished on the basis of ontology.

1.4 The ontology of animation

Traditional practices and fundamental understandings of animation are fracturing as the result of technological innovations in computing that have had a profound impact on the ways in which animation is made, viewed and distributed.[1] This period of technological change has led to ontological unease and uncertainty in the field of animation, in both theory and practice, since the very material basis of animation has changed from analogue to digital: from the frame of film to the pixel. A medium that was once defined by technique or the technologies used, animation is emerging as a complex set of practices whose boundaries are constantly shifting. These changes in production, distribution and viewing methods have occurred at an extremely rapid pace. The most state-of-the-art computer in 1970 had a storage capacity of less than 500mb, which is significantly less than that of my current mobile phone.[2] High-powered contemporary computers now facilitate a range of new animation techniques such as: digital compositing, rotoscoping and image manipulation; motion capture and games technologies; digital ink and paint; CGI puppeteering. In this section, I will present an overview of the key debates around the definition of 'animation' that conceptually underpin my practice and propose a working definition of the term for the purpose of this thesis.

Since the 1980s, animation aimed at adults has had increasing prominence in the English-speaking world.[3] Pop video, adverts and nightclub visuals have cannibalised experimental fine art moving image practices and incorporated them within popular culture. The popularity of the film *Akira* (1988) led to adult-orientated anime films from Japan being shown in the West. Challenging animation auteurs such as Jan Svank-

1 cf. Birgitta Hosea, "TV 2.0: Animation Readership/Authorship on the Internet," *Animation Studies - Peer-reviewed Online Journal for Animation History and Theory* 3 (2008), http://journal.animationstudies.org/2008/07/28/birgitta-hosea-tv-20 (accessed July 27, 2008).

2 cf. Gene Youngblood, *Expanded Cinema* (London: Studio Vista, 1970), 183.

3 cf. Jayne Pilling, *A Reader in Animation Studies* (London; Paris; Rome; Sydney: John Libbey Cinema and Animation, 1997), x and for an example of the emergence of animation with adult themes cf. the *Wayward Girls and Wicked Women* video series that Pilling edited for Connoisseur Video.

majer and the Quay Brothers were shown in Western art house cinemas, while cult TV shows like *The Simpsons, Ren and Stimpy* and *South Park* began to be screened on mainstream television. As a result of Channel 4's commissioning policy, Britain became a centre for adult-orientated animated short films from the 1980s till the mid 1990s. Although Channel 4's animation department has since been shut down, the UK Arts Council's *Animate!* scheme, founded in 1990 with the support of Channel 4, has continued to provoke debate and extend notions of animation.[1] Dick Arnall, original producer of the *Animate!* scheme, issued a rallying cry for complete reconsideration of what animation could be:

> I believe it's time to kill animation. Not the animation we watch, but the word we use to label it.
>
> Everyone out there knows that animation means 'invented' characters brought to life on the screen by an animator. But those of us inside the world of the moving image, also use the term 'animation' to refer to just about anything that isn't direct live-action, created by just about any alternative means for just about any aesthetic, narrative or conceptual reason. We lump together all these techniques, forms and ambitions, call them animation and, frankly, to say the least, it's just not helpful…
>
> …'animation' really is not a helpful label any more. …Death to 'animation'. It's time to find a new word for "the extended moving image".[2]

The Animate! Book: Rethinking Animation aims to expand our understanding of animation and claim it as a serious art form, yet it also underlines common preconceptions about animation. The book features interviews with various recipients of the *Animate!* scheme. Only one of the eight interviewees in the book was comfortable with defining themselves as an animator, while most of the remainder had preconceptions of animation as high tech, industrialised, popular culture aimed at children. Indeed, Anne Course, one of the artists, had such negative associations with animation that it even worried her to accept an *Animate!* Commission, which would define her work in moving drawings as animation: 'People said I shouldn't do it if I wanted to get ahead in the art world.'[3]

1 At the time of writing, this scheme has lost much of its funding and now commissions work for online distribution only. cf. www.animateprojects.org

2 Dick Arnall, "Death to Animation," 2005, http://www.animateonline.org/editorial/2005/08/death-to-animation (accessed May 29, 2008).

3 Anne Course, "Interview," in *The Animate! Book: Rethinking Animation*, ed. Benjamin Cook and Gary Thomas (London: LUX in association with Arts Council England, 2006), 52.

Alongside changes in the forms that animation can take, academics have sought to reclaim an area of practice that had previously been considered by many to be 'for children' as the subject of serious academic study. Critical theorisations of the medium of animation have hitherto been hampered by long-standing assumptions of the dominance of American traditions and, in particular, by the work of the Disney studio and its output for children.[1] In his introduction to *The Illusion of Life: Essays on Animation*, Alan Cholodenko argues passionately that animation has been neglected by film studies, because it is seen not only, 'as child to live action's adult form', but also that the profound issues that animation raises 'challenge, even suspend, certain axioms of film theory and Film Studies'.[2] More recently, through the emerging field of animation studies and organisations such as the Society for Animation Studies, works of scholarship have begun to be produced on the subject. Akin to the early film criticism of Bazin, Kracauer, etc., that established film as an area of academic enquiry, this relatively new discipline is still in the process of establishing animation as a subject of serious study.

One approach to legitimising animation as a subject worthy of serious academic study is to claim it is a type of film. Thus, in the introduction to *Before Mickey: The Animated Film 1898-1923*, Donald Crafton states, 'One premise of this book is that the animated film is a sub-species of film in general.'[3] In *Understanding Animation*, Paul Wells concurs with this viewpoint. While acknowledging the difficulty of defining the terrain of animation in an age of digital technology that is in a state of continual change and innovation, he proposes as a starting point that a working definition for animation could be:

> a film made by hand, frame-by-frame, providing an illusion of movement, which has not been directly recorded in the conventional photographic senses.[4]

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1 cf. Paul Wells, *Animation: Genre and Authorship* (London; New York: Wallflower, 2002), 2.

2 Alan Cholodenko, *The Illusion of life: Essays on Animation* (Sydney: Power Publications, 1991), 9-10.

3 Donald Crafton, *Before Mickey: The Animated Film 1898-1928* (Chicago; London: University of Chicago Press, 1993), 6.

4 Paul Wells, *Understanding Animation* (London; New York: Routledge, 1998), 10.

This definition stresses that it is the technical processes used that define animation.[1] It conceptualises animation as a type of film, differentiated from other types of film by virtue of the way the frames were constructed.

Rather than being a 'subset' of film, Maureen Furniss contends that although animation is a form of practice *within* film production, it is part of a spectrum of moving picture activities that range from mimesis to abstraction.[2] At the extreme mimetic pole of her proposed spectrum is unmodified live action, such as Andy Warhol's *Sleep* (1963), which has real time documentary style footage of John Giorno sleeping for five hours. On the other side of the spectrum, at the abstraction pole, would be films such as Oskar Fischinger's *Circles* (1933), which consist of abstract shapes and do not attempt to reproduce the human form. This model of a spectrum can accommodate a range of different moving image practices that involve different levels of mimesis and abstraction, such as conventional live action films that contain animated special effects, motion captured animation, animation that is combined with live action, naturalistic animation that has reference from life study and abstracted character animation. Furniss's model has relevance to the complex field of contemporary digital filmmaking techniques. Films like the *Lord of the Rings* trilogy (2001, 2002, 2003), in which every shot has been manipulated by a computer, problematise any simplistic notions of animation as 'subset' of film or even of a binary opposition between animation and film. Simon Pummel elaborates on the complex relationship between anima-

Figures 2-4. *Lord of the Rings* wallpaper.

1 A more minimal variation of this is: 'Animation stills are made rather than 'captured". cf. Mark Hutchinson, "The Still: Animation and the Critical Potential of Stillness," in *The Animators*, ed. Angela Kingston, Exhibition Catalogue. (Nottingham: Angel Row Gallery, 2006), 11.

2 Maureen Furniss, *Art in Motion: Animation Aesthetics* (London; Paris; Rome; Sydney: John Libbey, 1998), 5-6.

tion and film that has resulted from digital special effects:

> The massive explosion in 'composite cinema', both in computer animation and the frame-by-frame manipulation of live-action material, creates a possible paradox: animation is eating classical cinema, and possibly at the same time creating conditions for its own ultimate extinction as a distinct category.[3]

Pummel's suggestion is that digital animation and digital film may cease to become distinct moving image practices.

Several commentators argue that rather than animation being a type of film, actually film should be seen as a type of animation. Indeed, in the earliest days of cinema, film was referred to as 'animated photographs', such as those displayed as part of magician David Devant's stage act in London's Egyptian Hall in 1896.[4] This is echoed in Roland Barthes book on photography, *Camera Lucida,* in which Barthes refers to the moment when 'this Photograph is animated and becomes cinema'.[5] According

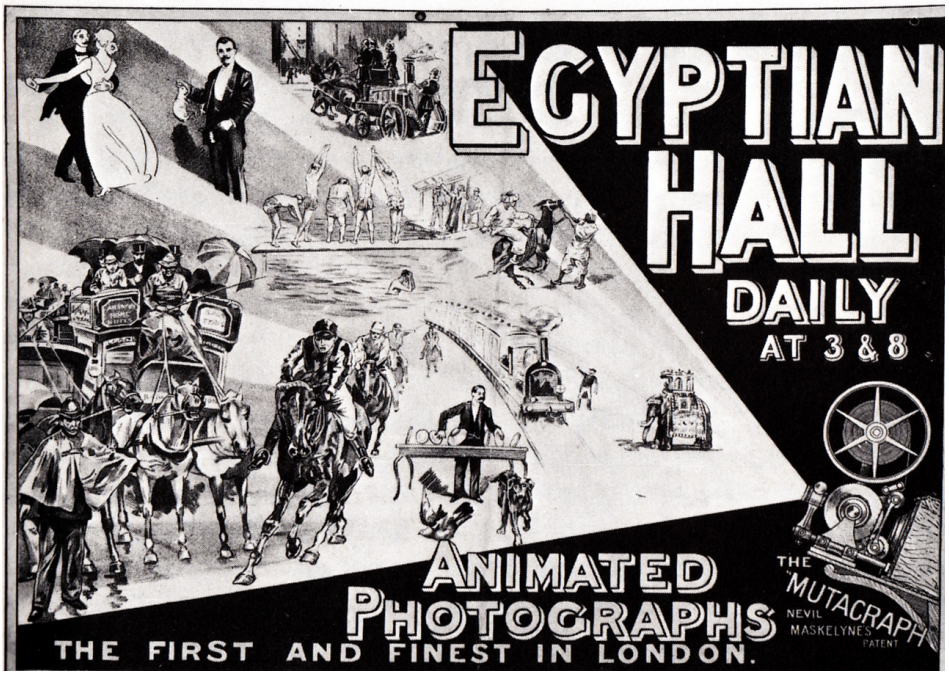

Figure 5. Promotional poster for the Mutagraph at the Egyptian Hall, 1897. Museum of London.

3 Simon Pummel, "Will the Monster Eat the Film? or The Redefinition of Animation 1980-94," in *The British Avant-Garde Film 1926-1995: An Anthology of Writings*, ed. Michael O'Pray (Luton: University of Luton Press, 1996), 299.

4 Eric Barnouw, *The Magician and the Cinema* (New York; Oxford: Oxford University Press, 1981), 54-8.

5 Roland Barthes, *Camera Lucida*, trans. Richard Howard (London: Vintage Classics, 2000), 78.

to Alan Cholodenko, film is a type of animation, which he argues is an older form of moving image practice that pre-dates the invention of photography: 'animation film not only preceded the advent of cinema but engendered it'.[1] For Cholodenko, the relationship between film and animation foregrounds complex issues of distinction between representation and simulation.[2] The earliest animated films, which were a development of magic theatre and music hall acts, defy from the start the simplistic division of live action film from animation.

In the context of the paradigm shift that digital technology has brought to the material basis of film and animation production, Lev Manovich in *The Language of New Media* also develops the idea that film is a type of animation. The smallest unit of a digital image - the pixel - is composed of zeros and ones that can be altered by a human operator with far greater ease than the analogue grain of film. Referring to traditional cinema as the 'art of the index'[3], he observes that: 'Fictional films are *live-action* films; that is, they largely consist of unmodified photographic recordings of real events that took place in real, physical space.'[4] However, although the analogue filmic image appears to show 'real life' without artifice, the version of 'reality' that is depicted in most films is usually extensively manipulated: discontinuous times and spaces are stitched together to create the illusion of coherent time and location; art directors rearrange and manicure the set dressing and design; green screens, mirrors, models and matte paintings augment the space depicted; the film stock is tinted by chemical processes and enhanced by optical printing.[5] With digital cinema the process of manipulation has become even more extensive, as there is no longer a need to be reliant on 'lens-based recordings of reality'.[6] Computer generated special effects can be used to create photorealistic scenes that may look as if they had been captured

1 Cholodenko, *The Illusion of life: Essays on Animation*, 9.

2 Ibid., 23.

3 Lev Manovich, *The Language Of New Media* (Cambridge, Mass.; London: MIT Press, 2002), 293-306.

4 Ibid., 293-4.

5 Ibid., 303.

6 Ibid., 294.

by a camera, yet were entirely synthesised within a digital environment. Whereas a camera produces images that have been mechanically recorded, digital imaging techniques involve hand manipulation. Manipulating images by hand implies a return to the proto-cinematic technologies of the dawn of cinema.[1] These early technologies used processes that later came to be thought of as animation: magic lantern slides were hand painted and moved by hand to create moving images; spinning optical toys created the illusion of motion through the repetitions of loops or cycles of stages of movement. The concept that underlies Manovich's argument is that the artifice and image manipulation involved in digital cinema proves that film is a subset of animation:

> Digital cinema is a particular case of animation that uses live-action footage as one of its many elements… Born from animation, cinema pushed animation to its periphery, only in the end to become one particular case of animation.[2]

Manovich cites William J Mitchell's assertion in *The Reconfigured Eye* that the malleability of the pixel implies the erosion of the boundaries between photographic images and painting.[3] For Manovich the 'manual construction of images' through the use of digital technology implies that animation and film are actually both types of painting: 'Cinema becomes a particular branch of painting - painting in time. No longer a kino-eye, but a kino-brush.'[4]

The idea that animation is a form of time-based, moving art is also presented by the animator Alexandre Alexeïeff in his preface to Giannalberto Bendazzi's book, *Cartoon: One Hundred Years of Cinema Animation.* He argues that to define animation by the medium of film is reductive. Just because it moves, he asks, why does it have to be a kind of cinema: '… it could just as well be *painting, drawing, engraving* or even *sculpture* in movement.'[5] However, despite the existence of animated films that have been accepted as a footnote to the art historical canon, including those

1 Ibid., 295.

2 Ibid., 302.

3 William J. Mitchell, *The Reconfigured Eye: Visual Truth in the Post-Photographic Era* (Cambridge, Mass.; London: MIT Press, 1994), 7.

4 Manovich, *The Language Of New Media*, 308.

5 Giannalberto Bendazzi, *Cartoons: One Hundred Years of Cinema Animation*, trans. Anna Taraboleti-Segre (Bloomington; Indianapolis: Indiana University Press, 1995), xix.

influenced by modernist painters such as Viktor Eggeling, Hans Richter and Walter Ruttman[1], animation has, until very recently, been neglected by the worlds of 'art film' or by contemporary art. With the advent of digital technology, industrial processes that were once only available to a few skilled practitioners have now been opened up, allowing greater accessibility to a range of desktop software packages that enable the creation of animation as well as the editing and manipulation of digital video. As a consequence of this shift in practice, a looser definition of animation has become commonplace that could encompass a broad range of moving image activities: the 'manipulated moving image', especially as defined by the *Animate!* scheme. The type of work commissioned by the scheme is 'risk taking and boundary crossing' and 'is not primarily motivated by concerns of character and plot'.[2] The entry requirements for the scheme state:

> You do not have to be an animator to apply. Animation is not, and never has been, exclusively driven by a frame-by-frame process but by notions of synthesis. Animation can be image re-presentation through spatial or timeline manipulation – or anything that could not be directly recorded in front of a live-action camera.[3]

This demonstrates how the contemporary understanding of animation has now expanded to incorporate everything that can be captured with a photographic lens so long as it is not 'directly recorded'. The curator, Angela Kingston, elaborates on this:

> …animation now includes 'normal' films which have been intensively reworked with rapid edits and cuts, repeats and reversals, speedings-up and slowings-down, collage effects and digital manipulations.[4]

As a consequence of this move to re-classify animation as an activity that includes manipulated photographic material, moving image practice that was previously considered as artists' film or expanded cinema has been appropriated into the canon of animation. Reclaiming abstract film as animation creates a serious lineage for anima-

1 There is a useful survey of the links between animation, avant-garde art and modernist criticism in the inter war period in Esther Leslie, *Hollywood Flatlands: Animation, Critical Theory and the Avant-garde* (London; New York: Verso Books, 2002).

2 Gareth Evans and Dick Arnall, "Build It and They Will Come: Animate! and the Extended Imagination," in *The Animate! Book: Rethinking Animation,* ed. Cook and Thomas, 101.

3 Arnall, "Death to Animation."

4 Angela Kingston, "Curating The Animators," in *The Animate! Book: Rethinking Animation*, ed. Cook and Thomas, 136.

tion as a form of fine art that defies stereotypical notions of Disney and cartoons for children. The *Pervasive Animation* conference at the Tate Modern in 2007 featured work by Anthony McCall, George Griffin, Michael Snow, Stan Brakhage and others conventionally considered to be working in structural, expanded, direct or experimental film. Their inclusion in the festival programme contextualised those films as manipulated moving image and, therefore, animation. One of the speakers, Edwin Carels, went so far as to consider Martin Creed's Turner Prize winning art installation, *The Lights go on and off* (2001), in which lights go on and off in sequence in an empty gallery, as a work of animation.[1]

In conjunction with a general resurgence of interest in drawing that can be seen in the art world, contemporary galleries are starting to exhibit the drawn animation work of artists such as Robin Rhode, Francis Alÿs, Julian Opie and William Kentridge. In a world that is constantly on the hunt for the 'next big thing', animation is an underexposed area of practice, ripe for discovery. In the words of one of the curators of the *Momentary Momentum: Animated Drawings* exhibition in London in 2007:

> Contemporary art is constantly generating new mediums, the study of which implies a radical revision of our habitual artistic categories. Animation is one of the least known of these forms, perhaps because of its traditional production process, which places such importance on drawing, a discipline that has long been ignored to the advantage of painting and sculpture. Drawing and animation are re-invigorating filmmaking. The practice is making a strong comeback and works of animation are now being given full fine art status.[2]

Another reason for the contemporary art world taking notice of animation is the number of artists that are experimenting with moving drawing and new technology.[3]

An opening out of the concept of animation is also evident in Norman McLaren's famous definition of animation as 'the spaces in between':

> Animation is not the art of drawings that move, but the art of movements that are

1 Edwin Carels, "Animation = A Multiplication of Artforms?," in *The Animate! Book: Rethinking Animation*, ed. Benjamin Cook and Gary Thomas (London: LUX in association with Arts Council England, 2006), 21.

2 Lawrence Dreyfus, "Panorama of Contemporary Animation," in *Momentary Momentum: Animated Drawings*, Exhibition Catalogue (Parasol Unit for Contemporary Art, London, 2007), 30.

3 cf. Birgitta Hosea, "Drawing Animation," *Animation: An Interdisciplinary Journal* 5, no. 3 (2010): in which I have written more on digital drawing and animation.

> drawn. What happens between each frame is much more important than what exists on each frame. Animation is therefore the art of manipulating the invisible interstices that lie between the frames.[1]

This proposition refers to the persistence of vision, through which a series of still frames projected at 15, 24, 25, 30, 50 or 60 frames per second (depending on the technology used) are interpreted in the brain as moving images. This implies that animation is not merely a technological practice, but a cognitive process to be completed in the mind by the spectator. Clearly, every act of perception is completed in the mind by the viewer, but watching animation involves a bigger leap of imagination and a greater suspension of disbelief that watching photo-real cinema. Edwin Carels develops McLaren's idea to argue that animation is a multiplication of art forms. He derives this definition from the Russian term for animation – *multiplikatsija* – and argues that this term suggests that animation produces a multiplication of mental impressions.[2] However, in its attempt to embrace a more liberal understanding of animation, Carels's proposition is so broad that it could equally be said to apply to film or theatre or a nightclub and does not clarify what is specific to animation as a medium.

In conclusion, animation can be seen as film, film can be seen as animation and each is considered as a form of both popular culture and fine art. Perhaps animation cannot actually be defined. Cholodenko suggests that animation is a complex puzzle that cannot be pinned down and resists simplistic definition. Perhaps it is:

> … an irritant like the noise of a fly buzzing around your head, a fly whose diabolic secret would seem to be the inescapable frustration attendant upon theorising movement, life, animation and animation film, that no more than the fly are movement and life, animation and animation film graspable.[3]

In her introduction to the *Pervasive Animation* conference, Suzanne Buchan argued that animation has become a useless word and that animation is everywhere.[4] It could be argued that, as animation is a practice at the intersection of so many other forms –

1 Georges Sifianos, "The Definition of Animation: A Letter from Norman McLaren," *Animation Journal* 3, no. 2 (1995): 62.

2 Carels, "Animation = A Multiplication of Artforms?," 15.

3 Cholodenko, *The Illusion of life: Essays on Animation*, 27-8.

4 Suzanne Buchan, "Introductory Address" (paper presented at the Pervasive Animation Conference, Tate Modern, London, 2007).

film, performance, illustration, storytelling, fine art, digital manipulation, puppetry – it can never be clearly defined.[1] However, as Paul Wells has argued, using such broad conceptualisations risks animation becoming a meaningless term:

> … the elevation of animation as a core term of description for many aspects of creative image-making endeavours… has in some senses made 'animation' a redundant term - a mere catch-all that speaks to all manipulated moving-image practices.[2]

Indeed, to be more accurate, what is commonly referred to as animation in a contemporary, commercial context could more usefully be divided into four dominant, interrelated tendencies in practice that share common technologies and processes but result in an end product that takes different forms and is shown in different contexts.[3] These four are:

1. *Character animation*, which can demonstrate different approaches to character performance such as realistic, cartoonal or graphic and limited;
2. *Special effects*, photorealistic simulations, which can include landscapes, architecture, vehicles and props or even character animation, that are designed to be seamlessly composited within live action filmed footage;
3. *Motion graphics*, often drawing on traditions of typography and graphic design and typically used in nightclub visuals, pop promos, adverts, titles and interstitials, these may incorporate all of the above as well as many stylistic features of earlier abstract, non-narrative film and animation practice;
4. *Art animation*, may involve any combination of the above and typically takes the form of a short film or installation.

In this research, the main focus is on **character animation**, which I examine conceptually through practice in a fine art context.

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1 I have myself sometimes wondered whether weaving could be considered a form of animation as it is a frame-by-frame repetitive process recorded over time onto cloth and, indeed, the Jacquard loom is the forerunner of the computer.

2 Paul Wells and Johnny Hardstaff, *Re-imagining Animation: The Changing Face of the Moving Image* (Lausanne: AVA Publishing, 2008), 6.

3 I am presenting these as dominant tendencies in a commercial context and acknowledge that there are other hybrid and non-commercial approaches.

Within the overall context of a shifting definition of the term 'animation' and for the purpose of clarity, when I use the term I am therefore referring specifically to **mediated, moving images of a manipulated, artificial construct that could not have been photographically captured by a camera in real-time**. The key points that I am trying to express here are that:

1. The moving images depict artificial change that does not occur in the same form in the 'real world' and that could not have been conventionally captured in real-time through the lens of a camera.

2. I do not explicitly refer to a hand-made, frame-by-frame process, because this no longer defines computer animation. Although it is one way to make computer animation, additional models to the individually defined frame-by-frame process are also used, in which each frame no longer needs to be created by the animator. Using 'tweening' for example, certain 'key' frames are created by the animator and the computer software will interpolate the stages of change in between them. Changes in the imagery on successive frames can also be written in code rather than created by hand, such as using Expressions in After Effects or MEL scripts in Maya. Although the processes mentioned above use frames, an entire animation can also be described and generated through code alone using Processing or ActionScripting in Flash[1], without the presence of frames or a linear timeline.

3. Additionally, the artificial movements in an animation are stored, depicted and mediated through a form of image-making technology (as opposed to puppetry, which is the creation of artificial movement through means that extend the puppeteer's body in the same physical space as the puppet without the mediation of an intervening technology).[2]

4. Finally, the medium of the moving image - the container in which the audiovisual information is stored - could be film, but it could also take a digital form such as

1 Or a range of other authoring languages.

2 For this reason, I would argue that shadow puppetry, displayed on a screen through the medium of light, be considered as a form of animation.

computer code, which allows a greater variety of ways in which those images can be distributed and played back.

Rather than searching for a new, elegant definition that may encompass all incidences of that which one might call animation, in this research I focus on **the specific instance of the animated character**. In particular, I ask where the site of performance is in an animation and, indeed, if animation can be seen as performance. As a precursor to this, I will clarify my use of the term 'performance'.

1.5 The ontology of performance

Before examining in greater detail the premise that animation could be seen as performance, it is necessary to clarify what is meant by performance (a term often used with its meaning assumed) and how key concepts from performance studies can be useful for a deeper consideration of animation. I should first say that I am using the term generally, without specific reference to one single institutional context or style, such as narrative theatre, dance or live art. The broader concept of 'performance' is more applicable to the activities of character animators than that of 'acting', as contemporary puppet animator, Barry J C Purves suggests:

> It's a bit easy to say all animators should be actors, but acting probably has certain connotations of the theatre and film, and is maybe too defined by scripts and human personae. These days I prefer to say that all animators need to have the sensibilities of a performer, as that widens the field and brings in dance, mime, singing and a million related skills. We are performers who happen to be telling big stories on a small scale.[1]

Performance theorist, Richard Schechner, has expanded all notions of what performance is. As with approaches to the definition of animation, for Schechner performance can be treated as a very broad concept, which stretches beyond the stage and into all aspects of life:

> In business, sports and sex, "to perform" is to do something up to a standard – to succeed, to excel. In the arts, "to perform" is to put on a show, a play, a dance, a concert. In everyday life, "to perform" is to show off, to go to extremes, to undertake an action for those who are watching… The underlying notion is that any action that is framed, presented, highlighted, or displayed is a performance."[2]

The process of performing an identity determined by social role is developed in the concept of performativity, as defined by Judith Butler and examined in my case studies in *2.2 The performative animator* on page 36 and *2.6 Performing animated presence* on page 74. In a theory of performativity informed by linguistics, Butler proposes that performance is an act that defines our very being. A performative

1 Barry J C Purves, *Stop Motion: Passion, Process and Performance* (Amsterdam; Boston et al.: Focal Press, 2008), xvii.

2 Richard Schechner, *Performance Studies: An Introduction, Second Edition* (London; New York: Routledge, 2006), 28.

speech act, as conceived by the linguist J. L. Austin, is a phrase that has an audience and performs the act it describes, e.g. "I apologize", "I bet you", "I thee wed", "I come out to you".[1] A performative act, then, is an existential act in which one seeks to become that which one enacts. Butler further argues that our sense of self is a fragile construct that must be constantly performed as a role in order to be maintained. The notion that there is a performance inherent in everyday life is a concept with historical precedents. To paraphrase Shakespeare's play, *As You Like It,* and its Renaissance idea of a *theatrum mundi,* itself derived from classical thought, was that all the world is a stage and all people merely players, playing out roles in their everyday lives. As with very broad definitions of animation, this view of performance risks becoming a 'catch-all' holding term for all of human behaviour. In order to differentiate between the psychological performances enacted in everyday life and those performances that are created specifically in an organised context for public display, Richard Schechner uses the terms 'restored' or 'twice-behaved behaviour'[2]. With these, he is referring to actions or speech acts that are prepared or rehearsed and then re-presented. A process of preparing speech acts and bodily movements, which are then presented to the public, also takes place when a character is animated.[3]

The concept of twice-behaved behaviour that is out of the ordinary can be further developed through the work of Eugenio Barba. In his book *The Paper Canoe*[4], Barba outlines his theories of theatre anthropology in which he seeks to develop a transcultural 'meta' theory of performance[5]. Rather than referring to narrow conventional stereotypes such as European vs. Asian, dance vs. theatre, he strives to uncover universal principles that could apply to all performance and he therefore focuses on human behaviour in an organised performance situation that differs from everyday

1 Austin cited in Judith Butler, "Burning Acts, Injurious Speech," in *Performativity and Performance*, ed. Andrew Parker and Eve Kosofsky Sedgwick (London; New York: Routledge, 1995), 197.

2 Schechner, *Performance Studies: An Introduction, Second Edition*, 29.

3 I acknowledge here that the preparation of animated performances usually takes a longer time than that of live performance.

4 Eugenio Barba, *The Paper Canoe: A Guide To Theatre Anthropology* (London; New York: Routledge, 1995).

5 Ibid., 10.

human behaviour. Barba further identifies two tendencies in performance, which he refers to as North and South Pole performers[1]. South Pole performers have no strict codes and have to develop their own rules based on 'the suggestions contained in the texts to be performed, the observation of daily behaviour, the emulation of other performers, the study of books and pictures, the director's instructions.'[2] This category includes conventional naturalistic Western acting. On the other hand, North Pole performance is based on systems of artificial, codified rules: moving and performing in non-naturalistic poses that are larger than life. The North Pole performer

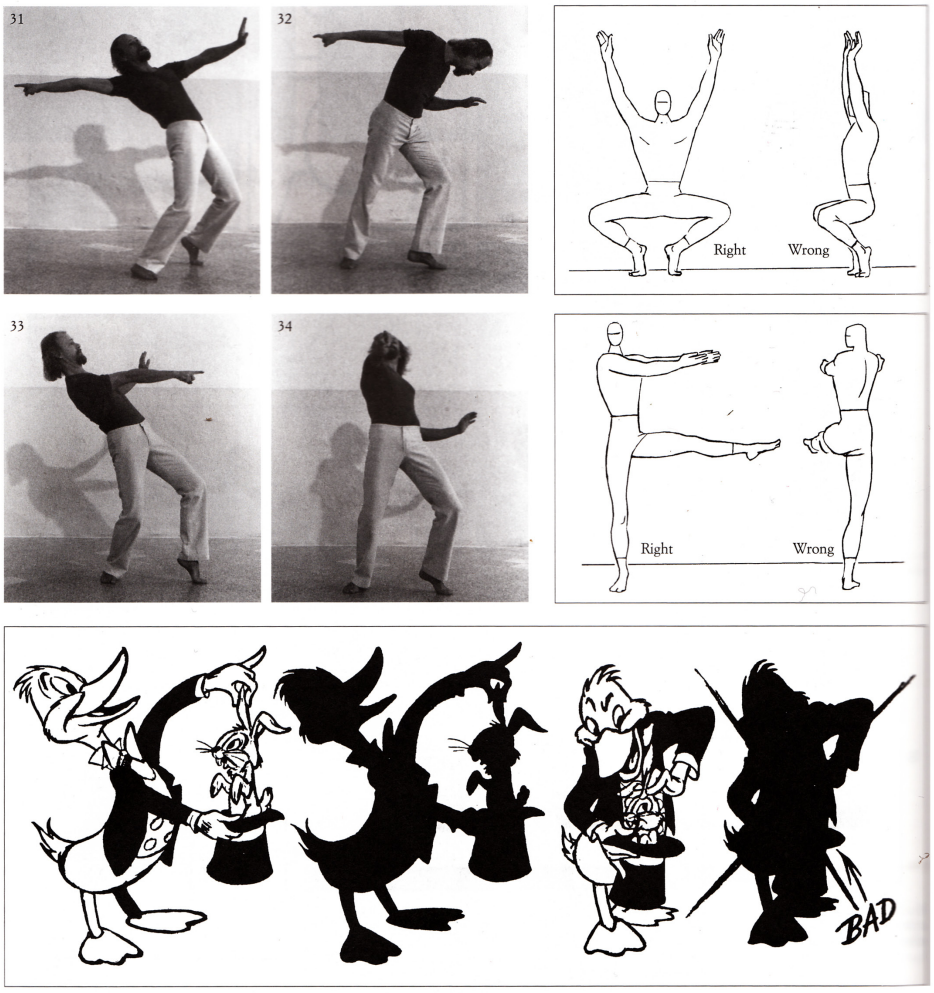


Figure 6.A visual juxtaposition of the use of the Shadow Test to determine strong readable body poses in both Disney animator's Preston Blair's animation manual and Decroux mime exercises by Ingemar Lindh from Barba's *A Dictionary of Theatre Anthropology*.

1 Ibid., 13.

2 Ibid.

'models her/his scenic behaviour according to a well-proven system of rules which define a style or codified gesture'.[1] This category includes dance and highly stylised theatrical forms. In Balinese theatre, classical ballet and kathakali performance, for example, types of walks are used in which there is an alteration of normal balance, a 'luxury balance', meaning that 'A whole series of tensions is then set in action just to keep us from falling'.[2] It could be argued that, as commercial character animation also makes use of traditional rules, much of it could fit into the category of North Pole performance, specifically that following the classic 'cartoonal' principles of animation developed at Disney's studios[3]. For example, formulae for the representation of a walk have become codified by animation practitioners into stylised movements that animation students study and replicate: the strut, the double bounce walk, the sneak,

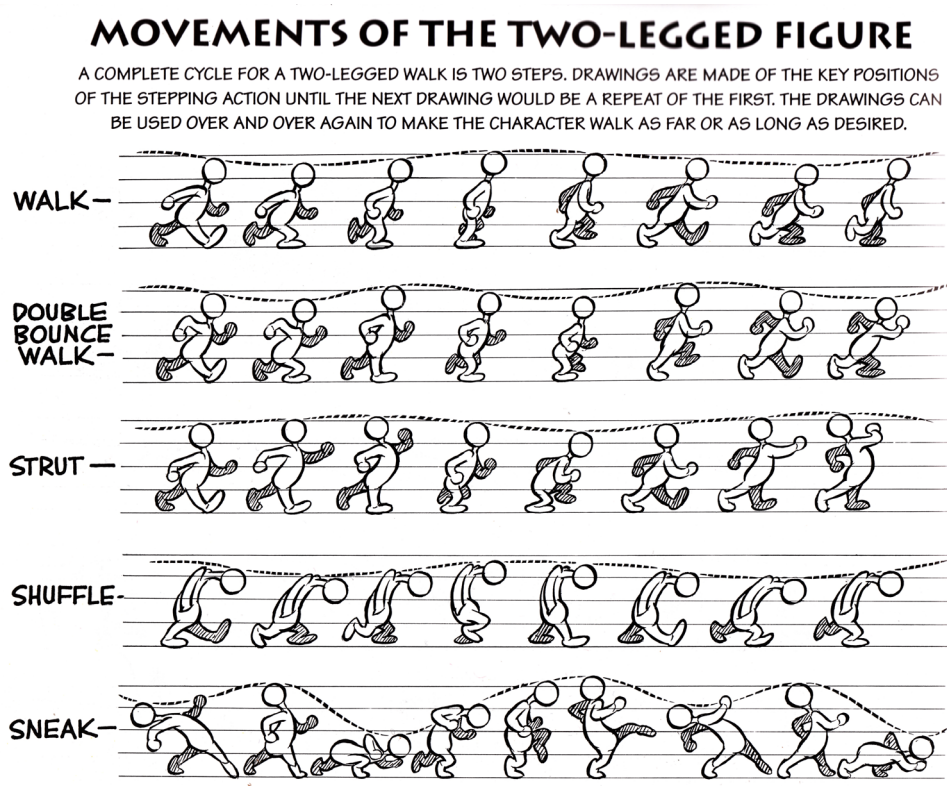


Figure 7. Preston Blair, Movements of the Two-Legged Figure.

1 Ibid.

2 Ibid., 19.

3 cf. Frank Thomas and Ollie Johnston, *The Illusion of Life: Disney Animation* (New York: Hyperion, 1981) for a detailed description of the evolution of the Disney approach to animation.

the shuffle.[1]

Whether the performance style reflects a naturalistic or codified approach, what is presented is an 'extra-daily'[2] use of the body: ways in which a performer behaves for public presentation that differ from standard behaviour in their specific cultural context. These extra-daily techniques span a vast spectrum of vocal and physical activities, from speaking in rhyming couplets to juggling and acrobatics, to stylised performance such as Japanese noh theatre. They could also apply to character animation.

Further refining this concept of re-presented activity that is out of the ordinary, Michael Kirby argues that 'acting is a sub-category of performance'[3] and proposes that performance involves a continuum of activities according to the degree to which a character is represented:

- *Complex acting* is used to refer to the emotional commitment of the whole actor's being to represent a role;
- *Simple acting* involves simulation and impersonation, but only a little emotion;
- *Received acting* involves being there, in costume, but doing little, such as an extra;
- *Symbolized matrixed* is the representation of a character role by a performer, such as a comedian, who is clearly acting as themselves,
- *Non-matrixed* is a style of performance in which the performer carries out actions, but does not represent a character and can be used as a term to describe a range of activities from performance art to Kabuki stagehands who participate in the action and are seen on stage, but are not in character[4].

Thus, the term non-matrixed is a useful concept to differentiate from acting when describing performance behaviour that has been created for public display and is

1 cf. Preston Blair, *Cartoon Animation* (Laguna Hills, California: Walter Foster Publishing, Inc., 1994), 98.

2 Barba, *The Paper Canoe: A Guide To Theatre Anthropology*, 6.

3 Schechner, *Performance Studies: An Introduction, Second Edition*, 174.

4 Michael Kirby, "On Acting and Not-acting" in *The Art of Performance* eds. Battock, Gregory and Nickas, Robert (1984)[1972]), quoted in Philip Auslander, *Liveness: Performance in a Mediatized Culture* (London: Routledge, 1999), 27.

beyond the context of the everyday yet remains outside the representation of 'character'.

All the concepts set out so far referring to the creation of a character, the assumption of a role and the behaviours that the character enacts can be used to describe animation practice. However, animation is not conventionally thought of as performance. The theatre company, Faulty Optic, for example, whose show *Soiled* is examined in *2.4 Animation Theatre* on page 61, think of animation and live performance as two separate entities. They see animation as a pre-recorded, linear, filmic form and live theatre as a continually evolving process.[1] The primary differences implied here reside in the specific conditions in which the performance is played out. Adrian Heathfield in *Live: Art and Performance* specifies three primary factors that contextualise the performer:

- *time* – temporality, immediacy, duration, pacing;
- *space* – dynamics of location, mass, context, the site itself;
- *physical presence* – the power of the body, intimacy and proximity, risk, danger, relationship between actor and audience.[2]

I will now examine in more detail these three factors of time, space and physical presence identified by Heathfield as contextualising a performance situation and, in particular, how notions of liveness, authorship and presence challenge the notion of animation as performance.

Temporality is a crucial part of live performance as it is experienced 'now'. Peggy Phelan argues in her essay, *The Ontology of Performance*, that an ontological fact of live performance is that it happens now, which makes it non-reproducible, in a state of disappearance and beyond control or regulation:

> Performance's only life is in the present. Performance cannot be saved, recorded, documented, or otherwise participate in the circulation of representations *of* representations: once it does so, it becomes something other than performance… Perfor-

1 Liz Walker, interview by Birgitta Hosea, September 17, 2010.

2 Adrian Heathfield, *Live: Art and Performance* (London: Tate Publishing, 2004), 7.

> mance's being… becomes itself through disappearance.[1]

The experience of live performance is ephemeral, its only trace in the memory of the spectator. It is a unique event that takes place *now*, in front of the eyes of the spectator. In *The Paper Canoe*, Barba argues for a broader understanding of the concept of theatre, which should be thought of as much more than an institution or a building. He concurs with Phelan that 'theatre is the art of the present'[2] and that it exists only in memory,

> In the age of electronic memory, of film and reproducibility, theatre performance appeals to living memory, which is not a museum but metamorphosis. This relationship defines it.[3]

Another aspect of being present at a live event is that it involves the element of chance, the unplanned and the unpredictable. Indeed, many commentators on acting find this a key feature of a convincing performance. In their book, *Improvisation,* John Hodgson and Ernest Richards suggest: 'Truth in acting is not necessarily the representation of reality, but rather the kind of acting which, by its spontaneity, enables us to see it as a true identification with life.'[4] Spontaneity is not only a feature of improvisation, but is present to some degree in all live performance. However tightly blocked and scripted a live performance may be, variations will result from factors such as the emotional state of the actors, audience reaction and the different spatial contexts of the venue that a performance is produced in. Concepts of immediacy and the present appear at first glance to be antithetical to a conventional understanding of animation. I will, however, examine issues of liveness, spontaneity and improvisation in greater detail in *Chapter 3* on page 91 to page 126, where I will argue that animation can indeed be a live event.

An additional feature of live performance is that an audience perceives the actual physical presence of the actor. Theatre director, Peter Brook, starts his book, *The*

1 Peggy Phelan, "The Ontology of Performance: Representation Without Reproduction," in *Unmarked: The Politics of Performance* (London & New York: Routledge, 1996), 146.

2 Barba, *The Paper Canoe: A Guide To Theatre Anthropology*, 36.

3 Ibid.

4 John Hodgson and Ernest Richards, *Improvisation* (London: Methuen, 1969), 11.

Empty Space, with the lines:

> I can take any empty space and call it a bare stage. A man walks across this empty space whilst someone else is watching him, and this is all that is needed for an act of theatre to be engaged.[1]

This corporeality is experienced in three dimensions and a connection between the authorship of a performance and the body of the actor is clearly evident to the audience. Brook's definition again raises issues, which at first sight appear to diametrically oppose live performance with a conventional understanding of animation. The creator of an animated performance is the animator: performed behaviour does not originate from the flat body of the animated character. I will explore the issue of the authorship of performance in *2.2 - 2.4* (on page 36 to page 66), presence and the animated body in *2.6 - 2.7* (on page 74 to page 86) and experiencing animation in three dimensions in *3.3* (on page 99 to page 106).

The attention of the audience is paramount in the relationship between performer and viewer, as Barba asserts: 'the theatre's raw material is not the actor, nor the space, nor the text, but the attention, the seeing, the hearing, the mind of the spectator. Theatre is the art of the spectator…'.[2] This implies that performance requires an act of cognition, a relationship between the world on stage and the world inside the spectator's head, a vital process of exchange between actor and spectator, as Barba describes:

> What is particular about the theatre is the live and immediate contact between actor and spectator… the performance is the spark which flashes from the contact between these two ensembles: the actors and the spectators…[3]

There is an exchange of looks, a risk that the performer will look back or involve the spectator directly. Thus, in a live situation the spectator may think, "I see you, do you see me back?", whereas a viewer of a film is in a secure position of voyeurism, "I see you, I need not fear you seeing me back, I am in control." This process of exchange occurs both between the actor and spectator and within the audience itself because

1 Peter Brook, *The Empty Space* (London: Penguin, 1982), 11.

2 Barba, *The Paper Canoe: A Guide To Theatre Anthropology*, 39.

3 Ibid., 140.

audience members can look at each other.[1] Animation is not conventionally thought of as a form in which there can be a spark between performer and viewer, however digital technologies have enabled greater possibilities for interaction and the involvement of audience feedback in animation. I will look at the idea of audience participation and interaction in more detail in *3.2* on page 92 and 3.4 on page 107.

This section has considered different theories about performance in order to clarify what is generally meant by the term, so that it can then be examined whether animation may be said to sit within the field of performance. Definitions of animation may appear ambiguous, yet it is usually assumed that animation is pre-recorded in time-consuming detail, played back in a linear form through the medium of film or digital video and enclosed inside a flat screen. Thus, the playback of the animation will be repeatable and predictable. In addition, it seems safe to assume that, as cartoon characters are not living beings and lack actual embodied presence, they cannot interact with the viewer. As we have seen, performance, on the contrary, is embodied, live, has the potential for chance, for spontaneity, for reciprocity of gaze between audience and performer. It is experienced now, in the present in a spatial setting. According to the ontological debates that I have considered, the two concepts of animation and live performance appear to be mutually exclusive.

However, a closer examination of what performance actually is, and what animation can be, complicates any simplistic binary opposition between the two. As a working definition for the purposes of this thesis, a 'meta' theory of performance is proposed in which **a human body (or a substitute for it) assumes an identity beyond that of her everyday life and is displayed for an audience where she represents behaviours, which were planned and prepared. This is a time-based process, which takes place in the present and can be applied to theatre, live art and other forms of performing arts.** I will go on to argue that this working definition can also be applied to animation.

1 For example, in a traditional proscenium theatre the royal box often had a poor view at the edge of the stage, but people in it could display themselves to the audience.

1.6 Conclusion: animation vs. performance

This research arose from a desire to unravel conventional preconceptions and assumptions in a period of material and ideological change to the industrial, academic and artistic discourses that surround animation. Rather than aiming to cover all of the practices that could be covered by the term animation, this research focuses on character animation. Although the animated character lacks physical presence, its very immateriality raises fascinating questions about the site of performance in animation, of notions of the animator as a performer and that, in the eyes of the viewer, an artificially constructed animated character is giving a performance.

A variety of approaches to an examination of *if* and *where* performance takes place in animation could have been adopted. Over the following chapters, I will present ideas in the form of text, image and moving image that resulted from a practice-based research methodology in which live performance is used as a practical method of exploring, developing and testing the research questions in an iterative process informed by personal reflection and feedback from others. I have coined the term 'post-animation' to describe this practice, as - although it employs the tools and processes of animation - its conceptual underpinning lies in the deconstruction of conventional notions of animation rather than the production of animation in the orthodox form of the short film.

In order to position, inform and contextualise the work, I have reviewed literature and practice in which the areas of animation and performance intertwine and overlap. In particular, I have identified a field of hybrid practice that uses animated characters in live performance. I have observed and conducted semi-structured interviews with four such practitioners from puppet theatre, comedy, dance and digital art in order to study this field in more detail.

As a precursor to examining performance in animation (and animation in performance), it was necessary to clarify the terms 'animation' and 'performance': to consid-

er key debates behind their usage and to present my own position on their definition. Consequently, this research assumes as a working definition that the term 'animation' refers to mediated, moving images of a manipulated, artificial construct that could not have been photographically captured by a camera in real-time. This working definition may appear at first glance to be far removed from the vibrant, spontaneous world of live, embodied performance. However, a summary of definitions of live performance could conclude that it is a twice-performed behaviour that is beyond the everyday and created for the attention of others. This outlook on performance is applicable to theatrical performance as much as it is to film or animation.

In the chapters that follow, I will test whether other key concepts of performance that do not appear as easily applicable can be applied to animation. In Chapters 2 and 3, I will examine issues of authorship, presence, space, liveness and exchange with the audience through examples of practice. I will argue that there is a dual performance involved in the act of character animation; that, with the advent of digital technology, animation is no longer linear and filmic and can be experienced live and that it is in the mind of the viewer that a fictional construct is constituted as a character. This argument is structured so as to analyse animation as a form of media and so considers the production of animated performance in Chapter 2, the technological delivery and playback of animation in Chapter 3 and the cognitive process of reception during which the viewer turns the animated message into personal meaning for herself in Chapter 4.

2. Production: The animator as performer

2.1 Introduction

In this section, I use production as a framing device, not because I intend to present an economic or sociological analysis of the means of production, but in order to examine the connections between animation and performance. Focussing on issues arising from the production of practice and the perspective of the practitioner, I set out to explore the site of performance in animation. If a cartoon character performs, who is the author of that performance?

Commencing with a case study of *Dog Betty* (2007), a series of performative interventions into urban life in which the animator and the animated inhabit the same physical space, the idea is introduced that the animator is performing **through** the character they are creating in a form of performance by proxy. This is a commonplace view in commercial character animation. I will go on to outline a historical review of the interconnected links between animation and live physical performance, as animation evolved from an ancient lineage of mask, puppets, stage magic, music hall acts and photographic trickery. I shall then explore issues of the animator as author of performance and the complication of multiply authored performances that use several types of media to represent one character, such as is evident in the work of Faulty Optic. Finally, I will consider the presence of the animated body and present a case study of *Out There in the Dark* (2008-10), which includes multiple types of presence.

2.2 The performative animator: Dog Betty (Birgitta Hosea, 2007)

During the process of animation, the animator can be seen to be performing through a character. Animators frequently act out movements for reference, studying themselves in a mirror or videoing and analysing their gestures, in a desire to get under the skin of the character. As an artist-researcher, I decided to experience directly both the creation and authorship of a character in performance in order to examine whether a repetitive, compulsive acting-out through animation could be considered a *performative* act in addition to an act of performance. I was specifically interested in the ritualised acting-out of a feminine identity and in clarifying for myself the difference between performance and a performative act. Using performance as a research method, I wanted to inhabit animation physically as a participant observer, to have animator and animated in the same space, with both roles undertaken by me.

During a residency at the Lethaby Gallery, I created a character, Dog Betty, based on early character designs for Betty Boop, in which she started out as a poodle.[1] My character took the form of a giant costume created through paper sculpture. The character, Dog Betty, was conceived of as a satire of the cartoon character Betty Boop. Despite her iconic graphic image and strong presence as the only central female carton character with her own series during that period of history, Betty Boop is at times irritatingly submissive, complicit in her own objectification and childlike with her baby voice. Dog Betty was intended as a more mischievous character, that would allow me as a female to explore the masquerade of femininity, in other words, as a girl to do girl drag.

My performances / interventions in public spaces such as the park, library, etc., were mainly videoed by friends, although one was created in the gallery on a tripod.[2] As this piece was intended for You Tube, I wanted a spontaneous, immediate docu-

1 See *Plate 1* page 172.

2 Birgitta Hosea, Dog Betty Series, Online digital video documentation, 2007, http://www.youtube.com/birgittahosea.

mentation and was interested in the idea of a You Tube aesthetic: that non-professional video has more authenticity and sense of liveness than professionally polished camerawork. In post-production, I animated the eyes of the character in a small section of the video. I had hoped to gain valuable feedback through comments on You Tube, but unfortunately these were all frivolous or superficial and I gained more insights from peer review in seminars and conferences. The titles of the You Tube clips referred to drug taking (*The Ecstasy of Dog Betty, Dog Betty Traffics*), homosexual male behaviour in public spaces (*Dog Betty Tries to Make New Friends in the Park*) and Jo Orton's infamous act of cutting up books from Islington library (*Dog Betty in the Library*). Despite these explicitly adult references, an overwhelming theme of the feedback that I received was that people could not go beyond the idea of animation as something for children. 'What makes her different from the kind of characters you might see at Disneyland?' I was asked. Beyond the adult references, for me there were theoretical and stylistic differences. Conceptually, it was very important to me that the head was made of paper, because I wanted to be inside the paper skin of an animated character and to experience life as a cartoon. The giant paper head was uncomfortable and wobbled slightly, in a deliberate attempt to differentiate this performance from the kind of slick 'mascot' characters one might see at Disneyland or an American football match. In addition, I considered the work to be a conceptual examination of the performative act of animation.

A part of any dictionary definition of animation is 'to give life to': the act of animation imbues the inanimate with life. As I draw, sculpt or digitally manipulate a character, I give life to it. On the first day in my paper costume I felt very naughty: as if I had been given permission to do anything as I gave life to Dog Betty. Inhabiting the paper skin of an animated character and physically experiencing life as a cartoon provided me with a glimpse of an anarchic, cartoon world freed from conventional restrictions, in contrast to the everyday life of central London. I concluded that adopting the extra-daily and socially inappropriate behaviour of a cartoon character allows you license to isolate and exaggerate character traits, thus revealing the artifice behind an ironic

identity of femininity. In *Gender Trouble: Feminism and the Subversion of Identity*[1], Butler argues that gender is an ideological construct that we act out. It is neither fixed nor essential nor biologically destined. Hermaphrodism, transvesticism and transgender identities all reveal gender to be a complex mass of polymorphous possibilities rather than a rigid dichotomy between two essential and mutually exclusive opposites. Indeed, she argues, our identity is so tenuous that we must continually manufacture it through repetitive performative rituals. Butler finds the concept of masquerade significant. It is commonplace in our culture that women are judged on a superficial level of appearance, as decorative objects of desire. Drag queens in their masquerade with the signifiers of femininity reveal the artifice behind the role and that it can be assumed like a disguise. For what is behind the mask? Is 'being' the same as 'appearing' or does appearance mask a hidden true being?

The experience of dressing up as a cartoon character was a first step towards a consideration of animation as a conceptual act rather than a purely technical process. I began to consider how character animation could take a physical form beyond the confines of the flat screen, to compare the animation of a character to assuming a mask and to position animation as a practice of 'constructed-actors'[2] that is related to mask and puppetry. Furthermore, I began to liken the irrational world of the cartoon with the ecstatic cult of the Greek god Dionysus at the origins of Western theatre. In the next section, I will examine these ideas in more detail and present a historical overview of the process of animators acting out, with, for and through the characters that they are creating.

1 Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (London; New York: Routledge, 1999), 171-180.

2 I have adopted this expression from Eileen Blumenthal, *Puppetry and Puppets: An Illustrated World Survey* (London: Thames and Hudson, 2005) where she uses it to refer to both puppets and masked performers. It is in this sense that I use the term.

2.3 Historical overview of performance in animation[1]

Since the dawn of time human beings have been disguising their appearance and extending their bodies with masks and body coverings. These are used to go beyond everyday reality and, amongst other purposes, to commune with spirits[2], to scare away demons that cause sickness[3], to merge with totemic ancestors[4], to represent divinities in religious drama[5], to change the weather and improve fertility[6]. Masks are used to commune with spiritual, supernatural, symbolic and contextual worlds. With this use of masks, performers go beyond lived human experience into the realm of the extra-daily. In his book *On the Art of the Theatre,* the Victorian theatrical reformer, Edward Gordon Craig, makes similar claims for puppets and traces their origins to ancient religious drama.[7]

Figure 8. A Rangda dancer. This character is a widow and child-eating demon queen. Bali.

Figure 9. Yayoroba, a beautiful and virtuous character. This full body puppet is used in Bamana drama to explore moral issues such as the relationship between men and women in polygamous households.

Figure 10. An 'artificial son' puppet, used to bemoan the death of men who have no sons. The puppet's 'prayers' will aid the deceased in the afterlife. Sumatra.

1 NB. This is intended as thematic rather than strictly chronological.

2 Andreas Lommel, *Masks: Their Meaning and Function* (London: Ferndale Editions, 1981), 58.

3 Ibid., 77.

4 Ibid., 117.

5 Ibid., 93.

6 Ibid., 26.

7 Edward Gordon Craig, *On the Art of the Theatre* (London: Mercury Books, 1962), 81.

In Bali, the practice of channelling spirits by healers and shamans is commonly accepted to be at the root of contemporary shadow puppetry.[1] The priests of ancient temples are also reputed to have been the originators of techniques for projecting images onto smoke and mirrors[2] in order to heighten a sense of mystery and the miraculous.

In *The Birth of Tragedy,* Friedrich Nietzsche traces religious ritual as the origin of the theatre. His description of the "ecstasy of the Dionysian state" with its "annihilation of the ordinary bounds and limits of existence"[3] sounds like the world of the cartoon, in which conventional rules do not apply. Animated characters stretch, squash, transform and mutate. Disobeying normal physical and logical laws, they display 'changeability, fluidity, suddenness of formations'[4] and 'triumph over the fetters of form'[5]. In his notes on Disney cartoons, Sergei Eisenstein defined this protean quality of the cartoon body as 'plasmatic'.

> …a rejection of once-and-forever allotted form, freedom from ossification, the ability to dynamically assume any form.[6]

> …a being represented in drawing, a being of definite form, which has attained a definite appearance, and which behaves like the primal protoplasm, not yet possessing a 'stable' form, but capable of assuming any form and, which, skipping along the rungs of the evolutionary ladder, attaches itself to any and all forms of animal existence.[7]

Eisenstein argued that this suspension of the normal laws of physics instilled a form of escapism that: 'artificially returns the viewer to the stage of sensuous thought' and the 'viewer is "rebuilt" in accordance with the forms not of the present, but those of

1 Leon Rubin and I. Nyoman Sedana, *Performance in Bali* (London; New York: Routledge, 2007), 51.

2 cf. Barnouw, *The Magician and the Cinema*, 27.

3 Fredrich Nietzsche, *The Birth of Tragedy*, trans. P. Fadiman (New York: Dover Publications Inc, 1995), 23.

4 Sergei Eisenstein, *Eisenstein on Disney*, ed. Jay Leyda, trans. Alan Upchurch (London: Methuen, 1988), 21.

5 Ibid., 4.

6 Ibid.

7 Ibid., 21.

primordially sensuous perception', to a pre-logical state of magic and pure sensation.[1] He even goes so far as to describe the pleasure of Disney cartoons in a manner that recalls Nietzsche's description of the Dionysian:

> In terms of their material, Disney's pictures are pure ecstasy - all the traits of ecstasy (the immersion of *self* in nature and animals, etc.)
>
> Their comicality lies in the fact that this process of ecstasy is represented as an object: literalized and formalized.[2]

The masked performers of the Dionysian rituals, which evolved into what we now call theatre, contained choruses of *satyrs*: hybrid creatures of men and goats, archetypes of raw truth, nature and sexuality. According to Nietzsche, for the ancient Greek audience the *satyr* chorus was in the position of the 'ideal spectator' and the spectator would imagine themselves as one of the chorus: '…the Dionysian Greek desires truth and nature in their most potent form – and so he sees himself metamorphosed into the satyr.'[3] Anthropomorphism, such as is seen in the figure of the *satyr*, is a key feature of animation. Eisenstein saw animation as a form of animism in which characters are both animal and human[4]. For him, this represented a revolt of magical escapism against grey, regulated lives in a process similar to the Dionysian state.[5] Thus, in addition to the manner in which animation, mask and puppetry can each portray worlds of the imagination, I would like to argue that animation shares with live performance common intertwined roots in religious ritual.

Connections between animation and live performance can also be seen in the many links between early animation, stage magic and music hall. Early animation drew upon a range of influences from popular entertainment and evolved from a combination of stage magic, music hall acts that involved live cartooning, puppetry, comedy,

1 Ibid., 94.

2 Ibid., 42.

3 Nietzsche, *The Birth of Tragedy*, 25.

4 Eisenstein, *Eisenstein on Disney*, 44-50.

5 Ibid., 94.

comic strips[1], optical toys and photographic trickery.[2] In particular, there are complex connections between the world of stage magic and the emergence of both animation and cinema, as many of the early pioneers had a connection with stage magic.[3] Indeed, the earliest films and animations in the 1895-1901 period were screened in sites of popular variety entertainment - theatres, music halls, amusement parlours, village halls, salons and fairgrounds[4] - that were also the same venues for magic acts.[5] The place of film in the repertoire of the stage magician is shown by the inclusion in 1898 of a technical study of the emerging technology of 'the Projection of Moving Pictures'[6] as a chapter at the end of Alfred A. Hopkins's manual on stage magic.

For about a century before the advent of the cinema, stage magicians had experimented with chemistry, optics and photography to support their illusions. They projected images onto glass, gauze or smoke from concealed magic lanterns to create illusions such as decapitations or people turning into skeletons.[7] The British magician and illusionist, John Nevil Maskelyne, was in residence at the Egyptian Hall - 'England's Home of Mystery' - from 1873 -1904, where he staged many illusions that were aimed at exposing the practices of fraudulent spiritualists and mediums.[8] From 1896, he introduced films into the programme and provided a commentary on each film from the stage. Georges Méliès, arguably one of the greatest innovators in early

1 Crafton, *Before Mickey: The Animated Film 1898-1928*, 47.

2 These are mainly Western precursors of animation. Ka Nin Chow cites the following Asian examples of influence upon the emergence of animation: 'shadow puppets, humanoid automata, karakuri (a kind of Japanese mechanical robot developed in the Edo period), pacing-horse lamps (a kind of traditional Chinese lantern), and Chinese handscroll painting'. cf. Ka Nin Chow, "An Embodied Cognition Approach to the Analysis and Design of Generative and Interactive Animation" (PhD Thesis, Georgia: Georgia Institute of Technology, 2010), 16.

3 Barnouw, *The Magician and the Cinema*, 3.

4 Luke McKernan, "Victorian 'Cinemas'," *Who's Who of Victorian Cinema*, 1996, http://www.victorian-cinema.net/venues.htm (accessed June 25, 2009).

5 Barnouw, *The Magician and the Cinema*, 54-8.

6 Albert A. Hopkins, *Magic: Stage Illusions, Special Effects and Trick Photography* (New York: Dover Publications Inc, 1976), 488-516.

7 Barnouw, *The Magician and the Cinema*, 3-4.

8 John Barnes, "John Nevil Maskelyne," *Who's Who of Victorian Cinema*, 1996, http://www.victorian-cinema.net/maskelyne.htm (accessed June 25, 2009).

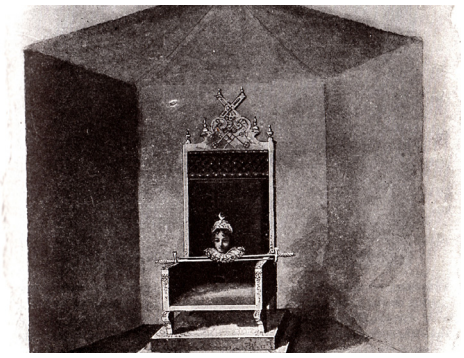


Figure 11. *The Illusion of the Decapitated Princess*, 1898.

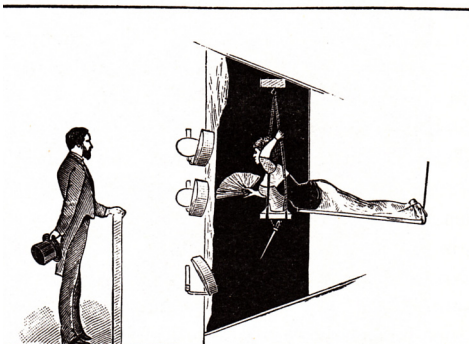


Figure 12. *The Illusion Explained*, 1898.

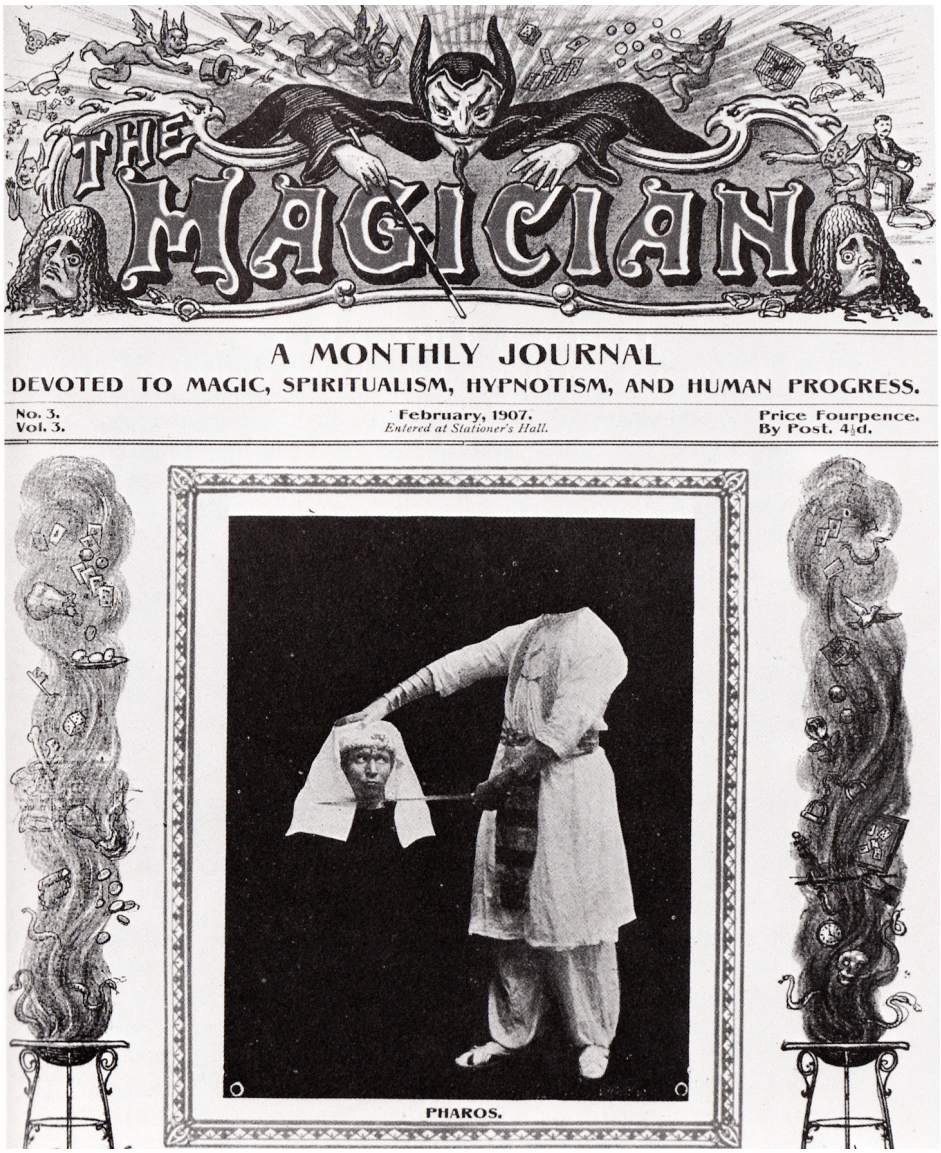
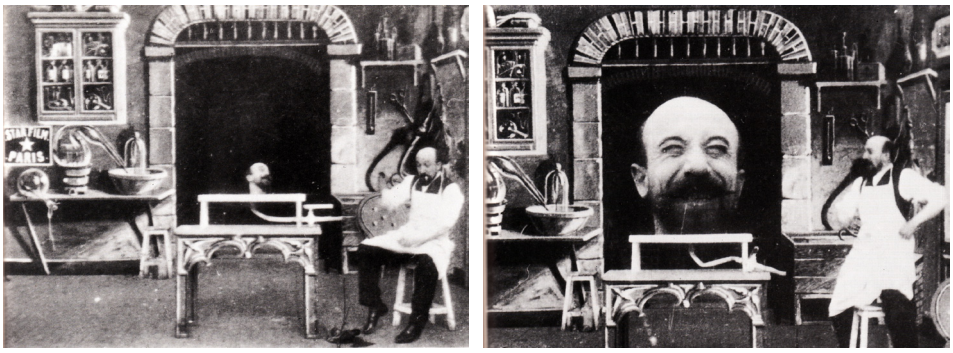


Figure 13. Front Cover of The Magician, February 1907. Library of Congress.



Figures 14 & 15. Georges Méliès, dir. *L'homme a la Tête en Caoutchouc* (The Man with the Rubber Head), 1902.

film making, was a frequent visitor to the Egyptian Hall when he came to London in 1884 to learn English.[9] On his return to Paris, he took over the Théâtre Robert-Houdin, where from 1888 he created major stage illusions that were a source of inspiration for his later films. Eric Barnouw argues that the language of early film borrowed heavily from stage magic:

> Most technical devices that became characteristic of motion picture special effects - dissolves, fades, substitutions, double exposures, superimposures [sic.], masking, models, rear projections, mirror images - were familiar to the first film magicians from a century of scientific magic.[10]

Pioneers such as Georges Méliès, skilled in Victorian stage magic, learned how to break the indexical link that Roland Barthes identified in *Camera Lucida* as existing between the 'real' world and photographic imagery. They did so using stop motion techniques and optical trickery that a contemporary understanding would define as 'manipulated moving image' and, therefore, animation.

Stop motion animation inherits both the traditions of puppet theatre and the illusion of magically manipulated objects. The first recorded animation is an appeal for British citizens to donate matches to soldiers in the Boer War. *Matches Appeal* (1899) by Arthur Melbourne Cooper features matches that magically appear to have autonomous movement without human intervention. Donald Crafton notes the reception of the

9 David Robinson, "Marie-Georges-Jean Méliès," *Who's Who of Victorian Cinema*, 1996, http://www.victorian-cinema.net/melies.htm (accessed June 25, 2009).

10 Barnouw, The Magician and the Cinema, 98.

earliest animated films as being described by words full of the supernatural: 'haunted', 'spooky', 'hypnotic'.[1] Contemporary puppet animator, Barry J C Purves continues to stress the link between stage magic and animation. He compares the magician's act of diversion, which distracts the spectator from how the trick is done, to the act of animation:

> For animators, that moment of distraction is there twenty-five frames a second… It's a black frame that does not register with the audience, and allows the animator, acting as both magician and glamorous assistant, to step in and tinker with the puppets, rearranging everything before stepping out again, as if nothing had happened. The audience hasn't seen us, but they see the trick. The puppet appears to have moved.[2]

This demonstrates how animation can be seen as a continuation of both the magic trick and the constructed-actor of mask or puppetry.

The earliest examples of cartoon or drawn animation are also derived from live performance: the 'lightning sketch' stage act and its extension of the satirical cartoon into a live event. The lightning sketch act appears to have originated in England between 1870-80[3] and was a 'hybrid of graphic and performing art'.[4] Between 1880-90 there were around 100 artists doing this act, some of them listing ventriloquism as part of their skills.[5] The first time a lightning sketch act was filmed appears to be in 1895 by Birt Acres.[6] This act was performed by Tom Merry, who could draw upside down as well as at speed, drawing caricatures of the former Prime Minister, Mr Gladstone, and other politically topical figures such as Kaiser Wilhelm II and Bismarck. Moving images of Tom Merry were also created for the Kinetoscope machine in 1895, which pre-dates the first film projections by the Lumière Brothers later that year.[7] Dennis Gifford suggests that other lightning sketch artists could not draw as quickly as

1 Crafton, Before Mickey: The Animated Film 1898-1928, 32.

2 Purves, *Stop Motion: Passion, Process and Performance*, 3.

3 Malcolm Cook, "The Lightning Cartoon," (paper presented at Animation Evolution: Society of Animation Studies 22nd annual conference, Edinburgh, 2010).

4 Crafton, *Before Mickey: The Animated Film 1898-1928*, 48.

5 Cook, "The Lightning Cartoon."

6 Dennis Gifford, "Tom Merry (William Mecham)," *Who's Who of Victorian Cinema*, 1996, http://www.victorian-cinema.net/merry.htm (accessed June 25, 2009).

7 Cook, "The Lightning Cartoon."

Tom Merry, which was a problem because film reels were a short, standard length. Consequently, stop-frame techniques were introduced to speed up the drawing process and it is from this simple act that cartoon animation was derived.[1] George Méliès also experimented with the lightning sketch, filming in 1896 speeded-up caricatures of political figures such as Chamberlain, Queen Victoria and Bismark. In his 1900 film *Le Livre Magique*, the artist turned full sized drawings into real people.[2] The pioneering British animator, Walter S. Booth, also had a background in stage magic.[3] In his 1906 film, *Hand of the Artist*, which exists as a catalogue description only, a drawing is turned into a living figure.

In the USA, Winsor McCay pioneered both drawn, 'cartoon' animation and animation as performance. A noted newspaper cartoonist of comic strips and political caricatures, he could draw with great skill, at speed. In 1906 he began a lightning sketch vaudeville act, *Seven Ages of Man,* consisting of two daily performances using coloured chalks, to musical accompaniment[4]. Fascinated by motion, he began to incorporate animation into his stage act. Both on stage and in his short films much is made of the novelty and sheer amount of work involved in the animation process. *Little Nemo in Slumberland* (1911), the adventures of a boy in his dreams, was both his first short film in its own right and screened as part of a stage act. The film shows McCay making a bet that in one month he can produce 4,000 ink drawings that will move.[5] His companions laugh at him. The film dwells on the animation process in comic style filmed footage in which an assistant knocks over a giant pile of drawings. One month later he shows a drawing of the leading characters in the *Little Nemo* comic strip that he drew for the New York Times.[6] A sign appears above the character's head saying 'Watch me move' and it then turns somersaults. This emphasises the innovation of

1 Gifford, "Tom Merry (William Mecham)."

2 Crafton, *Before Mickey: The Animated Film 1898-1928*, 51.

3 Ibid., 48-51.

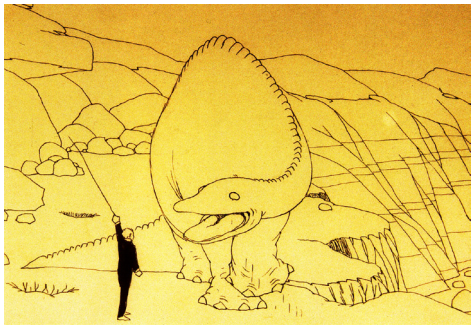
4 Ibid., 89-129.

5 Winsor McCay, *Winsor McCay: Animation Legend*, Connoisseur / Academy Video from Argos Films and BFI (USA, 1911).

6 This comic strip was also used as the source for an operetta that toured from 1908-1910.

the portrayal of movement through drawing. A few days after the release of the film, McCay used the animation as part of his vaudeville act at the Colonial.[1]

Gertie the Dinosaur (1914) was created as both part of a stage act and as a film in its own right. Just as in *Little Nemo*, a filmed prologue and intertitles replace the stage 'patter' for the filmed version. Another similarity between the two films is that the animation is presented as being a seemingly impossible feat, produced by the animator in response to a bet. Both films include some shots of the production process involved in creating an animation. In the film of *Gertie the Dinosaur,* McCay incorporates physical interaction between himself and the cartoon dinosaur: he tosses Gertie an apple and, just as the real apple goes behind the screen, the cartoon dinosaur catches a cartoon apple in her mouth. In the film's finale, McCay walks offstage and returns on the screen as a cartoon version of himself. He brandishes a whip like a lion tamer and then cautiously steps into Gertie's mouth. She lifts him onto her back and carries him off screen.[2]



Figures 16 & 17. Winsor McCay, dir. *Gertie the Dinosaur*, 1914.

Winsor McCay is an example of a showman animator who is clearly marked as the author and performer of animation. In his work, animator and animated occupy the same live stage space. The process of animation itself is part of the act. In Kirby's terms, McCay demonstrates a non-matrixed performance whilst in the act of creating the animation, a matrixed symbolic performance as himself in the role of entertainer interacting with Gertie and simple acting by proxy through the figure of the dinosaur.

1 John Canemaker, *Winsor McCay: His Life and Art* (New York: Harry N. Abrams Inc., 2005), 177.

2 Ibid., 176-7.

Along with the other early pioneers of animation – Georges Méliès, Tom Merry – Winsor McCay wore formal evening attire, the costume of the stage magician. His form of animation was an extension of the illusion of stage magic and his own presence was an important part of the act.[1]

In his work on the origins of animation, Donald Crafton concludes that following the earliest pioneers who presented animation as part of a magical performance in which drawings or inanimate objects were brought to life, in a second phase the body of the animator was still marked as present and in control of the process, but reduced down to a cipher: the presence of a hand.[2] Inspired by *Gertie the Dinosaur*, the Fleischer brothers' *Out of the Inkwell* series featured an animated clown who, through the use of live action footage, interacted with the animator, who was portrayed in the act of drawing his creation. Although referred to, the process of animation was not shown in such detail as in the earlier work of McCay. The hand of the animator producing the character 'out of the inkwell' was a key feature of these films in a knowing, reflexive reference to the process of animation. This created a tension between the boundaries of the cartoon world and the 'real life' animator's studio as shown by a contemporary review from 1920 in the New York Times: '…he has an exciting habit of leaving his own world, that of the rectangular frame on which he is drawn, and climbing all over the surrounding furniture…'[3]

Crafton argues that when animation as a process ceased to be a novelty to audiences, the hand that held the pencil was displaced by the 'living' drawing personified in the form of increasingly complex and independent animated characters, such as Felix the Cat and Mickey Mouse. Crafton concludes that the animator became invisible and began to be thought of as performing through the character produced by

1 Unfortunately, Winsor McCay's animation and stage careers were both relatively short lived. His main employment was as a newpaper cartoonist and his biographer, John Canemaker, reports that in 1917 W. R. Hearst, his employer, forced him to give up his act and focus on his work at the newspaper. cf. Ibid., 177.

2 Crafton, *Before Mickey: The Animated Film 1898-1928*, 259.

3 Quoted in Leslie Carbaga, *The Fleischer Story in the Golden Age of Animation* (New York: Nostalgia Press, 1976), 12.

the act of drawing.[1] The site of performance becomes displaced from the body of the animator to the fictional body of the animated character. This illusion of the independent 'reality' of animated characters is especially apparent in films that combine 'real' human actors and animated characters interacting with one another as if they existed in the same physical space. An example of this can be seen amongst Disney's earliest films, the *Alice Comedies*, which were created between 1924 to 1927 and pre-dated Mickey Mouse, Donald Duck, etc. These featured Virginia Davis, as a real girl who could enter a cartoon world alongside her cartoon cat, Julius.[2] [3] As the film industry developed, animation and live action film continued to be used in combination for special effects in feature films, for example the stop-motion model of an ape in *King Kong* (1933). Ray Harryhausen, in particular, became well known for his model animation of monsters in films such as *The Seventh Voyage of Sinbad* (1958) and *Jason and the Argonauts* (1963)[4]. Disney sporadically developed feature films with a combination of live action and cartoon animation, such as *Bedknobs and Broomsticks* (1971). Their biggest box office success in this form was their co-production with

Figure 18. Virginia Davis in Walt Disney, dir. *Alice's Spooky Adventure*, 1924. Promotional poster.

Figure 19. Bob Hoskins and Jessica Rabbit in Robert Zemeckis / Richard Williams, dir. *Who Framed Roger Rabbit?*, 1988.

1 Crafton, *Before Mickey: The Animated Film 1898-1928*, 298.

2 Jerry Beck, ed., *Animation Art: From Pencil to Pixel, the History of Cartoon, Anime and CGI* (London: Ted Smart/Flame Tree Publishing, 2004), 20.

3 As opposed to the Fleischer Brother's Koko the Clown, who from 1916 in the *Out of the Inkwell* series was a cartoon clown interacting with the real world on the screen. cf. Beck, *Animation Art: From Pencil to Pixel, the History of Cartoon, Anime and CGI*, 19.

4 Ibid., 158-9.

Steven Spielberg's Amblin Entertainment, *Who Framed Roger Rabbit?* (1988) with the animation sequences directed by Richard Williams.[1] Created in the film noir style, this featured Bob Hoskins as a private detective investigating the anarchic and uncontrollable Toon Town alongside the anatomically impossible cartoon femme fatale Jessica Rabbit, who famously said, 'I'm not bad. I'm just drawn that way'.[2]

As personality animation became more developed, identifiable live models were increasingly used as the inspiration for animated characters. Betty Boop, with her high-pitched voice and coquettish mannerisms, was based on the musical star, Helen Kane.[3] Charlie Chaplin was also hugely influential on early animation. Several companies, including Gaumont and Kinéma Exchange, created animated versions of his work after his films first appeared in Europe in 1915.[4] In 1916 Otto Mesmer and Pat Sullivan worked on a dozen animated Charlie Chaplin films in conjunction with Chaplin himself[5], using films and photographs supplied by him. In their highly successful Felix the Cat series, which started with Feline Follies in 1919, Otto Mesmer directly copied Charlie Chaplin's mannerisms.[6] By 1926, Felix the Cat was one of the most popular screen characters (apart from Chaplin himself). The practice of basing animated characters on recognisable human models continues and many other, more recent, cartoon characters were inspired by successful actors. The vocal delivery of Bugs Bunny, for example, was reportedly based on Groucho Marx.[7] Contemporary

1 Ibid., 276-7.

2 Indeed, Jessica Rabbit is seen as so 'life-like' that in 2003 she came number 8 in Channel 4's 100 Greatest Sexy Moments. (cf. Jonathan Thompson, "Ursula Undress Tops TV Sex Poll," *The Independent*, November 30, 2003, http://www.independent.co.uk/news/media/ursula-undress-tops-tv-sex-poll-737417.html (accessed January 4 2011)). This slightly disturbing fascination with the impossible female is also evident in the fan base for the Lara Croft character from the Tomb Raider games.

3 Helen Kane sued the Fleischers and Paramount saying that Betty Boop was copying her singing style and taking away her audience. Amazingly she lost. (cf. Carbaga, *The Fleischer Story in the Golden Age of Animation*, 32.)

4 Crafton, *Before Mickey: The Animated Film 1898-1928*, 219.

5 Ibid., 304.

6 For example in *Felix in Hollywood* (1923), the cartoon cat removes his tail and performs a spoof of Chaplin.

7 Wells, *Understanding Animation*, 39.

animators still study the body language, timing and set-up of physical gags by the great silent comedians.[1] Paul Wells identifies an enduring legacy in animation from the physical performance style in silent film, as opposed to more naturalistic approaches to characterisation:

> Character... is merely a cipher for a particular quality, often expressed in exaggerated gestures which echo some of the overt posturing and explicit signification of acting in the era of silent live-action cinema.[2]

Animated TV series, like the Simpsons and South Park, continue to feature characters voiced and modelled on real celebrities.

Live models were also studied in the Disney studios, where Disney initiated the study of life drawing and motion analysis in his studio. Under the instruction of life drawing tutor Don Graham, the Disney animators examined performance, including the work of Charlie Chaplin, Buster Keaton and Laurel and Hardy, slowed down in frame-by-frame detail. The animators studied both live models in motion, slow motion film and Muybridge photographs.[3] Donald Crafton argues that there is a clear influence on the first Mickey Mouse film, *Steamboat Willie* (1928), from Buster Keaton's films *Steamboat Bill, Jnr* and *The Navigator*.[4] Thomas and Johnston also describe how the Disney animators even worked with comedians to develop more sophisticated comic business.[5]

The early twentieth century was a period of rapid mechanisation and new inventions aimed to speed up the animation process and to create lifelike motion through a direct transcription of human movement. The Fleischer brothers invented equip-

1 cf. Purves, *Stop Motion: Passion, Process and Performance*, 231-5.

2 Wells, *Understanding Animation*, 104-5.

3 Although many actors were filmed as reference material, for example Maggie Bell was filmed as reference for the girl in Snow White and was given a football helmet to wear in order to swell her head to cartoon-like proportions (cf. Thomas and Johnston, *The Illusion of Life: Disney Animation*, 114), the same actors were not usually used for both acting reference and the voice-over of a character, because it was felt that this restricted the animators' interpretation.

4 Crafton, *Before Mickey: The Animated Film 1898-1928*, 297.

5 An example of this was the burlesque comedian, Eddie Collins, who was brought in to provide fresh inspiration for the character of Goofy. (cf. Thomas and Johnston, *The Illusion of Life: Disney Animation*, 320).

ment that could be used to create animation by tracing over filmed images of real-life performers. Using the 'rotoscope', a device that combined a film projector with a glass drawing board mounted on an easel, they reproduced cartoon versions of performers. Cab Calloway, the African American dance star was 'rotoscoped' for a dancing character in Betty Boop cartoons such as the St James Infirmary sequence of *Snow White* (1933) as well as for *Minnie the Moocher* (1932) and *The Old Man of the Mountain* (1933)[1]. In the process of rotoscoping, the animator's intentions behind the animated performance are shared with those of the actor. The process of animation is combined with images of an indexical presence that once was.

Figure 20. Max Fleischer and Betty Boop, undated. Publicity photograph.

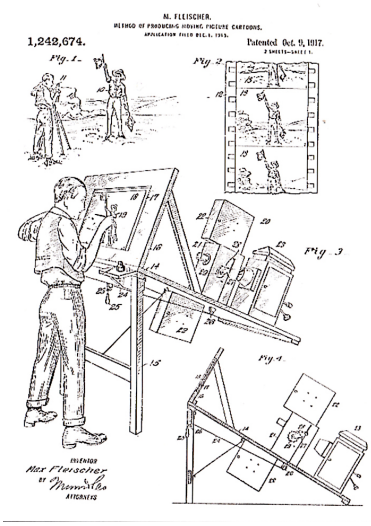


Figure 21. Max Fleischer's Rotoscope patent, 1917.

A similar process of direct transcription of human physical performance to animated character occurs with the use of motion capture technology. Used in computer games and for special effects in feature films, the motion capture process allows the movements of an actor to be digitised and applied to a computer generated character. In a commercial context, motion capture software allows actors to 'puppet' animated characters for films like *Lord of the Rings* (2001, 2002, 2003) and *King Kong* (2005) as well as for many computer games. Although the results of the motion capture procedure are presented in a fully rendered CGI environment, the actual production process involves the actors in a bare studio using their imagination to create

1 Carbaga, *The Fleischer Story in the Golden Age of Animation*, 32.

the fantastic environment within which their performances will eventually be inscribed. The results of motion capture are judged in both the trade and academic press in terms of 'realism': tending to focus on the modelling and rendering technologies used in the animation rather than on the performance itself. Lisa Bode has referred to motion capture as a hybrid practice of performance and animation[1]. She points to a discursive shift in motion capture moving from being considered as 'actor-assisted animation' to being 'technologically-assisted performance'. Whereas the performers who provide the motion capture data in many films and games remain in obscurity, increasingly feature films considered as animation are marketed on the motion captured performance and voice-overs of actual stars such as Eddie Murphy, even though the data created during motion capture would have been extensively 'cleaned up' and re-animated, affording the animators a much greater role than is generally realised.

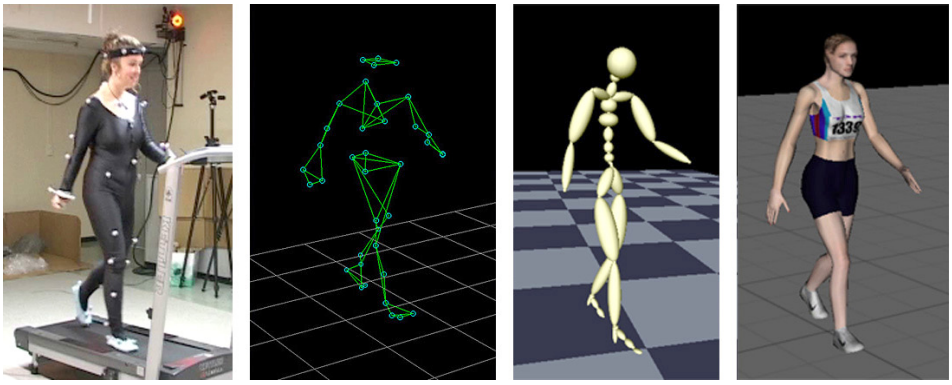


Figure 22. Virtual Reality Lab, Motion Data Acquisition.

Many motion captured animated films, such as *Final Fantasy: The Spirits Within* (2001) and *Polar Express* (2004) seem dull and lifeless, suggesting that a naturalistic style of performance does not translate well to an animated character. This does not appear to make sense, as the 'uncanny valley' principle used in computing proposes that the more realistic the character, the more critical the viewer is and the more realistic and sophisticated the movements and behaviour expected must be.[2]

1 Lisa Bode, "Making Faces: Hybridity, Animation and the Screen Actor," (paper presented at Animation Unlimited: The 2008 Society for Animation Studies Conference, The Arts Institute at Bournemouth, 2008).

2 The term originates from Masahiro Mori's work on robots and the point at which their

However, this phenomenon had been observed many years previously at the Disney studios as a result of using the rotoscoping process. In their canonical book on the Disney studios, *The Illusion of Life,* Thomas and Johnston describe the paradoxical situation in which realistic motion, hand-traced from film reference, lacked the elusive life force.[1] Although filmed performance had been a useful reference for the Disney animators, in time they grew to believe that directly tracing the actions of a live performer from film produced work that was 'tight and restricted', 'stiff and unnatural' and lacking in the 'illusion of life'.[2] The action, they now believed, needed to be translated into the language of cartoon animation in order to produce an emotionally engaging performance. They needed to add a touch of artifice and exaggeration through the use of techniques like 'squash and stretch' to make it more 'realistic'. The Disney studios, therefore, evolved a series of extra-daily rules they believed imbued cartoon characters with 'life'. This produced a heightened and exaggerated type of animated performance that can be referred to as 'cartoonal', in which animated characters squash, stretch, exaggerate and otherwise defy the conventional laws of physics and human biology.

The idea that the animated character is an extension of the animator and that 'the animator is the actor in animated films'[3] is shown by Thomas and Johnston as developing in the Disney studios. They quote the animator Marc Davis giving advice to junior animators: 'Drawing is giving a performance; an artist is an actor who is not limited by his body, only by his ability and, perhaps, his experience.'[4] Over the years, the Disney studios developed many methods to increase the degree of realism within their animated films and their characters demonstrate a style of complex acting. The Disney style of performance through the drawn line was derived from years of ex-

resemblance to humans becomes disturbing and sinister. (cf. Harry Brenton et al., "Uncanny Valley: Realism in Visualisation and Character Design," in *Swanquake: The User Manual*, ed. Scott deLahunta (Plymouth: Liquid Press; i-DAT, 2007), 94).

1 Thomas and Johnston, *The Illusion of Life: Disney Animation*, 323.

2 Ibid.

3 Ibid., 18.

4 Ibid., 66.

perimentation, study and observation in life drawing and movement analysis classes and evolved into a series of universal principles that were believed to imbue cartoon characters with 'life'.[1] Several of the animators also enrolled in acting classes and used their own bodies as points of reference for their animation. Disney himself acted as reference for Mickey Mouse's performance, as Sergei Eisenstein observed:

> Young and with a small moustache. Very elegant. The elegance of a dancer, I'd say. There's undeniably something of his own hero in him. Mickey has the same grace, ease of gesture and elegance. Not at all surprising… As later becomes clear, his method is as follows: Disney himself acts out the 'part' or 'role' of Mickey for this or that film. A dozen or so artists stand around him in a circle, quickly capturing the hilarious expressions of their posing and performing boss. And the extremely lively and lifelike preparations for the cartoon are ready – infectious through the whole hyperbolization of the drawing only because taken from a living person.[2]

According to Thomas and Johnston, Disney not only provided physical performance and movement reference, but also created the voice for Mickey Mouse.[3]

Although originally developed in response to observation from real life, the Disney principles have become codified into twelve orthodox rules for the simulation of life-like behaviour[4]. I have observed animation students worldwide memorise these rules and repeat them in their work, referencing examples of simulated movement from Disney films rather than an observation of the natural world. This leads to the creation of animated movements that are produced according to traditional formulae and technical methodologies that refer to the canon of 'classical' animation rather than to lived experience. This leads to a 'limiting vocabulary'[5] and the development of mechanistic technique that is learnt by rote rather than grounded in a critical analysis of nature. To combat this, the animator and Laban movement analyst, Leslie Bishko, has pioneered the application of Laban's movement theories to animation[6]. She argues that all too

1 Ibid., 47-69.

2 Eisenstein, *Eisenstein on Disney*, 1.

3 Thomas and Johnston, *The Illusion of Life: Disney Animation*, 77.

4 These are: 1. Squash and stretch; 2. Anticipation; 3. Staging; 4. Straight ahead action and pose-to-pose; 5. Follow through and overlapping action; 6. Slow in and slow out; 7. Arcs of movement; 8. Secondary action; 9. Timing; 10. Exaggeration; 11. Solid drawing; 12. Appeal. (cf. Ibid., 47).

5 Paul Wells, Joanna Quinn and Les Mills, *Basics Animation: Drawing for Animation* (Lausanne: AVA Publishing, 2008), 9.

6 Leslie Bishko, "The Uses and Abuses of Cartoon Style in Animation," ed. Nichola Dobson,

often the twelve rules of Disney are applied mechanistically and do not produce expressive characterisation. Animation directors can lack both the accurate vocabulary and the conceptual framework to describe the movements that they would like to produce. The terminology of Laban Movement Analysis is able to describe movement with far greater accuracy than references to the aforementioned twelve rules.

With his book, *Acting for Animators*, which draws heavily on both *The Illusion of Life* and the work of Bishko, Ed Hooks popularised the concept that acting is a part of animation.[1] At Central Saint Martins, we have been developing this idea through working with performers, movement directors and choreographers from Theatre de Complicité, Drama Centre and the Central School of Speech and Drama to go beyond animation cliché and seek inspiration in physical theatre and dance techniques. On the MA/Postgraduate Diploma in Character Animation at Central Saint Martins, we use a range of approaches, from Laban Movement Analysis, Lecoq, Stanislavski and the Method to develop a broader frame of reference for animation. We have found Method acting techniques useful for the development of complex animated characters[2], however they can lead to over complicated and internalised performances that do not sit well in a cartoon body. Hence, we are exploring a range of physical theatre traditions that encourage a larger and more exterior style of expression. Students are encouraged to act out the movements that they want their characters to perform. This is not used for the purpose of direct transcription or rotoscoping, but as a kinaesthetic reference - the students have experienced what the actual movement would feel like in their own bodies and are, thus, better able to represent this movement.

The exaggerated cartoonal style that was initiated at the Disney Studios reached its peak with the *Loony Tunes* and *Merry Melody* animations created by Warner Broth-

Animation Studies - Peer-reviewed Online Journal for Animation History and Theory 2 (2007): 24, http://journal.animationstudies.org/2007/12/09/leslie-bishko-the-uses-and-abuses-of-cartoon-style-in-animation/#more-37 (accessed May 6 2010).

1 Ed Hooks, *Acting for Animators: A Complete Guide to Performance Animation* (Portsmouth: NH: Heinemann, 2000).

2 Kevin Rowe, "Acting to Animate: A Cartoon Method" (paper presented at Pixel Raiders 2, Sheffield Hallam University, April 2004).

Figure 23. Theatre de Complicité physical theatre workshop directed by Annabel Arden for Central Saint Martins PgDip Character Animation, 2007. National Gallery, London.

ers. I have previously mentioned connections between animation, music hall and vaudeville acts and how animators studied the movements of actors to inspire their characters. Citing examples such as *What's Opera, Doc?* (1957) and *The Rabbit of Seville* (1950), Alex Evans sees a particular nostalgia for vaudeville in the cartoonal excess of the animated characters in the classic *Loony Tunes:*

> The cartoons consistently reference the physicality and rigid logicism (and alogicism) of the rhythmically derived patterns of music hall and burlesque routines, even when

they do not - as so often they do - represent these acts of theatre in themselves.[1]

He points out the irony of this nostalgia as, at the time these cartoon animations were made, they would have been produced as shorts to be shown in cinemas alongside longer features in buildings that had been converted from former theatres or music halls into cinemas. Thus, 'cartoons take place, quite materially, at the site of the erasure of theatre.'[2]

As if in a full circle, vaudeville influenced the screwball style of animation in the *Loony Tunes*, such as the work of animation director Tex Avery, which has clearly, in turn, influenced the acting styles of performers such as Jerry Lewis, Jayne Mansfield, Eddie Murphy and Jim Carrey. The film director, Frank Tashlin, demonstrates a link from his years of experience working on Warner Brothers cartoons to the cartoonal acting style employed in the live action comedy films that he directed. In films such as *The Girl Can't Help It* (1956) and *Will Success Spoil Rock Hunter* (1957), Jayne Mansfield and Jerry Lewis simultaneously act out and satirize larger than life characters with a physical comedy of cartoonal excess. A link between animation and live action film performances can also be sen in the work of Tim Burton, who is an example of a contemporary director who was trained as an animator and brings this aesthetic to his work in live action film. In theatre, Oleg Mirochnikov of the Drama Centre, Central Saint Martins, uses the cartoonal as a paradigm for going beyond naturalism in acting.[3] Inspired by Vakhtangov's radical re-evaluation of the use of Stanislavski's system, Mirochnikov uses cartoons to inform physical performance in the actors he directs. Mirochnikov's work highlights the 'cartoonal' as a style of physical performance that is not restricted to animated characters but can be used by human actors.[4] Human actors imitating constructed-actors are not limited to the field of animation. In Balinese

1 Alex Evans, ""All right: where am I?" Loony Tunes Animation as Modernist Performance," *Literature / Film Quarterly* 35, no. 1 (2007): 385.

2 Ibid.

3 Oleg Mirochnikov, *UAL Teaching and Professional Fellowship 2006-7, The Vakhtangov Technique: Final Report*, Unpublished (London: University of the Arts London, 2007).

4 I do not wish to suggest by this that the cartoonal is the only style of performance in character animation, rather that it is a style which can seen as uniquely derived from it.

Figure 24. A Javanese *wayang kulit* puppet of the character Dewasrani from the Mahabharata.

Figure 25. A *wayang wong* ('human puppet') playing the part of Arjuna from the Mahabharata, circa 1920. This style of performance derived from live actors mimicking puppets.

wayang wong performance, literally translated as 'human puppet', actors mimic puppets.[1]

In this section, I have argued that animation and live performance have common roots in ritual performance that used constructed-actors to portray the extramundane mysteries of life and the world of the supernatural. A direct lineage can be traced between the live illusions of stage magic and the earliest animations on film. In early animation, the animator is marked as a showman and author of an animated performance in the tradition of the illusions of the stage magician. As time passed and the cinema replaced the music hall and vaudeville as a site of popular entertainment, the animator became displaced as the central figure in the act of animation and the fictional, animated character is shown as if autonomously performing. This is evident in the emergence of films in which animated characters are combined with live action footage of 'real' actors as if they inhabit the same space. As animated performance became more sophisticated, a notion of the animator as actor developed, particularly at the Disney Studios, and the animated character came to be seen as an extension of the animator. Personality character animation portraying complex acting was developed through a study of 'real' actors and the use of the animator's own body to act

1 cf. Leon Rubin and I. Nyoman Sedana, *Performance in Bali*, 12-3.

out movements for kinaesthetic references. A direct transcription of realistic human movement into an unreal cartoon world through the process of rotoscoping appeared to lack 'life' and so an unnatural cartoonal style of performance developed with links to vaudeville and silent comedy. The cartoonal can also be seen as a style of performance beyond the world of animation that has been adopted by 'real' human actors. I will now go on to examine a case study of animation theatre in which animation and puppets are combined in a live event.

2.4 Animation Theatre: *Soiled* (Faulty Optic, 2003-7)

Animation and video are frequently used as part of the scenography of contemporary theatrical productions through the use of projected backdrops. At the beginning of the research process in 2006, I created manipulated video sequences for the queer performance artist Ursula Martinez and her trilogy of shows, *Me, Me, Me*, performed at BITE at the Barbican and touring internationally to Edinburgh, Bulgaria, Poland and elsewhere. The projections extended the geographical space of the stage, provided additional cast members in the form of a choir of OAPs and enabled Martinez to morph into an old lady. The integration of moving images with live performance, such as in this example, is becoming commpnplace and projection media are now routinely used to create spectacular backdrops for West End shows such as in theatre designer William Dudley's work for *The Woman in White*.[1] Going beyond scenography, the musical *Avenue Q*, inspired by the children's television show *Sesame Street,* incorporates a range of live actors, puppets and clips of projected character animations. Other theatre companies - such as Forkbeard Fantasy[2] and 1927[3] - incorporate animation in more complex ways in which projections are used not as mere backdrops, but in interaction with the performers. Other artists create works of animation into which they integrate their own live performances. The animator, Kathy Rose, often shows her work in a dance context, creating live works in which she projects animation directly onto herself.[4] Similarly, the artist Miwa Matreyek creates complex and beautiful animated worlds in which she interacts live in the form of a shadow on a back projection screen.[5] In the work

1 cf. Simon McBurney et al., "Projection in Performance" (seminar, Barbican Theatre, London, 2009).

2 Forkbeard Fantasy, "Forkbeard Fantasy Homepage," n.d., http://www.forkbeardfantasy.co.uk (accessed January 4 2009).

3 1927, "1927 Cabaret," n.d., http://www.19-27.co.uk (accessed January 3, 2011).

4 Kathy Rose, "Performance," *Kathy Rose*, n.d., http://www.krose.com/performance.html (accessed September 15, 2010).

5 Miwa Matreyek, "Performance," *Semihemisphere*, n.d., http://www.semihemisphere.com/performance.html (accessed September 15, 2010).

of Rose and Matreyek, the live animator / performer becomes like Alice in Wonderland in a fantastical world.

The use of multi-media projections in theatre is not new and can, for example, be traced back to the theatre of the Bauhaus, Futurists and Russian constructivists, Victorian spectacles, Medieval religious dramas and far earlier beyond the scope of this thesis. In their book *Intermediality in Theatre and Performance,* Freda Chapple and Chiel Kattenbelt have coined the term 'intermediality'[1] to re-conceptualise contemporary theatre as a 'hypermedium'[2] in which many art forms and media are combined in a live context:

> Where the art forms of theatre, opera and dance meet, interact and integrate with the media of cinema, television, video and the new technologies; creating profusions of texts, inter-texts, inter-media and spaces in-between.[3]

An example of an intermedial combination of artforms can be seen in the work of Faulty Optic, which features puppetry, pre-recorded sequences of animation and live stop motion in a theatrical context.

Founded in 1987 by Liz Walker and Gavin Glover, the theatre company Faulty Optic has pioneered a form of *animation theatre* - a term they coined to get away from the connotations they perceived lay behind the idea of *puppet theatre*. Walker and Glover came from a background in puppetry through working at the Little Angel Puppet Theatre in London and established their company to create puppetry for adults that is non-verbal, surreal and physical. This was influenced by their interest in animations such as those by the Quay Brothers, Svankmajer and Bob Godfrey, automata and kinetic sculpture such as that made by the artists Paul Spooner and Tinguely, as well as the physical theatre of early Complicité and Pina Bausch.[4] In their work, Faulty Optic combine puppetry, live narration and foley sound effects, pre-recorded animation clips, automata, scrap sculpture and live digital video feeds from miniature sets and

1 Freda Chapple and Chiel Kattenbelt, eds., *Intermediality in Theatre and Performance*, Third. (Amsterdam; New York: Editions Rodopi, 2007), 29.

2 Ibid., 37.

3 Ibid., 24.

4 Walker, interview.

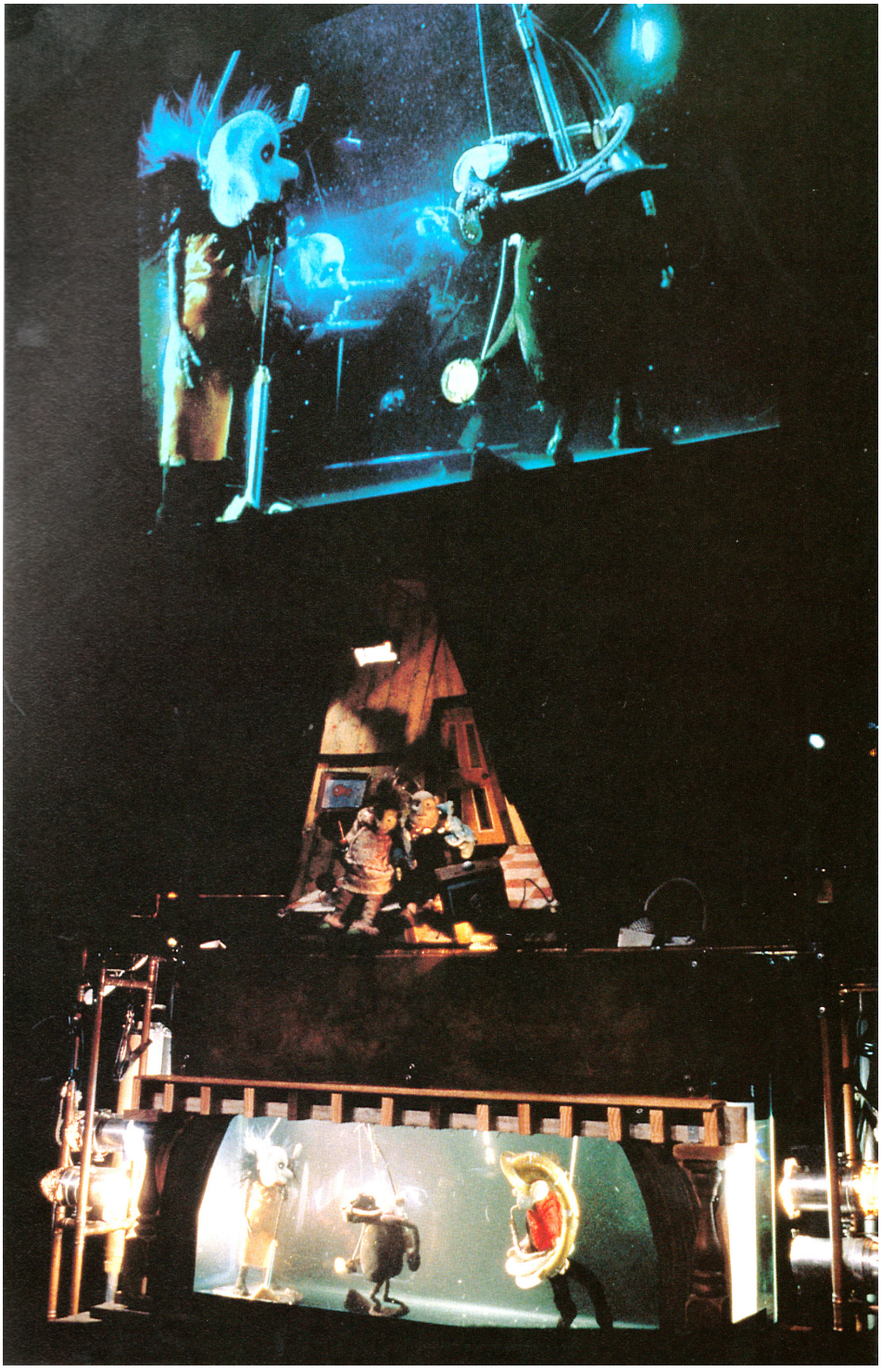


Figure 26. Faulty Optic, *Bubbly Beds*, 1996.
The three-tiered stage features a flooded basement on the lower level. The top level is a live video feed of tiny puppets being manipulated.

manipulated models to create what is, in essence, live stop motion mediated through the lens of the camera, but created in real-time.

Touring the UK, France and Spain from 2003 to 2007, Faulty Optic's show *Soiled* is described thus:

> Through the machinations of a boxing ballerina, a soil spitting psychic and a sparrow with Teurrets [sic.] disease, a Beckettian innocent discovers a deadly secret of love, guilt, loyalty and deception.[1]

In his review of the show for the Irish Times, Finton O'Toole describes the richness of the references the work draws upon:

> *Soiled* is extraordinarily difficult to describe to anyone who hasn't seen it. It seems to have a narrative but not a coherent plot. It draws on an extraordinarily wide range of traditions and ideas, among them the Japanese kabuki and bunraku styles, the symbolist dramas of Maurice Maeterlinck, silent movies, surrealist spectacle and performance art. It has one foot in English whimsy and the other in modernist experimentalism. Its head is in the theatre of the absurd and its heart is at the end of the pier. Like a seaside Punch and Judy show, it has elements of knockabout farce. Like Tadeusz Kantor's creations of the 1970s, it brings together puppetry, visual art and machines that move like automata.[2]

The central character in the show is a nameless puppet operated by two puppeteers

Figure 27. The nameless central character in Faulty Optic's *Soiled*, whose mermaid love had been mysteriously murdered with scissors, 2003.

Figure 28. Flashback animation with mermaid from Faulty Optic's *Soiled,* 2003.

Figure 29. An ominous figure from the underworld necropolis from Faulty Optic's *Soiled,* 2003.

1 Faulty Optic, "Soiled," n.d., http://www.faultyoptic.co.uk/soiled.htm (accessed September 17, 2010).

2 Finton O'Toole, "Kilkenny Arts Festival," *the Irish Times*, August 15, 2003, http://www.faultyoptic.co.uk/soiled.htm (accessed September 17, 2010).

who are visible, but dressed in black, minimising their on-stage presence:

> Audiences have said that even though sometimes we black-out, in that we wear masks and black clothes - and sometimes we don't have masks on and have fingerless gloves so we are much more present - the audiences still say, that they block the human beings out and they focus on the puppets. The puppets are lit more than the human beings operating them, but I think that even without that, the audiences just take on this suspension of disbelief, so they will look at the puppets and they will forget that they are being operated. We just become strange shadows in the background.[1]

Through non-matrixed performances in which they manipulate their puppets, the agency of the puppeteers produces the appearance of complex acting in the puppet. Although the puppeteers are the combined dual authors of the performance, it is enacted by the puppet and it is with this figure that the main attention of the audience resides.

The memory of the puppet hero's lost love – a mermaid – is shown through a projection of pre-recorded animation. The show climaxes in a nightmarish sequence in which the puppet descends into an underworld necropolis to try to revive the corpse of the mermaid. This is made of old colanders, a dustbin and baking tins and can only be seen from the outside by the audience. A tiny camera is moved inside and the resultant images are projected onto a large screen, enabling the audience to see the interior world of the necropolis. Inside, small puppets and pieces of machinery are moved by the puppeteers in a process of live stop motion that culminates in showing a grinder crushing human bones and skulls. The main character is thus represented by different media: as a live puppet, in a projection of a pre-recorded stop motion animation, as well as a miniature puppet whose movements are projected via video feed in an act of live stop motion. Despite the use of different media to portray him, he is experienced as a coherent character by the audience.

Faulty Optic's work combines multiple types of presence - puppets, puppeteers dressed in black, pre-recorded animation, live stop motion and live narrators. They use animation on stage to allow them to conjure up a past for their puppet characters

1 Walker, interview.

as well as to present fantasy environments, such as the necropolis in *Soiled*.[1] They are interested in creating whole, extramundane worlds on stage. Although Faulty Optic think of animation and live performance as two separate entities - they see animation as a pre-recorded, linear, filmic form and live theatre as a continually evolving process - they are able to bring the two together in animation theatre with their own brand of live stop motion which can respond to the live situation and involve an iterative reaction to audience feedback:

> It is a very organic process of creating the actual show. The performance is blocked - we know where we are going to next - but it's also a little bit open to interpretation… we do feed off the audience… I think maybe this is why our theatre differs from animation, because we are always working on it. It's different for every type of audience, even if subtly different, and we take feedback from the audience to create it as we are going along so that in the end we are doing it for the audience… when it's on film you have to make all of those decisions there and then, before it's actually released, before the public see it, whereas we change it for the public.[2]

Faulty Optic's work shows a continuity of practice from puppet theatre to animation to a complex form of hybrid practice enabled by digital video and projection technology. The animator / puppeteers are shown in the same space as the animated and the act of animation is shown as both pre-recorded and as a live process. This complex layering of techniques gives their characters a real physical presence alongside their live projection on a screen. The central character's performance is created by two puppeteers and shown through multiple media, yet is read by the audience as coherent and continuous. This complexity in Faulty Optic's work raises the issue of authorship in performance and challenges the notion of a simplistic correlation between performer and performance that I will consider in the next section and I will examine the idea that there could be a differentiation between whose intent originates a performance and who is the executor of that intent.

1 Ibid.

2 Ibid.

2.5 The animator as author

In the 1971 Disney film, *Bedknobs and Broomsticks*, in which live action is combined with animation, the plot revolves around a quest for a magic spell that could make inanimate objects come to life. The words turn out to be 'substitutiary *(sic.)* locomotion', as if the film itself is on an ontological quest for the meaning of animation. Indeed, animation can be seen as a sort of 'virtual' or 'substitutive' performance, where a substitute or constructed-actor is used for the human body. Comedian, Howard Read, whose work is covered in more detail in 3.4, describes how performance techniques are used by his animators when they create his animated alter-ego, *Litle Howard*:

> I always think of it as the animators are acting Little Howard. He's a puppet basically that you're expressing the jokes and the verbal performance through. It's performance on so many different levels. With animation you add another level of performance with every stage: the script is very important, the vocal performance is very important, the physical performance, the work that the animators do is incredibly important, but possibly as important as all those is the dub and the sound effects.[1]

As previously noted, this notion that an animator performs by proxy through their creation has become commonplace in character animation. For example, a notion of animation as substitutive performance was expressed by Norman McLaren when he said: 'every film is a kind of dance' and being an animator was like 'being a dancer at second-hand'.[2] However, the authorship of animated performance is complicated by the actual means of production employed in the industry. Actors in the theatre are easily identifiable as the authors of their own performance, but an animated character has a sense of artifice, because the movements it makes and the personality it represents are one step removed from the body of the animator that originated them. Furthermore, although there is an intention behind the actions that an animated character takes, the authorship of this intention is usually the product of a team of people. In his book *Animation Genre and Authorship*[3], Paul Wells has identified three levels of

1 Howard Read, interview by Birgitta Hosea, September 3, 2010.

2 Graeme Hobbs, "'Every Film is a kind of Dance': The Art of Norman McLaren," *Movie Mail UK*, n.d., http://www.moviemail-online.co.uk/scripts/article.pl?articleID=276 (accessed December 17, 2010).

3 Wells, *Animation: Genre and Authorship*, 101.

authorship within animation:

- The 'Supra' animator, part of a factory production team, their individual contribution subsumed in the collective manufacture of a coherent product;
- The 'Intra' auteur, whose artisanship within a collective production is acknowledged as a mark of quality – e.g. Ray Harryhausen, Richard Williams;
- The artist working as the sole auteur.

Thus, in animation it is extremely unlikely that there would be a one-to-one correspondence between one animator and one character's performance. Animation may be made by a single auteur, but this is extremely rare. Even in the case of the Intra animator that Wells identifies, in the hierarchal factory production system a team of 'authors' - Director, Character Designer, Production Designer, Writer and Storyboard Artist - create the concept behind a character and then hand it off to the animator to animate. The animation is then created by a team - either divided as piece work or by further hierarchal subdivision, such as Animation Director, Key Animator, In-betweener, depending on the production pipeline used. In addition, a 'real' actor could have contributed to the character's performance through providing movement reference or voiceover recordings.

Even if there is not one unifying consciousness and embodied presence creating the performance, a coherent character can still be read from a unified creative intention, as was seen in the work of Faulty Optic and is also evident in other forms of puppetry such as *bunraku* or in the traditional figure of the pantomime horse, whose costume incorporates two performers. Similar examples of the multiple authorship of a performance leading to a single character can be seen in both film and theatre[1]. A single film character will involve a lead actor, but may also include stuntmen, body doubles and dubbed voiceovers: the character of Mrs Bates in Hitchcock's *Psycho*

1 Barry J C Purves relates the anecdote that the musical *Starlight Express* opened in the middle of a very, hot summer and the cast found it hard to give physically demanding performances in heavy rubber costumes and sometimes passed out in the heat. Similarly dressed understudies stood by in the wings and the audience did not notice the substitutions. Purves, *Stop Motion: Passion, Process and Performance*, 11.

Figure 30 Multiple bunraku puppeteers dressed in black operate puppets in *The Teachings for Women*, 1994, National Bunraku Theatre, Osaka, Japan.

(1960) was created by three different actors and the voices of a further three.[1]

Based on such examples, the idea that there needs to be a single unified consciousness behind a performance in order for it to be intelligible to the viewer as a coherent character is countered theoretically by Jiri Vetrulsky. Writing in the context of theatre, he proposed that there are two components to any dramatic action: (1.) the intent and (2.) the performance of the intent.[2] These two aspects of the performance could be enacted by one person or by more than one. The actor is not necessarily in full control of their actions. A director could precisely choreograph the movements and motivations of an actor, so that they followed exact instructions. In addition, the performance of the intent need not be enacted by a human actor: it could be done by an object that the audience would perceive as a performer:

> …a double 'subject' of dramatic action – one 'subject' who 'originates the intent' of the action and one who performs 'who may be identical with the basic subject but may also be his mere tool and thus only a partial subject'. This second performing subject need not be human, as is often assumed (though presumably the first, the originator, must). Anything that is a 'component in the action,' whether human, animal or object,

1 Cited in Nicholas Abercrombie and Brian Longhurst, *Audiences: A Sociological Theory of Performance and Imagination* (Thousand Oaks; London; New Delhi: Sage Publications, 1998).

2 Jiri Veltrusky, "Man and Object in the Theatre," in *A Prague School Reader on Esthetics, Literary Structure and Style* ed. Paul L. Garvin (1964 [1940]). Cited in Edward Burns, *Character Acting and Being on the Pre-Modern Stage* (London: MacMillan, 1990), 211-2.

> can be constructed by the audience as a 'performing subject'.[1]

In the context of animation, the origination of intent is usually made visible in the form of character style sheets and production bibles made by the creative team to achieve consistency of characterisation and visual appearance. William Schaffer goes so far as to suggest that it is the intent behind the animated character that animates the animator. He speculates as to who is in control of the animated moving body: the animator herself or the emerging animated character. After examining an interview with the animator, Bob Clampett, in which he details his process of becoming Porky Pig or Bugs Bunny while he is animating these characters, Schaffer concludes that the character takes control of the animator:

> The animator finds himself reanimated in turn by the characters he animates and feels himself becoming a cartoon. Resonances of Influence are conducted back through the pencil into the vibrating network formed by the strings of the artist's nervous system.[2]

This process becomes even more pronounced during the process of 'lip-syncing' in which it is common for animators to use themselves as a model, mouthing words and looking in a mirror to capture different facial expressions as they animate a character in the act of speaking:

> For it seems impossible here to decide whether the human is moulding the image by forcing it to mimic his own face or rather, to the contrary, the virtual image of a moving body that does not exist is *modulating* the human face by forcing it to anticipate and mimic its own absurd dynamics.[3]

This demonstrates that an animation is not only the product of multiple authorship, but also contains different levels of performance.

In the creation of animation, the animator herself performs gestures, actions and movements while she makes the marks and forms that will create the final animation. Donald Crafton proposes that the act of contemporary fine art animation is in itself a performance. Animators who use sand, manipulate objects with the stop frame technique or 'pixilate' the movements of live actors, have created performances of which

1 Vetrulsky quoted in ibid., 212-3.

2 William Schaffer, "Animation I: The Control-Image," in *The Illusion of Life II: More Essays on Animation*, ed. Alan Cholodenko (Sydney: Power Publications, 2007), 462.

3 Ibid., 463.

the animation is a recorded documentation.[1] This idea has precursors in process-based art works such as Barry La Va's 'distributional'[2] sculptures which foreground the process with which they were made and the time taken to make them. So, in La Va's work, materials are left behind after something has happened. The traces that are left behind invite the viewer to re-constitute this event from its aftermath. The work is not in the final artefacts presented for display, but in the non-matrixed actions that caused the artefacts to be created. In the case of animation, even if the form it takes is abstract, a lack of engagement with the performing body as subject matter does not imply its non-existence, rather that the embodied presence of the animator is traced in non-representational forms, which are recorded as marks. This can be seen as a non-matrixed act of performance, akin to the hands of the puppeteers in the work of Faulty Optic. Thus, animation can be thought of as the aftermath of the animator's non-matrixed acts of performance. Writing about the complex, auteur, stop motion animation of objects and puppets made by the Brothers Quay, Suzanne Buchan argues that the viewer identifies with the animators and their actions of non-matrixed performance rather than the figure of the animated character:

> … puppets' actions and gaze structures are entirely created and determined by the animator. This means that when a puppet looks off-screen or there is a match cut to what it is looking at, it calls attention to a much greater degree to the *intention* of the person animating the figure, as well as the actual action of *moving* the puppet. Their personality and intentions are what the viewer tries to understand as expressed through the puppet.[3]

For Laura Ivins-Hulley, traces of the animator's actions, as evidenced by the sight of auteur animator, Jan Svankmajer's, handprints in his clay animations, leads to a consciousness of the illusion behind the act of animation: that the spectator becomes aware of watching a lie, a conceptual meta-object that never truly moved as it does in animated form:

> The film still only displays the appearance of a performance with no profilmic existence. So even though this sequence makes us more aware of the animator as one

1 Donald Crafton, "Performance in and of Animation," *SAS Newsletter* 16, no. 1 (September 25, 2002).

2 Nick Kaye, Art into Theatre : Performance Interviews and Documents, (London; Amsterdam: Harwood Academic, 1996), 5-6.

3 Buchan, "The Animated Spectator: Watching the Quay Brothers' Worlds," 23.

> performing, we cannot form a direct identification with his performing body. His impression exists, but his body must remain invisible for the sake of the fluidity of that impression.[1]

Ivins-Hulley argues that this disrupts identification with an animated character. She continues that for animation to be considered as performance, there should be a clear correspondence with the performing body of the animator and an animated character who demonstrates a performance by proxy:

> ... the apparent intentionality of movement in the onscreen figure is the end goal of the animator's efforts. If the animator is the actor, he is one who displaces his performance to construct the life of objects for the audience's benefit.[2]

However, her reasoning relies upon an understanding of performance as an activity in which the body that originated the performance is identical with the body that enacted it. It is also underpinned by an understanding of performance as naturalistic acting with which the viewer identifies. This is only one of many ways in which a spectator can relate to a performance, as a century of modernist theatre practice attests.[3]

In contradiction to Ivins-Hulley's assertions, I would therefore like to argue that animation is a multiply authored performance that takes place on two levels:

1. A non-matrixed performance, which may be invisible or may leave its traces in fingerprints, smudges or even the sight of the hand of the animator;
2. A substitutionary performance in which the intentions of an animator (and the creative team with whom she is working) are displaced onto a constructed-actor, which gives the illusion of performing this intent.

In this section, I have argued that, in common with other types of performance such as theatre, film and puppetry, animated performance is created by multiple au-

1 Laura Ivins-Hulley, "The Ontology of Performance in Stop Animation," *Animation Studies - Peer-reviewed Online Journal for Animation History and Theory* 3 (2008): 4, http://journal.animationstudies.org/2008/12/21/laura-ivins-hulley-the-ontology-of-performance-in-stop-animation (accessed March 25 2009).

2 Ibid., 2-3.

3 An example being the theatre director, Bertolt Brecht, who built his work around the *Verfremdungseffekt* ('alienation' or 'distancing' effect) which aimed to deny the viewer a passive position and to draw attention to the fact that they were watching a theatrical illusion.

thors. A coherent character emerges from multiple authorship if there is clarity to the original intent behind its creation. This performance takes place on two levels, which I have named **non-matrixed** and **substitutionary**. I will now go on to present a case study in which I have combined different types of performance in one live act. It builds upon ideas previously discussed, such as the live non-matrixed creation of stop motion, as seen in the work of Faulty Optic, and Schaffer's notion of the animator who is animated by their creation.

2.6 Performing animated presence: *Out There in the Dark* (Birgitta Hosea, 2008-10)

Out There in the Dark (2008-10) is a live performance in which animation is combined with the corporeal body: the artist becomes a living sculpture; a hybrid being that is half human and half animation.[1]

The original intention behind the piece was to experiment with the notion of the authorship of performance and to examine different types of performance in one space that were all the creation of a single author: pre-recorded and live stop motion animation, mediated performance and live performance. These were inspired by Gloria Swanson's classic theatrics in *Sunset Boulevard* (1950) that reference her earlier career in silent film acting. Another source of inspiration was the performances of Victorian hysterics. This work extended my previous project, *Dog Betty*, that aimed to examine the performativity of the feminine and is similarly concerned with the idea of where 'I' (the animator) starts and 'it' (the animated character) ends. In this piece, the animator merges with the character through the superimposition of an animated doll that is projected onto the animator's face.[2] I become at once animator and animated; creator and projection screen; self and other. An animated performance by proxy from the past is combined with a live, re-animation of that work in the present. Live presence is contrasted with a mediated version of that presence and an animated presence.

In *Out There in the Dark,* I am seated on a chair with wheels, my head is hooded

1 So far, this work has been performed in various venues, in London, Bristol and New York, each time in slightly different configurations. See Plates 2 - 4 on page 173 to page 175 and DVD chapter 1 for documentation of the first performance at the Lethaby Gallery in 2008. Plates 5 - 8 on page 176 to page 179 illustrate other versions in different venues.

2 The merging of identities that I explore in this piece was inspired by seeing Katharina Sieverding's installation, *Transformer* (1973-4) at the Museum of Modern Art, San Francisco in 2008. This work consists of slide projections of hybrid portraits of herself and her partner Klaus Metting, both made up in the same heavy make-up. Projections filled the room with images of Katharina becoming Klaus and Klaus becoming Katharina, blurring the boundaries between the two: it was hard to tell where Katharina began and Klaus ended. The eight huge images filled the room and were the height of the wall. The sheer size of the images had an immediate, visceral impact.

by a paper bag and my face is replaced with a projection of an animated doll.[1] This projection is tightly integrated with the motion of my face, because the projector is hand-held and operated like a follow-spot[2]. The doll animation lip-syncs to a sampled version of a few lines of dialogue from the iconic film *Sunset Boulevard* (1950), in which Gloria Swanson as Norma Desmond is reflecting on the act of performing for the camera.[3] Tragically, in the section of the film from which these sentences come, she thinks she is performing for Cecil B. DeMille, but is actually performing for the cameras of assembled police and journalists because she has just killed her lover. This snippet of dialogue is deconstructed, cut into small fragments and repeated, in order to create a rhythmic soundtrack. At some points the word 'nothing' is slowed down to become a mournful moan. No other sounds are used beyond the dialogue from the film.

In *Out There in the Dark*, I also aimed to investigate concepts of 'liveness' and 'documentation': how the presence of the lens and the reproduction of a live performance onto film or video could alter its meaning. A live video camera with slight time lag projects a view of the scene onto the back wall, which draws attention to the mediation involved in the process of filming. This allowed me to explore notions of spectatorship and voyeurism. Towards the end of the performance, I reach for the camera that is the source of the live video feed projected onto the wall. I then turn it on the audience to confront their own voyeurism, so that their images become projected instead of mine and, although apparently sightless, I study them through mimed binoculars.[4] In his writings on digital performance, Steve Dixon raises the issue that mediated

1 This is like an inversion of the work of contemporary artist, Tony Oursler, who projects video of living bodies onto inanimate objects. In *Plaid Doll* (1992), he projected video of the face of a woman who was screaming and laughing hysterically onto the blank face of a rag doll. (cf. Tony Oursler, *Tony Oursler the influence machine* (London: Artangel, 2002)).

2 I am grateful to Anne Pietsch and Sandra Louison for operating the projector and documenting the work through mobile phone pictures and other cameras.

3 The lines are as follows: 'There's nothing else. Just us. And the cameras. And those wonderful people out there in the dark.'

4 I have also done two versions of the piece in a peep show. Instead of interacting with the camera, I interacted with the holes through which the onlookers peeped. (See *Plate 6* page 177 and *Plate 8* page 179).

projections on stage can overpower the corporeal performer.[1] Feedback I received about the piece contradicted this view. One onlooker, at a version of the performance at *Animation Deviation* in 2010, told me that the piece was so unsettling that it was easier to watch the mediated images that were projected from the live video feed than my actual physical presence. For me, this demonstrates that he felt in a more secure position of voyeurism when looking at video images than at a living body.

The twitching, disembodied actions that I perform to the soundtrack are based on Gloria Swanson's stylised silent movie gestures as she performs Norma Desmond in the film. As the soundtrack builds in intensity, these actions become increasingly frenetic and hysterical. I am not trying to represent the characters of either Gloria Swanson or Norma Desmond, but am animated by the rhythm and dialogue of the soundtrack and possessed by gestures from the film. The work is non-matrixed and not intended as 'acting'. These are sequences of twice-behaved actions that have been rehearsed, prepared and repeated out of the context of a narrative or the motivation of a character's personality. This marks them as performative acts of femininity, which are neither natural nor spontaneous, but constructed and prepared.

My interest in exploring hysterical gesture was inspired by the work of Heather Crow. Crow argues that gestures are unconscious actions that animate us[2]. They represent an uncanny haunting of the lived body by physical behaviour patterns that we have learned:

> Possessed by the strange inside-outside world of the gestural uncanny, moving bodies are unstable, mutable… subject to the gestural specters that circulate among social and aesthetic milieux. They are moved - in other words, *animated* - by this dynamic choreography, the meaning of which is determined by the shifting identities, desires and contexts that give gestures (and bodies) their shapes.[3]

For Crow, animation is the ideal medium through which to examine gesture, because the animated character does not really live and so all of its gestures are artificially

1 Steve Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation* (Cambridge, Mass.; London: MIT Press, 2007), 122.

2 Heather Crow, "Gesturing Toward Olimpia," in *Animated Worlds*, ed. Suzanne Buchan (John Libbey, 2006), 50.

3 Ibid.

constructed.[1] In *Out There in the Dark*, I became animated and haunted by Norma Desmond's gestures in a process of live stop motion. Thus, the work investigates not only the performance in animation, but also the animation in performance as one performer enacts the intent of another.

In *Out There in the Dark* multiple types of media combine to create one hybrid presence. An overwhelming response to the piece is that it was 'scary' and in their review of Act Art 7, QX Magazine called the piece 'disturbing'[2]. On reflection, there are several motivating factors for this hybrid presence to be regarded as 'disturbing'. During the piece, the live body stops, starts and cycles through repetitive movements while an animation of a doll is projected onto it: these actions draw attention to the inanimate object that is the basis of animation. They also raise the unsettling possibility of the human body being animated by the intent of another, like Balinese Sanghyang trance performances, in which girls are possessed by spirits. Having observed such trance performances, Leon Rubin and I. Nyoman Sedana describe the procedure by which these girls appear to incarnate rather than re-present spiritual forces:

> ... the trance process does not actively undergo a lengthy process of imitation, repetition and emulation of a given established form or character. There is no study of character, gesture or movement as the entranced dancer, with complete internal commitment, belief and devotion, is immediately ready to passively submit herself as a vehicle into which the spirit can descend.[3]

Unpredictable occurrences often take place, such as running into the bushes or climbing trees.[4] Thus, Rubin contends that the actions of the girls are once-behaved and not rehearsed. This ancient practice runs counter to Enlightenment conceptualisations of the centrality of the subject and is trivialised in popular, Western horror films through a misreading of Voudoun and the figure of the zombie. Such hybrid creatures, neither living nor dead, are representative of Jacques Derrida's notion of the *pharmakon:* neither one thing nor another, both poison and cure, resisting Western conventions of

1 Ibid.

2 Cliff Joannou, "Act Art: Children of the Damned Review," *QX Magazine*, November 19, 2009, 38.

3 Leon Rubin and I. Nyoman Sedana, *Performance in Bali*, 67.

4 Ibid., 64.

binary logic.[1] The figure of the zombie defies what we have learned of the finality of death and the laws of nature.

In her essay, *Shudder - Shutter – Shatter*[2], Esther Leslie considers the issue of the lifeless brought into motion and presents moving images in the context of the shudder; that involuntary, spasmodic reaction triggered through irrational fear of otherness, similar to the twitching of dead muscle tissue being brought to life through electricity, or to the animation process itself, in which the lifeless and inanimate is set into movement.[3] Playing with the concept that film re-animates the dead - spectres of past actors who once were and characters who never were - Alan Cholodenko also argues that cinema is where the undead is animated into life:

> ...the primal experience of cinema, a shocking, traumatic experience of animation, of re-animation - of the animation, the re-animation of death… making cinema the crypt, the haunted house of cinema...[4]

This idea is also expressed in Laura Mulvey's book *Death 24x a Second:* 'Just as the cinema animates its still frames, so it brings back to life, in perfect fossil form, anyone it has ever recorded, from great star to fleeting extra.'[5] This raises the disquieting issue that 'the cinema's great icons still perform and re-perform their perfect gestures after death.'[6]

For me it is likely that *Out There in the Dark* evokes the kind of feelings of unease

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1 Alan Cholodenko, "Who Framed Roger Rabbit, or the Framing of Animation," The Illusion of Life: Essays on Animation (Sydney: Power Publications, 1991), 211-2.

2 Esther Leslie, "Shudder-Shutter-Shatter," in *Shudder Exhibition Leaflet* (London: The Drawing Room, 2010), 3-4, http://www.drawingroom.org.uk/shudder.htm.

3 I also explored the theme of animation as haunting and the raising of animated spirits in a performance of *Exorcism* (2009) at Forkbeard Fantasy Studios. In collaboration with the actress Maureen Baas, I created animation and performed the part of a priest who exorcised animated demons from her in a mock ritual. (See *Plate 9* page 180).

4 Alan Cholodenko, "(The) Death (of) the Animator, or: The Felicity of Felix, Part II: A Difficulty in the Path of Animation Studies," *Animation Studies - Peer-reviewed Online Journal for Animation History and Theory* 2 (2007): 10.

5 Laura Mulvey, *Death 24X a Second: Stillness and the Moving Image* (London: Reaktion Books, 2007), 18.

6 Ibid., 176.

that Freud identifies as the 'uncanny'. In his essay from 1919[1], Freud investigates the term through its linguistic roots in German and through a consideration of what is essentially his own experience. The text starts with a quotation from Ernst Jentsch's 1906 paper, *On the Psychology of the Uncanny,* that defines the uncanny as: 'doubt as to whether an apparently animate object is alive and, conversely, whether a lifeless object might not perhaps be animate'.[2] Through his analysis of ETA Hoffman's short story *The Sandman*, Freud focuses on the terrifying figure of the Sandman who tears out the eyes of naughty children and develops the argument that the reason for the fear that he calls 'uncanny' is a reminder of 'what was once familiar and then repressed'[3], a trigger for the various psychological complexes that he had identified in his theory of psychoanalysis. Freud underplays the horror that Nathaniel's love for Olympia, who turns out to be a doll, implies that his perception of reality and the romance he had considered himself to be engaged in was a deluded projection on his part. For me, the key point that Freud raises is: 'It is thus solely a matter of testing reality, a question of material reality.'[4] In other words, the uncanny is scary because we don't know if it's real or an illusion. It unsettles us, because it questions what we complacently think we know or are familiar with. *Out There in the Dark* created an unsettling feeling, because the viewer could not be sure where the limits of the person stopped and the animation began. It contrasted the living with the lifeless brought to life and was therefore a reminder of mortality.

In this section, I have presented an example of multiple performance types combined with multiple types of presence. The work is experienced as unsettling because it draws attention to the viewer's act of voyeurism and the uncanny act of creating the semblance of a life force from inanimate matter, which is at the heart of animation. In the next section, I will examine the undead presence that is the animated character.

1 Sigmund Freud, *The Uncanny*, trans. David McLintock (London: Penguin Classics, 2003).

2 Ibid., 135.

3 Ibid., 153.

4 Ibid., 154.

2.7 Presence and the animated performer

For many commentators, a central feature of performance is the proximity of the actor's body experienced as being present 'here' and 'now'. For Alain Robbe-Grillet, it is key that the actor has actual presence:

> The condition of man, says Heidegger, is to be there. The theatre probably reproduces this situation more naturally than any of the other ways of representing reality. The essential thing about a character in a play is that he is on the scene: there.[1]

As opposed to the living body of an actor, animated characters lack sentience, corporeal flesh and an autonomous life force. They share these qualities with constructed-actors who have been used singly or in combination with live performers since prehistoric times.

Edward Gordon Craig railed against the fake emotions and simplistic imitation of nature that he saw on stage. He argued for a theatre of symbolism that could present pure ideas; that could be 'Art'. One of the key methods he suggested to achieve this was to replace the weak and emotional human flesh of the actor with 'über-marionettes' that could represent the strong vision of the artist:

> Do away with the actor, and you do away with the means by which a debased stage-realism is produced and flourishes. No longer would there be a living figure to confuse us into connecting actuality and art; no longer a living figure in which the weakness and tremors of the flesh were perceptible.
>
> The actor must go and in his place comes the inanimate figure - the über-marionette we may call him until he has won for himself a better name… And who knows whether the puppet shall not again become the faithful medium for the beautiful thoughts of the artist.[2]

The *über-marionette* would represent abstract, rational ideas and deny the dangerous process of emotional identification with an actor. For Craig, the puppet was an ideal, a descendant of the stone figures in ancient temples: images made in the likeness of gods. The introduction of the über-marionette to the theatre would restore the latter

1 Alain Robbe-Grillet, 'Samuel Beckett, or 'Presence' in the Theatre' in *Samuel Beckett: A Collection of Critical Essays*, ed. Martin Esslin (Englewood Cliffs: Prentice Hall, 1965), 108-16 quoted in Evans, ""All right: where am I?" Loony Tunes animation as modernist performance," 380.

2 Craig, *On the Art of the Theatre*, 81.

to a place of mystery and divine contemplation.[1]

Cabaret was an important part of the Italian Futurist movement, which RoseLee Goldberg uses as the starting point for her historical survey of performance art.[2] In turn, marionette theatre was a component of this, sometimes combining puppets and live performers in the same space, such as *The Merchant of Hearts* (1927) in which life-sized marionettes suspended from the ceiling performed alongside live actors.[3] In the theatre of the Bauhaus, which featured the first ever course on performance in an art school,[4] Oskar Schlemmer extended and abstracted the bodies of his actors through costumes as well as incorporating puppets that were used both alongside and sometimes instead of human actors.[5] His use of giant, padded costumes and concentric hoops allowed him to distort the human body to cartoonal dimensions and experiment with movement, duration, composition, shape, scale and proportion:

> The artificial human figure (*Kunstfigur*) permits any kind of movement and any kind of position for as long a time as desired. It also permits… a variable relative scale for figures: important ones can be large, unimportant ones small.

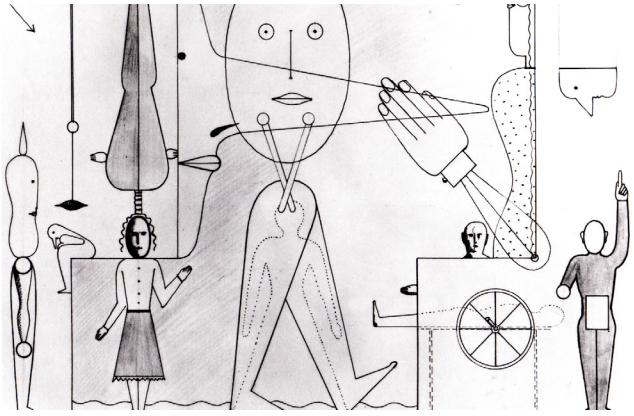

Figure 31. Oskar Schlemmer, designs for body puppets for his *Figural Cabinet,* c1922.

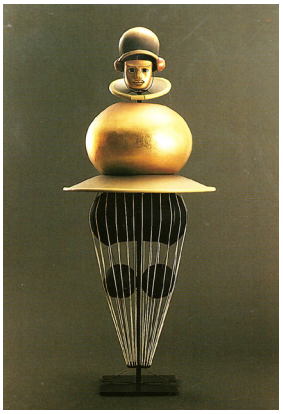

Figure 32. Oskar Schlemmer, figurine from *The Triadic Ballet,* 1922, reconstruction 1967/93.

1 Ibid., 94.

2 RoseLee Goldberg, *Performance Art: From Futurism to the Present* (London: Thames and Hudson, 2001).

3 Ibid., 24.

4 Ibid., 97.

5 Ibid., 98-108.

> An equally significant aspect of this is the possibility of relating the figure of natural 'naked' Man to the abstract figure, both of which experience, through this confrontation, an intensification of their peculiar natures.[1]

Similarly, Polish director Tadeusz Kantor's Theatre of Death drew on his early background in puppet theatre and incorporated a mixture of live actors and puppets in order to refer to the traumatic destruction and dislocation of two world wars.[2]

Figure 33. Tadeusz Kantor, dir. *The Dead Class*, 1975.

I saw an example of Craig's concept of the *über-marionette* in a performance at the Tron Theatre, Glasgow in the 1980s by the Black Light Theatre Company of Prague and was astonished to see surreal creatures flying around the stage with no sign whatsoever of puppeteers or stage trickery. All these examples of constructed-actors show that a being presented on stage need not be living in order for it to have a 'live' presence.

In his brilliant comparison of modernist drama and *Loony Tune* cartoons, Alex

1 Oskar Schlemmer, "Man and Art Figure," in *The Twentieth Century Performance Reader*, ed. Michael Huxley and Noel Witts (London: Routledge, 2002), 368.

2 Harold B. Segel, *Pinocchio's Progeny: Puppets, Marionettes, Automatons and Robots in Modernist and Avant-Garde Drama* (Baltimore; London: The John Hopkins University Press, 1995), 327-8.

Evans[1] argues that modernist theatre practice, such as Craig's concept of the *über-marionette* and Samuel Beckett's play *Breath* (1969), in which there is no actor on stage only the disembodied sound of breathing, resists notions that the definition of theatre is embodied presence. He makes detailed comparisons between Beckett's *Waiting for Godot* and the Daffy Duck cartoon *Duck Amuck* directed by Chuck Jones in 1953[2] and suggests that, with its play of absence and presence, animation could be read as a 'quintessentially modern response to performance'[3]:

> Character animation owes its existence - its central trope - to an enforced absence. Every cartoon character is an index of performance… it is the hole where the thing would have been - where that hole is embodiment in space… the animated body, its absence always foregrounded by its impossible elasticity, is continually tested to extremes, and the same can be said for the space of the animated "performance". In a strategy perhaps more literal, even more effective, than that available to Beckett, the animation also refuses a place in which a body might exist.[4]

Evans argues that animation is a part of a continuum of performance: the 'animated negative' of embodied performance in which the body has been erased but is 'haunted' by the ghosts of theatricality's past:

> Of course there is no room for a "pure" performance as Brook imagines it in the character animation, because the body in space has expired. Instead, alongside the ghosts of embodiment in these hyperactive, metamorphic automata, we find the traditions, various instantiations and manifestations, cultural and historical practices of theatre.[5]

This argument is compelling, but for me, Evans only looks at the completed cartoon body, he doesn't consider the traces of the animator's performance. It is not just, as he suggests, the disembodied vocal track of a voice-over artist that indexes performance, but also the activities of the animator who produced the character. Although character animation is marked by the absence of a life force within an animated figure, it contains the non-matrixed trace of the performative activities of many hands.

Just like character animation, performance on film is not defined by the body of

1 Evans, ""All right: where am I?" Loony Tunes Animation as Modernist Performance."

2 Ibid., 380-1.

3 Ibid., 382.

4 Ibid.

5 Ibid., 385.

the actor being physically present to the viewer and involves a suspension of disbelief. For Roland Barthes, by the very nature of the chemical processes involved, the photographic is a guarantee of authenticity: a testament that the events happened; proof that the body of the actor was once present: 'Every photograph is a certificate of presence'.[1] However, films are not slices of real life, but fictional constructs full of artifice. Photography is a two-stage process, which involves first capturing what comes before the lens and then fixing that image. In the fixing stage, photography has been chemically manipulated since its inception. Moreover, film rushes are very rarely shown in a raw state, but edited together to create a fictional construct. I know Elizabeth Taylor is not Cleopatra. I know bits of gossip about her private life with Richard Burton. I know that the film was made in 1963 and yet when I watch *Cleopatra*, I can still believe for a moment that I am watching the story of a Queen from ancient Egypt. Walter Benjamin has clearly articulated the artifice behind the process of filmmaking, in which twice-behaved behaviour that was done initially by an original, live presence is recorded by a camera and then re-assembled from fragments, re-presented and mediated through screen-based technology.[2] The mediated performance contained in a film is actually a composite of many separate performances, shot from different angles, with different lenses, maybe even from different cameras. Performances shot in different locations and times are stitched together to give the illusion of a continuous space and time. The performance can also be analysed: zoomed into, replayed and examined in slow motion. Films also contain elements, as Laura Mulvey points out, such as the long, lingering close-up, that are moments held and extracted from the continuity of historical time:

> …the close-up necessarily limits movement, not only due to the constricted space of the framing, but also due to the privileged lighting with which the star's face is usually enhanced.[3]

Malcolm Le Grice contends that the physical proximity of real bodies in the theatre

1 Barthes, *Camera Lucida*, 87.

2 Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Film Theory and Criticism: Introductory Readings*, ed. Gerald Mast and Marshall Cohen, Second Edition. (New York; Oxford: Oxford University Press, 1979), 858.

3 Mulvey, *Death 24X a Second: Stillness and the Moving Image*, 164.

is no guarantee of authenticity[1]. Presence in the theatre is the presence of a fiction. It is no more genuine than presence recorded on film:

> If, in the theatre, the actors (or props) are considered either as signifiers themselves, or their 'real' presence somehow resists the transparency of the theatrical signifier, this is no more than an argument of an awareness of the material reality of the signifying substance... even if we pass beyond [the] concept of the material substance of the cinematic image, and consider it in its state as a record (or recording), even if that which had been the subject of its recording is absent, its recorded trace, like a footstep in concrete, is present.[2]

Indeed, Steve Dixon maintains that presence is not defined by corporeal flesh, but in how it engages the viewer: '... real presence occurs when the artwork demands attention, whatever form the artwork might take. It is content, not container that asserts presence.'[3]

I would like to argue that it is through movement that we surmise an illusion of agency and empathise with a character, not the presence of their physicality. It is through movement that we check for signs of life: the breath, the pulse. In his writings on Disney, Eisenstein argues that we experience animated characters as if they existed, even though they lack a human body:

> We *know* that they are… drawings, and not living beings.
>
> We *know* that they are… projections of drawings on a screen.
>
> We *know* that they are… 'miracles' and tricks of technology, that such things don't really exist.
>
> But at the same time:
>
> We *sense* them as alive.
>
> We *sense* them as moving, as active.
>
> We *sense* them as existing and even thinking.[4]

It is through movement that we empathise with the character, relating its movements to those that we know from our lived experience. We draw on our own internal data-

1 Malcolm Le Grice, *Experimental Cinema in the Digital Age* (BFI Publishing, 2001), 173.

2 Ibid.

3 Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation*, 134.

4 Eisenstein, *Eisenstein on Disney*, 55.

bases of movements, gestures and the psychological, emotional and social meaning we have learned to ascribe to them. It is not necessary to recognise a photographic 'certificate of presence'[1]: proof that the character once lived. Through movement the character is experienced as if it could have had consciousness and agency. Although an animated character does not exist in the 'real world', we recognise that it is giving a 'performance' by reading the body language of the character through its movements and postures and ascribing causality to them.[2]

In this section, I have argued that there is an extensive and ancient lineage of live performance by puppets and extended, masked actors, which proves that the figure on stage need not be wholly alive in order to give a live performance. There is a play of absence and presence in an animation, because the body that originated the intent for a movement at *author-time*[3] is not the same body that carries out the movement at *run-time*. Animation can be seen as part of a continuum of presence and absence, in which the performance that is indexed is that of a historical performance by proxy, created by a team of animators rather than a single actor. The animator leaves visible or invisible traces of their presence in the non-matrixed performance of the animation process. It is through the movements of the character that we identify with their actions. Whether the performance of a character is experienced in close physical proximity to the corporeal body of an actor, as mediated through film, or as displaced onto the body of the constructed-actor or animated character, it is an artificial construct made coherent only in the mind of the viewer. A fictional performed character is constituted through the act of perception.

1 Barthes, *Camera Lucida*, 87.

2 For example, if a character walks slowly with a down-turned head and forward-sloping posture, I interpret this as a depressed walk.

3 I am using the terms 'author-time' and 'run-time', which are used in interactive authoring, to differentiate between the time when a performance is created and the time when it is played back.

2.8 Conclusion

The purpose of this chapter was to examine the act of encoding that takes place in animation production when an artificially constructed character is made to appear to be performing and to determine whether the animator can be seen as the performer behind that character. In the animation industry itself, it is commonplace to think of the animator as a performer by proxy who creates an artificial, animated body to enact a performance that she has devised as if an extension of her own body.

In response to a century of historical precedents in the animation industry, whose practitioners studied and enacted performance as part of the process of creation that results in animated characters, I inhabited the paper skin of a cartoon character in order to examine the origination and performance of an artificial construct and to experiment with Butler's notion of the performative. Adopting a strategy of participant observation, this project enabled me to use performance as a research method that would allow me to experience personally being in the site of animated performance, as opposed to being an exterior spectator. The *Dog Betty* project facilitated my understanding of animation as a process extending beyond frame-by-frame technique or the confines of the flat screen. Furthermore, this project led me to make direct connections between animation, mask and puppetry; between the ecstatic rituals at the origins of theatre, in which the boundaries of the human body are transgressed, and the irrational, plasmatic world of the carton. Indeed, the roots of animation and live performance are deeply intertwined and, in this chapter, I have demonstrated a historical lineage that runs from the stage magician to the showman animator to the idea that the animator is a performer. Animation can be seen as an act of magic in which otherworldly worlds are created and artificial beings given the appearance of life.

A number of objections to the idea of the animator as a performer could be raised. Firstly, the practical issue of the complex authorship of animation may appear to challenge preconceived notions of a direct correlation between the body of a performer and the performance that she gives. In the majority of animation productions, a team

works together to create the animated performance of one character. It would be rare for a single animator to be in complete control of one character without the assistance of co-workers, the influence of a voice-over artist and the creative overview of a director, writer, editor and character designer. It is clear from other types of live performance, however, that the creative intent behind a performance need not be enacted by the originator of that intent. In puppetry, for example, a puppet is made to perform through the non-matrixed actions of the puppeteer. Furthermore, work such as that created by Faulty Optic or bunraku puppetry, demonstrates how many hands can work together in a live context to create one character. Just as in factory animation production, multiple authors of performance (and even multiple techniques) can be unified by creative intent, consistency of appearance and characterisation and then understood as a coherent character in the mind of the viewer. I will go on to investigate in more detail the way in which character is understood by the viewer in Chapter 4.

Continuing the objection that the body of the performer is not the same as the body of the animator is the argument that, since the animated body never actually existed for the viewer in the form of corporeal flesh, there can be no clear process of identification with the character for the viewer. This train of thought could be contrasted with the idea that the theatre is a place of incarnation, of the actual presence of original bodies and not their re-presentation, and, therefore, provides a more primal and authentic experience than that of viewing a performance that has been mediated through film. The former argument is that a real body must have once existed in order for the viewer to engage in identification. One of the limitations of this reasoning is that it is dependent upon an understanding of performance as synonymous with naturalistic acting. It assumes that the viewer's act of identification defines true performance. The latter argument is that even if the performing body were real, performance as reproduced on film lacks the authenticity and raw power involved in the experience of the performer's body in close physical proximity.

In order to counter these points of view, I argue that a century of Modernist theatre practitioners such as Craig, Schlemmer, Kantor and Beckett have aimed for a more

direct and transformative form of communication than those established by naturalistic theatrical conventions: not through emotional identification with a human actor, but through the replacement, extension, negation or erasure of corporeal presence. Different approaches to presence in the theatre disprove the idea that the authors of the intent need carry out that intent with their own bodies. Indeed, as Evans argues, with its play of absence and presence, animation could be seen as the ultimate Modernist performance. Moreover, all performed characters are fictions. Whether reproduced on film or experienced live, the human actor does not behave exactly as she would in ordinary life: planned and prepared, twice-behaved actions are enacted to create a fictional construct. Furthermore, assert that character is understood through the recognition of different types of movement informed by our lived experience rather than by the type of body that makes those movements.

A consideration of performance in animation enables the activity of performance to be seen as separate from the body that enacts the activity. As I discovered when creating, discussing and reflecting upon my performance *Out There in the Dark*, this contrast between absence and presence, between the live body and the animated character reveals the uncanny act at the heart of animation in which the lifeless is made to move. Following my *Dog Betty* research, this project began with a desire to examine the types of performance in animation and yet it ultimately led me to consider the animation in performance: the haunting of the corporeal by gesture; the physical body outwith conscious control; the undead enacting the performative intent of others and brought to the realm of the living through movement.

The results of my investigations in this chapter led me to the following conclusions: First, I argue that animation is a form of performance by constructed-actor, which has roots in mask and puppetry. Just as in puppetry, the body that conceives of and controls the behaviour of the character is separate from the character itself. The movements an animated character makes lead the viewer to experience the character as if it were autonomous and had agency. What differentiates animation from puppetry is that the illusion of autonomous motion is mediated through a visual moving image technology such as film or digital video. Second, I assert that performance in

animation takes place at two levels: non-matrixed - the animators' activities recorded over time; and substitutionary - a performance by proxy enacted by a substitute for the animator's body. Finally, taken together, these ideas suggest that animation is not a reproductive technique, but an uncanny process in which the inhuman and lifeless are bestowed with motion and given the appearance of life.

If animation can be accepted as an activity in which a character is performed, the next area to explore is whether this could take place in a live environment. In the following chapter, I will consider the impact of new, digital technologies on how animated performance is played back and delivered.

3. Run-time: Animation playback

3.1 Introduction

In the last chapter, I explored the heritage of animation as the progeny of the constructed-actor and notions of the animator as performer. In this chapter, I will return to issues of temporality and liveness raised in *1.6* (on page 29 to page 32) and reflect on how animated performance is delivered and played back at the moment of run-time.

Animation has previously been considered as bound by its relationship to film: the medium on which it was distributed. In the traditional cinematic context, each audience member has the same experience, is passive and their reaction has no influence on how a film is played back. The use of digital technologies has engendered a paradigm shift and a short or feature film in a cinema is no longer the only manner in which moving images can be distributed. Animation can take many forms. It can be used as a component of the interface design for software programmes and operating systems. It is displayed on Internet banner adverts, mobile phones, electronic billboards, moving signage[1] and as part of interactive media experiences such as shopping websites or gaming.

In this chapter, I contrast notions of what defines live performance with case studies in which animation is created and played back as part of a live experience: where performance animation meets interactive technology and digital dance. In the first section, I will present an example of a live, online animation that includes audience participation.

1 Such as pedestrian crossings.

3.2 Synchronous animation: *At Home with Mr and Mrs Smith* (Birgitta Hosea, 2009)

In this project the intention was to investigate whether animation could happen 'now', in the present time, to a geographically dispersed audience and whether a response to audience feedback in real-time would be possible.

The concept of 'cyberformance' - performing through avatars over the Internet in combination with live performance - was developed by the theatre company Avatar Body Collision[1], who were founded in 2002. Their work typically involves one 'real', live performer, while three remote performers appear projected onto screens in the hosting venue via webcams or in the form of avatars. Through experimentation with a variety of online chat technologies, in 2003 they established UpStage[2], a web-based venue for online performance based on an Open Source server application located in New Zealand. Online audiences anywhere in the world can participate in live performance events through their browser by going to a web page. The UpStage technology allows 'cyberformers' to manipulate characters, in the form of avatars. They can also draw directly onto the stage in real time, change backgrounds, move props around and play sound clips.

At Home with Mr and Mrs Smith (2009) was an animation specifically created for the UpStage 090909 festival[3], loosely adapted from Eugène Ionesco's *Bald Primadonna,* with inspiration from Mike Leigh's *Abigail's Party*. It involved myself and a collaborator[4] using the UpStage system to perform through digital, cartoon avatars live over the Internet from different geographical locations (London and Bath). I wrote,

1 "Avatar Body Collision," 2007, http://www.avatarbodycollision.org/about.html (accesed September 13, 2010).

2 "UpStage," 2010, http://upstage.org.nz/blog (accesed September 13, 2010).

3 See *Plates 10 - 16* on page 181 to page 184 for screen captures of the audience view during the performance, *DVD Chapter 2.1* for a screen capture of the actors' view during dress rehearsal, *DVD Chapter 2.2* for an overview of the animated character's cycles and *Appendix I* on page 234 for the script.

4 Matt Wicks gave me invaluable feedback and support during the process. He also performed the part of Mr Smith and the Fireman.

designed, animated and directed this piece as well as performing the part of Mrs Smith. The publicity for the piece invited the audience to explore the random and meaningless nature of polite conversation and stated that 'Mr and Mrs Smith would like to invite you for dinner and aperitifs'.

Eugène Ionesco wrote the *Bald Primadonna*[1], a play first performed in France in 1950, while he was learning English and became inspired by the trite conversational phrases of language textbooks. From this play, I took some of the characters, the technique of using phrases out of old-fashioned language textbooks[2] and elements of the scenario.[3] The characters for *At Home with Mr and Mrs Smith* were developed in cartoon style and the backdrop was designed so that it looked like a theatrical living room set. The cartoon characters were manipulated live: using Flash to create the avatars, I was able to create a series of short animated loops for each character that could be triggered by a keystroke.[4] This enabled a number of animated poses to be activated for each character, giving them a range of simple movements from different angles, rather than the avatar being static like a simple paper puppet. As well as being able to do a number of short looped movement cycles, the avatars could also be dragged across the virtual stage. Although superficially there may appear to be some similarities to puppetry in the process, *At Home with Mr and Mrs Smith* took the form of a moving image mediated through the computer screen and was created with animation software using looped movement cycles.[5] Indeed, creating and reflecting on this project was pivotal in enabling me to think through the differences between animation and puppetry that I have mentioned in previous chapters. Although animation and puppetry both involve the the manipulation of characters, for me what differentiates them is that animation is mediated through a visual moving image technology such as film or digital video.

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1 Eugène Ionesco, *The Bald Primadonna* (London: French, 1973).

2 G. Kenneth Laycock and Martin S. Allwood, *Idiomatic English Sentences with Swedish Equivalents* (Uppsala: Hugo Gebers Förlag, 1946).

3 *See Appendix I* on page 234.

4 See *Appendix I* for a list of these.

5 See *DVD chapter 2.2* for an overview of the animated cycles.

The characters of Mr and Mrs Smith could also 'talk' through text-to-speech synthesis. The speech synthesis technology created a dry, automated voice with 100 different accents to choose from. To make the characters 'speak' the dialogue, during the performances we copied and pasted phrases from a pre-written script or typed ad-libs directly into a text field in the UpStage environment. The text 'spoken' was also displayed on screen in 'speech bubbles', which could be shown as standard, as think bubbles or as emphatic. Mr and Mrs Smith asked the audience questions directly, in order to encourage them to answer back. The audience could also interact with the performers through text chat. This audience participation took the form of text only, as their speech was not synthesised. As this was part of a day-long festival, many of the participants were already familiar with the UpStage technology and were aware that they could 'answer back' with text chat. The audience seemed to find the piece funny, enjoyed the characters and engaged by typing witty and amusing comments[1]. As a participant, the spontaneity was absorbing, although it could feel like I was interrupting sometimes or missing the point in the conversation because of the speed it took to type a response. It was thrilling to watch the text chat appear in real time as participants revealed that they came from Istanbul or London or Germany or Australia or New Zealand. This demonstrated that a key part of the liveness of the event was for the audience to be able to interact with the piece and to see an immediate response to their intervention.

Although *At Home with Mr and Mrs Smith* featured animations that were drawn frame-by-frame, this performance took place in the present. The live, spontaneous, animated characters could improvise and immediately respond to synchronous audience participation through the actions of their remote operators who could create movements or synthesised speech in real time. This project challenged the notion that embodied performance is the only way to be live. In the next section, I will consider theories of liveness and what the implications are for animation to be 'here' and 'now'.

1 See *Plates 10 - 16* on page 181 to page 184 for a sample, on the right hand side of the screen, of the live text interchange between audience and performer. There is a full transcript of each performance in Appendix I.B on the accompanying DVD that details the spontaneous ad-libs and instant responses to audience feedback that we were able to achieve using UpStage's text to speech synthesis technology.

3.3 Theories of liveness

The idea that liveness defines performance, proposed by Peggy Phelan in her essay *The Ontology of Performance*[1], was first introduced in section *1.6* on page 29. Liveness, however could also be seen as a key 'ontological feature' of a telephone call. Does that make a telephone call a performance?

As a reaction to Peggy Phelan's writing on the ontology of performance, Philip Auslander deconstructs the concept of 'now' and argues that this is not the exclusive domain of performance. In his book *Liveness,*[2] Auslander argues that the category 'live' has only come into existence since the emergence of reproductive technologies and that it is reductive to place it in binary opposition to 'reproduced'.[3] Auslander contends that 'liveness' is no longer the exclusive territory of theatre, but is also an integral feature of television through which, in our age of mass media, we now experience the world. He asserts that television has changed our relationship to the present and has become: 'an intrinsic and determining element of our cultural formation.'[4] If we can see it happen 'now', it must be real. Major national and international events, such as Big Brother live evictions, the World Cup live and the Olympics, are experienced through broadcast television by geographically dispersed communal audiences at the same time as they occur. Other examples of synchronous media could be appended to Auslander's example, such as online video conferencing, instant text chat, live web casting, online multi-user gaming, the live experience of *At Home with Mr and Mrs Smith* or the work of telematic artist Paul Sermon, which combines video conferencing technology and live performance through avatars. In Sermon's *Telematic Dreaming*[5] (1992), live video feeds from two remote locations are each projected into the other so that the viewer can interact with their remote counterpart. Each live video

1 Phelan, "The Ontology of Performance: Representation Without Reproduction."

2 Auslander, *Liveness: Performance in a Mediatized Culture*.

3 Ibid., 3.

4 Ibid., 2.

5 Paul Sermon, "Telematic Dreaming," 1992, http://creativetechnology.salford.ac.uk/paulsermon/dream (accessed September 13, 2010).

feed is projected onto a bed, which enables a participant to interact with a projected video image of someone in another location. In a more recent work, *Liberate Your Avatar*[1] (2007), Sermon recreated Manchester's All Saints Gardens within the online world of *Second Life*, which is a three-dimensional environment in which members of the public create fictional identities and animated, virtual bodies they can operate in real time. A large video screen in the real All Saints Gardens was replicated by a similar screen in the online version of the space. Chroma-key technology enabled images to appear on both screens that combined both the real spectators in Manchester and the avatars animated live by the global participants within *Second Life*. This enabled participants to look into the screen as if it were a mirror that contained not only their own reflection, but also the reflection of the others composited there, as if both sets of participants - real humans and animated avatars - co-existed in the same space.

Figure 34. Paul Sermon, *Liberate Your Avatar*, 2007. View from Second Life.

Figure 35. Paul Sermon, *Liberate Your Avatar*, 2007. View from All Saints Gardens.

From these examples, I would like to argue that happening 'now' is no longer sufficient to differentiate live performance from other types of synchronous media. If 'live' is something you experience 'now', in the 'present', then it could also be an experience of synchronous media such as a live webcast or playing a game on an interactive TV quiz channel.

Another key feature of live performance Peggy Phelan considers is that the uniqueness of the experience cannot be reproduced:

1 Paul Sermon, "Liberate Your Avatar," 2007, http://creativetechnology.salford.ac.uk/paulsermon/liberate (accessed September 13, 2010).

> Performance honors the idea that a limited number of people in a specific time / space frame can have an experience of value which leaves no visible trace afterward.[1]

For Phelan, the experience of watching the unique, live event is ephemeral: its only trace in the memory of the spectator. From this she concludes that disappearance is part of its ontology: 'Performance's being, like the ontology of subjectivity proposed here, becomes itself through disappearance'[2].

In opposition to Phelan, Auslander argues that disappearance is not unique to live performance and that it is also a constituent feature of [analogue] broadcast TV interlaced pictures, where one set of scan lines disappears and is replaced by another.[3] This argument could, indeed, be extended to cover any form of time-based media. Film can be seen as a succession of fleeting, still photographs disappearing before your eyes, none of them staying long enough to register a unique impression, as Roland Barthes claims in *Camera Lucida:*

> ...the Photograph's *noeme* deteriorates when this Photograph is animated and becomes cinema: in the Photograph something *has posed* in front of the tiny hole and has remained there forever (that is my feeling); but in cinema, something *has passed* in front of this same tiny hole: the pose is swept away and denied by the continuous series of images.[4]

Indeed, the use of MPEG video compression for DVD authoring means that the moving image no longer consists of discrete still images. Technically this form of digital moving image storage involves both *inter* and *intra* frame compression in which a series of keyframes are set at intervals and the frames in between are not complete representations of the image, but are stored as the differences between those whole keyframes. Thus, disappearance is also an integral part of video compression.

Moreover, the experience of watching time-based media will differ according to the viewing context: the venue, whether there is a surrounding audience or solitary spectatorship and the platform of delivery for the moving images (TV, DVD, You Tube etc.)

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1 Phelan, "The Ontology of Performance: Representation Without Reproduction," 149.

2 Ibid., 147.

3 Auslander, *Liveness: Performance in a Mediatized Culture*, 43.

4 Barthes, *Camera Lucida*, 78.

will each have an influence. The introduction of television brought a degree of control over viewing that was not present in the cinematic experience. It became possible to change channels or select the on/off button. With the advent of VHS it became possible to capture, pause, rewind and fast-forward the viewing experience. The introduction of DVD led to a further enhancement of image quality, in particular the quality of the pause, which, in VHS technology, had stuttered between video fields. Laura Mulvey argues that this technologically enhanced pause has created a new form of possessive or pensive spectatorship in which the frame can be contemplated in detail and endlessly held as the spectator desires to consume and possess the ephemeral image.[1] Changes in spectatorship are even more apparent online, where viewers are able to intervene directly with the moving images they consume: viewing on demand; adding playlists, recommendations and feedback; creating fan sites; downloading and re-editing content.[2] This ability to control the viewing process enables each viewer to have a unique experience.

Although traditionally animation is not considered to be live but an asynchronous media (as opposed to theatre which is synchronous) as Alexander Sesonske points out, an animated character only exists in the present:

> [N]either these lively creatures nor their actions, ever existed until they were projected on screen. Their projected world exists only *now*, at the moment of projection… For there is no past time at which these events either did occur or purport to have occurred. Surely not the time the drawings were made, or the frames photographed, for the world I know and see had not yet sprung into existence then. It exists only now, when I see it…[3]

In other words, the animated character only comes into existence at run-time. If you accept it, this makes animation, like the theatre, also an 'art of the present'[4].

Thus, although the theatrical experience *is* clearly ephemeral and held in memory,

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1 Mulvey, *Death 24X a Second: Stillness and the Moving Image*, 161.

2 cf. Hosea, "TV 2.0: Animation Readership/Authorship on the Internet."

3 Alexander Sesonke quoted in Stanley Cavell, *The World Viewed: Reflections on the Ontology of Film* (Cambridge, MA: Harvard University press, 1979), 167-8 quoted in Buchan, "The Animated Spectator: Watching the Quay Brothers' worlds," 17.

4 Barba, *The Paper Canoe: A Guide To Theatre Anthropology*, 36.

this is not the *exclusive* terrain of live performance. Disappearance is apparent in other forms of time-based media: both in terms of their material ontology and their reception by the viewer and retention in memory. Auslander concludes that 'mediatized forms like film and video can be shown to have the same ontological characteristics as live performance'[1] and that on this basis there are no grounds for 'privileging live performance as oppositional discourse'.[2]

If 'now' is also a feature of other types of synchronous media and telecommunications technology, could the live be defined as an experience of the 'present' in three-dimensional space? In *The Phenomenology of Perception*, Maurice Merleau-Ponty maintains that our knowledge starts with the body and the information about the world that we receive through our senses. The senses do not work in isolation, they work together in a moving, living body to create information about the world 'out there'. The space that surrounds us is not 'some sort of ether in which all things float'.[3] Because we can move around, we can see, hear or feel objects from different angles and, thus, we orient ourselves in the world:

> ... my body is the pivot of the world: I know that objects have several facets because I could make a tour of inspection of them, and in that sense I am conscious of the world through the medium of my body.[4]

Perception takes place from an orientated position, which connects[5] and anchors[6] the subject in the world. Since birth we have moved through three dimensions and experienced being at the origin of our own perspectival space.[7] This is a fundamental experience that comes before thought. Our senses are also linked to our motor functions.[8] Without conscious intent, we move closer to something that interests us, we

1 Auslander, *Liveness: Performance in a Mediatized Culture*, 159.

2 Ibid.

3 Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (London; New York: Routledge, 1999), 243.

4 Ibid, 82.

5 Ibid, 243.

6 Ibid, 280.

7 Ibid, 253-4.

8 Ibid, 209-10.

cover our eyes to avoid looking at something, we sway to the beat of music we enjoy. Our body is a unified system with which we connect to the world outside ourselves.

In his treatise on the importance of light in the theatre, Adolph Appia, develops the idea that an important aspect of the perception of the actor's body is that it is experienced as moving through three-dimensional space:

> The first factor in staging is the interpreter: the actor himself. The actor carries the action. Without him there can be no action and hence no drama… The body is alive, mobile and plastic, it exists in three dimensions. Space and the objects used by the body must most carefully take this fact into account. The overall arrangement of the setting comes just after the actor in importance; it is through it that the actor makes contact with and assumes reality within the scenic space.[1]

In a traditional proscenium arch theatre, the spectator has a fixed seat, yet can move around to some extent to establish a three-dimensional view of the stage. In other spatial configurations, such as processional drama, theatre in the round or site-specific live art, the audience has a fuller experience of the space. The performance also has a spatial dimension. An actor can be blocked and perform in three dimensional space, constrained only by sightlines. In addition, in a traditional theatre an actor can play in turn to the stalls, the boxes or the circle.

Animation, on the other hand, is conventionally experienced on a flat screen. Films, as well as animations, are usually watched on a flat surface, whether or not the source of performance itself is flat or three-dimensional. This perception of flatness is echoed in film theory. In *The Address of the Eye: A Phenomenology of Film Experience*, Vivian Sobchack argues that three metaphors have dominated film theory so far, which all refer to the rectangular frame – the window, the picture frame or the mirror.[2]

The flatness of film and animation is dependant upon the type of surface that is used to deliver the play-back. The expanded cinema and structural film movements of the '60s and '70s featured experiments by many artists, such as Malcolm Le Grice, William Raban, Valie Export, Werner Nekes and Guy Sherwin, into the process of film

1 Adolph Appia, "Actor, Space, Light, Painting," in *The Twentieth Century Performance Reader*, ed. Michael Huxley and Noel Witts, Second Edition. (London: Routledge, 2002), 29.

2 Vivian Sobchack, *The Address of the Eye: A Phenomenology of Film Experience* (Princeton, New Jersey: Princeton University Press, 1992), 14.

projection. These artists used their own bodies and other non-cinematic surfaces as projection screens in order to spatialise the site of projection. For example, in Anthony McCall's *Line Describing a Cone* (1973), originally shown at the London Filmmaker's Co-op, white lines moving slowly across black exposed film are projected onto smoke or dust particles, therefore creating three-dimensional cones of light. The line is made manifest. It can be physically experienced. It is not imagined. It exists in the present moment. McCall refers to the groundbreaking experience that this work engenders:

> It is the first film to exist in real, three-dimensional space.
>
> This film exists only in the present: the moment of projection. It refers to nothing beyond this real time. It contains no illusion. It is a primary experience, not secondary: i.e. the space is real, not referential; the time is real, not referential.[1]

Returning to this body of work in 2000, McCall now uses Flash to animate white lines on a black background, which are projected in the form of QuickTime movies to create intricate beams of light.[2] The software allows him to make more complex structures, such as wipes between ellipses and waves. Although McCall considers his work to be sculptural, for me *Line Describing a Cone* is also a work of animation and

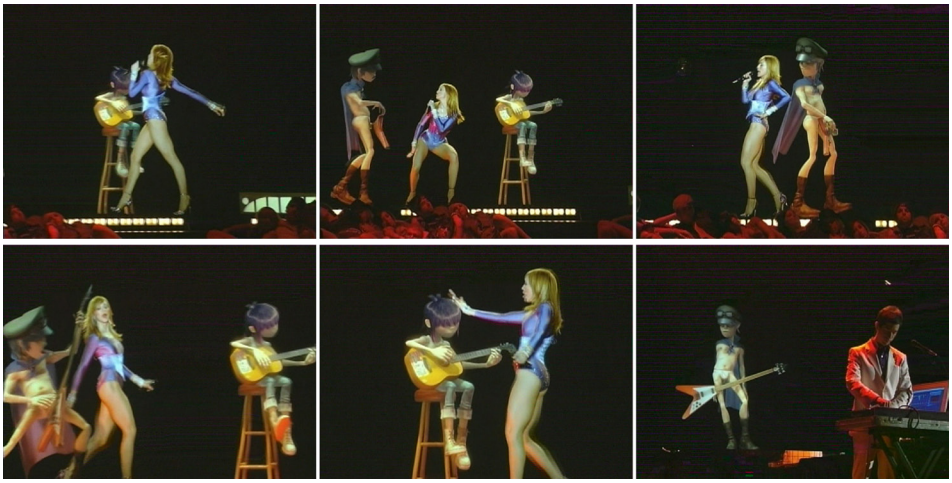
Figure 36. Anthony McCall, *Line Describing a Cone*, 2002, Whitney Museum.

1 Anthony McCall, "Anthony McCall," in *Eyes, Lies and Illusions*, ed. Laurent Mannoni, Werner Nekes and Marina Warner (London: Hayward Gallery in association with Lund Humphries, 2004), 170.

2 Anthony McCall, "Then and Now" (paper presented at the Pervasive Animation Conference, Tate Modern, London, 2007).

it was presented as such at the Pervasive Animation conference in 2007, where it was re-created at the Tate Modern.

A contemporary example of not just animation, but actual cartoon characters performing 'live' and appearing to have a presence in three-dimensional space happened when the cartoon pop group, the Gorillaz, performed 'live' at the MTV awards in Lisbon in 2005. Using the Musion Eyeliner holographic projection system[1], which is an updated, high-tech version of the old Peppers Ghost illusion[2], these animated figures seemed to have an embodied spatial existence as they duetted with Madonna.



Figures 37 - 42. Madonna and the Gorrillaz at the 48th Grammy Awards, 2006.
Reproduced from the Musion showreel.

White Lines (2009-10)[3], a hybrid of live performance and animation in which a holographic projection of white lines came together to form a giant head, was a piece that I created specifically for the Musion Eyeliner holographic projection system.[4] Inspired by *L'Homme a la Tête en Caoutchouc* ('The Man with the Rubber Head"), a film direct-

1 "Musion Eyeliner | 3D Hologram | Holographic Projection," 2010, http://www.musion.co.uk/about_musion_eyeliner.html (accessed September 15, 2010).

2 cf. Barnouw, *The Magician and the Cinema*, 27-28.

3 This was awarded a MAMA Holographic Arts Award (Performance category) in 2009. It was shown in 2010 as part of the Holographic Serendipity show at Kinetica Art Fair and Shunt, a performance venue in the underground tunnels beneath London Bridge station.

4 See *DVD Chapter 3* for video documentation of the holographic screening of the *White Lines* short film without the addition of live performance at the 2009 Awards Ceremony.

ed by Georges Méliès in 1902[1], *White Lines* references the smoke and mirror illusions and lightning sketch acts at the origins of animation. Extending my previous project, *Out There in the Dark*, the concept behind this piece was to trace and erase my own presence through the use of line and, thus, to investigate the performative nature of the non-matrixed act of animation. In other words, this represented an attempt to animate myself into existence by drawing with light. In order to create the giant head, I filmed myself painted black and then drew white lines around my head. This footage was then digitally manipulated and hand re-touched in the computer with After Effects. Shown with the Musion technology, everything that is black is invisible and so only the white lines were apparent. As the lines move they appear to depict a giant head that is rotating through three dimensions. During the live performances, I was painted black and drew white lines on myself within a holographic projection of *White Lines* in a repetition of the actions that had been done to create the initial film. In effect, I was revealing the mode of production as I created a live, three-dimensional performance drawing within a holographic projection of the same performance drawing.[2]

The flat rectangular screen is the traditional site of display for works created with computers. However, other technologies for experiencing moving images in three dimensions are emerging, such as the 3D digital cinema projection technology that was launched with the film *Avatar* (2009). In the online environment and through the use of devices such as the Nintendo 3DS, augmented reality techniques enable the viewer to look through their webcam and see a three-dimensional shape or animation appear to move through space after calibrating the camera view with the virtual environment by moving a computer printout on a sheet of paper. Complex communication between the computer and the physical world outside it can also be created with customisable hardware such as Arduino - an open-source electronics prototyping platform, which

1 Cf. Figures 14 & 15. Georges Méliès, dir. L'homme a la Tête en Caoutchouc (The Man with the Rubber Head), 1902. on page 44.

2 See *Plate 17* on page 185 for still images from the live performances inside the holographic projection of the short film at Kinetica and Shunt. N.B. it is virtually impossible to accurately photograph this work due to light levels and the way in which the technology works on the eyes. The only way to fully experience the three dimensional efect is with the naked eye.

acts as a bridge between the world inside a computer and the physical world outside it. Sensors or control mechanisms get information from the world – like temperature or light levels or a button being pressed – and the Arduino board can translate this data to the computer. This can also be used to control events in the physical world, for example, to light up LEDs or activate a motor. In 2007, I used this technology to animate a doll in the physical world that was activated by the presence of a person.[1] Human proximity triggered the automaton as it broke a laser beam of red light. This information was taken into the computer via the Arduino board and then out again into the world to make the doll dance. This project was pivotal for me to gain the insight that computer code can be used as a medium with which to create, store, transmit and enact movement. This mediating function is no longer the exclusive domain of film. In this experiment, code from the computer was used as a means with which to create movement in the physical world through control over a small motor. Through this process, animation can leave the computer and the boundary of the rectangular screen. Animation can become physical. It can exist in real, three-dimensional space.

Although an animated character lacks a real life force and its body does not obey the normal rules of the physical universe, these examples show that through expanded cinema techniques, holographic projections and interactive automata, animation can not only be viewed with the illusion of three-dimensional space, but can have actual three-dimensional physical presence, react to and share a space with the viewer.

Proximity is not, however, only experienced spatially. For Merleau-Ponty, three dimensional space is not only experienced because of the body's potential to move through space and view it from different angles, but also because it connects the viewer to a world in which their phenomenal body is the subject of perception and yet they also are an object of the perception of others. They are at once looker and looked at:

> It is indeed not enough to say that the objective body belongs to the realm of 'for others', and my phenomenal body to that of 'for me', and we cannot refuse to pose the problem of their relations, since the 'for me' and the 'for others' co-exist in one and the same world, as is proved by my perception of an other who immediately brings

1 See *Plate 18* page 186 for photographs

> me back to the condition of an object for him.[1]

In the act of perception, the consciousness is reminded through the experience of the whole body that it is not alone. It is connected to others in the world. The potential for explicit exchange between the self and others is a crucial feature of live performance. Audience participation or the electric moment of eye contact between live performer and viewer, which is denied in the classic realist film, allows the viewer's own presence and a sense of her own agency to be felt through a potential or immediate reaction from the performer. This is denied by the traditional puppet which lacks sentience and the ability to reciprocate as Meike Wagner points out:

> My body, which I perceive as being an intimate, integral part of my self is disturbed through the encounter of the object body (puppet body) on stage - responding to my viewing with its dead eyes.[2]

Nevertheless, in the digital environment it is no longer essential for performer and audience to be in the exact same physical space for an experience of proximity to take place. Steve Dixon points out that with the emergence of digital technology the concept of presence 'shifts to include ideas of telematic and deferred, online presence, relating it to agency rather than to direct witnessing.'[3] Proximity is experienced through an acknowledgement of the spectator's agency, her potential to interact with the work and provoke a reaction. Helen Bailey also concludes from her experience of creating live dance for virtual and telematic environments in *Stereobodies* (2005) that:

> ... 'presence' in relation to 'live-ness' or 'live performance' has an inextricable link with participant feedback or interactivity within the shared social space of performance. However, from this project it is also evident that 'shared space' no longer refers to a co-located physical space, but can also refer to... distributed and online collaborative environments.[4]

As the example of *At Home with Mr and Mrs Smith* shows, the act of exchange be-

1 Merleau-Ponty, *Phenomenology of Perception*, footnote, 106.

2 Meike Wagner, "Of Other Bodies: The Intermedial Gaze in Theatre." Intermediality in Theatre and Performance, edited by Freda Chapple and Chiel Kattenbelt. (Amsterdam; New York: Editions Rodopi, 2007), 129.

3 Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation*, 132.

4 Helen Bailey, "Ersatz Dancing: Negotiating the Live and the Mediated in Digital Performance Practice," *International Journal of Performance Arts and Digital Media* 3, no. 2 (2007): 164.

tween spectator and animated performer can be achieved through interactive technology, even if there is no physical proximity.

In this section, I have argued that animation can be experienced 'now' - in the present time - and 'here' - both through being experienced in three-dimensions and by acknowledgement of the viewer's agency. In the next two sections I will examine in more detail how digital technology enables animation to be an 'art of the present'.[1]

1 Barba, *The Paper Canoe: A Guide To Theatre Anthropology*, 36.

3.4 Improvisation and the database: Little Howard (Howard Read)

Improvisation; spontaneity; an unpredictable, witty response to a heckler from the audience: all of these define the immediacy of performance in a live situation as opposed to the predictable way in which a film or animation is conventionally played back. Digital technology, however, represents a paradigm shift in how moving images can be created, manipulated, stored and delivered, as Lev Manovich points out in *The Language of New Media.*[1] In digital media, the same zeros and ones are used to describe image, sound, text and operational instructions and so this material is inherently synaesthetic and malleable.[2] The data stored on a computer can be randomly accessed in any order. Unlike accessing frames of film one by one in a linear manner through a Steenbeck film-editing machine, a frame of digital video is as easy for me to access on a computer as my best friend's email address or a holiday snapshot. The ease with which data can be retrieved from storage in a database on a computer means that the same assets can be combined in unique configurations for different outputs and customised for individual viewing experiences.[3] Lev Manovich describes the database as a key form of cultural expression for the digital age: '…a new paradigm to interface reality and the human experience in new ways.'[4]

Games designers are currently working on artificial intelligence-led database systems to simulate human behaviour. Vast databases of potential movements for a character are triggered by user interaction to create a seemingly spontaneous character. A database is used to organise assets – loop-able animated cycles, artwork for backgrounds, props, key facial expressions and mouth shapes – that can then be

1 Manovich, *The Language Of New Media*, 19.

2 cf. Birgitta Hosea, "Photosonic Synthesis: Hearing Colour, Seeing Sound, Visualising Gesture" (paper presented at the Seeing…Vision and Perception in a Digital Culture: Computers and the History of Art (CHArt) 24th Annual Conference, University of London, 2008).

3 cf. Manovich, *The Language Of New Media*, 36-45.

4 Lev Manovich, "Metadating the image," in *Making Art of Databases*, ed. Jake Brouwer, Arjen Mulder, and Susan Charlton (Rotterdam: V2_Publishing / NA: Publishers, 2003), 13.

retrieved and re-used. All digital animation now involves some form of database to be able to store, manage and access the huge number of assets that make up the finished product. Metadata is a way of describing, saving and appending information about a file and forms a basis for adding criteria that will allow the user to create a manageable taxonomy of their information. The databases of animated performance used in games can be comprehensive. In sports games like *FIFA 2006 Road to the World Cup* there are 25,000 potential football players and 60,000 potential 'extras' in the crowd scenes.[1] The performance of all these games characters is created from a combination of user interaction, artificial intelligence and a database of animation. The game designers try to recycle as much as possible, so the same animation can be used for different characters.[2] The holy grail of games design is procedural performance, in which all possible human movement could be described and defined within a definitive categorisation system in a programmed database. This would result in programmers being able to draw from a database of movements described by code[3], rather than the employment of expensive animators. Eric Armstrong from the games company Electronic Arts describes the database as a way to create the possibility of improvisation in a game: 'systems based on databases that simulate a repertoire of behaviours can be created to give the appearance of spontaneity.'[4]

Through triggering a database of pre-created animated clips in a live situation, an operator can enable a non-linear range of live animated responses from a cartoon character. This approach is illustrated in the work of Howard Read, a stand-up comedian who does a live, stage, double-act with a cartoon sidekick, as well as a children's TV show on CBBC.[5] Read's publicity states that he is the world's first human / cartoon

1 Eric Armstrong and Electronic Arts, "Creating a Digital Performance," (paper presented at the FMX/06: 11th International Conference on Animation, Effects, Realtime and Content, Stuttgart, 2006).

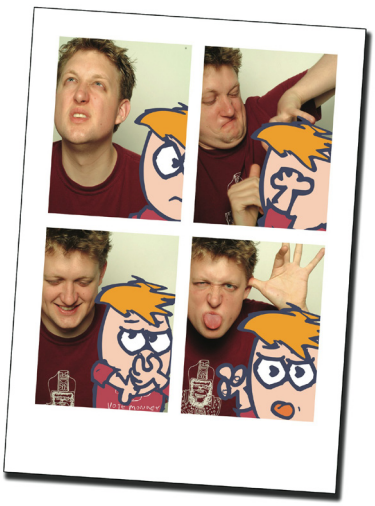
2 Ibid.

3 Ibid.

4 Ibid.

5 Read started out as a stand-up comedian who, since he worked mainly at nights, had time on his hands during the day and developed a web site for himself. As he learned the software, he began to doodle and create online animations for his web site. One of his online animations was picked up by the Radio Times Online as the funniest animation of the week. He went on to develop more animations and to win awards such as the BBC New Comedy Award for animation in 2001. The popularity of his

double act, but he quietly acknowledges in interview that this may be somewhat inaccurate in the light of Winsor McKay's *Gertie the Dinosaur* and amends this to 'currently the only human cartoon double act'[1].



Figures 37 & 38. Howard Read with Little Howard, undated. Publicity photos. Reproduced with permission of Howard Read.

Read's alter ego, *Little Howard*, is created using Flash software and, because the character is generated by a database of pre-animated clips, is capable of improvisation. Read has developed a technique that was inspired by a satire on improvisational comedy:

> Asking the audience what's your name and where do you come from and responding to it live, that was the big trick that got *Little Howard* noticed. It was basically a database of animations which you could play together using Flash to control the keyboard. Everything, all the jokes, were pre-recorded and it was all about second guessing what the audience were going to say, which a lot of on-stage improvisation is. A lot of comics that do a lot of the, 'What's your name, where are you from, what do you do for a living,' have asked that question a million times before. They have got the same answer for 'I'm a plumber' as they had in their head a joke about plumbers and when they say the joke about plumbers, it looks like they made it up. They look like an improvisational genius. It was a bit of a smug joke on my part to satirise that sort of lazy supposed improvisation by completely mechanising it.[2]

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animated characters led him to start to integrate animated material in his stand-up act and this got nominated for a Perrier Award in 2003.

1 Read, interview.

2 Ibid.

Read's argument is that improvisation, that ultimate expression of spontaneity, is actually the product of a repertoire of tried and tested material that the improviser can draw upon. Indeed, Eugenio Barba describes the tacit knowledge acquired by a performer during training that is recalled during a performance situation as 're-elaborated spontaneity'[1]. On stage the performer does not behave as they would in everyday life, they draw upon a store of knowledge in the process of twice-behaved behaviour. In preparing his improvisational comedy act, Read thought through all the possible responses that he might get from the audience and developed an animated clip to cover every eventuality:

> Initially, before I performed it live, I just thought around everyone I could conceivably think would possibly be in an audience and I started off with something like 20 jokes, but then, when I was doing that on a regular basis, I'd write one for every time there was something I didn't have. I had a couple of cover-alls, but, if I didn't have a response for it, he'd go, 'What?' or 'What's one of those?' or various other ones that, because he was a kid, he'd get away with saying.[2]

Sound Designer, Rich Walsh, claims that *Little Howard* had 100 possible responses in his repertoire.[3] A factor in the success of the act was the timing and immediacy of the response that the animated character made:

> I had a friend called XX who did an interactive show with film, where he'd filmed some stuff and he interacted with characters. Basically the film played continuously so he had to time his reactions exactly right and it didn't work. It was brilliantly written, but it didn't work, because the audience were aware that they were watching a film and they didn't respond to it in the way they'd respond to a live person, because half of it wasn't real. But what I do is that I have got stops in my animation. I have a presentation clicker and I time Little Howard's next line to when the audience stops laughing and the audience never notice that I am on with a clicker. They always ask me how I do it. That is probably the bit that is still completely live and interactive, is that I'm completely in control of what Little Howard says and more importantly, when he says it and so the audience feel like he's there in the room, because he's reacting like a real person would.[4]

In other words, the audience responded better to seeing an acknowledgment of their agency, to feeling their impact on the performer. With the success of his CBBC TV

1 Eugenio Barba and Nicola Savarese, *A Dictionary of Theatre Anthropology: The Secret Art of the Performer*, trans. Richard Fowler, Second. (London; New York: Routledge, 2006), 121.

2 Read, interview.

3 Rich Walsh, "Sound Design at the National Theatre" (presentation, National Theatre Archive, London, January 28, 2009).

4 Read, interview.

show, Read now focuses on a family audience. The unpredictability of children's responses has led him to restrict the interaction with the audience to physical rather than verbal responses:

> There's lots of it where the kids come up on stage and there's a bit where kids play catch with Little Howard. I throw a ball to a kid and then the kid comes on stage and throws the ball to Little Howard. If it misses him then he goes, 'You missed'. If it hits him in the face, then it smacks him in the face and he falls over. If it hits him in the crutch then he doubles over and falls over.[1]

Despite being created by a team and generated from a database of animated clips, audiences perceive *Little Howard* as a coherent and unified character:

> What's nice about the live show is that the kids forget that he is on a projection screen and they treat him like a real person... It's really interesting how people… suspend their disbelief and do seem to believe in him – adults as well as kids which is lovely.[2]

Interestingly, the way that they engage with *Little Howard* is influenced by Read's performance in a 'straight man' persona:

> Basically I do the set-ups to the jokes and he does the punch lines, but my reactions live really affect how the joke goes down. If he says something appalling and I go, 'Oh my God!' really big, it gets a much bigger laugh than if I go, 'Ah, for goodness sake', really quiet. It's important to see how a real person reacts to the cartoon, I think. That really makes it work, because then they filter what they should think through me, almost, if that makes sense… If he says something shocking, the audience don't immediately find it shocking enough to laugh, but if I go, 'Oh, how can you!' then they find it shocking and laugh.[3]

Figures 45 & 46. Howard Read with Little Howard at the Royal Variety Performance, December 2007.

1 Ibid.

2 Ibid.

3 Ibid.

Howard Read's stage act demonstrates that, just as improvisation is based on prior experience and a repertoire of previously used material, an animated character with a database of carefully prepared actions and snippets of dialogue can appear to improvise in a live situation. As he describes, a skilled improviser draws upon a wealth of previous techniques and experiences that they have access to. In the next section, I will examine the creation of animation live through biofeedback sensors and algorithmic data.

3.5 Performing animation live: Quartet (Margie Medlin, 2007)

For centuries projected images have been part of live performance, from magic lantern slides to light organs. With the advent of digital technology this has become more accessible and digital projections are a common feature of theatrical productions, allowing animation to become part of a live experience. Improvisational animation can be generated through user interaction by techniques such as sensing technologies - camera-based motion analysis, sound or motion detectors. Digital dance, in particular, has pioneered methods of using multi-modal, non-verbal cues to generate animation dynamically from the movements of the live body.

In Merce Cunningham's seminal dance piece, *Biped* (1999)**,** motion captured data was used to create virtual dancers that were projected at a large size alongside the original dancers.[1] Cunningham experimented with the computer program Artificial Life to do the choreography for *Biped* as an extension of his interest in virtual bodies. Paul Kaiser and Shelley Eshkar of the Open Ended Group, who created the visuals,

Figure 47. Paul Kaiser and Shelley Eshkar, visuals, Merce Cunningham, choreography, *Biped*, 1999.

1 Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation*, 187-192.

had a long-standing interest in drawing as performance, and in tracing the gestures of dancers' movement.[1] After motion capturing the dancers, they worked with the programmers who went on to create the software Character Studio, to develop gestural looking animation derived from the motion capture data that was painstakingly hand touched and produced an abstraction of the original movement. The animation was created in the form of pre-recorded clips that were projected onto the stage, because computer processing in 1999 was not yet powerful enough to capture the dancers live and play back the abstractions in real time[2]. The choreography ensured that pre-recorded animation projected onto a 20 ft scrim in front of the dancers was well co-ordinated with the actual movements, to dramatic effect. Thus, pre-recorded clips were used whose playback was synchronised and predictable and the dancers' actions were carefully rehearsed to synch with the visuals. The projected animation interacted with the live body, but any form of spontaneity was on the part of the performers, not the animation.

Mark Coniglio, musician and programmer for Troika Ranch, a dance company who work with live, spontaneous generation of digital images, claims 'Digital Media is Dead: Live is Alive'.[3] He argues that just as pre-recorded soundtracks can constrain a dance piece and limit the options for improvisation and chance, perfect digital reproduction lacks fluidity and spontaneity. To counter this, he gives his dancers control over the visuals that are shown on stage, so that they can impose: 'the chaos of the organic on to the fixed nature of the electronic, ensuring that the digital materials remain as fluid and alive as the performers themselves.'[4] Coniglio uses the model of playing an instrument and claims that the use of technology allows his dancers to become 'real-time creators'.[5] In order for this to work, the dancers use interactive

1 Paul Kaiser, "A New Kind of Picture" (keynote speech presented at the Technarte International Conference on Art and Technology, Bilbao, Spain, 2006).

2 Ibid.

3 Coniglio, Mark. "The Importance of Being Interactive," in New Visions In Performance: The Impact Of Digital Technologies, ed. Gavin Carver and Colin Beardon (Exton, PA: Swets & Zeitlinger Publishers, 2004), 6.

4 Ibid., 7.

5 Ibid., 12.

technology so that they have the freedom to improvise. The dancers wear wireless sensors measuring elements of their motion, such as joint flexion. The data measured by the sensors is sent by wireless to a computer, where it is interpreted by Isadora, a software program Coniglio has developed, that allows the dancers to manipulate digital media in real time. In *16 [R]evolutions,* camera tracking captured the dancers' movements and generated real time interactive imagery: DNA strands; a giant rib cage rippling or breathing in response to dancers' movements.

Whereas the Troika Ranch dancers generate imagery through their movements that tends towards the abstract, in *Quartet* (2007), a virtual animated character, a dancer, is controlled in a live performance by a 'real' dancer and a musician through sound and gesture. In addition, the 'real' dancer's actions control the movements of a mechanical robotic camera whose live video feed is projected onto the back wall. Australian artist Margie Medlin, who has a background in lighting design, CAD and design for dance and has created animation in 3DStudioMax, directed this group project.[1] The project was co-produced by the ICA, and created by an interdisciplinary team of specialists from all over Europe and Australia - dancers, choreographers, musicians, engineers, computer scientists, a 3d designer and a motion control camera expert.[2]

Influenced by Merce Cunningham's *Biped*, Medlin's intention was to create a technological system for dancers that would increase their possibilities for creating performance and inform new choreographies.[3] She also wanted to explore synaesthesia: to visualise sound and create a sensation of the dancers' movements through sound.[4] Medlin wanted to work with a composer that was interested in creating movement, not just music, so that the links between the sound and the dancer were clear.[5] Dance is usually rigidly set to a pre-composed score, but Stevie Wishart, the composer, was

1 Margie Medlin, interview by Birgitta Hosea, May 11, 2010.

2 Margie Medlin, *Morphing Physiology. The Quartet Project: A Real-Time Performance Systems Development*, DVD PAL (London; Australia, 2009).

3 Medlin, interview.

4 Medlin, *Morphing Physiology*.

5 Ibid.

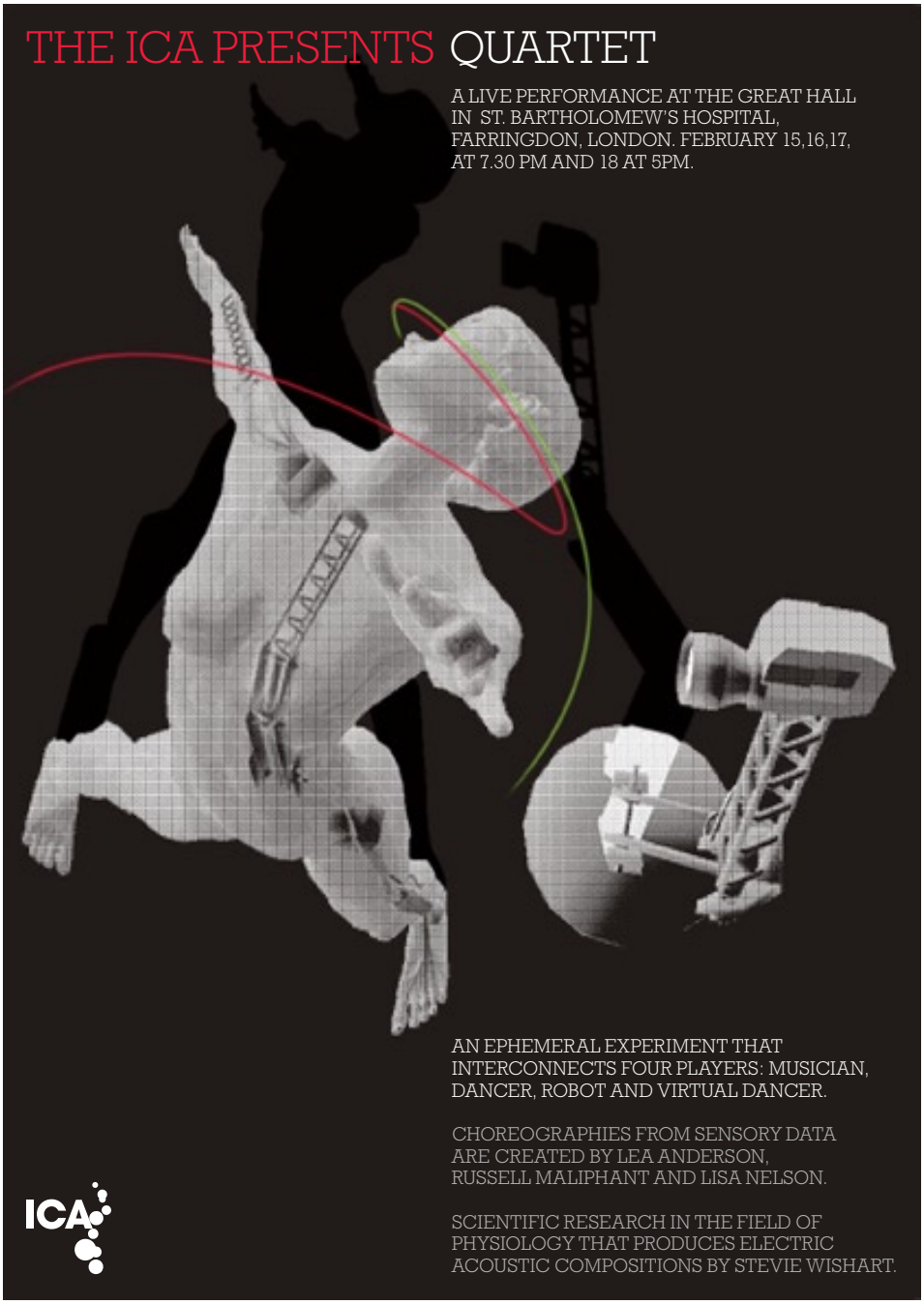


Figure 48. *Quartet* promotional flyer, 2007. ICA, London.

Figures 49 & 50. *Quartet*, Stevie Wishart creates movement in an animated character through playing her violin, 2007. The Great Hall, St Bartholomew's Hospital, London.

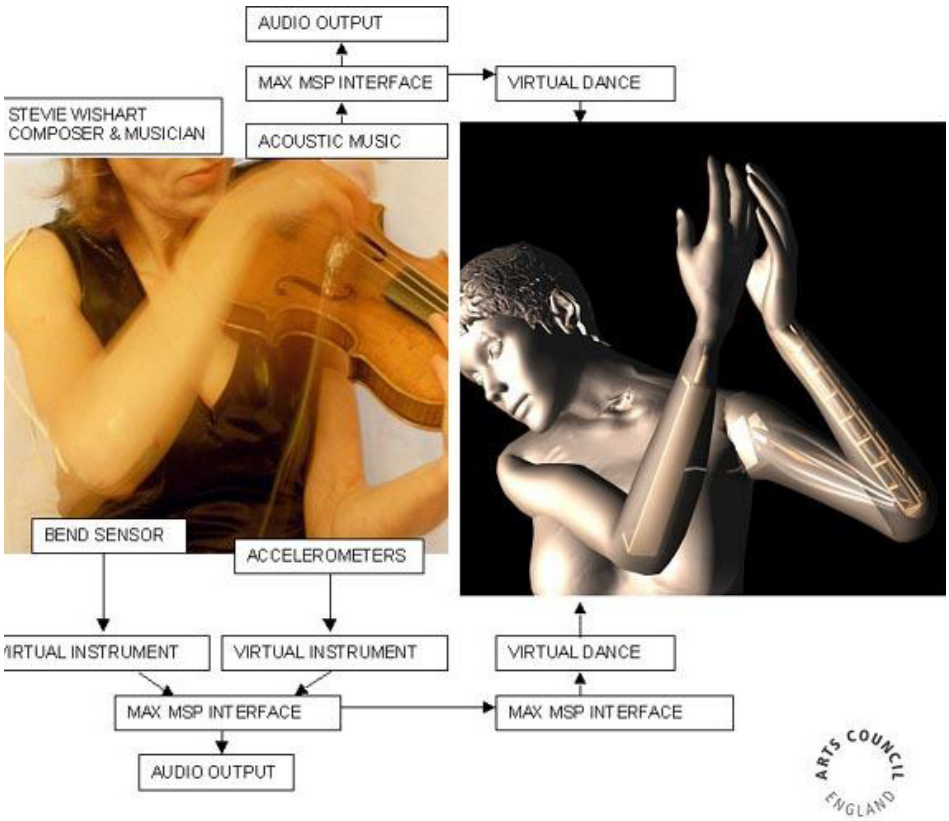
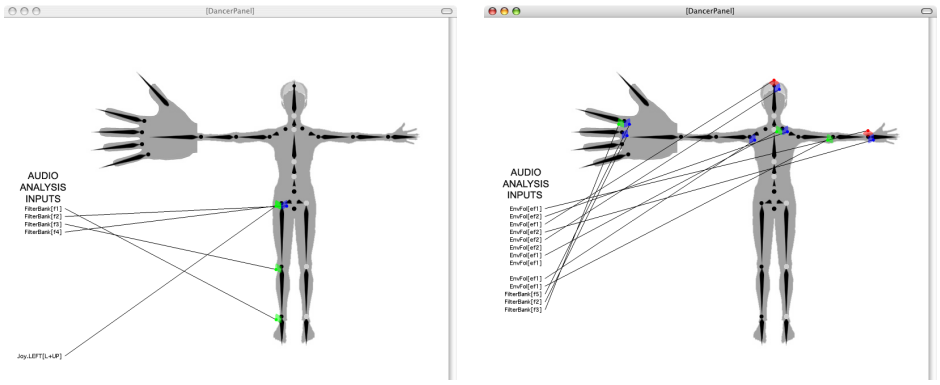


Figure 51. *Quartet*, technical set-up of acoustic instrument to virtual dancer, 2007.

interested in new relationships between music and dance inspired by the collaboration between the composer John Cage and the choreographer Merce Cunningham, who explored randomness and improvisation, working in parallel with one another.[1]

As a performer, Wishart was interested in using an acoustic instrument as a controller. Both the hand gestures and the sounds she made were digitally analysed by the software MaxMSP, having been measured by a bend sensor on her elbow, gyroscope and accelerometer on her hand and through theremin sensors on the strings. This meant that in some parts of the performance she created purely synthetic sounds by making hand gestures rather than through the violin; at other times we heard the sound of the violin itself in addition to the hand gestures. Through the gestures she made while playing the violin, Wishart also controlled or puppeteered an animated, virtual dancer character. Both the sound of the violin and the movements of the violinist provided data streams that controlled a digital 3d computer-generated dancer created in Softimage XSI and Motion Builder. During the development process, Wishart had to let go some of her favoured ways of playing because the data created by the movement of the gestures of playing was important to the animation.[2]



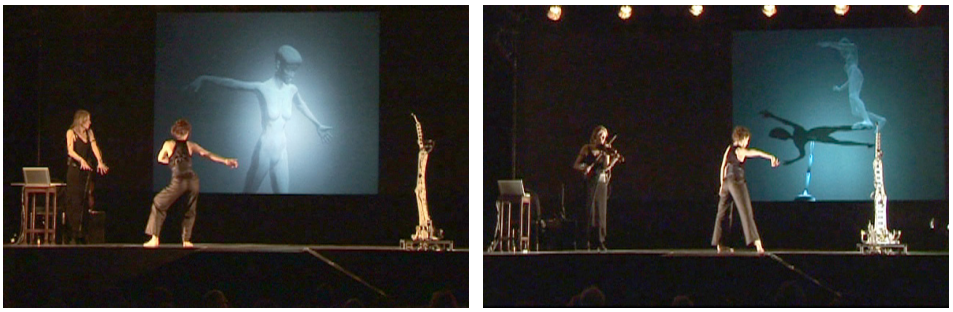
Figures 52 & 53. *Quartet*, connections between audio inputs and movements of the virtual dancer, 2007.

Either Wishart, the musician, or a real dancer, Carlee Mellow, could control the virtual animated dancer. In one section of the performance it is the real dancer who is in control of the rotation of the whole body of the virtual dancer and the musician who is

1 Margie Medlin et al., "Quartet: Music Makes Moves" (presentation, ICA, London, 2007).

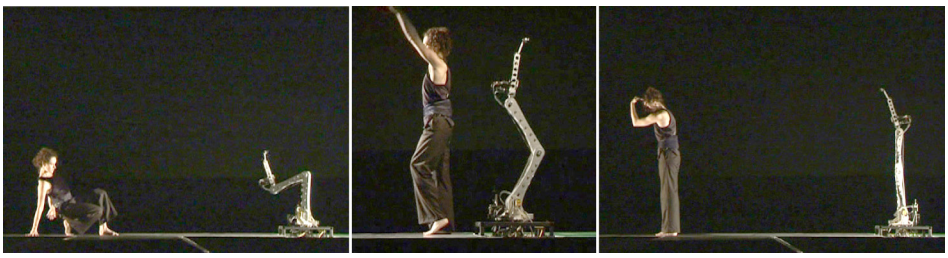
2 Medlin, *Morphing Physiology*.

affecting the arms and head of the same character. This multi-authored performance resembles *bunraku* puppetry or the work of Faulty Optic, where different puppeteers operate on different body parts of one puppet.



Figures 54 & 55. *Quartet,* Stevie Wishart and Carlee Mellow collectively control different aspects of the characters movement, 2007. The Great Hall, St Bartholomew's Hospital, London.

On the opposite side of the stage to the violinist, the real dancer, Mellow, had a sensor on her knee and waist. These sensors controlled aspects of the animated dancer projected on a screen at the back of the stage and in addition controlled the movement of a robotic camera rig: a robot with a wireless camera for a head. The robot camera was controlled by the live dancer using a simple rig inspired by those used for gait analysis: detecting rotation, lean and tilt through a three axis sensor on the back with a virtual compass. This resulted in the dancer's movements being mirrored by the robotic rig. Mellow reported initially feeling nervous about getting close to the robot camera and that the sensors were so sensitive and subtle that everyday movements could prompt extreme reactions, so the set-up was kept simple, with sensors on one leg and torso only. This allowed the dancer to create counterpoint movements in the choreography, as the robot did not copy the arms and one of the legs.[1]



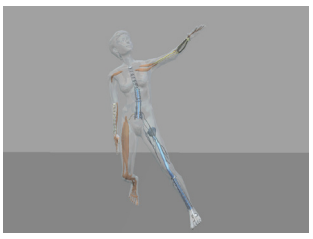
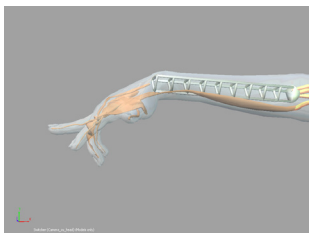
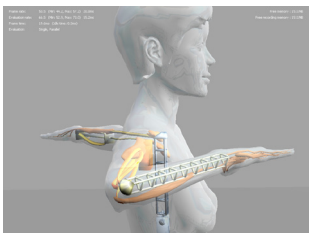
Figures 56 - 8. *Quartet,* Carlee Mellow controls the robotic camera rig through her physical movements, 2007. The Great Hall, St Bartholomew's Hospital, London.

1 Ibid.

Figures 59 - 62. *Quartet*, Carlee Mellow controls the view through the robotic camera, 2007. The Great Hall, St Bartholomew's Hospital, London.

Images from the robotic cameras were projected onto a screen on the back wall alongside the animation of the dancer. Thus, Mellow directed the audience's gaze. She controlled how we looked at her mediated image through the robot camera. There were moments of intimacy when she pressed her face up to the camera and her image was in close-up on the screen behind. Medlin feels that the robot camera engenders, '… a new type of stage that possesses endless interesting relationships between the camera, the dancer, space and the moving image.'[1] The historical venue, the Great Hall at St Bartholomew's Hospital, was full of visual interest, such as walls lined with illustrious paintings, and so it was particularly effective when Mellow moved around and made the camera focus on parts of the hall itself and then moved it back to the actual performance. The site, one of London's first hospitals, was chosen for its resonance with the field of biomedical science, the body and technology and the projection of the interior was an important part of the show.[2] Medlin states: 'it was very important for me that the camera had something to look at. So if we did it in a generic black space, it would only be looking at itself. That's all it could possibly pick up: that which was illuminated.'[3]

Projected at the back of the stage, the grey CGI animated dancer had multiple sources to control her animation. These were intended to allow her to improvise. At points, the virtual character seemed to malfunction, with her legs going through the 'floor' or performing strange staccato double-jointed movements. Looking back at the DVD, I am excited at how the movements are unnatural, strange and stuttering and

Figures 63 - 65. *Quartet,* images of the virtual dancer, 2007.

1 Ibid.

2 Ibid.

3 Medlin, interview.

the virtual characters leg bends backwards or goes through the floor, because they transcend the physical limitations of the human body.

Quartet illustrates that an animated character can be made to perform in a spontaneous manner in a live situation. Since all digital data can be reduced to a series of zeros and ones, information can be taken from sound, hand gesture or body movements from a series of live performers and, through a synaesthetic process of transference, converted into digital dance moves in an animated character.

These examples of the live and spontaneous creation of projected moving images from contemporary dance practice utilise digital technology yet, as Malcolm Le Grice points out, non-linear practice preceded the computer age and has precursors in expanded cinema practices[1] and, indeed, even earlier audiovisual technologies such as the light organ.[2] In the past, other artists have experimented with the creation of live animated mark-making, as is evident from the work of Takahito Iimura mentioned in section 1.1 and in filmmaker Paul Sharits's film *S:TREAM:S:SECTION:S:ECTION:S:S:ECTIONED* (1968-71), which began as a performance piece. Over footage of images of a stream, a metaphor for narrative film, Sharits scratched sequential lines into the filmstrip as it was passing through the projector. Thus, to these representational images were added, and subtracted, marks specific to the material of film. Through this process, Sharits aimed to 'subvert any illusion of reality the images might suggest'[3]. The Canadian animator, Pierre Hèbert, also began to experiment with live scratching in 1986, making marks on a 16mm black leader loop of film while it was running in the projector.[4] In his performances he was able to improvise, for example producing stick figures to illustrate the accompaniment of a poem.[5] His motivation behind this

1 Le Grice, *Experimental Cinema in the Digital Age*, 319.

2 cf. Hosea, "Photosonic Synthesis: Hearing Colour, Seeing Sound, Visualising Gesture".

3 Stuart Liebman, *Paul Sharits* (St Paul, MN: Film in the Cities, 1981), 13.

4 Pierre Hébert, "The Idea of Animation and Instrumental Expression," Blog, *PierreHébert.com*, 2009, http://pierrehebert.com/index.php/2010/04/21/180-the-idea-of-animation-and-instrumental-expression (accessed September 23, 2010).

5 Tess Takahashi, "Meticulously, Recklessly Worked Upon: Direct Animation,the Auratic and the Index," in *The Sharpest Point: animation at the end of cinema*, ed. Chris Gehman and Steve Reinke (Toronto: YYZ Books, 2005), 175.

work was to reveal the process and technology of animation:

> …to set side by side, in clear view, in front of the spectators all the different components of cinema: the screen, the projector, the strip of 16mm film, the light table, the engraving tools, the frame by frame work, and the body of the animator (my own body) doing all this, engaged in a frenetic activity in order to proceed at the same speed as the projector… In those performances, the displaying, with full transparency, of the apparatus and of the process was as important as the result of the work, which was the short 40 sec. looped film that was completed after more or less one hour of this unleashed activity…[1]

In the late '90s Hèbert began to work with the musician Bob Osterlag, who created software that would allow him to process digital images live. Relishing the opportunity to 'profane' the 'new triumphant digital technology'[2], Hèbert collaborated with Osterlag as Living Cinema to create live, immediate improvisational animation and music through the use of VJ software and MaxMSP/Jitter.[3] Although he accepts that the techniques he uses are now common in VJing and nightclub projections, Hèbert himself uses the technology conceptually as an extension of his earlier work on film:

> In a certain way, whether I like it or not, I am a VJ and I am part of this movement. I use a software written with the well known graphic based programming language Max/Jitter which was precisely developed for the live presentation of music and video. This programming language is now taught in new media departments of many universities and is quite commonly used. Consequently my work and my apparatus are part of a much more normalized environment then it was the case with live scratched animation... But I think that there still is in my work something singular and radical that distinguishes it from the current that surrounds it. It comes from the fact that my performances, centrally, are still live demonstrations of frame-by-frame work… The focal point of my work is situated precisely at the level of the interface and the interaction between the live manual creation of successive images and the digital processing of those images in terms of modification of order and speed, of their segmentation in series of distinct loops, and of live composition of those loops. The fact that everything is accomplished from series of images drawn during the performance, maintains at the center of the process the bodily dimension and the imperative of speed, which were so important in live scratched animation. [4]

As well as Hèbert's pioneering work in MaxMSP/Jitter, there are other software and hardware tools available to enable the generation of moving digital marks in a live context. The Tagtool, for example, is an OpenSource 'performative visual instru-

1 Hébert, "The Idea of Animation and Instrumental Expression."

2 Ibid.

3 Bob Ostertag and Pierre Hébert, "Living Cinema," *BobOstertag.com*, n.d., http://bobostertag.com/music-liveprojects-livingcinema.htm (accessed September 23, 2010).

4 Hébert, "The idea of animation and instrumental expression."

ment'1 consisting of an Arduino microprocessor linked to a Wacom drawing tablet and joystick controller. This equipment allows you, in conjunction with a projector, to draw as well as to animate these drawings live. I use the Tagtool to create spontaneous backdrops and lighting effects for improvised dance and music work.[2] I have also used the Tagtool in the collaborative work I do with the performance drawing group, Drawn Together[3], as one of the tools I use to draw and animate with white light during our performances[4].

Drawn Together, create live, site-specific, mark making through a combination of graphite, animation, expanded cinema, white light and sound.[5] A performance drawing is created in front of a live audience in real time. It reveals its process of being made to others as it is being drawn. Our experimentation with the process of live drawing is created as a performance in front of a live audience reminiscent of the chalk talks or lightning sketch act performed in the Victorian vaudeville or music halls by artists such as Tom Merry, Walter Booth or Winsor McCay. Our performances can be considered as live animations in which a layered moving drawing emerges over time. Drawn in graphite, white light and sound, the work incorporates the media of traditional drawn animation and is recorded in sequential motion blurred photographs and video documentation.[6]

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1 OMA International, "About the Tagtool Project," *Tagtool: Drawing and Animation for Live Performance – on Stage, on the Street and on the Net*, 2010, http://www.tagtool.org/wp/about (accessed September 15, 2010).

2 See *Plates 19 - 20* on page 57 to page 59 for images of spontaneous animated drawings that were projected as they were created during a University of the Arts London Interdisciplinary Performance Workshop in 2010.

3 Since the time of writing the group has changed its name to the Performance Drawing Collective. See *Plates 21 - 22* on page 59 to page 117 for an example of a Drawn Together performance at Wimbledon Centre for Drawing that utlised the Tagtool.

4 I also use torches and manipulate the projection of pre-recorded sequences of white, drawn animation.

5 Maryclare Foá et al., "Drawn Together," Blog, *Drawn Together Blog*, 2010, http://drawntogether.wordpress.com (accessed February 19, 2011).

6 Maryclare Foá et al., "ARC: I Draw for You," Visual Arts, Design and Architecture, *Studio International,* January 29, 2010, http://www.studio-international.co.uk/drawing/ARC10.asp (accessed February 1, 2010).

In this section, I have demonstrated that the digital medium is inherently synaesthetic and capable of making connections between data generated from hand gestures recorded as drawings or text; sound; heat; light; weight; physical proximity; movements measured by biofeedback sensors such as bend, rotation, joint flexion, heart rate, temperature or speed; and digital animation. This digital animation could take the form of non-linear, randomly accessed, pre-recorded sequences stored in a database or an algorythm capable of generating different imagery according to the data that is input into it. The result of this is that performers or even audience members can trigger the delivery of live and spontaneous animation that is created in the present moment. Just as in live performance in the theatre, or the circus or the concert hall, this builds on planned and prepared, twice-behaved actions that are delivered in a configuration unique to the specific moment of playback.

3.6 Conclusion

Live is a commonly used notion in Performance Studies and yet it is a concept difficult to define precisely. This chapter addressed the actual meaning of 'liveness', whether it could be applied to animation and how this could be practically realised. In particular, I aimed to investigate 'now', 'here', 'unique' and 'chance': the unexpected, unpredictable and spontaneous.

Drawing on literature review, in particular the work of Philip Auslander and Lev Manovich, as well as the work of practitioners who I have defined as working in the field of live animation, I experimented with creating live animation online, holographic projections, interactive automata that could react to human proximity, spontaneous moving drawings made from light and randomly accessed databases of pre-recorded animations. My aim was to go beyond the use of animation in performance for static, pre-recorded scenographic projections onto backdrops and to create live animation that could be unique, synchronous, immediate, spontaneous and respond to audience feedback. This ambition was achieved with my project *At Home with Mr and Mrs Smith*, which was created using the UpStage online environment. This used avatars made from pre-recorded loops of Flash animation that could be moved around, could swap between different possible animation cycles and could be made to speak in real-time through a text-to-speech synthesis engine. It took place in the present time in a shared, online space in the form of unique, one-off performances as part of the *UpStage 090909* festival. The characters were operated by two remote performers, who were able to make the characters ad lib and instantly respond to audience comments. Although the use of avatars may appear at first glance to be an act of puppetry, because the characters were created using animation software and the whole cyberformance was mediated through computer code by the Flash plug-in of the users browser, I consider this work to be animation prepared and rehearsed at author-time and performed at run-time.

At Home with Mr and Mrs Smith demonstrates that animation is not restricted to inscription in the past at author-time, but can be performed now, in the present time.

This supports Auslander's argument that taking place in the present is no longer the sole preserve of live performance, but is a constituent feature of other synchronous media such as broadcast television. Another concept in the debate around liveness is that it is a unique, fleeting moment captured only in memory. Continuing Auslander's reasoning that disappearance is a feature of the material ontology of analogue television, I presented a case for disappearance as part of the ontological makeup of analogue film, DVD and HD video and that an experience of time-based media can also be unique depending on the variability of the viewing context.

As 'now' is no longer sufficient to differentiate time-based media from live performance, I then turned the focus onto 'here'. My working hypothesis for a definition of 'here' is a shared social space which can be experienced in three dimensions and in which the viewer has the potential to feel the impact of their own agency. Presenting examples from expanded cinema, 3D cinema, augmented reality and my own practice in holograph projection and animated automata, I argued that animation can be experienced in three dimensions. In addition, a shared location need not involve physical proximity, but, as in *At Home with Mr and Mrs Smith*, this could be a virtual or online social space. Finally, I would like to maintain that the potential for spontaneous exchange between performer and audience can be achieved through interactive technology and an instant, unpredictable response to audience participation.

Unpredictability of response in a live situation is a highly prized skill and runs counter to all traditional notions of what animation is. At the polar opposite to traditional animation that is played back in a foreseeable form is improvisation. Improvisation is considered the most spontaneous and 'live' form of live performance. Comedian Howard Read argues that this is an illusion based on a repertoire of planned and prepared, twice-behaved responses. Originally intended as a satire on this, he created a character, Little Howard, who consisted of a series of pre-prepared animation sequences stored in a database that could be randomly accessed and played back by the performer in a live situation and would, thus, appear to improvise.

Another approach to delivering spontaneous animation is to generate it from com-

puter programmes that can measure, analyse and instantly react to live, data streams from human performers. This can be seen in dance projects such as *Quartet* (2007) in which a musician and a dancer wore devices to measure their movements, which triggered the actions of a virtual, CGI dancer who was projected onto a backdrop. Although the live generation of spontaneous imagery may appear to be a new phenomenon enabled by digital technology, it draws from a rich genealogy of historical practice such as light organs, Victorian lightning sketch acts, expanded cinema artists who experimented with marking film in live performances and the growth of VJ technology.

With the advent of digital technology, animation can no longer be seen as a purely frame-by-frame activity. Information about movement can be created, stored, transmitted and enacted by a character through binary code. Freed from its inherent connection with film, digital animation can be both played back non-linearly and generated from algorithms at run-time, thus creating unique, individually experienced and spontaneous events. Animation can even escape the flat screen and take place in three-dimensional space. No longer relegated to the past, an animated performance can be delivered as a twice-behaved behaviour in the present.

Through examples of contemporary practice, I have demonstrated that despite the seeming disparity between a live and spontaneous human actor and a pre-recorded animated character, digital technology has enabled animation to become live through databases of performance and the use of physical computing to enable a dynamic link between the body of a performer / animator and a computer programme. The inherently synaesthetic materiality of the digital enables computer programmes to be used to make instant connections between imagery, sound and user input. New technologies have enabled hybrid forms of practice that use animation technology, but not in a traditional animation context. In an area where dance, interactive media, theatre, digital art and stand-up comedy meet animation, digital technologies have enabled animation to be live and spontaneous. In the next section, I will examine the viewer who experiences the playback of animation.

4. Reception: The performative viewer

4.1 Introduction

In this chapter, I will consider more closely the viewer's reception of the illusory constructed-actor depicted in an animation and the act of decoding that this entails. Following on from my consideration of audience proximity and participation as key components of 'liveness' in the previous chapter, I will present a case study of *Becoming Starfish* (Genetic Moo, 2006) in which the movements of an animated creature are explicitly generated in real time through the participation and actions of the viewer. I will then review theoretical perspectives that argue that it is the viewer who completes or even performs the character. Finally, in a case study of *Lunch with Miss Smith (2010),* I will describe and analyse the findings of an installation laboratory in which I have tested out the perception of character through an examination of how a nonsensical, animated character would be understood by a group of participants who were invited to converse with her.

4.2 Choreographing the viewer: Becoming Starfish (Genetic Moo, 2006)

In the previous chapter, I presented examples of live performers who generated animation through sound or the movements of their bodies. In the work of Genetic Moo[1], the audience themselves are used to create animation through their gestures in a live situation.[2] In their installation *Becoming Starfish* (2006)[3], a camera based motion-tracking system based on EyesWeb is used to analyse the proximity and motions of participants. This information is then used to make a starfish character move in different ways according to the information re-

Figure 66. Genetic Moo, *Becoming Starfish,* 2006. Audience Interaction.

1 Genetic Moo are a group of artists who were established by film maker Nicola Schauerman in 2000 as a film and performance group producing sound pieces, performances and films. Since 2006, Schauerman has primarily collaborated with Tim Pickup on a series of interactive video installations, which have been presented at a number of UK venues, including the De La Warr Pavilion.

2 Aside from computer games, another example of the live, user-generation of responses in animated characters that appear to have their own personalities and moods can be seen in Perlin and Goldberg's IMPROV system. cf. Ken Perlin and Athomas Goldberg, "Improv: A System for Scripting Interactive Actors in Virtual Worlds," *Computer Graphics* 29, no. 3 (1996).

3 This received a John Lansdown Award for Interactive Digital Art at Eurographics 2007.

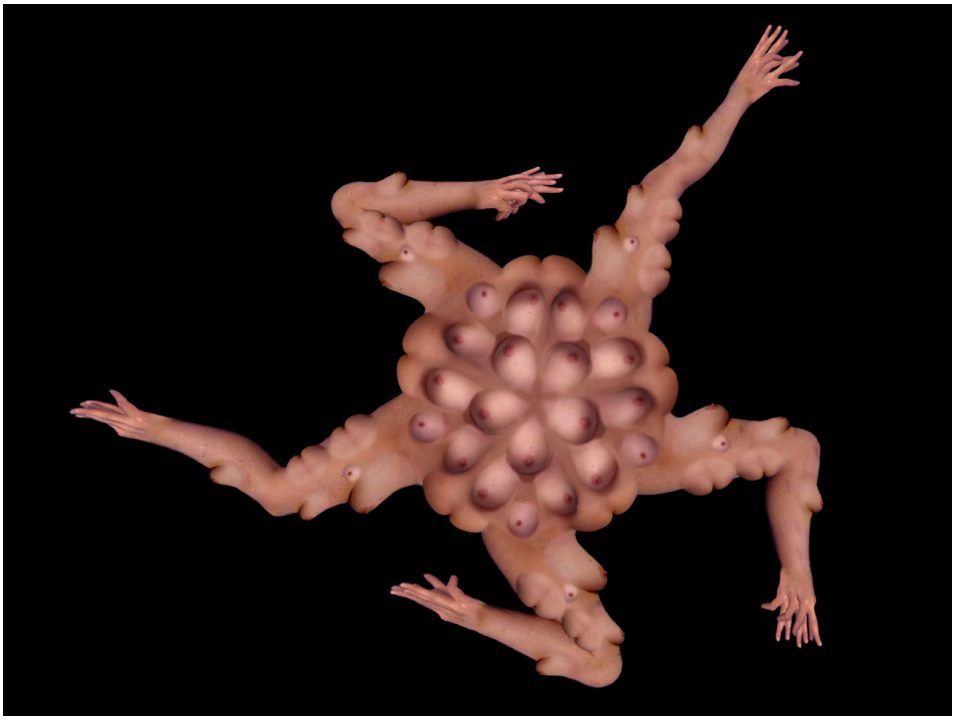


Figure 67. Genetic Moo, the Starfish character, 2006.

ceived. Thus, the participant must perform along with the piece in order to get a response from the creature.

Like Faulty Optic, Genetic Moo consider their work to *involve* animation rather than to *be* animation. Although the projects that they create involve animated creatures, Nicola Schauerman's background as a film maker has led the group to contextualise and promote its work as interactive video installation rather than as animation. This is despite the fact that the projects they have been engaged in involve a range of different processes to 'try to imbue life into something static' [1] which:

> may involve animating in code, this may involve animating in Photoshop where you are working with expanding or squashing things, or we may animate using a hairdryer or filling it with water or dropping it.[2]

Although they have not defined their work as animation, they do make a conceptual connection with animation in terms of the characters they create:

1 Nicola Schauerman and Tim Pickup, interview by Birgitta Hosea, July 9, 2009.

2 Ibid.

> There is another important way in which we are animators and ... that is that people look at them and think that there is something alive about them beyond just code and pixels moving around. So we are trying to bring something to life.[1]

During interview, they concede that their process could be described as animation, as at times they are literally re-animating dead matter:

> Frankenstein. Bringing things to life. Animating the dead. I mean in fact with *Mother* we have got her working genuinely with dead flesh. ... One of the jobs we had was to use a hairdryer to get the texture of tripe to flutter.[2]

However, Schauerman considers the term animation to be too loaded with implicit history and value systems to be a useful term to describe their work:

> I use the term animation to describe the process because, just as you've observed, there's a tremendous amount of animation techniques in there. We're using Flash so effectively working with animation software. It intrigues me… because I thought I wonder why it is that I never describe the work as animation when I'm promoting it... Maybe my reticence is because I feel it comes with baggage and that people will then have an understanding of what I am doing. So if I say I am doing a starfish and that I am doing animation, I believe that in their head they will interpret it in a certain way.[3]

One of the reasons that the term 'animation' is not a perfect fit for what they do is the non-linear way in which their animations are shown:

> ... they are discrete animations; complete; things on a cycle. Then in the code we call up certain frames and say, 'OK now play from that frame to that frame'.[4]

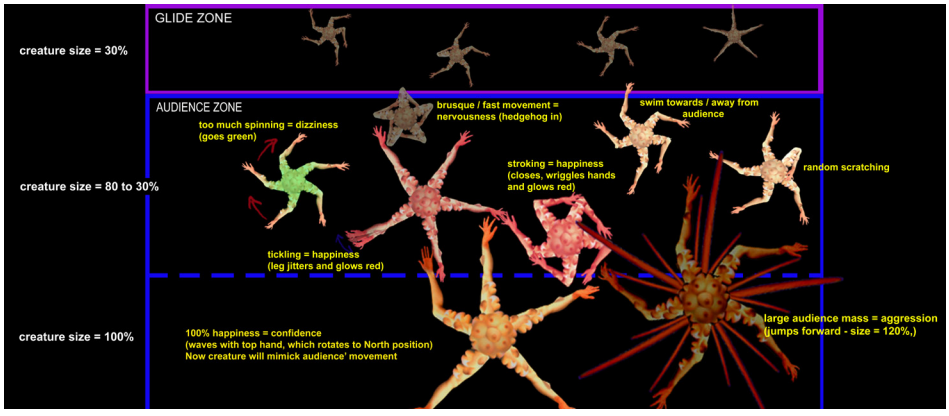


Figure 68. The Starfish character's range of states, 2006.

1 Ibid.

2 Ibid.

3 Ibid.

4 Ibid.

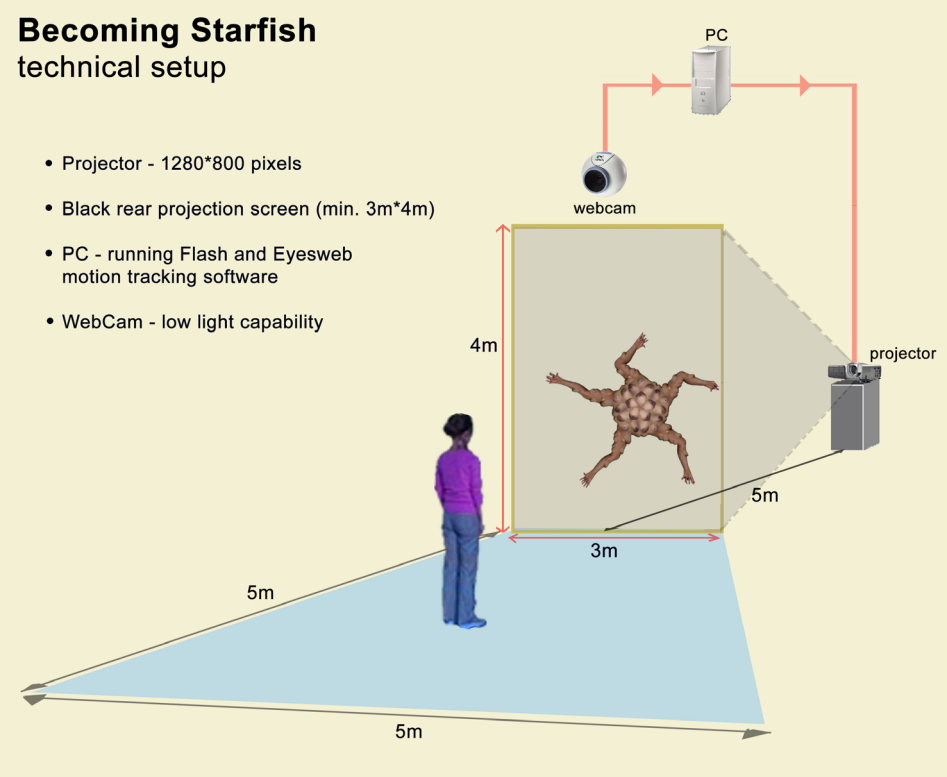


Figure 69. Genetic Moo, Becoming Starfish technical set-up, 2006.

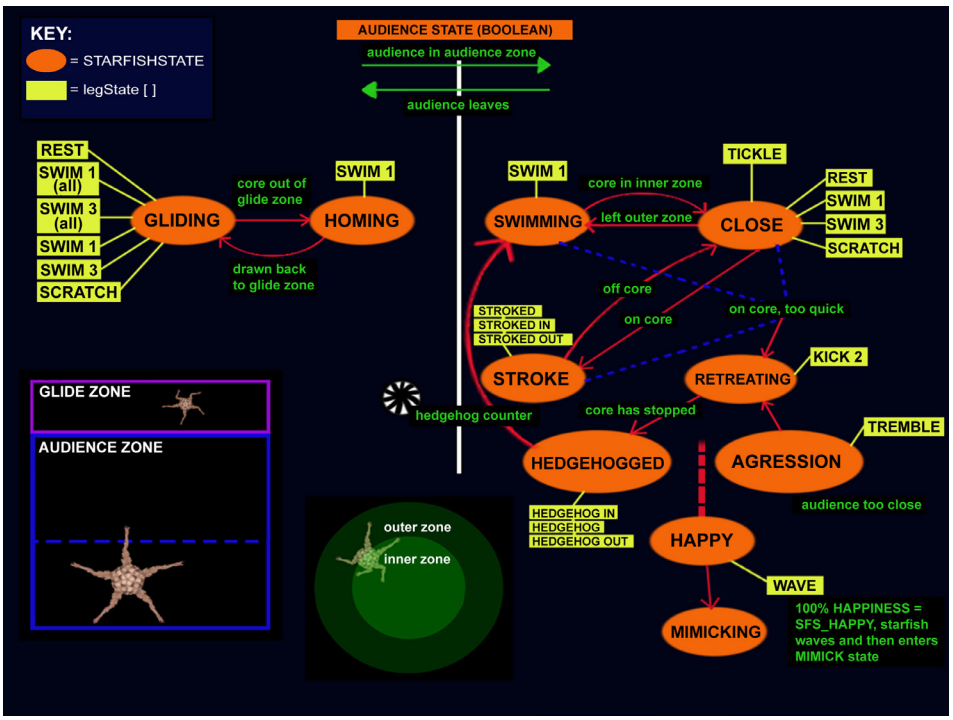


Figure 70. Genetic Moo, Becoming Starfish interaction flow chart, 2006.

Genetic Moo perceive animation as describing constituent parts of what they create rather than the totality of the work:

> I mean essentially it *is* animation, but it's just bits of animation and we can put the different bits together anyway we want. We can choreograph them to interact with somebody or we can have five of them appear at once... these little sequences are dropped into a wider, possibly ever changing, framework.[1]

Another issue is with the software used to create the animation and the effect that it has on the work produced:

> The predominant use of Flash is for banners and things like that, so it gets part of the Flash aesthetic built into it – something we are trying to avoid, to get away from, the idea of set, hard, graphic animation.[2]

Aside from notions of the 'look' of work produced in Flash, another common misconception is that animation produced with it will be jerky or puppet-like. Genetic Moo work on different techniques to make sure that the movements they create have a certain freedom and human-like quality they can then choreograph:

> What I'd like to think about the work is that there is... something about the movement that people connect with live. It may be the way something wobbles...[3]

They advocate experimentation and to use the software in ways that it wasn't intended for.

Ultimately, the use of any label can be constrictive. Genetic Moo argue that the term 'interactive' also comes with its own expectations and 'baggage' from a new generation raised on computer games:

> ...in our most recent show, we had no labels. It didn't say digital. It didn't say interactive. It didn't say anything. Nothing. It just had our names on it... we both... decided that it would be quite awful having a sign saying this art is interactive. Then people bring their game playing or Wii remote experience to it.[4]

If the viewer brings their experience of commercial gaming to interactive art, it leads them to expectations of complex technological gameplay that detracts from a serious

1 Ibid.

2 Ibid.

3 Ibid.

4 Ibid.

consideration of the content. This is particularly observable in a young audience used to working with interactive whiteboards at school and playing games at home.

Genetic Moo's interactive work is informed by a desire for active spectatorship. The two artists had both studied MAs in Electronic Arts at different times, but it was during her undergraduate studies in film that Schauerman came under the influence of tutors who had been at the London Film Makers Coop in the '70s. This brought her to want to create films that were non-linear and to get the audience involved, rather than sedentary and passive. She recalls:

> I definitely wanted to do non-linear film making - as in not a beginning, not a middle and not an end, but something that could change. ...That was the non-linear issue – it can change and the audience might determine what happens. ... it is a bit boring if the audience is always sitting down.[1]

Another motivation for creating interactive work was 'change and potential for unpredictability' in the artwork. Working in collaboration with Tim Pickup, who has a background as a commercial web programmer and algorithmic sculptor, these ambitions could be realised.

One of Genetic Moo's guiding principles is to avoid being led by the technology or creating interaction that is clichéd or abstract. They aim to create work that is character led and involves creatures. How the viewer responds to the piece becomes a key factor in the work:

> An interactive piece essentially becomes about looking at someone dealing with the piece. It's not about the actual piece. It's about this person in front of it. Whether they're shy or whether they jump around. That becomes the point of interest.[2]

Genetic Moo have experimented with projects in which the viewer's reaction becomes public and observed by others as well as projects in which the experience is contained within a more intimate, dark space. In both instances, the viewer must physically perform along with the piece in order to get a response from the creature. The intriguing question remains: does the audience animate the work or does the work animate the audience? This reciprocal, or perhaps palindromic, relationship can be seen in the

1 Ibid.

2 Ibid.

reaction of audience members to the work:

> With the *Starfish*... people got into this 'push me pull me' sort of situation: of wanting to make the starfish do something and then starting to copy the *Starfish* in terms of legs and arms akimbo.[1]

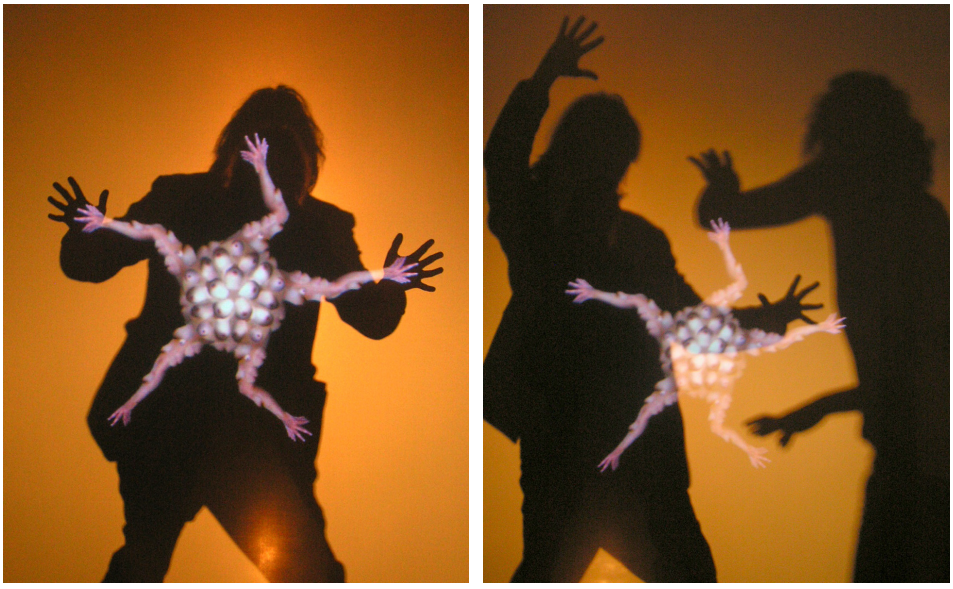
Genetic Moo's projects are not, however, dependent on an audience to activate them and can operate autonomously through defaulting to a continuous cycle of animated loops:

> There was even someone who didn't know the *Starfish* was interactive and totally loved it, even though they didn't do anything with it. They just watched.[2]

However, the most focussed audience interaction occurs in the context of a unique event, such as a private view or 'happening' of some kind:

> I think physical human interaction works well at an event, on one-off type of show, whereas in an art space it just churns away on its own...[3]

Genetic Moo are an example of a generation of digital artists, contemporary to myself, who were taught by experimental filmmakers involved in expanded cinema or



Figures 71 & 72. Genetic Moo, *Becoming Starfish,* 2006. Audience Interaction.

1 Ibid.

2 Ibid.

3 Ibid.

structural film. Genetic Moo's work demonstrates a post-medium installation practice that uses animated characters, animation techniques and technology, but is neither explicitly positioned as animation nor film nor interactive art.

Rejecting the ideology of the passive spectator, Genetic Moo's installation *Becoming Starfish* is an interactive artwork in which embodied interaction is required to create a performance from the animated character. The viewer becomes a participant who triggers movement in an inanimate character and is in turn physically choreographed by the work. The contribution of the audience to the character's movements is direct and actual. This interaction makes manifest theoretical positions that propose the viewer as the cognitive author of performance. In the next section, I will review a selection of key literature that addresses the reciprocal nature of the relationship between the viewer and the work. This will be followed by a case study of another interactive work, in which the viewer is called upon to actively perform, *Lunch with Miss Smith* (2010).

4.3 Theorising the performative viewer

The performance of the animated body represents the movements of an entity that does not exist in the profilmic, 'real world'. It is a conceptual meta-object that never existed in the way it is depicted in its animated form. Referring to her experience of creating both puppets and animated characters, Liz Walker of Faulty Optic believes that it is the viewer who gives life to the character:

> I think that we must all have this inbuilt need for pretence. It's like when you play with toys when you are a kid and you go through various scenarios with them and for that moment they seem to be real. I think that we have all got that innate ability to give life to inanimate objects and I think that it is something that gives us real pleasure in being able to do that as well.[1]

The argument that the viewer reads intentionality and motivation from the actions of a fictional character has been verified by the psychological study of animacy: the process in which causality is ascribed to moving forms, however abstract. In Brian Scholl and Patrice Tremoulet's review of studies in perceptual animacy[2], the example is given of two small, animated squares. One square moves across the screen and touches the other square. The second square is then seen to move. Despite looking at abstract squares, which lack a physical form, the viewer concludes that the first square has *hit* the second one and that the second square moves as a consequence of *impact*. Scholl and Tremoulet assert that causality behind the movement of the second square is perceived and not inferred or projected by the viewer onto the object of their perception. Referring to simple 'launching' motions, such as the example of the squares above, they argue that: 'Like recognizing speech or recognizing a face, recognizing physical causality in such situations seems phenomenologically just to 'happen' quite automatically.'[3] Ka Nin Chow qualifies particular types of motions that

Figure 73. Birgitta Hosea, illustration of Scholl and Tremoulet's 'Launching' motion, 2011.

1 Walker, interview.

2 Brian J. Scholl and Patrice D. Tremoulet, "Perceptual Causality and Animacy," *Trends in Cognitive Sciences* 4, no. 8 (2000): 299-309.

3 Ibid., 306.

can be seen to represent 'liveliness' in 'multimedia artefacts' as follows:

> showing reactions to stimuli (reactivity), transforming according to their internal rules (autonomy), evolving over a period of time (generativity or metamorphosis), or even producing divergent outcomes subject to chance or intervention (contingency).[1]

In the EyesWeb expressive gesture analysis research at the University of Genova, they have examined the minimum amount of information needed to identify human motion.[2] One study concluded that only twelve dots are necessary for us to recognise human movement.[3] The angle at which the dots are placed gives the viewer subconscious clues about posture and the way in which the dots are positioned in relation to each other gives information about the kinematics of the figure. The dynamics of their movement – direction, velocity, acceleration and deceleration - creates different forms of movement to which the viewer ascribes learned meaning such as 'male' vs. 'female', 'happy' vs. 'sad', 'nervous' vs. 'relaxed'.[4] This research confirms that our perception of a character is informed by non-verbal cues, which we subconsciously compare to our previous embodied experience of movement.

This act of decoding non-verbal signs is historically and culturally specific. We make sense of the world outside our own bodies, through language, visual and cultural codes that we have learned and can share with others because they have a basis that is collectively understood. This is even the case for radical, avant-garde texts, as Susan Bennett asserts. These also rely upon our prior knowledge and previous experience in order to make sense of them. If they were totally new, we would have nothing to compare them with and would not be able to understand them.[5] In *The Phenomenology of Perception,* Maurice Merleau-Ponty argues that it is our prior, lived,

1 Chow, "An Embodied Cognition Approach to the Analysis and Design of Generative and Interactive Animation," 7.

2 Donald Glowinsky, "Keynote Speech" (paper presented at the Moves 08: Movement on Screen Conference, Manchester, 2008).

3 For another study in which point-lights are used to delineate the movement of joints and measure how affect is perceived from the arm movements of knocking and drinking actions see Frank E. Pollick et al., "Perceiving Affect From Arm Movement," *Cognition*, no. 82 (2001): B51-B61.

4 Glowinsky, "Keynote Speech."

5 Susan Bennett, *Theatre Audiences: A Theory of Production and Reception*, 2nd ed. (London; New York: Routledge, 2005), 49.

sensual experience that is the source of all knowledge.[1] We compare the movements of bodies that we see to our own personal, lived experience of movement:

> I cannot understand the function of the living body except by enacting it myself, and except in so far as I am a body which rises towards the world.[2]

When we watch an actor perform, we read the character's intentionality through their gesture. The portrayal of a character role is achieved through the assumption of a particular physical appearance, vocal performance and types of movements. Even though it is a fictional situation, we ascribe a causal link between their movements and the mental or physical stimuli that triggered them.

An actor has a recognisably human body that is easy to relate to, but an animated being never lived. Suzanne Buchan argues that film, with its use of human actors and photoreal locations, is experienced as phenomenal and relates to our previous experience; whereas animation is noumenal: it shows a world of the imagination that has not been directly experienced and has been accepted through an a priori suspension of disbelief.[3] Laura Ivins-Huley continues that the viewer is well aware that they are watching an animated character rather than a human actor, but we have learned to decode the 'illusion of intention and motivation'[4] behind particular movements and cinematic conventions and we project this back onto the character. Indeed, research into perceptual animacy demonstrates that only minimal clues are needed to perceive a humanoid figure in motion. In their work on theatrical presence, Roy Connolly and Richard Bailey present examples of studies in cognitive science and assert that the same sensorimotor processes are used to decode both fictional representations and actual phenomena, thus 'perceptual imagination is understood to employ the same abilities as regular perception.'[5] From this they conclude that, 'Illusion and reality are

1 Merleau-Ponty, *Phenomenology of Perception*, 23-5.

2 Ibid., 75.

3 Suzanne Buchan, "The Animated Spectator: Watching the Quay Brothers' Worlds," in *Animated Worlds*, ed. Suzanne Buchan (Eastleigh: John Libbey, 2006), 16.

4 Ivins-Hulley, "The Ontology of Performance in Stop Animation," 3.

5 Roy Connolly, and Richard Ralley. "Something Real is Needed: Constructing and Dismantling Presence." Studies in Theatre and Performance 30, no. 2 (2010): 214.

not a contradiction, because reality is not in the object but in our involvement with it.'[1] Consequently, an animated character has the same potential for perceived presence as a live performer or an actor on film. Although one is based on an illusory body and the others have a 'real' body, in either case, a character is a fictional construct that was manufactured and never lived. It is constituted in the mind of the beholder who fully engages with it.

In classic narrative texts – of literature, theatre, animation or film, the viewer experiences by proxy what the character experiences through a process of identification or empathy. In his *Poetics,* Aristotle argued that identification with an 'admirable' character provokes empathy in the audience as well as strong emotions of 'fear and pity'.[2] These feelings purge the spectator of excess emotions and, thus, engender a state of 'pleasurable relief'[3] or katharsis. Comedy, on the other hand, Aristotle saw as an "imitation of inferior people", indeed 'the laughable is a species of what is disgraceful'.[4] Therefore, in Aristotelian terms, comedy can be seen as an encounter with the taboo that reinforces the moral codes of the spectator. In his book, *Character Acting and Being on the Pre-Modern Stage,* Edwards Burns argues that the implication of this is that in order to feel these emotions of fear, pity or moral superiority, the viewer is required to evaluate the character being portrayed through the lens of her own lived experience; to compare what is seen performed with what she already knows:

> …we fear the situations of those like (homoios) ourselves. Pity, by extension, is what we feel for others. For fear to be evoked by a character's situation we must be able to classify ourselves with them; a kind of annulment of difference takes place… [5]

In other words, that which is seen on stage or screen is partially a projection of the self. Burns uses the example of William Hogarth's portrait of Sarah Malcolm, which shows a woman seated alone in a room, to consider this proposition.[6] A dead woman

1 Ibid, 215.

2 Aristotle, *Poetics*, trans. Heath Malcolm (London: Penguin, 1996), 10.

3 This phrase is taken from Aristotle's *Politics* as cited in the introduction to Ibid., xxxviii.

4 Ibid., 9.

5 Burns, *Character Acting and Being on the Pre-Modern Stage*, 23.

6 Ibid., 2.

in a historical painting, she is unknowable. Burns poses the question – *where* is the character that we read in her?[1] Is it in her physiognomy? Do we categorise her by her appearance? Do we get clues about her from the room she is pictured in or the lighting conditions that she is sitting in? When we learn that she is a murderess notorious for killing her employers, does this change what we had thought of her? Burns proposes that during the process of looking at a painting, reading a novel or watching a play, our interpretation of a character is not fixed by the author, but relies on a contribution from the beholder. So the unknowability of Sarah Malcolm is not a hindrance to the viewer, but a space into which the viewer can insert herself: 'a double articulation of character as a process of seeing, and a process of being seen, as a transaction between two human subjects.'[2] Burns goes on to argue that character is not an essential, determining factor of being, but a historical 'mode of perception and discourse'.[3] This perspective has echoes of Roland Barthes's famous declaration in 1968 of the death of the author, in which Barthes argues that the text cannot be thought of as the 'child' of the author, but as a process. Meaning is created during the act of reading:

> ...there is no other time than that of the enunciation and every text is externally written *here and now*. The fact is (or, it follows) that *writing* can no longer designate an operation of recording, notation, representation, 'depiction' (as the classics would say); rather, it designates exactly what linguists, referring to Oxford philosophy call a performative...'[4]

The reader completes the work. In this approach literature is defined by the act of reading, not the act of writing. For Barthes: 'The reader is the space on which all the quotations that make up a writing are inscribed without any of them being lost; a text's unity lies not in its origin but in its destination'.[5] The meaning of the text is not fixed, but polysemic[6] with multiple interpretations of it by different readers possible.

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1 Ibid.

2 Ibid.

3 Ibid., 4.

4 Roland Barthes, "The Death of the Author," in *Theories of Authorship*, ed. John Caughie (London; New York: Routledge, 1990), 211.

5 Ibid., 212-3.

6 cf. Kim Schrøder et al., *Researching Audiences* (London: Arnold, 2003), 130.

The notion that meaning is actively decoded in a dialogue between sensor and sensed is influenced by the phenomenological philosophy of Merleau-Ponty. For him, the act of perception itself is one of exchange between the human subject and the object of their sensing:

> The sensor and the sensible do not stand in relation to each other as two mutually exclusive terms, and sensation is not an invasion of the sensor by the sensible. It is my gaze which subtends colour, and the movement of my hand which subtends the object's form, or rather my gaze pairs off with colour, and my hand with hardness and softness, and in this transaction between the subject of sensation and the sensible it cannot be held that one acts while the other suffers the action, or that one confers significance on the other. Apart from the probing of my eye or hand, and before my body synchronizes with it, the sensible is nothing but a vague beckoning.[1]

In these terms, a character, or other stimulus, that is external to the viewer's consciousness 'beckons' to the viewer and the viewer makes sense of this during the act of perception through the filter of their own embodied experience. This reciprocal process of exchange brings to mind a passage from *Camera Lucida*, in which Roland Barthes describes as animation his experience of viewing a photograph that was brought to life by his action and which he in turn was mentally moved by:

> …suddenly a specific photograph reaches me: it animates me, and I animate it. So that is how I must name the attraction which makes it exist: an animation.[2]

Film theorist Vivian Sobchack examines the process of exchange between viewer and viewed that takes place when watching a film. Relating Merleau-Ponty's theories to film and analysing how the viewer contributes to the meaning, Sobchack contends that the process of our identification with the characters on screen is performative.[3] A film is presented as direct experience and structures the viewer as if they were personally experiencing the diegetic world of the film:

> Watching a film is both a direct and mediated experience of direct experience as mediation… Watching a film, we can see the seeing as well as the seen, hear the hearing as well as the heard, and feel the movement as well as the moved.[4]

The viewer projects her own memories, lived experiences and fantasies onto the film

1 Merleau-Ponty, *Phenomenology of Perception*, 214.

2 Barthes, *Camera Lucida*, 142.

3 Sobchack, *The Address of The Eye: A Phenomenology of Film Experience*, 10-11.

4 Ibid., 10.

and performs it into being.

> As viewers, not only do we spontaneously and invisibly perform the existential acts directly for and as ourselves in relation to the film before us, but these same acts are coterminously given to us as the film, as mediating acts of perception-cum-expression we take up and invisibly perform by appropriating and incorporating them into our own existential performance; we watch them as a visible performance distinguishable from, yet included in, our own.[1]

An example of this came from feedback from one spectator of my *Out There in the Dark* performance at the BFI, who revealed that the work had triggered a visceral, childhood memory for her of frightening car journeys in the dark with her mother. She had extended the hybrid character that I had created with memories of her own.

In conclusion, the animated character is a conceptual construct that is brought to life in the mind of the viewer. This can also be said of fictional characters portrayed by human actors in theatre or film. The cognitive processes at work in the experience of viewing involve comparison with prior lived experience to decode clues about the character. Barthes and Sobchack argue that the performative viewer is central to the creation of the character, whereas Merleau-Ponty and Burns argue that there is a transaction between viewer and character. In the following section, I will present a case study of *Lunch with Miss Smith* in which I examined through practice, by placing the audience in a position in which it can have a direct phenomenal experience of an animated character, the extent to which the viewer performs the work.

1 Ibid., 10-11.

4.4 The performative viewer in practice: *Lunch with Miss Smith* (Birgitta Hosea, 2010)

The idea of animation as a space where the viewer is transported to a world that goes beyond the limits of the human body and the experiences with which it is familiar, beyond the extra-daily to the extramundane, is developed by Suzanne Buchan in her writing on *Street of Crocodiles* (1986) by the Brothers Quay:

> They are fleeting yet remarkable instants of film, which transcend lived experience and enter interior realms of the metaphysical. There is a discrepancy between the phenomenal world and the noumenal, or supersensible, 'documentation' of what is intimately trapped in our own imaginations.[1]

In *Lunch with Miss Smith* (2010)[2], I examine how an animated character that is an artificial construct and never lived would be perceived. Through creating a scenario of interaction with a cartoon world in which participants were asked to perform a role, I test out the proposition that a viewer projects something of her own imagination and experiences onto a character in order to make sense of it. In the project, an interactive artwork was created as a 'laboratory'[3] in which to carry out a study of the reception of an animated character. The location used for the installation was a real domestic interior in which the lines could be blurred between the real world of lived experience and the noumenal world of the cartoon.

The aim behind *Lunch with Miss Smith* was to examine how a cartoon character is perceived in the context of an individual act of spectatorship, rather than in the social setting of a public audience. My experiment aimed to answer Edward Burns's question of where the locus of the character is.[4] I wanted to examine whether people would

1 Buchan, "The Animated Spectator: Watching the Quay Brothers' Worlds", 16.

2 For documentation of the project, see *DVD Chapter 5* and *Plates 23 - 35* on page 191 to page 202. A character profile of Miss Smith can be found in *Appendix II.A* on page 244 and the (non-linear) script is in *Appendix II.B* on page 247.

3 The model of using an interactive media lab as laboratory was inspired by research at the University of Helsinki. cf. Mauri Kaipainen, "Practice-based Research at the University of Art and Design Helsinki," *Digital Creativity* 15, no. 1 (2004): 8-9.

4 cf. Burns, *Character Acting and Being on the Pre-Modern Stage*, 2.

temporarily believe in the fiction of a cartoon character that was nonsensical; how they would make sense of her; how much this would vary between individuals and to attempt to measure what was projected onto her. I wanted to find out whether:

1. Proposition A: the character is determined by the animator[1] when it is created;

   or

2. Proposition B: the character is produced by the participant's act of engagement with her.

My assumption was B. I also assumed that a percentage of the participants would refuse to engage with the fiction of an animated character.

As my primary interest was to analyse the perception of character, I created an everyday scenario from quotidian social discourse in which a narrative or story arch would not pose a distraction. I did not want to influence my outcomes by stating the aims in advance, so in my invitation to participate I presented the event as an opportunity to have a conversation with a cartoon character, as can be seen from this description of the research that I included in my invitation:

> You will be invited to Birgitta Hosea's flat to have a conversation with an interactive cartoon character, 'Miss Smith', for about 15 minutes. It will be as if you were about to have lunch together. You will be alone in a room with 'Miss Smith'. This will all be videoed. Afterwards you will be asked some questions on camera about what you thought of the cartoon character.

In addition, I wanted to explore technically the creation of live animated performance with active participation and whether it would be possible to create a unique experience for each participant. I did not reveal to the participant how the interaction would work.

In order to answer the research questions, I made video recordings of a sample group interacting with the character of Miss Smith, which was followed by video-cued recall and semi-structured interviews. This enabled me to observe their faces and

1 I am using the term 'animator' here as shorthand for the creative team behind the creation of an animated character.

body language during the act of interaction in addition to recording a post-experiential rationalisation of their participation in interview afterwards.

Lunch with Miss Smith was site-specific and took place in the artist's home in Hackney by appointment over a two-week period.[1] The participants were invited at individual times to lunch with Miss Smith, but they were made aware that this was an art installation/laboratory and not a real invitation to eat. On arrival they were greeted by the artist in character as the Landlady, asked to remove their coats and shoes before being led into an adjoining room. The event took place in a room (normally a living room), which was dressed as a dining room and devoid of furniture apart from lamps, chairs and a table laid with places for four. The room was painted completely white. White paper flowers stood on the table, which featured a two-dimensional, stylised drawing of place settings and refreshments on the white tablecloth.[2]

The Landlady invited the participant to sit in a particular seat and then excused herself in order to go and fetch Miss Smith. On the other side of the table a television set was situated at eye level to the participant, on which were displayed the head, shoulders and upper body of a cartoon character. This produced the illusion that the character was also seated at the table and that the remainder of her body was out of view beneath the table. A photograph of the same curtains in the real room behind the television set was used as the background for the animation. Two other chairs at the table remained empty. A camera on a tripod recorded the scene from the corner of the room.

The animated character of Miss Smith then attempted to make polite conversation with the participant, who was now structured in the role of her Visitor and invited to respond as if this were the case. The animation was operated by myself from an adjoining room, where I was able to see and hear a live video feed of the Visitors' responses.[3] The character was controlled by a Flash interface in which a series of

1 See *Plate 23* on page 191 for a ground plan of the installation.

2 See *Plates 24 - 5* on page 192 for photographs of the room set-up.

3 See *Plates 26 - 28* on page 193 to page 81 for behind the scenes views of the operation of the character.

animated clips could be paused or played back through keyboard control. Each Visitor had a unique experience because the same set of clips was played in a different order according to the operator's response to their reactions.

The concept, character design and script development of this project took place over a period of four months. This process was documented through the use of a mobile phone as a sketchbook. It involved the creation of digital artefacts, such as research photographs, conceptual sketches and drawings from life using a touch-screen drawing programme. These were collated in a mobile-blog, where they could be reviewed and commented on.[1] This was done in order to have a body of material that documents the creative intention behind the character as I made choices such as: what her appearance would be like, how she would move, whose voice she would use, would she be operated live or user generated.

Unlike most cartoon characters, Miss Smith was not created to be part of a conventional story. The aim behind the character was to create an absurd and illogical being that the viewer would have to actively work to make sense of during a scenario of social interaction. She was not designed as a Chatterbot or replicant human that could pass Turing's test for autonomous, artificial intelligence.[2] Initially, the intention was to create a minimal character like a neutral mask or a blank canvas so that I could measure what was projected onto her. Inspired by the Theatre of the Absurd, I wanted the character to be completely nonsensical and to speak dialogue that was either totally random with random pauses or randomly triggered by either camera-based motion detection or the volume level of the guest's voice. However, on reflection a 'neutral' mask is not neutral, just white and expressionless. I had to give myself some clues in order to design her appearance and motivate her dialogue and movements. I decided to create a keyboard-controlled character so that I could perform by proxy through the animation in a live situation. In order to develop the character and sce-

1 See *Plate 29* on page 96 for samples of touch-screen drawing character development work.

2 Cf. Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation*, 491-4.

nario, I adapted Uta Hagen's acting techniques, used by actors to develop a role.[1] I dressed up as the character, and inhabited her.[2] For example, I invited guests round, thought of what the character would do to prepare for their visit and drew myself in the act of doing housework. As I created the character, I answered the questions that I would later pose the participants.[3]

The final character design was created in a gritty, two-dimensional, hand-drawn style.[4] She is deliberately artificial: unrealistic and stylised in design and execution and, in defiance of cartoon convention, neither cute nor young nor beautiful with very small eyes. She is drawn in monochrome lines only, without the use of colours or gradients. Inspirations behind her design included the television adaptation of Mike Leigh's play *Abigail's Party* (1977); the '70s animated TV series *Roobarb and Custard* by Bob Godfrey and the character of Miss Jones played by Frances de la Tour in the '70s ITV sitcom *Rising Damp*.

The form of animation I used was unrealistic so that the character is clearly an unnatural cartoon. She is animated in a limited style, displays simple acting and her lines 'boil' in a manner specific to drawn animation.[5] The animation and interactive authoring took place over five months, including a residency at the University of Southern California. While at USC, a short clip of Miss Smith was used in *Chatter,* an installation I created for the Cinematic Arts Gallery.[6] Inspired by the Miss Smith project, I invited

1 cf. Uta Hagen and David Hyde Pierce, *Respect for Acting*, Second. (New Jersey: John Wiley & Sons, 2008).

2 See *Plate 32* on page 199 for photographs of dressing up as Miss Smith and *Plate 33* on page 200 for touch-screen sketches of the actions I imagined Miss Smith to be doing as she prepared for her guests to arrive.

3 cf. *Appendix II.A* on page 244.

4 See *Plates 30 - 31* on page 96 to page 101 for the final character design drawings.

5 Her repertoire of movements includes: dramatic gesticulation with her hands, looking down, turning in the direction of the door and nodding. She can move towards the screen and away from it. She can raise her eyebrows, flare her eyes, blink and tilt her head coquettishly. She can lean her whole body forward or just her head. Her body rises and falls as she talks and she has range of mouth shapes. She moves quickly into a pose and then more slowly out.

6 See *Plate 34* on page 109 for pictures of Miss Smith in the Chatter installation and *DVD Chapter 4* for video documentation.

staff and students to record their own dialogue and to produce short clips of animation in which a character would make meaningless conversation. These were then looped and either projected onto the gallery wall or displayed on television sets within the gallery.

A minimal storyline was developed in order to justify the scenario in which the Visitor found herself and to give the situation a beginning and an end. The script took the form of 48 small sections of dialogue that could be performed in different combinations.[1] As in my previous project, in which her parents has featured, *At Home with Mr and Mrs Smith*, the approach to writing her dialogue was influenced by Ionesco's method of using phrases from English textbooks in *The Bald Primmadonna*. All phrases in my project were taken from either a language textbook from 1946[2] or the 1961 edition of a classic Victorian cookery book[3]. They were selected on the following basis: either (1) to fit in with the general scenario or (2) at random for humorous effect and to cover the following predicted requirements in the interaction:

1. Welcome and conversation opener;
2. Direct questions to the Visitor on 'polite' topics to encourage her/him to talk;
3. Listening behaviours;
4. Agreement and disagreement;
5. An excuse for an exit and subsequent re-entry in case of difficult questions;
6. Confrontational responses to difficult questions;
7. Time filling monologues;
8. An ending.

The study aimed for rich qualitative detail and does not purport to be statistically representative. The twelve participants[4] were selected to represent a diverse sample

1 cf. *Appendix II.B* on page 247.

2 Laycock and Allwood, *Idiomatic English Sentences with Swedish Equivalents*.

3 Isabella Mary Beeton, *Mrs. Beeton's All About Cookery* (London: Ward Lock, 1961).

4 See *Plate 35* on page 202 for a photographic overview of all the Visitors.

of people of different ages, genders and familiarity with digital media as well as on the basis of availability.[1] A mixture of introvert and extrovert types was chosen. Four men and eight women participated. The age range was 16-53 and different cultural backgrounds were represented.[2] I was confident that the people I picked would be very honest in their responses. No professional animators or actors were chosen, in case they would overly focus on technique. No former or current students were chosen, in case they would not feel confident to 'disagree' with me.[3]

During the process of interaction with the character, the Visitors' responses were videoed. The camera was positioned to record Miss Smith's 'point of view' in order to provide evidence of facial reaction, body language and verbal response. Following the 'conversation with a cartoon character', each participant was immediately interviewed about their experience. This began with a video-cued recall interview, in which participants were asked openly to recall their experience in a stream of consciousness manner so that the responses would be spontaneous and prior to reflection and rationalisation.[4] I then asked a series of semi-structured questions about their impressions of the character that were adapted from Uta Hagen's method acting techniques.[5] The same questions were used in the development of the character[6] and therefore data became available for a comparison to be made between the intent behind the character's creation and the interpretation that the participants made of the character. This was followed by informal chat and debriefing over refreshments, but never lemon curd and sardine soufflé, as was named in the script. Using qualitative research methods

1 This research was conducted in accordance with the UAL Code of Practice on Research Ethics.

2 Four Black British, 3 English, 1 Scottish, 1 German, 1 French, 1 Canadian and 1 Australian.

3 Prior to commencing the study, ethical clearance was sought from UAL. Respondents selected were all known socially to me for the following reasons: (1) ease of selection; (2) so that they would feel comfortable to come to my home and (3) for my own personal security when alone in a domestic space filled with electronic equipment.

4 This approach was informed by Rolf Wolfensberger's study of user interaction in the work of Paul Sermon. cf. Rolf Wolfensberger, "On the Couch – Capturing Audience Experience: A Case Study on Paul Sermon's Telematic Vision" (MA Thesis MediaArtHistories, Department for Image Science: Danube University of Krems, 2009), 65.

5 cf. Hagen and Pierce, *Respect for Acting*.

6 cf. *Appendix II.A* on page 244.

provided me with rich data to analyse.

The video recordings and interviews provided a method for collecting data about how the character of Miss Smith was perceived. Would the participants engage with the fiction? What kind of a person did they think she was? If impressions of her character were all very similar, I would surmise that the characterisation was primarily created by the animator (Proposition A). If the answers were all different, I would surmise that the participants had projected elements of their own experience onto the character (Proposition B).

When I analysed the video recordings, I found that each participant fully interacted with the fictional character despite the fact that she was not designed to make sense. Even the most cynical participant engaged by talking back and trying to have a conversation with her, even if they found it a frustrating process due to her finite stock of responses.[1] They all made eye contact with the character, answered her questions, smiled when she flattered them and demonstrated a degree of concern when she worried about the other guests not arriving. I also observed that some participants mirrored her body language.[2] Visitor 9 commented afterwards that in retrospect she found the experience very surreal, because even though she knew Miss Smith to be a cartoon, she found herself looking her in the eyes and mirroring her behaviour when she nodded.

During the course of the semi-structured interviews, although the strangeness of the encounter was commented on, each person appeared to have consciously suspended their disbelief and answered as if the scenario were plausible. Only one person explicitly referred to my role in contriving the situation: when asked, 'What happened before you, the guest arrived?', Visitor 9 replied, **'**Well, you set this up!' Some

1 My operation of the character was also a factor in Miss Smith's sometimes poor conversational skills. As I observed the video feed of the participants in the other room, I became acutely aware of interruptiing them. Analysing the video, I realised that at times I could have made speedier responses and chosen a more appropriate clip to play back. At other times, I could have paused longer to allow the participant to speak.

2 See *DVD Chapter 5* for video documentation of participation. *Chapters 5.1 - 5.4* link directly to examples of body mirroring. For details see *DVD Contents* on page 232.

people took the setting literally. Having been asked 'where' and 'when' they thought the events took place, five participants situated the installation either 'here' or in London and six participants reported that they thought it to be 'now'.

The Visitors came up with interpretations that shared areas of similarity (older, English woman), but also lots of differences. Interpretations of her included: a 'friendly, bubbly' hostess; an authoritarian, former teacher; an eccentric British lady detective type; the perfect 1950s housewife; a lonely OAP; an elderly lady with Alzheimer's disease. Five of the participants explicitly referred to their experience of people they knew when discussing the character. This was most dramatically expressed by Visitor 7, who retorted immediately after the experience, before the formal interview had even begun: 'F**king hell, she reminds me of my family! You should meet my Grandmother and my Aunt! That's really reminded me of Christmas!' Visual cues in the character's design - hairstyle and costume - were explicitly referenced in discussions of her age, estimates of which ranged from late 40s to 70s. Five participants regarded her as 'snobbish' or 'full of social aspiration', probably due to the accent and tone of voice adopted in the voice-over. This view was exclusive to British participants. Many participants disregarded bits of information that were explicitly referred to in the dialogue. For example, even though the artist's presence was referred to in the dialogue as the Landlady, four participants assumed I had played the part of a maid.

Participants also had very different interpretations of their own role in the work. Compare the following responses when asked what they thought the relationship between Miss Smith and themselves, the Visitor, to be:

> I think we met years ago at a mutual friend's Christmas party and she thought that I might be an interesting person to carry on knowing. Since two years ago we have visited each other's houses a number of times. Each time has not been terribly successful, but interesting enough for us to want to continue the relationship. *Visitor 1*

> We don't know each other. We just met in the city walking along. She admired my clothes and invited me over and I thought, 'Well, it's a free meal!' I decided to go over. So we didn't really know each other. *Visitor 3*

> She didn't like me. I tried to charm her. She didn't like me. *Visitor 7*

> She seemed quite patronising. That's why I thought she was like a teacher, because she just seemed to be quite bossy. The conversation was quite intense. It was all about her saying, 'Yes, I think this. What do you think?' afterwards... she would give

> her opinion before asking you yours. That's what I sensed from her. So it was quite kind of hierarchical in the sense that she was in control. *Visitor 8*

In *Lunch with Miss Smith*, animation was used to create a three-dimensional event that was experienced in the present and unique to each individual Visitor. The participant felt the impact of her / his proximity on the immediate, non-repetitive and unpredictable (but not always appropriate) responses that they had from Miss Smith. In this piece, performance took place on multiple levels:

1. At the door, I greeted the Visitor in character as the Landlady and brought them into the installation;[1]
2. The participant played the role of the Visitor;
3. I performed by proxy in the present through live operation of the constructed-actor, Miss Smith, in response to the Visitor's facial reactions and what I heard her say over closed circuit television;
4. The frames that made up the Miss Smith clips and the ActionScript code that bound them together recorded the non-matrixed actions that are done in the performance of creating animation;
5. The pre-recorded clips that constituted her repertoire of behaviour contained a performance by proxy from the past, in which I have kinaesthetically imagined myself as Miss Smith and how she would behave in speaking the dialogue I wrote;
6. After the conversational experiment was over, I performed the role of the researcher, formally questioning the participant on camera.

This project aimed to test phenomenological film and animation theory in action by creating a situation in which an animated character was not passively observed, but directly engaged with. The installation created a direct, lived, phenomenal experience of a noumenal work of animation that Visitor 1 described as like 'a space inside your head'. She recalled her experience as follows:

> I think it was strange, because this situation that I am sitting in has a sense of unreality, in that it's so completely closed off from the outside world. There is no view outside this room. There is no sense of there being a world outside. It's a completely enclosed area so it has a sort of dream unreality already. Then to sit at a table with

1 I imagined myself as the landlady of a 70s London boarding house showing them into the threadbare room of my tenant.

> drawings on and have a conversation - or attempt a conversation - with an animated figure on a screen seems on one hand peculiar and extraordinary but on the other, because of our world being so preferenced towards the virtual, not unlikely at all.

Arriving at the location, knocking on the door and moving through adjoining spaces to reach the installation all added to the experience of being a Visitor in *Lunch with Miss Smith*. Staging this installation in a domestic setting removed the layers of meaning that would be associated with an institutional context such as a gallery, a cinema or the University within which I am based and gave it a connection with real life.[1] Situated in the home, it engaged with the uncanny in its original German sense of *unheimlich*, literally that which is un-homely and unfamiliar, and presented the Visitor with a spatial experience in which the imaginary space of the cartoon screen is physically and aesthetically integrated with the real room. Visitor 4 went so far as to describe Miss Smith as 'invading' his 'personal space'. He reported:

> When she emphasised a couple of points, she invaded my personal space. In order for her to be more accepted by people, I think she should know more about personal space... I'd probably see her again, but I don't know if I'd introduce her to my friends.

This art project was designed to be an experiment, although it would be more accurate to refer to it as a quasi-experiment. Multiple data sources were used (12), but the choice of respondents was not randomsed, so it couldn't be called a true experiment. However, *Lunch with Miss Smith* was not intended to be a definitive sociological study, but as a means to generate data and to argue for practice-based reception study into the perception of animated character. The project was designed to provoke and open debate into practical ways in which theories about performative spectatorship could be tested out. It was designed to measure the extent to which the viewer contributes her own individual understanding to a character and how much interpretations of a character would vary within a group. Participants were invited to 'have a conversation with a cartoon character', but the act of conversation itself was not the aim of the study, merely a premise to pique their interest and encourage them to participate directly.

1 While creating the installation I considered the impact of staging a simulated dinner party in a gallery such as Judy Chicago's *Dinner Party* (1974-9) or Stuart Brisley's *10 Days* (1973-8).

Echoing Norman McLaren's idea of animation as defined by an intangible 'in-between' that by implication is decoded in the mind of the viewer, Richard Schechner asserts that, 'performance takes place as action, interaction and relation… Performance isn't "in" anything, but "between".[1] My initial findings from *Lunch with Miss Smith* confirm these previous ideas and contribute additional evidence to suggest that the viewer co-performs the work in an exchange between the creator of the character, the viewing situation and the context of her own lived experience and shared knowledge of visual conventions, stock archetypes and cultural codes (A + B). With such a small sample size, caution must be applied, however the findings from this quasi-experiment build upon the current literature in phenomenological theory, cognitive psychology and perceptual animacy and I would like to (1) maintain that the animated character is made to appear as if it were real in a performative transaction between a viewer and a production team and the context in which it is seen and (2) to argue for further practical experimentation and research into this area.

1 Schechner, *Performance Studies: An Introduction, Second Edition*, 30.

4.5 Conclusion

In previous chapters, I have examined debates around the meanings of the terms 'animation' and 'performance', whether the animator could be considered a performer and whether animation could be live. I now turn my attention to the process whereby a fictional, performed construct is brought to life in the mind of the viewer. This chapter sets out to determine how the animated message that was encoded by an animation production team is received and decoded by the viewer.

As a continuation of ideas in the previous chapter about audience proximity and participation being constituent features of liveness, I commence with a case study of *Becoming Starfish* by Genetic Moo in which the animated character is literally brought into being through the physical presence of the audience and their interaction with it. Concluding that the viewer moves the work and yet, in turn, the viewer is herself also choreographed by the work, I then reflect on key concepts from the fields of perceptual animacy, theories of readership and phenomenological perception in order to examine the notion of a reciprocal relationship between the viewer and the fictional character that is presented to her.

Positing the hypothesis that the reader is at the centre of the process of decoding a character, I present a quasi-experiment in the form of a participatory art installation. *Lunch with Miss Smith* was undertaken to observe the viewing process and evaluate the role of the viewer as co-creator of character. Building on ideas of the nature of liveness outlined in the previous chapter, this took the form of a unique, individually tailored, three-dimensional experience that took place in the present time and could provide unpredictable responses to audience participation. Situating the installation in a genuine domestic location and removing the distraction of a strong narrative allowed a blurring of boundaries between the authentic, real world and a fictional, cartoon world. Expanding upon ideas of the animator as performer outlined in Chapter 2, performance took place on many levels. From the moment they arrived each participant was structured into the role of Miss Smith's visitor. My own performances

were multiple. As an artist, I created the animated character, Miss Smith, in the past through acts of non-matrixed performance recorded as drawn, digital marks and ActionScript code. During this author-time phase, I consciously created her to be able to give a performance by proxy. At run-time, during the installation, I selected which animated clips would be shown, thus operating the character in real-time in instant response to the Visitor's reaction as if she were a mediated puppet. As each Visitor arrived, I played an actual role (the Landlady). Finally, as the installation drew to a close, I played the role of PhD Researcher, formally questioning the participants on camera. Reflecting on the video-cued recall and semi-structured interviews that had been conducted with each participant, I noted that while there were a few points of commonality, each interviewee had a different interpretation of the character and on several occasions would explicitly refer to her/his own lived experience while describing their impressions of Miss Smith.

Taken together, these various sources of information suggest that characterisation is not fixed by the author of performance. Although the character has been designed and put into motion by someone else (encoded), it is the viewer who imbues it with meaning and 'life'. This process of 'decoding' is an act of exchange that references the viewer's prior knowledge and lived experience. It is also an act that takes place in a specific historical, cultural, technological, geographic and social context. The understanding of a fictional character is a transaction between three discourses: (1) the author's creative intent behind the character's creation, (2) the context in which the character is viewed and (3) a subjective contribution from the viewer's own memories, real-life experiences and knowledge of cultural archetypes. Furthermore, I would like to argue that this is not specific to animated characters. Watching a character animation, the viewer experiences a performed character that, like live, human performed characters, is not a real person but a fictional construct.

In the next chapter, I will summarise and reflect on my conclusions so far.

5. Conclusion: Animation as performance

I will now return to the question posed in chapter 1: what is animation? Assumptions about the definition of animation have been problematised by technological change in animation practice and, consequently, in this study, for the purpose of clarity, I have used the working definition that animation consists of mediated, moving images of a manipulated, artificial construct that could not have been photographically captured by a camera in real-time. The limitation of this explanation is that it continues to define animation reductively in terms of technical processes rather than to consider it more broadly and conceptually. Alan Cholodenko argues for a theorisation of animation as 'idea, concept or process' that goes beyond definition by the technical processes involved and is:

> … not delimited to and by the animation film (and conventional ideas of it) but as a notion whose purchase would be transdisciplinary, transinstitutional, implicating the most profound, complex and challenging questions of our culture, questions in the area of being and becoming, time, space, motion, change - indeed, life itself. [1]

Responding to this, my research has aimed to go beyond preconceived notions of what animation is. Rather than being bound to a traditional paradigm of animation as subset of film, I have explored not just what animation is, but what animation could be using digital technology in a live context. I would like to argue that rather than being restricted by a finite definition of this complex field, animation should be seen as part of the larger territory of performance. As a consequence, I have looked at animation in terms of performance through the lens of theatre history and performance studies, rather than through that of film studies, in order to determine whether animation could be considered as performance and whether this could take place live, in the present.

The research methodology that I employed endeavoured to achieve an alignment between my research questions and methods. As opposed to creating work that would take the traditional form of an animated film, I consciously adopted the notion that what I was doing could be regarded as 'post-animation'. I use this term to refer to a conceptual practice that uses the tools of animation, but takes a form which

1 Cholodenko, "Introduction," in *The Illusion of life: Essays on animation*, 15.

is not animation as conventionally understood and thus de-constructs conventional paradigms of animation. Additionally, in support of the aim to consider animation as performance, I investigate the nature of animation using performance as a research method: creating, performing within and becoming animation, operating characters live and studying viewer response to live animation.

In order to contextualise my practice, I identify an area of live, intermedial performance that I consider to be post-animation. Animation is a key component of digital experimentation: this has allowed creators to go beyond traditionally delineated labels and disciplines. Interdisciplinary work created by people from fields outside those traditionally accepted as animation demonstrates that animation technology can be used to create hybrid content that does not conform with the accepted form of an animated film. Historically, the complex and expensive technical processes involved in animation were not available to the general public, being only accessible to a limited number of highly trained and skilled practitioners. The proliferation of desktop computers, digital cameras and 'prosumer' software has now enabled access to animation techniques to a range of contemporary practitioners in other disciplines outside the specialist field of animation, such as dance, fine art, theatre and comedy. Reproductive technology, digital media and contemporary performance have merged to create a multiplicity of hybrid forms that defy traditional categorization. These practitioners may not consider their work to be animation (and may even resist this label), but their work demonstrates a type of post-medium practice in which animation is no longer tied to the linear medium of film, but can be non-linear, live and spontaneous.

From this newly-delineated field that I have identified, I interviewed key practitioners who use animated characters as an integral part of their stage acts: each of them uses animation, yet does not define their practice as animation and also questions the discipline in which they locate their work through their use of digital technology:

- In their experimental work with puppets, Faulty Optic coined the term 'animation theatre' and pioneered a form of live, stop-motion animation;

- Howard Read questions stand-up comedy and improvisation through working

with databases of planned and prepared responses;

- Margie Medlin's Quartet challenges the authorship of dance and the limits of the physical body and seeks to expand choreography into new synaesthetic and virtual realms;

- Genetic Moo use interactive technology to get away from traditional passive viewing of films and their work demands actual physical engagement.

Thus, the research process involved multiple sources of evidence. The resultant practice can be seen as at one and the same time embodying the claims as well as emerging from a cyclical praxis in which ideas were generated from thinking in / through / about doing in dialogue with literature and practice review. In the following matrix, I have summarised how my own practice and that of my four case studies relates to the central arguments in the research. The matrix describes how each project conforms to my working definitions of animation, performance and liveness in order to demonstrate that animation and performance cannot be separated on the basis of ontology.

	Dog Betty	**Out There in the Dark**	Exorcism	**At Home with Mr & Mrs Smith**	White Lines	Hula Doll	UAL Improv	Drawn Together	**Lunch with Miss Smith**	**Faulty Optic**	**Howard Read**	**Quartet**	**Genetic Moo**
CHAPTER SECTION	2.2	2.6	2.6	3.2	3.3	3.3	3.5	3.5	4.4	2.4	3.4	3.5	4.2
to be (character) **ANIMATION** (p21-2)													
*__Constructed actor__ (artificial construct)	✔	✔	✓	✔		✔			✔	✔	✔	✔	✔
*__Mediation__ (i.e. description, storage, retrieval)		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
*The movements **couldn't have been captured** by a camera in real time		✔	✓	✔	✓	✔	✔	✔	✔	✓	✔	✔	✔
to be **PERFORMANCE** (p32)													
*Human **body** / substitute	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
*Assumes an identity **beyond the everyday**	✔	✔	✔	✔	✔	✔			✔	✔	✔	✔	✔
*Displayed for an **audience**	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
*Re-presents planned and prepared, **twice-behaved behaviour**	✔	✔	✔	✔	✔	✔	✓	✓	✔	✔	✔	✔	✔
*__Time-based__	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
and has **LIVENESS** as defined by (p8)													
*Takes place **'now'**, in the present	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
*__Frisson of the unexpected__ - possibility of either unpredictability, spontaneity or improvisation	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
*Viewer has a sense of their **own agency** through either physical proximity or the potential to affect an impact on the work	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
further **CLAIMS**													
*A **unique**, one-off event	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
*The character is **performed by proxy**	✔	✔	✓	✔		✓			✔	✔	✔	✔	✔
*And involves **non-matrixed performance**	✔	✔	✓	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
*The **viewer co-performs** the character[1]	**A**	**E**	**AP**	**AP**	**A**	**AP**	**A**		**AP**	**E**	**AP**	**A**	**AP**

Key: ☐ Major project fully covered in own chapter section ☐ Minor project mentioned in the text ☐ External case study fully covered in own chapter section

✓ ✔ Size of tick indicates strength of claim.

[1]A - assumed, E - anecdotal evidence, AP - audience participation

Figure 74. Birgitta Hosea. Matrix of practice, 2011.

From the earliest animated films (a development of magic theatre and music hall acts), the simplistic division of performance from animation has been defied. Citing art historian, Erwin Panofsky's proposition from 1934, that:

> The very virtue of the animated cartoon is to animate, that is to say endow lifeless things with life, or living things with a different kind of life. It effects a metamorphosis…[1]

Cholodenko contends that the basis of animation is that it is a process in which the inanimate is transformed into the animate through 'endowing with movement' or even 'endowing with life'.[2] This uncanny act of bringing the dead and inanimate to life is at the heart of animation and can be seen as part of a continuum of ancient performance practices in which a symbolic substitute for the human body is used: mask and puppetry. In these forms of constructed-acting, symbolic artefacts extend the body of the performer and enable her to portray abstract and conceptual ideas beyond the limits of the human body.

Through my research, I present the case that animation is a form of performance by proxy that extends the body of the performer. From the film, *Bedknobs and Broomsticks*, I have identified the term substitutive performance to describe this. Similar to wearing a mask or manipulating a puppet, animation is a performance that is displaced onto the animated character. This substitutive performance is a form of twice-behaved, extra-daily behaviour that is prepared for the attention of others and mediated through a form of technology.

In addition to viewing it as substitutive performance, animation can also be regarded as a performative act, which enacts that which it signifies. As animators study themselves in a mirror for reference, it could be argued that they become animated by the character they are creating: trying on the physical attributes of an imaginary character. Commencing with *Dog Betty*, a series of performative public interventions, I make an initial attempt to get inside a character physically, to try to bring animation

1 Erwin Panofsky, "Style and Medium in the Motion Pictures," in Film Theory and Criticism: Introductory Readings, ed. Gerald Mast and Marshall Cohen (New York: Oxford University Press, 1974), footnote, 252.

2 Cholodenko, "Introduction," in The Illusion of life: Essays on animation, 15-16.

off the screen and into the three dimensional space of the present moment. Also inspired by Judith Butler's notion of the performative, ritualistic construction of feminine identity and the idea that animation itself could be performative, I created a work of live art, *Out There in the Dark,* in which, possessed by the iconic theatrics of a Hollywood star, I become a hybrid of animated character and hysterical live performer.

In the practical creation of an animation, the animator herself makes movements and actions that are recorded in the form of marks or forms. These could be regarded as elements of a private performance that the animator went through. Thus, the act of animation itself can be considered as a non-matrixed performance by the animator, which records the trace of her presence. This idea was explored in *White Lines* - a non-matrixed act of animation in which my presence is erased and revealed. As I performed live within a holographic projection of this animation, revealing the means of production through my actions, it is unclear what is real and what is illusion.

The artists' group, Drawn Together create sequential drawings that are added to and erased over time in a 'straight ahead'[1] technique. These activities can be compared to the production methods of animators who use traditional drawing materials, such as William Kentridge. The groups' drawings are made in real time during a performance in a gallery context. I regard our work as live animation because we are demonstrating a non-matrixed act of animation: in recording our gestures as marks over time, rather than creating the illusion of moving drawing, we do not hide our own presence or activities, rather showing them as part of the process.

In addition to presenting a case that animation is performance on various levels, I have explored the implications that result from animation no longer being considered a frame-by-frame process. With digital technology, animation is no longer restricted to the medium of film. It can be mediated - created, stored, transmitted and enacted - by code. Technically and conceptually freed from its intrinsic relationship to film, digital animation can be both played back and generated in a non-linear manner at

1 A technical term for the creation of animation spontaneously without recourse to rigid storyboards or precisely timed keyframes.

run-time, creating unique, auratic, individually experienced events. One such example was *At Home with Mr and Mrs Smith*, a unique, synchronous, animated performance in the shared, non-physical, social space of the internet. Using the UpStage server, animated characters could talk back and instantly react to audience participation. A sense of unpredictability could be introduced in live situations, due to the inherently synaesthetic nature of the digital realm. Data such as previously prepared animated sequences or algorithmic responses to sensual inputs such as biofeedback or movement information can be non-linearly accessed to generate animation instantly. This approach can be seen in the live work of Howard Read as well as Margie Medlin's dance piece, *Quartet*. Furthermore, animation is no longer confined to two dimensions. Expanded cinema, holographic projection, augmented reality, 3D digital film projection and the use of physical computing with motors: these techniques and technologies allow animation to escape the flat screen. Taken together these examples demonstrate that animation can be experienced as live: immediate, spontaneous, in the present, three-dimensional and with the viewer's proximity acknowledged.

Although a live performance is typically considered to be the work of individual performers, in a factory production system animation is most frequently created in teams. This is not, however, restricted to animation. In the work of both Faulty Optic and *Quartet*, multiple forms of authorship combine in the performance of a constructed-actor. Although the intent behind a character may be carried out by multiple hands, a coherent character is created in the present moment of perception in the mind of the viewer.

The animated character is a fictional construct, but it is experienced as if it performs and comes to life in the imagination of the viewer. The act of bringing motion to inert matter in turn animates the cognitive processes of the viewer, who contributes her lived experience to her understanding of the character. That character is experienced as performed by the viewer can be supported by findings from cognitive psychology, perceptual animacy, theories of readership and phenomenological perception. In order to examine this in more detail, I created a participatory art installation as quasi-experiment. The aim of *Lunch with Miss Smith* was to engender an

active encounter with a cartoon character in an everyday, domestic setting that would be outwith the distraction of narrative and to study how that character was received. From these multiple sources of information, I concluded that the creative intent behind the creation of a fictional character - whether animation, live or film - is not fixed in the moment of performance. The character can be said to 'exist' in the transaction between an original act of creative intention, the context in which it is viewed and the viewer.

Investigating the performance in animation and animation as performance has subsequent implications for both the animation in performance and the wider field of performance itself. It enables an abstraction of the concept of performance from the corporeal body of the actor and challenges a binary opposition between live and mediated performance. Proponents of liveness maintain that original bodies on stage emit a unique and authentic aura that resists representation. In opposition to this is the argument that there is a chemical guarantee of presence in the photographic process and that many forms of synchronous media create unique events in the present time. These contentions centre around the proximity of the viewer in space and time to the corporeality of the actor. A consideration of animation as performance destabilises this debate, because an animated character lacks corporeal presence. Intermedial performances that combine many different modes of performance foreground the issue of corporeality of the performer and, in terms of embodied perception, of the viewer. I propose a conceptualisation of different modes of performance, defined by the bodies of both actor and viewer. As part of this, I argue that animation is a mediated form of embodied performance differentiated neither by tradition nor technology, but by the degree of separation between the body of the performer and the body of the viewer, who together co-create the experience within a historical and cultural context. This field of practice is defined by two axes, as represented in the following diagram, which proposes a tentative map of the territory of performance in terms of relation to the body (of the performer and of the spectator).

Through focussing on the central act of embodied perception and exchange between subjects, relationships between different forms of performance practice can be

established. On the horizontal axis, a continuum of performance practice is represented, from the live and physically present to the mediated. The term 'mediated' is used to describe performance in which a reproduction of original author-time performance is re-presented at run-time. Thus, this is an umbrella term for performance that has been recorded and reproduced. In this context, this axis represents the degree of physical proximity between the body of the spectator and the body of the performer. It also represents the degrees of reciprocity and exchange between the two.

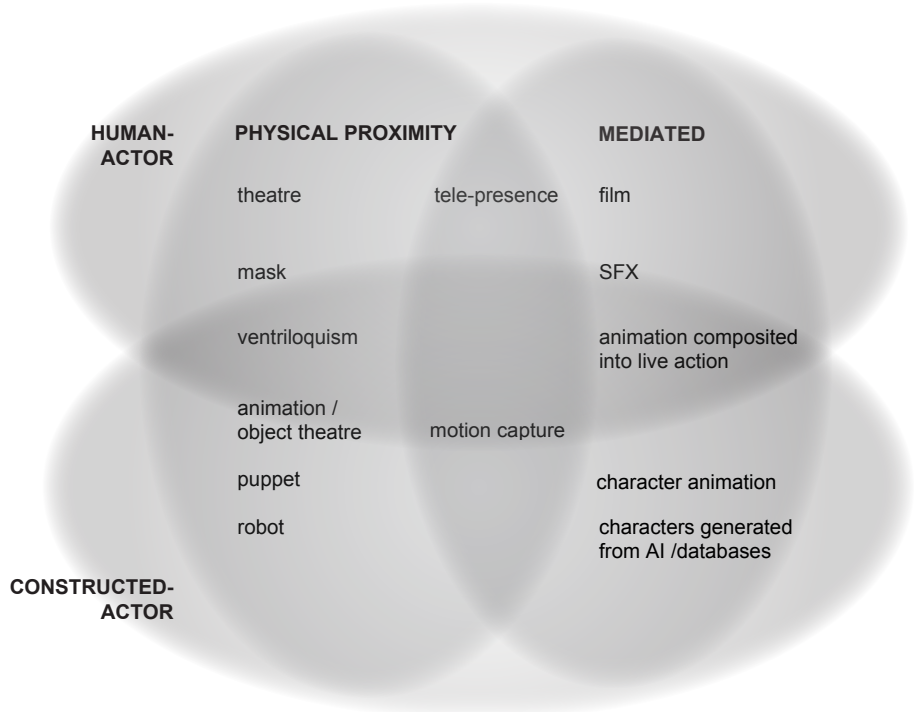

Figure 75. Birgitta Hosea, *Modes of performance diagram, 2010.*

The vertical axis represents a continuum of practice from animate, human-actor to inanimate, constructed-actor. It represents degrees of separation of the performer herself from the human body. Thus, at one extreme is a collection of practices known as theatre, which could also include carnival, street entertainment, circus, etc. In a central position is ventriloquism, in which the body of the ventriloquist is seen. Robots are included at the opposite end because a growing number of experimental dance

practitioners are creating performances with robots. Practices in the top left of the diagram display a high degree of communication between the physical body of the performer and the embodied perception of the spectator. Practices in the bottom right corner of the diagram imply a degree of separation between the physical body of the performer and the embodied perception of the viewer.

Furthermore, a consideration of the unreal, animated body as a performer questions value judgements in the field of Performance Studies that oppose mimetic realism with abstract ideas. Cholodenko contends that:

> ... in a certain sense animation may be thought to be that which indetermines and suspends the distinction between representation and simulation, what makes it impossible to say which is which, as it indetermines and suspends all things.[1]

For Aristotle, all arts - epic poetry, tragedy, comedy, painting or music - involve mimesis: an imitation of life.[2] Naturalistic acting aims for lifelikeness and authenticity in which the actors lose their own egos and become the character that they portray. For Michael Kirby, as discussed in Chapter 1, this emotional commitment differentiates simple and complex forms of acting. However, in practice theatrical behaviour is not completely authentic and spontaneous. It draws upon a series of learned, planned and prepared twice-behaved actions that are underpinned by the codes and conventions of the particular theatrical tradition to which it belongs. This assertion is not intended as a value judgement. The body of practice loosely defined under the terms Performance / Body / Live Art considers itself authentic, because its activities do not represent fictional characters. For example, of her early work performance artist, Marina Abramovic, has stated that:

> ...theatre was an absolute enemy. It was something bad, it was something we should not deal with. It was artificial. All the qualities that performance has were unrehearsable. There was no repetition. It was new for me and the sense of reality was very strong. We refused the theatrical structure.[3]

Rather than directly accessing reality, on the contrary, just like the institution of thea-

1 Cholodenko, "Introduction," in *The Illusion of life: Essays on animation*, 21-2.

2 Aristotle, Poetics, trans. Heath Malcolm (London: Penguin, 1996), 3.

3 Nick Kaye, Art into Theatre : Performance interviews and documents. (London; Amsterdam: Harwood Academic, 1996), 181.

tre that it opposes, this kind of practice also involves the codes, conventions and institutional gatekeepers of an institution that funds and presents its activities - the art establishment. Behaviours presented as Performance / Body / Live Art are not once-behaved, but planned, prepared and often rehearsed and repeated.

Although both naturalistic approaches to acting and Performance Art claim to access authentic reality, Modernist theatre practitioners have differentiated between an imitation of the phenomenal world and a presentation of the noumenal world of ideas. Edward Gordon Craig argued for a rejection of the imitation of nature and a return to a Platonic presentation of pure ideas. Bertolt Brecht concurred with the sentiment that emotional identification with characters that imitated life led to passive spectators who did not think for themselves, but merely consumed escapist entertainment.

For Postmodern thinkers, such as Jean Baudrillard, just as for Plato, there is no real authentic reality to reveal in the performance situation - only simulations, copies of copies of Ideas.[1] In our contemporary global culture, we no longer experience the world through our own lived experience but through the ubiquitous mass media. Judith Butler argues that we make these simulations manifest. We take ideas from the world outside and through repetitive rituals transform our physical bodies into ideological constructions. This is made explicit in in animation as the uncanny, undead character that comes to life is an idea made manifest and transformed into a substitute body. With its explicit artificiality, animation cannot make claims for depicting the authentic and yet it is an ideal arena in which to study Butler's notion of ideology made manifest in the form of a body.

Animation's combination of the recognisable with the impossible unsettles binary oppositions between mimesis and abstract thought; between what we thought we knew of the boundaries between life and death and the laws of nature. Furthermore, this unnatural process by which the inhuman and lifeless are bestowed with motion and given the appearance of life challenges the whole Enlightenment notion of indi-

1 Madan Sarup, An introductory guide to post-structuralism and postmodernism, 2nd ed. (London; New York: Harvester Wheatsheaf, 1993), 165.

vidualism and the centrality of the subject. Animated performers are controlled by the actions of others: the undead characters enact the performative intent of another and are brought to the realm of the living through movement. It brings to the fore Butler's idea of the physical body outwith conscious control; the haunting of the corporeal by socially defined gesture and the repetitive re-performance of identity in a world in which there is no authentic reality merely simulations.

6. Portfolio

6.1 Still Images

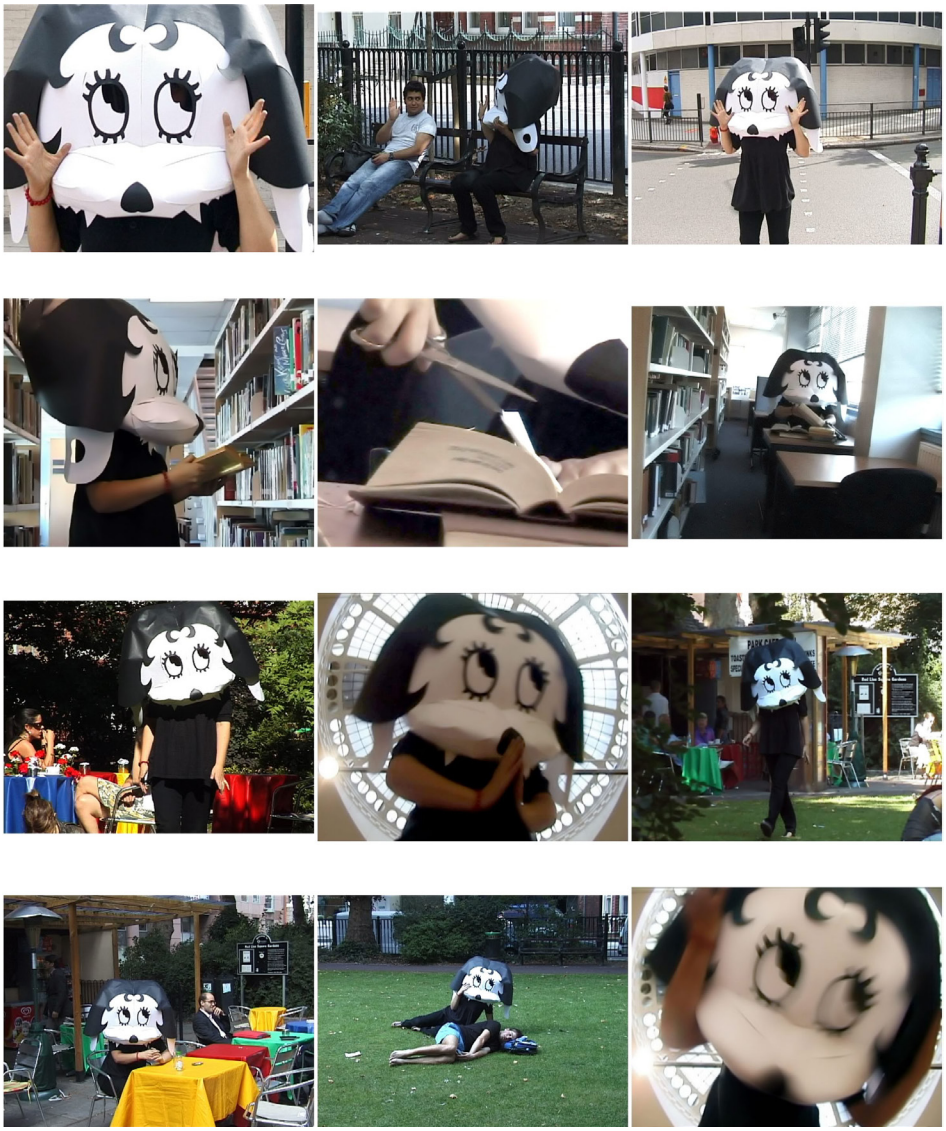

Plate 1. Stills from the *Dog Betty* series of short films, 2007. Screen captures from DV video of public interventions. Central London.

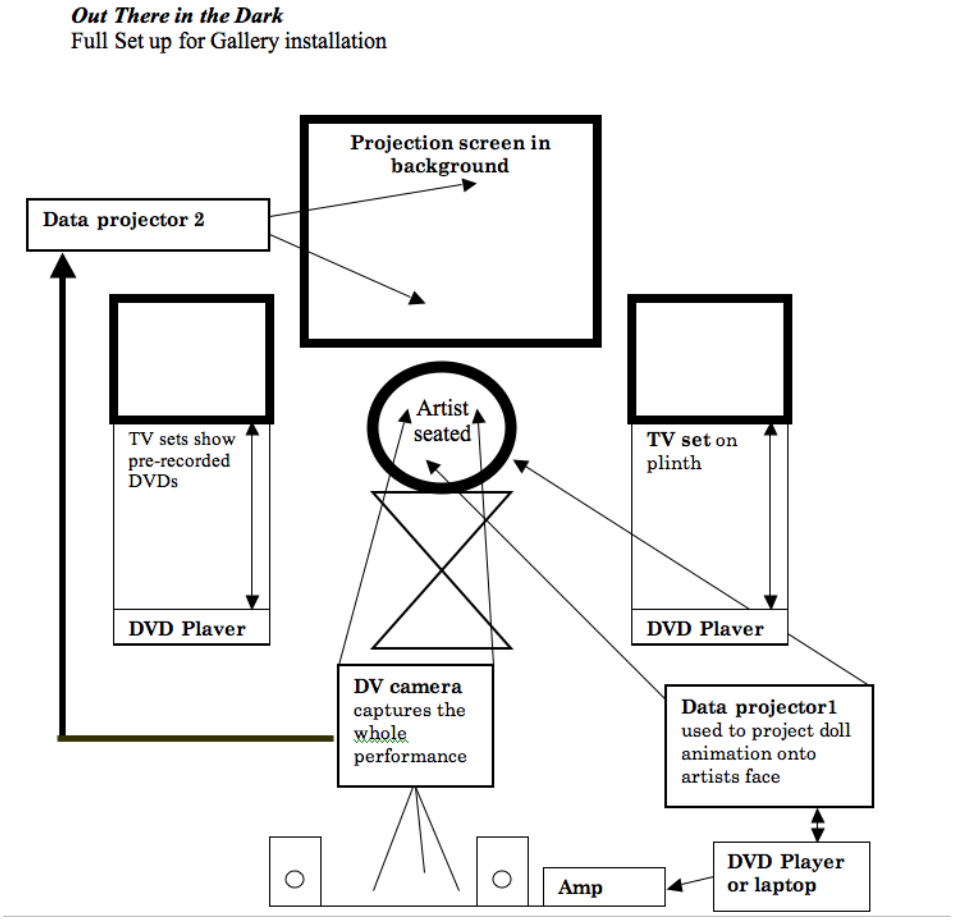

Plate 2. *Out There in the Dark*, 2008. Technical set up for full gallery installation.

Plate 3. Stills from *Out There in the Dark* live gallery performance, 2008. Screen captures from DV video. Lethaby Gallery, London.

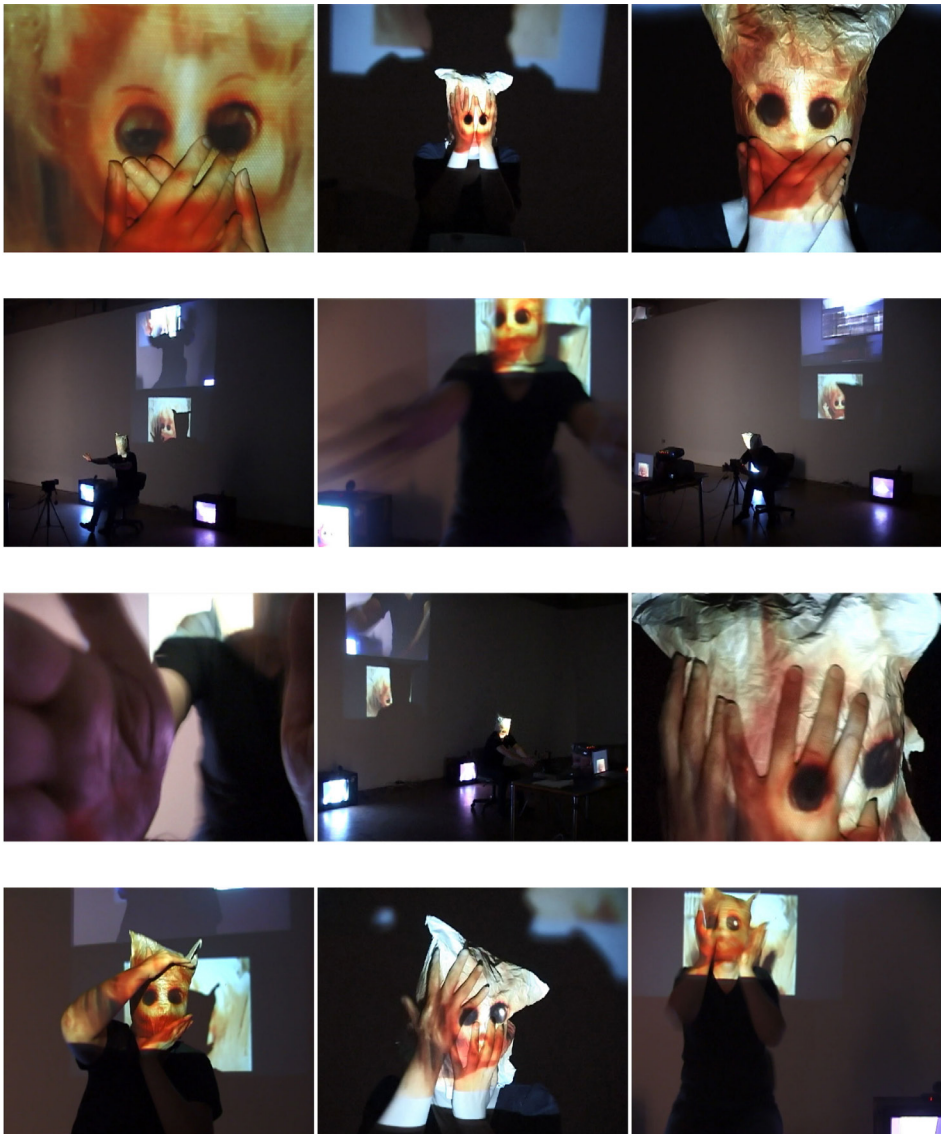

Plate 4. Stills from *Out There in the Dark* live gallery performance, 2008. Screen captures from DV video. Lethaby Gallery, London.

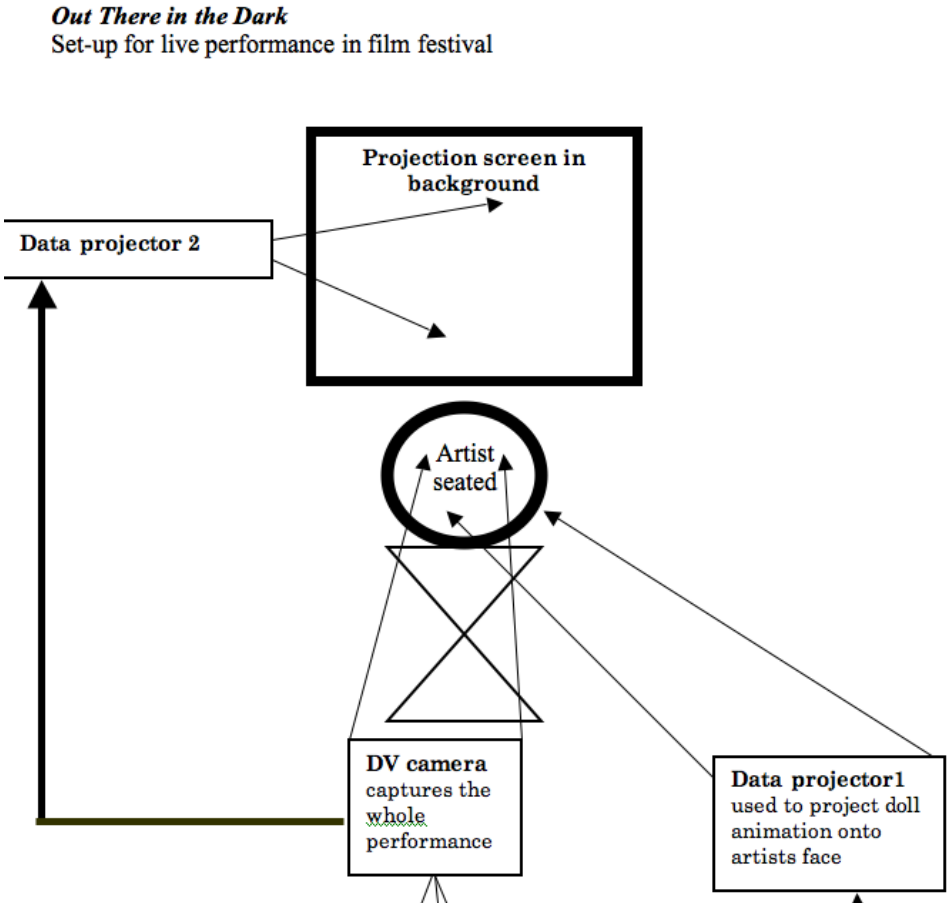

Plate 5. *Out There in the Dark*, 2009. Technical set up for live performance in film festival.

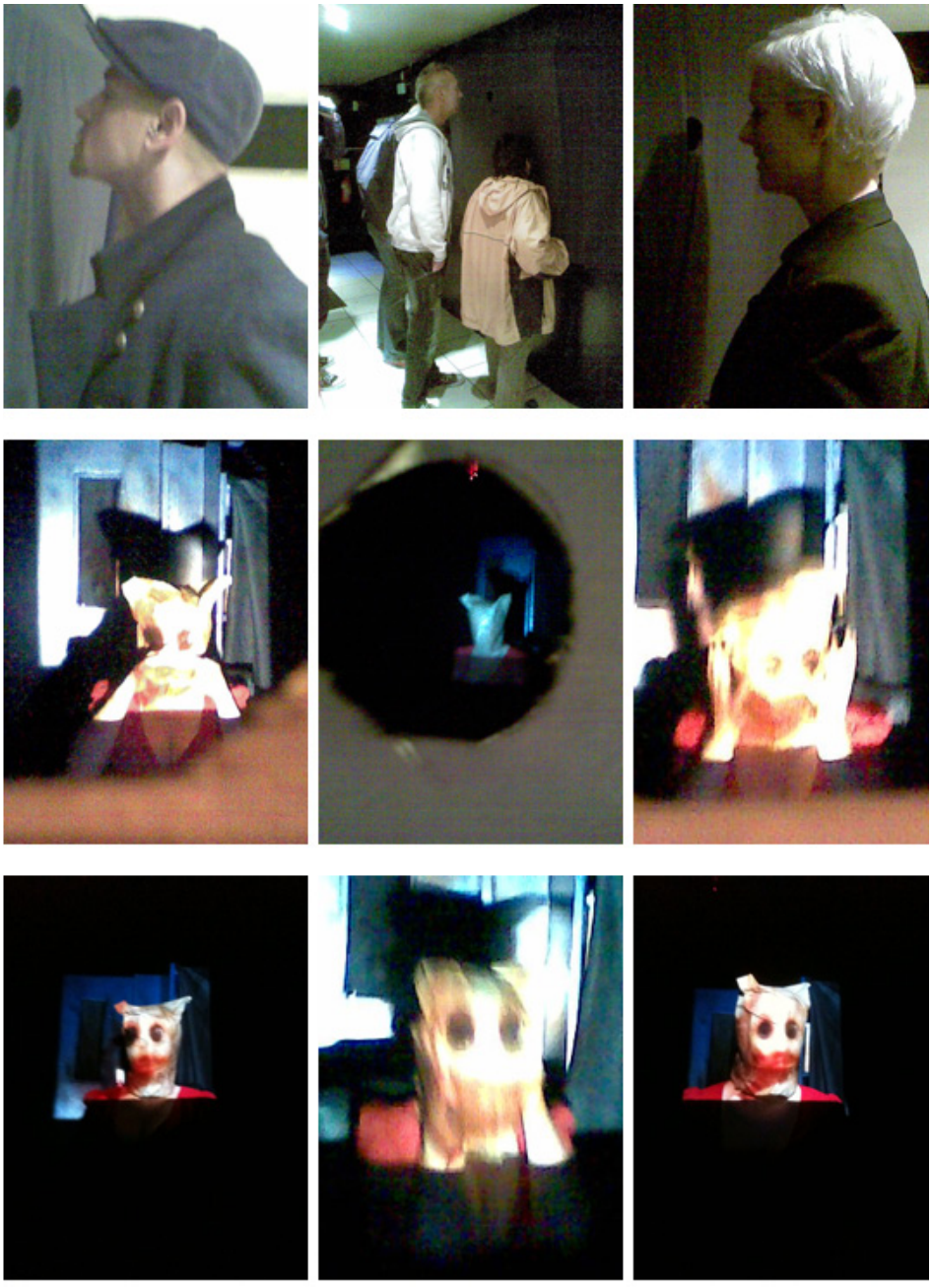

Plate 6. *Out There in the Dark* live peepshow performance, 2009. Mobile phone photographs. Shown as part of Act Art 07, Hidden, London.

Plate 7. *Out There in the Dark* live stage performance, 2010. Shown as part of I Can't Even Think Straight, LLGFF, BFI, London.

Plate 8. *Out There in the Dark* live peepshow performance, 2010. Shown as part of Mix 23 Queer Experimental Film Festival, Theater for the New City, New York.

Plate 9. *Exorcism*, 2009. Live performance with projected animation by Birgitta Hosea and Maureen Baas. Forkbeard Fantasy Studios, Devon.

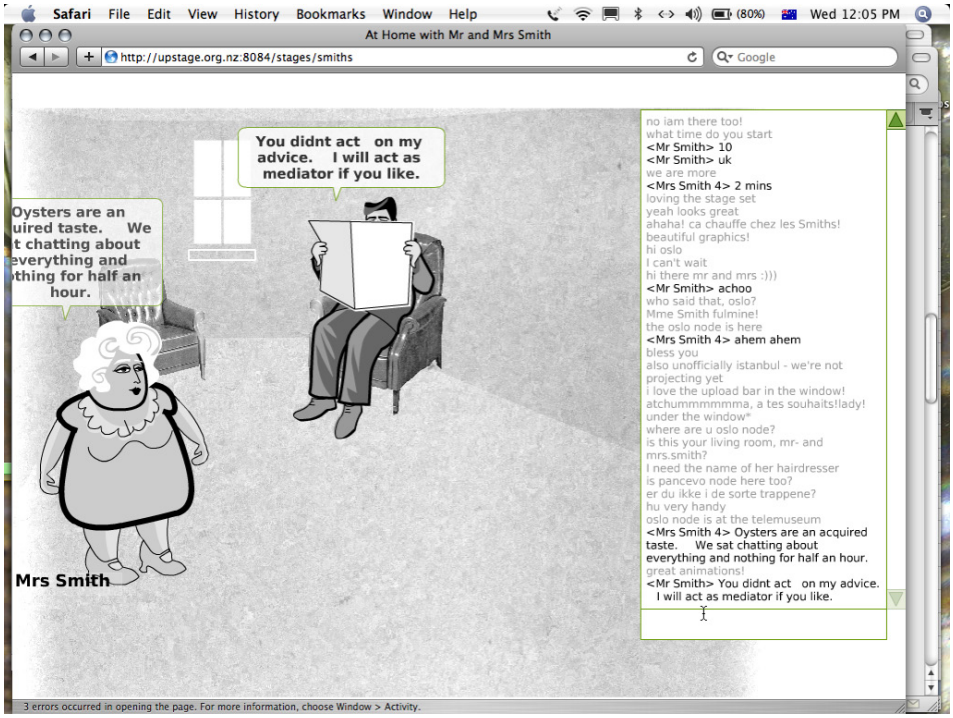

Plate 10. *At Home with Mr and Mrs Smith*, 2009. Screen capture of audience view during live performance. UpStage 090909 Festival.

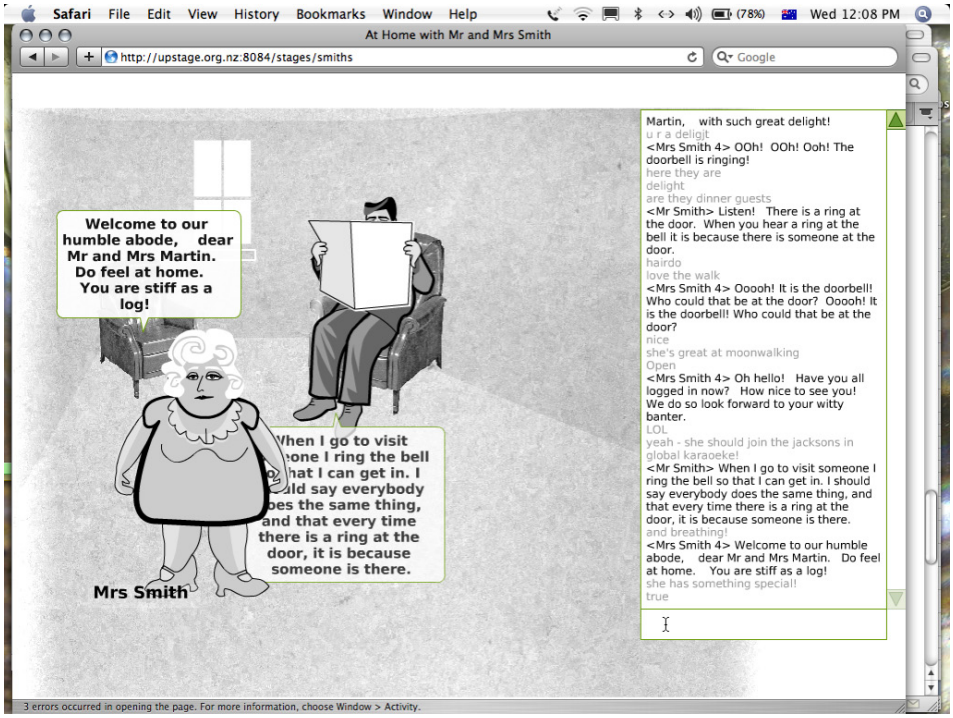

Plate 11. *At Home with Mr and Mrs Smith*, 2009. Screen capture of audience view during live performance. UpStage 090909 Festival.

Plate 12. *At Home with Mr and Mrs Smith*, 2009. Screen capture of audience view during live performance. UpStage 090909 Festival.

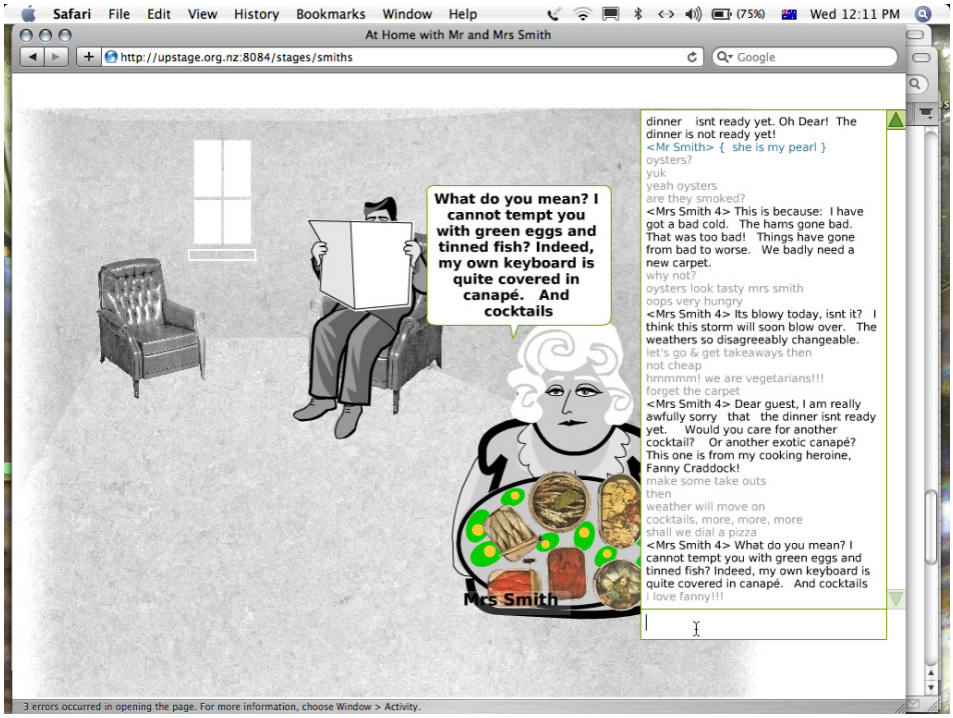

Plate 13. *At Home with Mr and Mrs Smith*, 2009. Screen capture of audience view during live performance. UpStage 090909 Festival.

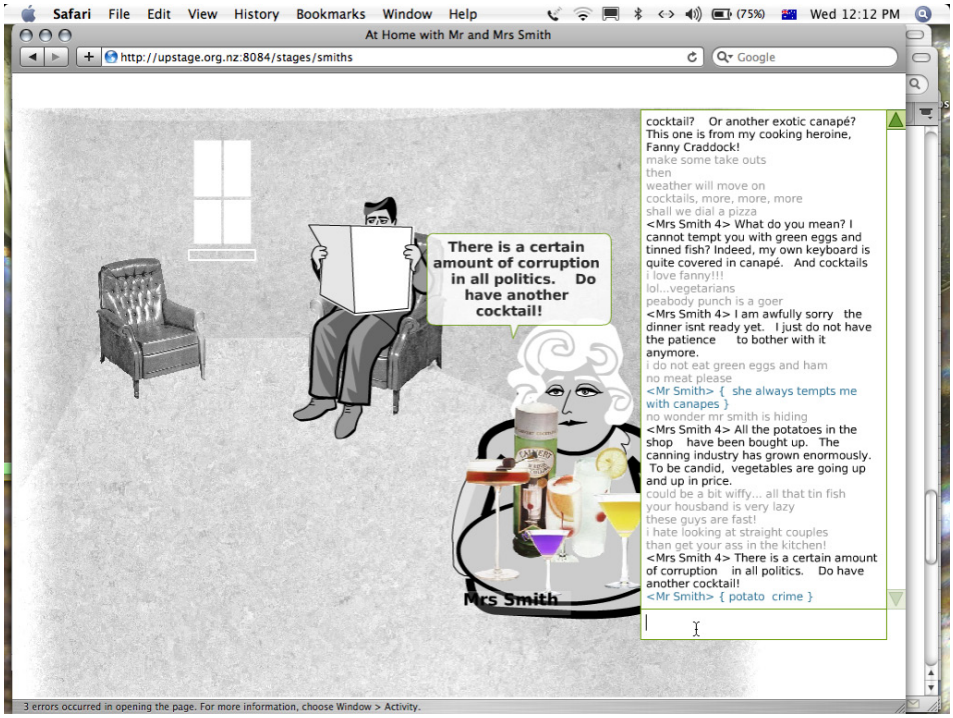

Plate 14. *At Home with Mr and Mrs Smith*, 2009. Screen capture of audience view during live performance. UpStage 090909 Festival.

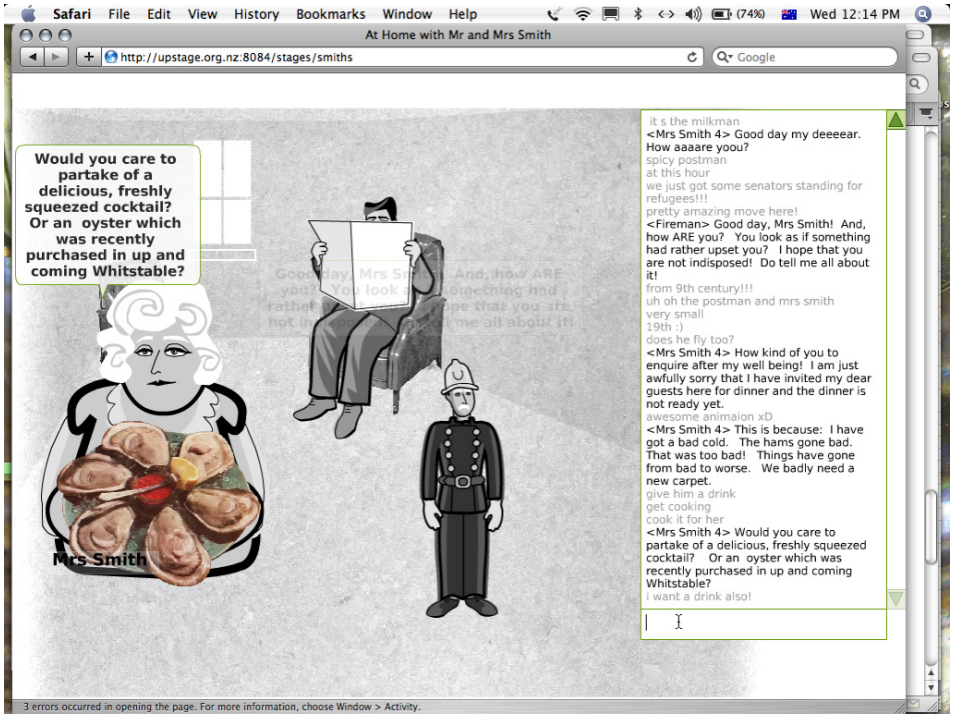

Plate 15. *At Home with Mr and Mrs Smith*, 2009. Screen capture of audience view during live performance. UpStage 090909 Festival.

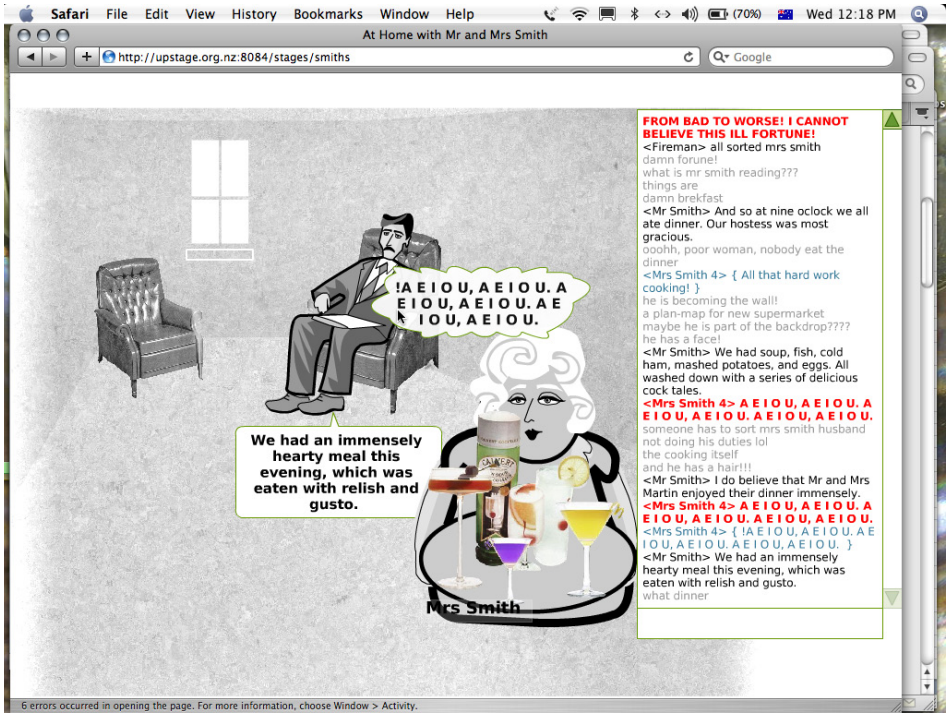

Plate 16. *At Home with Mr and Mrs Smith*, 2009. Screen capture of audience view during live performance. UpStage 090909 Festival.

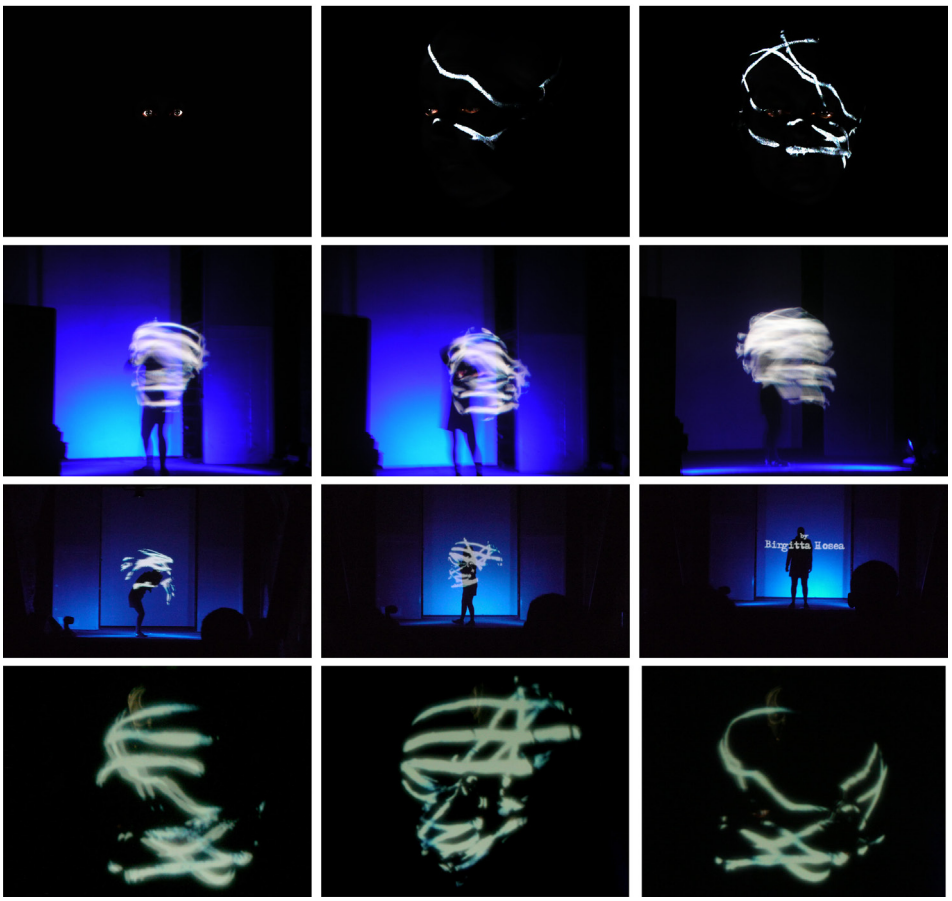

Plate 17. *White Lines*, 2010. Still images from live performances inside a holographic projection at Kinetica Art Fair and Shunt, London.

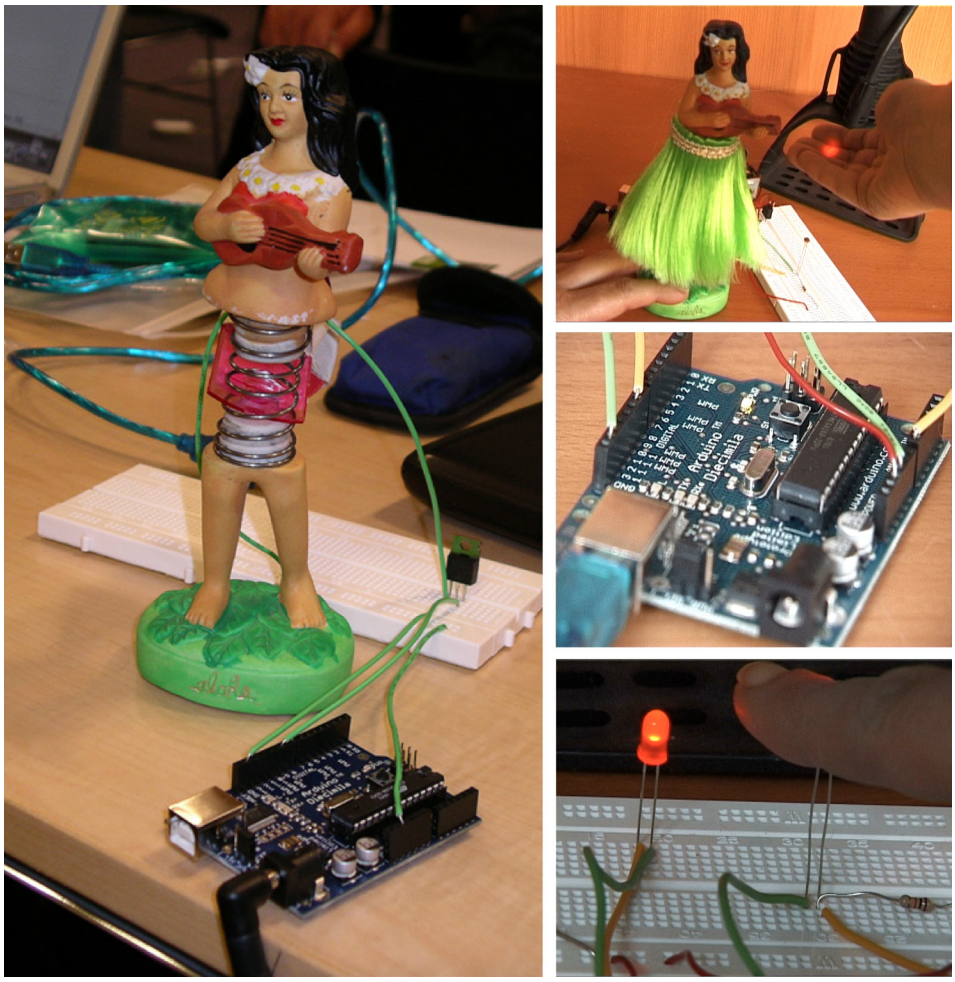

Plate18. *Hula Doll*, a motorised doll that reacts to human proximity, (technical assistace by Anne Pietsch), 2007. Doll, arduino board, light sensitive sensor, red laser pointer, small motor.

Plate 19. Improvised performance that featured the projection of spontaneous animated drawings made with the Tagtool, 2010. University of the Arts London Interdisciplinary Performance Workshop, Rambert School of Ballet and Contemporary Dance, London.

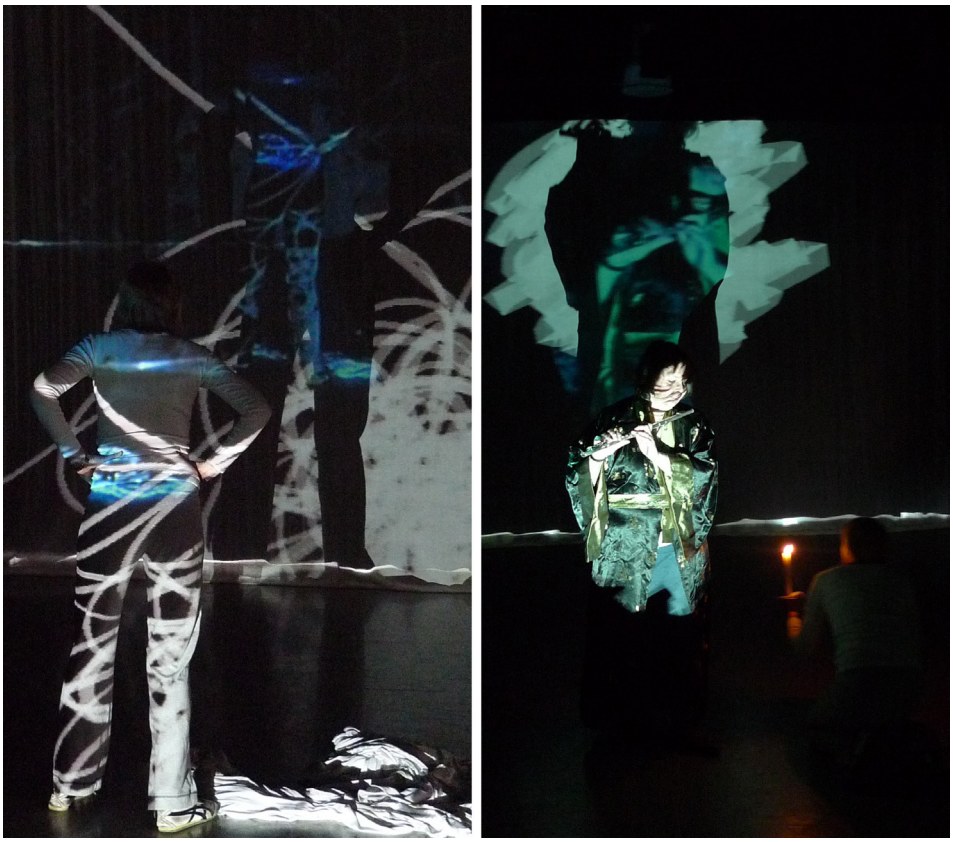

Plate 20. Improvised performance that featured the projection of spontaneous animated drawings made with the Tagtool, 2010. University of the Arts London Interdisciplinary Performance Workshop, Rambert School of Ballet and Contemporary Dance, London.

Plate 21. Drawn Together (Maryclare Foá, Jane Grisewood, Birgitta Hosea and Carali McCall), *ARC: I draw for you*, 2010. Centre for Drawing, Wimbledon College of Art.

Plate 22. Drawn Together (Maryclare Foá, Jane Grisewood, Birgitta Hosea and Carali McCall), *ARC: I draw for you*, 2010. Centre for Drawing, Wimbledon College of Art.

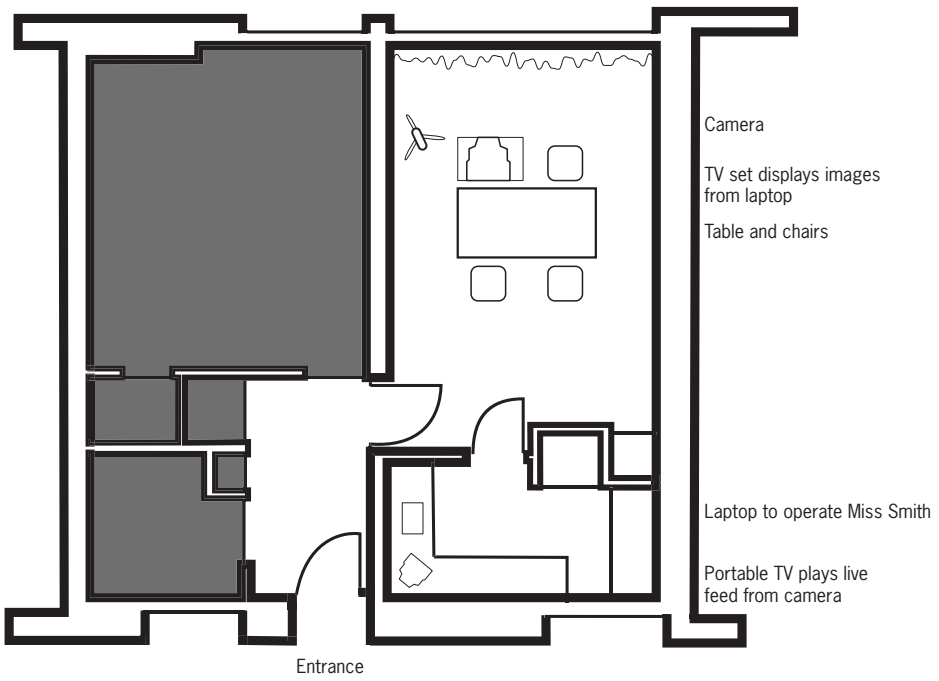

Plate 23. *Lunch with Miss Smith*, ground plan, 2010.

Plate 24. *Lunch with Miss Smith*, main room set-up, 2010.

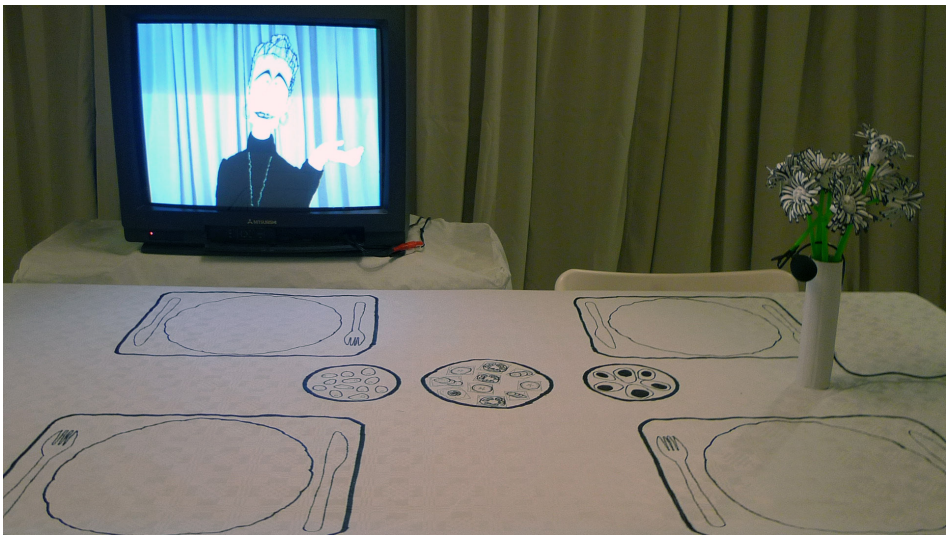

Plate 25. *Lunch with Miss Smith*, table dressing, 2010.

Plate 26. *Lunch with Miss Smith*, behind the scenes in the kitchen where the character was controlled from, 2010.

Plate 27. *Lunch with Miss Smith*, behind the scenes view of participants on TV monitor and keyboard controlled digital character, 2010.

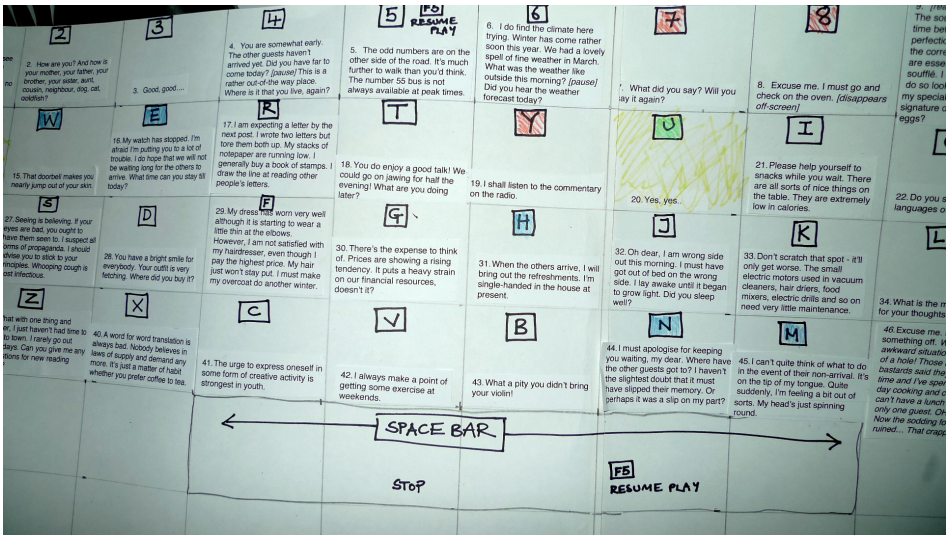

Plate 28. *Lunch with Miss Smith*, keyboard instructions chart, 2010.

Plate 29. Miss Smith character development sketches, 2010. Touch-screen mobile phone drawings.

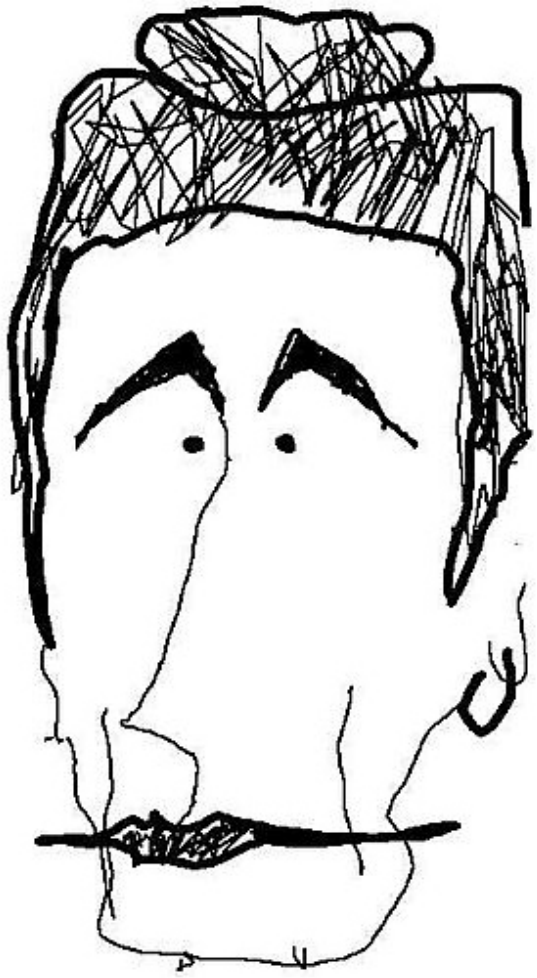

Plate 30. Miss Smith character design, 2010. Touch-screen mobile phone drawings.

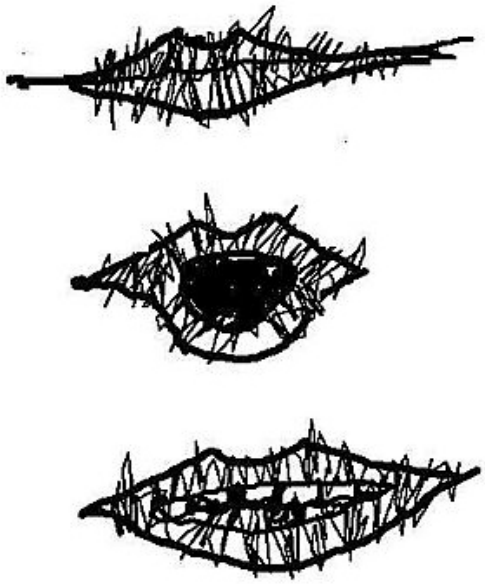

Plate 31. Miss Smith character design, 2010. Touch-screen mobile phone drawings.

Plate 32. Becoming Miss Smith, 2010.

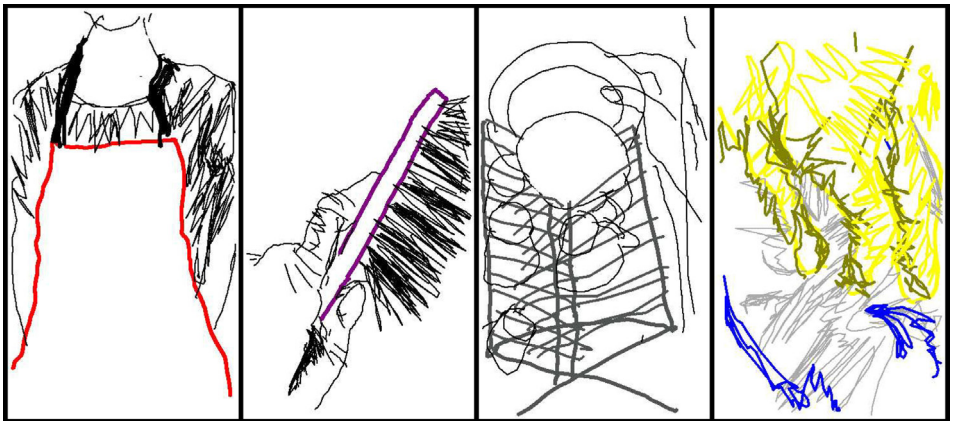

Plate 33. Becoming Miss Smith, 2010. Touch-screen mobile phone drawings.

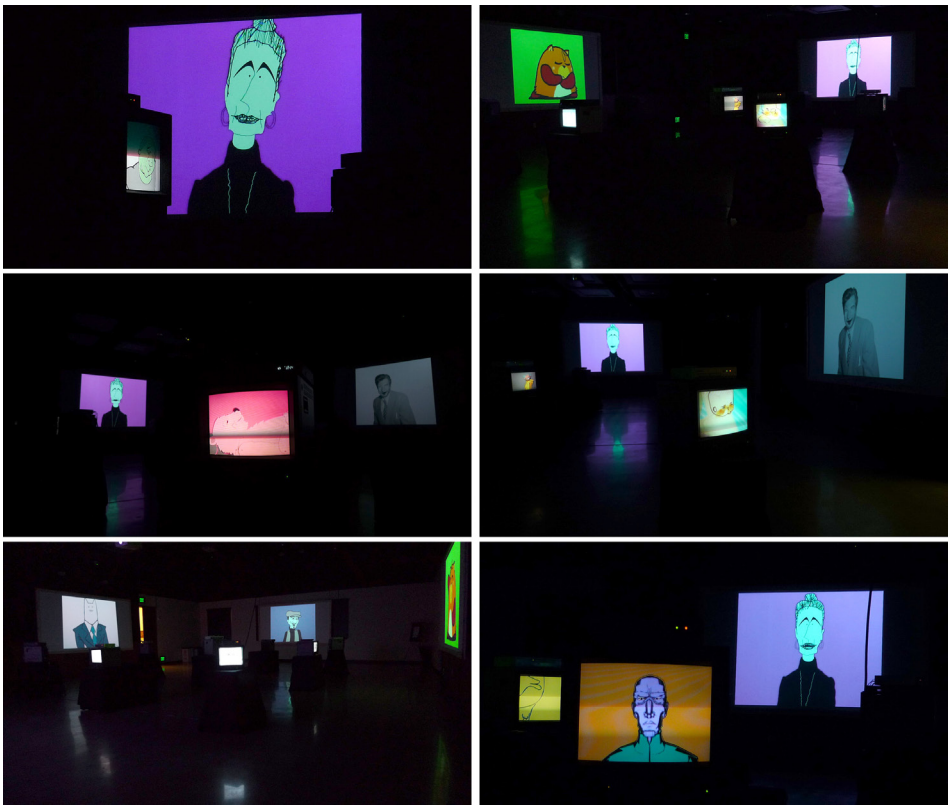

Plate 34. Miss Smith in *Chatter,* 2010. Installion of animation loops, Cinematic Arts Gallery, USC, Los Angeles.

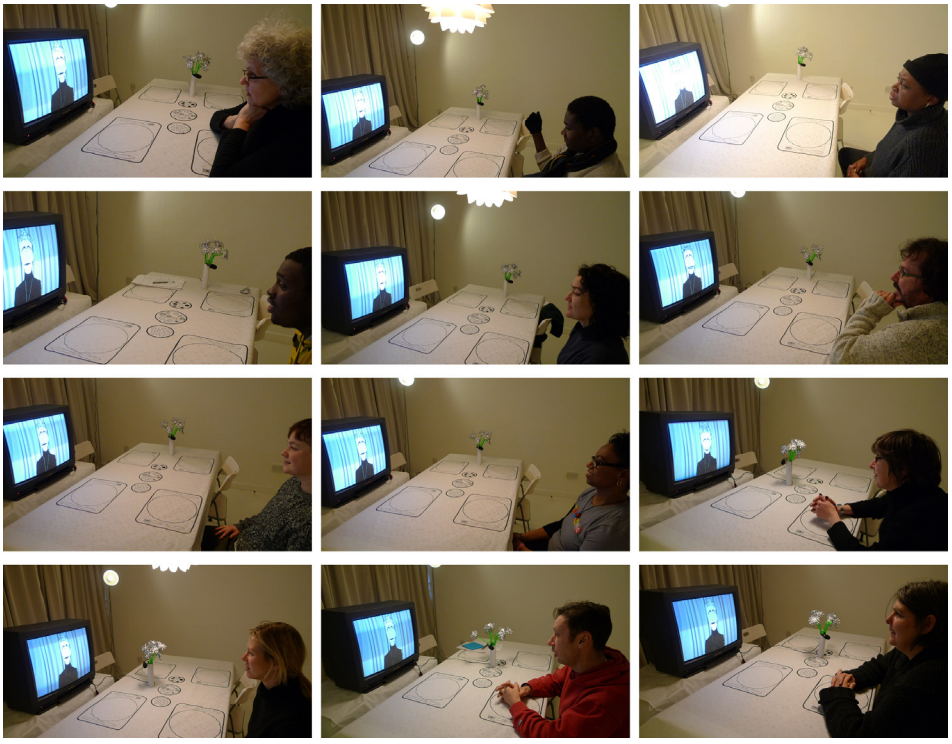

Plate 35. Visitors to *Lunch with Miss Smith*, 2010.

6.2 DVD Insert

For DVD contents see page 232

7. References

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8.3 DVD Contents

All work by Birgitta Hosea

Chapter 2.6

- **DVD Chapter 1. *Out There in the Dark,*** 2008. DV video, 6 mins 21 secs. Lethaby Gallery, CSM, London.

Chapter 3.2

- **DVD Chapter 2.** *At Home with Mr and Mrs Smith,* 2009.

2.1. Screen capture of the actors' view during dress rehearsal. Flash animation in UpStage environment, 13 mins 38 secs.

2.2. Overview of animated character loops. Flash animation, 20 secs.

Chapter 3.3

- **DVD Chapter 3. *White Lines*,** 2009. Holographic projection of short film at the MAMA Holographic Arts Awards, London. HD video, 2 mins 33 secs.

Chapter 4.4

- **DVD Chapter 4. *Chatter*** installation[1], 2010. HDV video documentation, 4 mins 26 secs. Cinematic Arts Gallery, University of Southern California, Los Angeles.

- **DVD Chapter 5. *Lunch with Miss Smith,*** 2010. DV video of installation with audience participation, 18 mins 16 secs.[2]

5.1. Body mirroring - looking at watch

5.2. Body mirroring - nodding

5.3. Body mirroring - head in hands

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1 Features animated loops by Birgitta Hosea as well as contributions from Staff and Students at USC and Central Saint Martins.

2 The camera used to document the installation was found to have intermittent faults after I had made all the recordings. For this reason there are occasional blips in the audio track.

5.4. Body mirroring - waving

DVD ROM extra content

Appendix I.B *At Home with Mr and Mrs Smith* log of audience text chat participation during Upstage 090909 Festival

- **All performances**.....**Mr&MrSmithLog.pdf**

Appendix II.E *Lunch With Miss Smith* participant interview transcripts

- **All transcripts**.....All_Miss_Smith_interviews.pdf

Appendix IV. Case Study interview transcripts

- **Genetic Moo (Nicola Schauerman and Tim Pickup) 09/07/2009**.....
.....GM_interview_transcript.pdf
- ***Quartet* (Margie Medlin) 11/05/2010**.....MM_interview_transcript.pdf
- **Howard Read 03/09/2010**.....HR_interview_transcript.pdf
- **Faulty Optic (Liz Walker) 17/09/2010**.....LW_interview_transcript.pdf

Appendices

Appendix I. *At Home with Mr and Mrs Smith* Script

I.A Outline

Mr and Mrs Smith are awaiting visitors. They talk in nonsensical dialogue, neither listening to nor acknowledging one another. Mr Smith complains that the visitors are late. The doorbell goes. Mrs Smith addresses the online audience directly, as if they were the visitors. She asks them questions about where they come from and what the weather is like. She then offers them a series of increasingly ridiculous drinks and snacks. The doorbell goes again and the Fire Chief arrives. He is initially politely received until we realise that he comes because the oven has burned and the dinner is ruined.

I.B Operator instructions: keyboard shortcuts

Mrs Smith Actions

/a 1 - Side view standing still, talking

/a 2 - Looks forward, standing still, talking

/a 3 - Offers cocktail

/a 4 - Offers oysters

/a 5 - Offers sardines and green eggs

/a 6 - Walks left

/a 7 - Walks right

/a 8 - Dances / jiggles

/a 0 - Manic loop through all of the above

Mr Smith Actions

/a 1 - Talks, newspaper on lap, paying attention

/a 2 - Looks over top of newspaper, listening

/a 3 - Reads, absorbed in paper

/a 4 - Reads, but is agitated

/a 0 - Manic loop through all of the above

Fire Chief Actions

/a 1 - Standing, blinking

/a 2 - Talking, helmet off

/a 3 - hosing down the stage

I.C Operational script

The text is spaced out to add pauses in the synthetic voices that are used in Up-Stage environment. ':' indicates that the following piece of text will be depicted in a 'think bubble' (this is reinforced by formatting the text in italics). '!' indicates that the following text will be displayed as emphatic (this is reinforced by making the text 'bold').

Act 1

(Change from opening curtain to living room set backdrop).

MRS SMITH: /a 1

Oysters are an acquired taste. Oranges are not the only fruit. We sat chatting about everything and nothing for half an hour.

MR SMITH: /a 3

You didn't act on my advice. I will act as mediator if you like.

Let's put the plan into action without delay. He brought an ac tion against his cousin for libel.

MRS SMITH: The time has come for action! The time of the train has been altered.

/a 2

MR SMITH: If you stay at the best hotels, it adds considerably to the ex pense. because ex pens become pencils.

MRS SMITH: Ladies are not admitted. I must admit you are wrong. I admit it was my mistake.

MR SMITH: He was bound to admit it. Admittedly, that's a loss. It always pays to advertise *:which is better than to adversitise of course.*

MRS SMITH: *(Moves right)*

I anticipate the arrival of our dear guests with great delight.

MR SMITH: You can't afford to waste the chance. I advise you to be careful.

MRS SMITH: I am afraid it is going to rain. I am afraid you will be disappointed. I am afraid I am disturbing you.

/a 2

MR SMITH: We ought to draw up an agreement and get the signatures.

MRS SMITH: Sausages do not agree with me. The roses are all over now. There are filling stations all over the place.

MR SMITH: There is a lot to be said both for and against this line of argument.

MRS SMITH: How, I DO anticipate the arrival of our dear guests, Mr and Mrs Martin, with such great delight!

Act 2

(Door bell rings: SOUND FX: DOOR BELL (several times))

MRS SMITH: OOh! OOh! Ooh! The doorbell is ringing!

MR SMITH: /a 2

Listen! There is a ring at the door. When you hear a ring at the bell it is because there is someone at the door.

:I adore my wife

MRS SMITH: Ooooh! It is the doorbell! Who could that be at the door?

Ooooh! It is the doorbell! Who could that be at the door?

(/a 6 walks left)

(SOUND FX: DOOR UNLOCK, SOUND FX: DOOR CREAK)

Oh hello! Have you all logged in now? How nice to see you! We do so look forward to your witty banter.

/a 2

MR SMITH: /a 3

When I go to visit someone I ring the bell so that I can get in. I should say everybody does the same thing, and that every time there is a ring at the door, it is because someone is there.

MRS SMITH: Welcome to our humble abode, dear Mr and Mrs Martin. Do feel at home. You are stiff as a log!

MR SMITH: We have had nothing to eat all day. We have been expecting you for four hours. Why have you come so late?

/a 1

MRS SMITH: *:At times I grow so embarrassed with my ill tempered spouse.*

MR SMITH: **!We have had nothing to eat all day. We have been expect ing you for four hours. Why have you come so late?**

MRS SMITH: OOH! OOH! AHEM! Might I enquire as to your health? I cannot bear any weight on my left foot.

/a 8

How are you? I asked you how you are, dear audience. Do you have any minor ailments today?

/a 2

Is anyone there? I can see you, you know! You can type in the chat window.

!Repeating myself. How are you? I asked you how you are, dear audience. Do you have any minor ailments today?

How fascinating! Your comments are most amusing. I did not know that was possible to suffer from such a rare affliction!

Permit me to offer you something medicinal. It looks as if we are in for some rain. Did you know that the rain in Spain falls mainly on the plain?

/a 3

How is the weather where you come from? It's beautifully cool here with a refreshing breeze and lashings of rain.

/a 2 (moving centre)

How is the weather where you come from? !Is anyone there? I can ee you, you know! Yes you, dear audience.

!Please type in the weather conditions where you come from! And where you are in the world!

MR SMITH: Ahem. Ahem. I think we must all have colds. It is not cold weather, though.

/a 3

:or knot

MRS SMITH: Do have another cocktail. How about a bullfrog? Or a screwdriver? Or gin and iron bru?

/a 3

Would you care for an oyster? Oysters are an acquired taste. You are the pearl in my oyster!

/a 4

I am awfully sorry, the dinner isn't ready yet. Oh Dear! The dinner is not ready yet!

/a 2

This is because: I have got a bad cold. The ham's gone bad. That was too bad! Things have gone from bad to worse. We badly need a new carpet.

/a 8

It's blowy today, isn't it? I think this storm will soon blow over. The weather's so disagreeably changeable.

Dear guest, I am really awfully sorry that the dinner isn't ready yet. Would you care for another cocktail? Or another exotic canapé? This one is from my cooking heroine, Fanny Craddock!

/a 3

/a 5

What do you mean? I cannot tempt you with green eggs and tinned fish? Indeed, my own keyboard is quite covered in canapé. And cocktails…

I am awfully sorry the dinner isn't ready yet. I just do not have the patience to bother with it anymore.

/a 8

All the potatoes in the shop have been bought up. The canning industry has grown enormously. To be candid, vegetables are going up and up in price.

There is a certain amount of corruption in all politics. Do have another cocktail!

/a 3

(Door bell rings: SOUND FX: DOOR BELL (several times))

MR SMITH *:Who is it? I thought the postmen were on strike to day?*

MRS SMITH: OOH! My goodness!! Who on earth could that BE this time? Who would ring on the doorbell at this late hour? I did not anticipate the arrival of any unexpected guests!

(/a 6 *walk to middle of stage*)

(SOUND FX: DOOR UNLOCK,

SOUND FX: DOOR CREAK)

(Mrs Smith walks backwards to the right of the stage)

MRS SMITH: Ooh it is a fireman! Good day my deeeear. How aaaare yoou?

FIRE CHIEF: /a 1

Good day, Mrs Smith! And, how ARE you? You look as if something had rather upset you? I hope that you are not indisposed! Do tell me all about it!

MRS SMITH: How kind of you to enquire after my well being! I am just awfully sorry that I have invited my dear guests here for dinner and the dinner is not ready yet.

This is because: I have got a bad cold. The ham's gone bad. That was too bad! Things have gone from bad to worse. We badly need a new carpet.

/a 8

Would you care to partake of a delicious, freshly squeezed cocktail? Or an oyster which was recently purchased in up and coming Whitstable?

/a 3

/a 4

Or perhaps preferably, an oyster, THAT, was purchased in Whitstable!

/a 2

How are YOU, anyway? Do make yourself comfortable! Do take

off your helmet and sit down a moment! Make yourself quite at home.

FIRE CHIEF: I am must apologise, dear lady, but I cannot stay for long. I will be glad to remove my helmet for a while, but I really do not have the time to sit down.

/a 2

I must admit that I came here to see you on a quite, different matter. I really came on duty. In a professional capacity.

MRS SMITH: You have my undivided attention. I am listening. Fire away!

FIRE CHIEF: Would you like me to tell you some entertaining stories first? Truth lies not in books, but in life. Shall I begin?

MRS SMITH: Yes please, dear.

FIRE CHIEF: My brother-in-law had on his fathers side, a first cousin whose maternal uncle had a father-in-law whose paternal grandfather had in second marriage married a young girl

MRS SMITH: *:How handsome this fireman is…. I like a man in uniform….*

FIRE CHIEF: whose brother had met, during one of his voyages, a girl with whom he fell in love and by whom he had a son who married a gallant governess who was no other than

MRS SMITH: *:I wonder if I could persuade him to stay for dinner?*

FIRE CHIEF: the niece of an obscure leading seaman in the British Navy, whose adoptive father had an aunt who spoke fluent Spanish, and who was probably one of the grand-daughters of an engineer who died young

OOH! I have just remembered the motivation behind my visit here today.

!Your oven is on fire! The dinner has burnt to a crisp!

MRS SMITH: *:WHAT? WHAT? WHAT!*

FIRE CHIEF: !Please leave your personal belongings behind! You must evacuate the building! This is not an emergency!

MRS SMITH: **!Things are going from bad to worse! I cannot believe this ill fortune!**

FIRE CHIEF: !I **repeat for greater impact! Please leave your personal belongings behind! You must evacuate the building! This is not an emergency!**

/a 3

Act 3

MRS SMITH: **!Things are going from bad to worse! I cannot believe this ill fortune!**

MR SMITH: And so at nine o'clock we all ate dinner. Our hostess was most gracious.

/a 1

We had soup, fish, cold ham, mashed potatoes, and eggs. All washed down with a series of delicious cock tales.

MRS SMITH: **!A E I O U, A E I O U. A E I O U, A E I O U. A E I O U, A E I O U.**

MR SMITH: I do believe that Mr and Mrs Martin enjoyed their dinner immensely.

We had an immensely hearty meal this evening, which was eaten with relish and gusto.

MRS SMITH: *:I'm off to check on the oven. Everything's ruined!*

MR SMITH: The evening was a great social success.

!I bid you farewell and a safe journey home!

MRS SMITH: Why thank-you. We'd like to thank the marvellous people at UpStage who have created this Open Source project.

Click on this link here to donate money to keep the festival going. Byeee byeee! Keeess keeess dahlings!

(RESET FIRE CHIEF to /a 1

DROP all characters. CHANGE TO CLOSING CURTAIN.

SOUND EFFECT - APPLAUSE.)

[CREDITS read:

At Home With Mr and Mrs Smith

performed by Birgitta Hosea & Matt Wicks

devised and designed by Birgitta Hosea

with inspiration from *The Bald Prima Donna* by Eugene Ionescu (1958) and

Idiomatic English Sentences by Laycock & Allwood (1946)]

Appendix II.A Miss Smith Profile

1. Who am I?

She is a woman of a certain age, probably actually only in her late 40s, still relatively youthful, but a few lines are starting to show. Neither conventionally beautiful nor rich, she tries to be with it and to make the best of herself in a threadbare kind of way. She is the daughter of Mr and Mrs Smith, who are non-native English speakers, and she was brought up to speak in textbook English. For leisure she likes cleaning, reading and exercising at weekends.

2. When am I?

It is set at lunchtime, in the winter, in the mid '70s.

3. Where am I?

She is in a bedsit in a boarding house in London.

4. What surrounds me?

Her environment is neat and tidy. She can't afford to have everything new so she has second-hand furniture with a few contemporary accessories - lampshade, curtains, flowers.

5. What just happened and what will happen next?

Before the lunch she was cleaning and cooking. She did the shopping the day before. Afterwards she felt humiliated and sorry for herself. She had a cup of tea and cleaned up.

6. What is her relationship to the Visitor?

A bit lonely, she quite fancies the Visitor and wants to impress them, but is too shy to let them know.

7. What do I want?

She wants popularity and romance.

8. What is in my way?

She tries too hard and sabotages herself.

9. What will I do to get what I want?

She'll try again to connect with someone else.

Appendix II.B *Lunch with Miss Smith* Script

II.B.i Back story

Miss Smith has gone to a great deal of trouble to invite three guests over for a charming lunch party for four. She is quite stressed about her soufflé as it requires impeccable timing and she so wants to impress her guests with her culinary excellence. The first guest, the Visitor, arrives. She welcomes her/him and makes nervous conversation while waiting for the others. They don't turn up and she feels unable to serve lunch until they do. She feels embarrassed and humiliated, because she was aiming to be a perfect hostess. It takes so long for the other guests to arrive that the soufflé flops. It turns out that it was a pretty rancid flavour anyway - lemon curd and sardine. She can't go on with the lunch anymore and asks the Visitor to leave.

I.B.ii Script

1. Hello. I am pleased to see you. I was so glad that you could accept my invitation. Please take a seat. There's no need to stand on ceremony.

2. How are you? And how is your mother, your father, your brother, your sister, aunt, cousin, neighbour, dog, cat, goldfish?

3. Good, good….

4. You are somewhat early. The other guests haven't arrived yet. Did you have far to come today? *[pause]* This is a rather out-of-the way place. Where is it that you live, again?

5. The odd numbers are on the other side of the road. It's much further to walk than you'd think. The number 55 bus is not always available at peak times.

6. I do find the climate here trying. Winter has come rather soon this year. We had a lovely spell of fine weather in March. What was the weather like outside this morning? *[pause]* Did you hear the weather forecast today?

7. What did you say? Will you say it again?

8. Excuse me. I must go and check on the oven. *[disappears off-screen]*

9. *[reappears back on-screen]* The soufflé needs a little more time before it is cooked to perfection. Perfect timing and the correct oven temperature are essential for a successful soufflé. I did it quite by myself. I do so look forward to you trying my speciality soufflé. It's my signature dish. Are you fond of eggs?

10. Due to the inclement weather, I decided against sandwiches in favour of a cooked lunch. I do think that flower arrangements on the table help to create a cordial atmosphere. Do you like my flowers? Don't they smell lovely? I haven't a very strong sense of smell.

11. Ummm, ummm (listening)

12. I beg your pardon.

13. I am not sure when the others will arrive. Is that them at the door?

14. Maybe, perhaps not.

15. That doorbell makes you nearly jump out of your skin.

16. My watch has stopped. I'm afraid I'm putting you to a lot of trouble. I do hope that we will not be waiting long for the others to arrive. What time can you stay till today?

17. I am expecting a letter by the next post. I wrote two letters but tore them both up. My stacks of notepaper are running low. I generally buy a book of stamps. I draw the line at reading other people's letters.

18. You do enjoy a good talk! We could go on jawing for half the evening! What are you doing later?

19. I shall listen to the commentary on the radio.

20. Yes, yes..

21. Please help yourself to snacks while you wait. There are all sorts of nice things on the table. They are extremely low in calories.

22. Do you speak any languages other than English?

23. Correct pronunciation doesn't matter so much when you're travelling abroad: the main thing is to make yourself understood. When you speak English you must try and put some life into it. I steal a few hours now and then for a good book. What do you like to do to enjoy yourself?

24. Not really.

25. This morning I bleached all the kitchen surfaces. There is no room for germs in a healthy kitchen. Modern types of polish give a particularly long-lasting finish so that a thorough polishing may only be needed once a month. How often do you clean your kitchen?

26. Who told you that? There is no substitute for common sense. I simply don't know what to say. We must all put our shoulders to the wheel.

27. Seeing is believing. If your eyes are bad, you ought to have them seen to. I suspect all forms of propaganda. I should advise you to stick to your principles. Whooping cough is most infectious.

28. You have a bright smile for everybody. Your outfit is very fetching. Where did you buy it?

29. My dress has worn very well although it is starting to wear a little thin at the elbows. However, I am not satisfied with my hairdresser, even though I pay the highest price. My hair just won't stay put. I must make my overcoat do another winter.

30. There's the expense to think of. Prices are showing a rising tendency. It puts a heavy strain on our financial resources, doesn't it?

31. When the others arrive, I will bring out the refreshments. I'm single-handed in the house at present.

32. Oh dear, I am wrong side out this morning. I must have got out of bed on the

wrong side. I lay awake until it began to grow light. Did you sleep well?

33. Don't scratch that spot - it'll only get worse. The small electric motors used in vacuum cleaners, hair driers, food mixers, electric drills and so on need very little maintenance.

34. What is the matter? A penny for your thoughts?

35. Isn't that a rather sweeping statement? The best speeches are often made on the spur of the moment. Hope for the best and prepare for the worst. There seems to be a glut of plums this year.

36. Don't worry everything will turn out right. I have a new stain remover, which really works wonders. Do you have any cleaning tips to share?

37. The main thing is to enjoy yourself. Whatever the occasion, I do believe that the secret of making guests happy lies in the personality of the hostess. And, in a fund of amusing stories!

38. Between ourselves, I must tell you that the other guests are rather late. I am somewhat concerned about the timing of their arrival. It's no laughing matter. It is better to arrive too early than too late. Time and tide wait for no man.

39. What with one thing and another, I just haven't had time to go up to town. I rarely go out these days. Can you give me any suggestions for new reading matter?

40. A word for word translation is always bad. Nobody believes in laws of supply and demand any more. It's just a matter of habit whether you prefer coffee to tea.

41. The urge to express oneself in some form of creative activity is strongest in youth.

42. I always make a point of getting some exercise at weekends.

43. What a pity you didn't bring your violin!

44. I must apologise for keeping you waiting, my dear. Where have the other guests got to? I haven't the slightest doubt that it must have slipped their memory. Or perhaps it was a slip on my part?

45. I can't quite think of what to do in the event of their non-arrival. It's on the tip of my tongue. Quite suddenly, I'm feeling a bit out of sorts. My head's just spinning round.

46. Excuse me. I think I smell something off. *[Disappears off-screen. Voice from off-screen] What a very awkward situation! I'm in a bit of a hole! Those bloody bastards said they'd come on time and I've spent the whole day cooking and cleaning. You can't have a lunch party with only one guest. OH MY GOD! Now the sodding food is ruined… That crappy oven…*

47. *[Reappears on-screen]* Oh dear. I'm afraid that my soufflé is an awful flop! It has all gone wrong. I was so looking forward to lemon curd and sardine soufflé. Lemon curd and sardine is a delicious combination. It's my signature dish, but I'm afraid the food is not fit for human consumption. The other guests have not even arrived yet. We shall have to take stock of the situation. We shall need to have another plan up our sleeve. I just can't go on with this. I suggest that we postpone until a later date. I am afraid that I will have to suggest that you to leave. I suggest that you ask the landlady if she has any alternative refreshments. Have you anything further to suggest?

48. Well, I certainly have enjoyed talking with you. We've come to the parting of the ways. Come and see me some other time. I wish you a safe journey home. The landlady will surely provide you with some other refreshments. Goodbye. Bye... bye.

Appendix II.C Participant information sheet for *Lunch with* Miss Smith

Participant Information

Lunch With Miss Smith,
an interactive installation by Birgitta Hosea

University of the Arts London

You are being invited to take part in a research project. Before you decide to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask if anything is unclear or if you would like more information.

1. **Purpose of Project**
   The idea behind this project is to look at how people respond to cartoon characters. Do they think of them in the same way as 'real' actors?

2. **Why have I been chosen? Do I have to take part?**
   You have been invited as part of a selection of people of different genders and age groups. It's up to you if you want to be a part of it. You can pull out at any time. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form.

3. **What will happen to me if I take part?**
   You will be invited to Birgitta Hosea's flat to have a conversation with an interactive cartoon character, 'Miss Smith', for about 15 minutes. It will be as if you were about to have lunch together. You will be alone in a room with 'Miss Smith'. This will all be videoed. Afterwards you will be asked some questions on camera about what you thought of the cartoon character.

4. **What if something goes wrong?**
   If you are not happy about any of this, please contact the Research Support Office (below) for independent advice about your rights.

5. **Will my participation be kept confidential?**
   In order to organise the research, your name, age, gender and contact details will be kept on file. This information will be destroyed after the research is completed. Your name will not be used in the study. The video data will be archived on a password-protected hard-drive and will not be used for any other purpose than this PhD research study.

6. **What will happen to the results of the research project?**
   The written results of this study will be used in Birgitta Hosea's PHD thesis, which will be available in the Central Saint Martins and British Libraries. She will include a DVD documentary about the project as an appendix to the written thesis. When the PhD thesis is finished she can give you an electronic copy as a PDF file and a copy of the DVD documentary, if you are interested. She will not use this material for any other purpose without contacting you again for your permission.

7. **Who is organising and funding the research?**
   This is unfunded research. It is organised by Central Saint Martin's PhD student, Birgitta Hosea.

8. Reward
You will be given tea and cakes in return for your participation as well as a copy of the final documentary on DVD.

9. Contact for further information, including questions about the research and participants' rights.

A. Birgitta Hosea, PgDip/MA Character Animation, Central Saint Martins, 10 Back Hill, Clerkenwell London. 020 7514 7363
B. Research Support Office, 6th Floor, 272 High Holborn, London WC1V 7EY tel: 020 7514 9389 who can provide independent advice to the participant.

Thank you very much for supporting this research project! You will be given a copy of this information sheet to keep as well as a copy of the signed consent form.

Appendix II.D Participant consent form for *Lunch with* Miss Smith

Consent Form

Lunch With Miss Smith,
an interactive installation by Birgitta Hosea

University of the Arts London

Dear ……..

You are being invited to take part in a research project. Before you decide to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the attached information sheet carefully and discuss it with others if you wish. Ask if anything is unclear or if you would like more information.

1. **Activity Consents**

- I understand that I have given my consent to be videoed while participating in an interactive art installation and to be interviewed on camera about my experience afterward.
- I understand and have had explained to me the appropriate health and safety procedures for my part in this research.
- I understand and have had explained to me any risks associated with this activity.

2. **Data Consents**

- I understand that I have given approval for video footage of myself to be included in documentation about the project and that written transcripts of my opinions will be used in the final report of this project.
- I understand that my involvement in this study, and particular data from this research, will remain strictly confidential and that my name will not be used.
- I understand that in order to organise the sample selection, my name, age, gender and contact details will be stored on file. This will remain strictly confidential. Only the researcher involved in the study will have access to this data and it will be destroyed when the research is complete.
- I understand that the raw, unedited video footage will be stored on a password-protected hard-drive, but will not be used for any purpose other than this research study without my prior consent.

3. **Statements of Understanding**

- I have read the information leaflet about the research project, which I have been asked to take part in and have been given a copy of this information leaflet to keep.
- What is going to happen and why it is being done has been explained to me, and I have had the opportunity to discuss the details and ask questions.

4. Right of withdrawal

- Having given this consent I understand that I have the right to withdraw from the programme at any time without disadvantage to myself and without having to give any reason.

5. Statement of Consent

- I hereby fully and freely consent to participation in the study, which has been fully explained to me.

Participant's name (BLOCK CAPITALS): _____

Participant's signature: _____ *Date:* _____

Address to send DVD documentary to, if required:

_____ _____

Email address to send PDF of final PhD thesis, if required:

_____

Principal staff/student *investigator's name* (BLOCK CAPITALS): BIRGITTA HOSEA

Principal staff/student investigator's signature: _____ *Date:* _____

Birgitta Hosea, PgDip/MA Character Animation, Central Saint Martins, 10 Back Hill, Clerkenwell London. 020 7514 7363.

Appendix III. List of publications

III.A Academic journals (single-authored)

"Drawing Animation." *Animation: an interdisciplinary journal* 5, no. 3 (2010).

"Performativity, post-animation and how I became a cartoon character." Translated into Czech by Katerina Surmanová. *Illuminace* 9 (2009).

"TV 2.0: Animation Readership/Authorship on the Internet." *Animation Studies - Peer-reviewed Online Journal for Animation History and Theory* 3 (2008).

III.B Academic journals (joint-authored)

Foá, Maryclare, Jane Grisewood, Birgitta Hosea, and Carali McCall. "ARC: I Draw for You." Visual Arts, Design and Architecture. *Studio International*, January 29, 2010. http://www.studio-international.co.uk/drawing/ARC10.asp.

———. "Drawn Together: Collaborative Performance." *Tracey, Contemporary Drawing Research* (September 2009). http://www.lboro.ac.uk/departments/ac/tracey/frag/drawnto.html.

III.C Conference papers (unpublished)

"Character animation, performance and performativity." Paper presented at the University of the Arts London Interdisciplinary Performance Conference, Siobhan Davies Dance Studio, London, 2009.

"Digital Drawing." Paper presented at the Computer Space conference, Sofia, Bulgaria, 2009.

"Dog Betty." Performative paper presented at the Here Tomorrow conference, Lethaby Gallery, Central Saint Martins, 2007.

"Digital Synaesthesia." Paper presented at the Moves 08 Conference, Manchester, 2008.

"Drawing Animation." Paper presented at the Animation Evolution: The 22nd Annual Society of Animation Studies Conference, Edinburgh College of Art, 2010.
"Out There in the Dark." Performative paper presented at the Animation Deviation Conference, University of the West of England, Bristol, 2010.

"Performativity and Animation, or How I Became a Cartoon Character." Paper presented at the Here Tomorrow Conference, Central Saint Martins, London, 2007.

"Photosonic synthesis: hearing colour, seeing sound, visualising gesture." Paper presented at the Seeing…Vision and Perception in a Digital Culture, CHArt (Computers and the History of Art) 24th Annual Conference, Birkbeck, University of London, 2008.

"Photosonic synthesis: hearing colour / seeing sound." Paper presented at the Mindplay Conference, Group for Research in Interactive Media (GRIM), London Metropolitan University, 2006.

"Photosonic synthesis: hearing colour / seeing sound." Paper presented at the Technarte 2006 Conference, Bilbao, Spain, 2006.

"TV 2.0: animation readership / authorship on the internet." Paper presented at the Popular Culture Society Conference, San Francisco, USA, 2008.

III.D Exhibitions

2011 *Chatter*. Solo installation by Birgitta Hosea featuring a series of short animations by herself and staff and students from USC and CSM. Bar Sequence, London.

2011 *SKYPE vs. Night Sky.* Collaborative telematic performance drawing via SKYPE (Drawn Together: Maryclare Foá, Jane Grisewood, Birgitta Hosea and Carali McCall), performance Thursday 17th February. Central Saint Martins, London; Papay Gyro Nights Arts Festival, Papay Westray, Orkney.

2010 *Lunch with Miss Smith*. Solo site specific installation. Mansfield Court, London.

2010 *Chatter*. Solo installation by Birgitta Hosea featuring a series of short animations by herself and contributed to by staff and students at USC and CSM. Cinematic Arts Gallery, University of Southern California, Digital Arts and Animation Department, Los Angeles, USA.

2010 *Out There in the Dark.* Live art with projected animation, performed daily 11-14th November. Mix 23 Queer Experimental Film Festival, New York, USA.

2010 *White Lines*. Live performance drawing within an animated holographic projection, performed daily 12-15th May. *Holographic Serendipity,* Shunt, London Bridge.

2010 *Out There in the Dark*. Live art with projected animation, 28th March. *I Can't Even Think Straight* programme, LLGFF, British Film Institiute.

2010 *White Lines*. Live performance drawing within an animated holographic projection. *Holographic Serendipity,* Kinetica Art Fair, performed daily 4-6th February, P3, Marylebone Road, London, NW3.

2010 *ARC: I draw for you*. Collaborative performance drawing (Drawn Together: Foá, Grisewood, Hosea and McCall), performance Thursday 21st Jan. The Centre for Drawing, Wimbledon College of Art.

2009 *Untitled*. Collaborative drawings (Drawn Together: Foá, Grisewood, Hosea and McCall). November 27 - December 12th. *Joined Up,* The Vault Gallery, Lancaster.

2009 *White Lines*. Holographic projection of short film. *Musion Gala Awards*, the Old Cinema, Regent Street, London.

2009 *Out There in the Dark*. Live art with projected animation, 6th November. *Act Art 7: Children of the Damned*, Hidden, Vauxhall, London.

2009 *At Home with Mr and Mrs Smith*. Online live animated performance (with co-performance by Matt Wicks), repeated 3 times on September 9th. Up-Stage 090909 Festival. Eclectic Tech Carnival, Istanbul, Turkey; Norsk Telemuseum, Oslo, Norway; Muffatwerk Cafe, Munich, Germany; New Dowse Gallery, Wellington, Hutt City Libraries, New Zealand; SCHAUMBAD - Freies Atelierhaus Graz, Austria; MAD @ Smalle Haven Eindhoven, Netherlands; APO33, Nantes, France; School of Interactive Art and Technology, Simon Fraser University in Surrey, BC, Canada; Syneme, University of Calgary, Canada; Culture Centre Pancevo, Serbia

2009 *Exorcism*. Live art with projected animation (with co-performance by Maureen Baas), performed on 16th July. Forkbeard Fantasy studios, Devon.

2009 *Untitled*. Holographic prototypes, 29th April. *Musion Showcase*, Slade Technology Fayre, Slade School of Fine Art.

2009 *line, process, echo, repeat*[2]. Collaborative performance drawing (Drawn Together: Foá, Grisewood, Hosea and McCall), performance Thursday 5th March. The Centre for Drawing, Wimbledon College of Art.

2008 *Out There in the Dark*. Live art with projected animation, performance 12th August. *line, process, echo, repeat,* Lethaby Gallery, Central Saint Martins, London.

2007 *Dog Betty.* A series of public interventions, July. Holborn, London.

III.E Residencies

2011 UAL Interdisciplinary Collaborative Performance Residential Workshop, Ballet Rambert School, London.

2010 Artist-in-residency, John D. Hench Department of Digital Art and Animation, University of Southern California, Los Angeles, USA.

2010 UAL Interdisciplinary Collaborative Performance Residential Workshop, Ballet Rambert School, London.

2010 Joint artist-in-residency with Drawn Together (Maryclare Foá, Jane Grisewood, Birgitta Hosea and Carali McCall) at the Centre for Drawing Project Space, Wimbledon College of Art, London.

2009 Forkbeard Fantasy Residential Summer Workshop, Forkbeard Fantasy Studios, Devon.

2009 Joint artist-in-residency with Drawn Together (Maryclare Foá, Jane Grisewood, Birgitta Hosea and Carali McCall) at the Centre for Drawing Project Space, Wimbledon College of Art, London.

2008 Here Tomorrow UAL Research Residency, Lethaby Gallery, Central Saint Martins, London

2007 Here Tomorrow UAL Research Residency, Lethaby Gallery, Central Saint Martins, London