

Stillness and Presence in the Performance and Sound Design of *BioHome: The Chromosome Knitting Project*

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ABSTRACT

BioHome: The Chromosome Knitting Project is a hybrid performance/installation incorporating live ‘wet biology’ practices in a contemporary biotech display home. It was first presented in August 2006 at the FCA Gallery, University of Wollongong. Procedures such as extraction of plant DNA, culturing of live insect cells and knitting of salmon DNA fibres are used to explore reproductive futures and biotechnologies.

This paper seeks to explore the concepts of ‘presence’ and ‘stillness’ in the performance and sound design of *BioHome*. Theories of ‘presence’ in performance are examined alongside a discussion of the compositional process involved in this collaborative project between the two authors.

KEYWORDS

Collaboration, installation, performance, sound, wet biology

INTRODUCTION

BioHome: The Chromosome Knitting Project is a hybrid performance/installation incorporating live ‘wet biology’ practices in a contemporary biotech display home. The installation features video, interactive sound, live performance and text. Wet biology procedures such as plant DNA extraction and live insect cell culturing are used to explore reproductive futures and biotechnologies. In the context of this performance, ‘wet biology’ is the term used for working with live plant or animal material in the life science (biology) field, including genetic modification of organisms and the creation of bio-products such as DNA fibres and live cell cultures.

Visitors are welcomed to the *BioHome* installation by a plasma screen video introduction at the entrance (Fig. 1). When the audience enters the installation space they hear a recorded voice outlining laboratory safety instructions over ambient but unsettling music. This music sets the tone for the performance and creates a sense of an insulated environment, a world that might exist just beyond our current reality, in which home and laboratory intersect. Upon entering the gallery the audience sees several domestic spaces: a kitchen tabletop, a bassinette, a chair with knitting and a bed with a screen. It is only when they inspect more closely that this domesticity is disrupted by the intriguing and uncomfortable presence of biotech products, including live caterpillar cell cultures, salmon DNA fibres, pea seedling DNA and IVF hormone products.

Figure 1: *BioHome* welcome screen video. Image: Gregory Clout, Robert Dinnerville, Jessica Ellis.

The blurring of lines between laboratory and domestic procedures aims to heighten the awareness and discomfort the audience may feel about incorporation of biotech products in our daily lives. They are encouraged to investigate and interrogate these technologies and their impact on human, social and environmental futures and contemporary kinship systems.

The performance includes a number of ‘personas’: a naïve and eccentric ‘housewife’ persona who invites newcomers into the biotech display home, exploring objects and products with a domestic simplicity and innocence; a ‘scientist’ persona who demonstrates laboratory procedures for extracting DNA from snow pea seedlings, and shows how to knit with a sticky white fibre extracted from salmon DNA (Fig. 2); as well as a ‘storyteller’ persona who recounts a fable about *The Woman Who Knitted Herself A Child*. This paper seeks to explore the concepts of ‘stillness’ and ‘presence’ within the *BioHome* installation, and how the accompanying sound contributes to these notions.

Figure 2: Knitting salmon DNA. Image: Russell Emerson.

STILLNESS AND PRESENCE IN PERFORMANCE

The notions of presence and stillness have been an important aspect of both sound art and performance art since the 1960s. Performance theorist Peggy Phelan documents performance/body artist Marina Abramovic’s work *The House with The Ocean View* in the article “On Seeing the Invisible” and describes her work in relation to the intensity and stillness she creates, allowing the audience to create meaning from their interactions with her. Phelan locates Abramovic’s work in the tradition of body art. She notes that the origin of body art involved:

A combination of courage and recklessness – performance artists of the 1970s focused particularly on what happens to the body and mind when thinking is a secondary, if not an impossible, response to the enacted event. Much of this work explored acute physical pain and touched on the elusive horizon separating life from death (Phelan 2004, 17).

According to Phelan, an issue for body artists of the 1970s was an investigation of the body as a medium for art and for life: how can the relationship between the artist and her own body serve as a mirror for the broader drama of the relationship between the individual and the social body?

BioHome presents the first author, Catherine Fargher’s responses to the invasive reproductive technologies she encountered in her research, as well as her conscious and unconscious responses to the ethics of reproductive technologies. This was the corporeal material from which the work arose and the issues which it ‘mirrored’. The body-based theatre exercises of Margaret Cameron and Nikki Heywood, discussed later in this paper, allowed the performer to channel this corporeal knowledge and create a work which could then be shared intimately with the audience, so that the body could, in Phelan’s words “serve as a mirror for the broader drama of the relationship between the individual and the social body” (Phelan 2004, 17). It is this intimate sharing of corporeal presence and stillness, performed behind the persona or mask of performed science (discussed later in the paper), alongside the repetitive and hypnotic soundscape by the second author, Terumi Narushima, which create a place for audience immersion and contemplation of the subject matter.

An extract from Fargher’s research journal reflects this:

During the storytelling in *BioHome*, there is a moment when I feel all faces are not only watching me and hearing the story, but engaged in a shared intimacy. This is an altered intimacy though –

it is not one-to-one intimacy – I create a space that is large enough for my audience to share with me. I become a body that can be read, a site of emotions that can be shared. I give this emotion freely, that which Lacan says of love: ‘giving something which you do not have’. I prepare for this intimacy through body rituals in a theatrical tradition: breathing and bodywork, imagery and exercises. That moment of sharing, of contact is a pure space. A huge space. When I am in it, it feels enormous; *it feels still, almost like a meditative space*. It has the certainty of a spiritual space: it is infinite, it is timeless and it is ethereal. In that space I hold the audience. There is a certainty in that moment, which does not exist off stage. This space is heightened at the time of performance, exists only in performance.

To prepare for this performance, Fargher worked with director/dramaturg Nikki Heywood who has a background in movement-based theatre, extensive vocal training and devised performance. The subjectivities of both scientist and housewife, as well as the internal imagery of cellular space were explored during rehearsals using ‘body weather’/butoh techniques.

Another major influence for this project was developed through participation in a masterclass with performance artist and writer Margaret Cameron. This workshop included an exploration of ‘making theatrical meaning’ and the creation of an intimate space between performer and audience. Cameron suggests that putting out a range of images and presenting them with absolute attention to physical presence, and the creation of an intimate space between performer and audience, allows the audience to create their own meaning. Her work with influential American performance theorist and practitioner Deborah Hay, who is influenced strongly by Buddhist traditions of living in the present, has sought to find that ‘present moment’ in the performers’ interaction with their audience.

These methodologies are discussed in the *Meanjin* article, “Ready, Fire, Aim”. Performance exercises that Cameron employs include ‘Yes Let’s’, and Deborah Hay’s ‘One hundred million atoms’ or ‘Ready, Fire, Aim’. These exercises aim to immerse the performer in the moment and create a sense of ‘firing’ in the present through self-awareness in connection to the performance material. For instance Cameron discusses the game ‘Yes Let’s’ with performer/writers Cynthia Troup and David Young, who state:

The Yes Let’s game is fast and furious. Something will happen, a collision of things, a glance, a suggestion, ‘let’s’ which would yield an electrical charge: ‘nzzzt’. We were following these electrical charges almost like checking for life. We got meaning. We didn’t know what meaning. With this kind of work the brief occupies an unconscious level of some kind. The game of Yes Let’s draws on intuitions. It requires a communicative facility that’s unconfined to spoken language (Cameron 2005, 303).

This describes as succinctly as possible, that moment which defies description, the notion of finding the present moment within the work. In the development of *BioHome*, Fargher worked with a number of Cameron’s and Heywood’s exercises to explore her unconscious connection to both her written and conceptual material, as well as a range of objects with which she was working, such as ChromoKnit dolls, wool, needles and sheeting. Thus the work developed a notion of ‘presence’ and almost meditative stillness within the performance, with which the audience could interface or interpret the work. The action of knitting and the repetitive biological procedures which were also used in performance and on the live video feed created a meditative, repetitive, and grounded act in performance. It accompanied the live sounds that also played with repetitive motifs (to be discussed in the following section).

Most importantly, the project has derived from or been gestated in Fargher's body in response to her own 'instincts and anxieties'. Through improvisation techniques developed with Heywood and Cameron, this corporeal gestation shaped the subjectivities and dramaturgical form of *BioHome*. Finally, in relation to stillness in the corporeal performance of the work, theorist and writer Alison Lyssa alludes to the 'mask' of stillness that accompanies the performance in her appraisal of *BioHome*:

Imbricated in the inspiration, research and development of *BioHome* is Fargher's active interrogation of and engagement with both the science of bio-technology and a wide range of contemporary art practices that offer critiques of a science-mediated body / life / future.

Fargher invites the audience to enter the work through multiple channels as if we are at once: (not an exhaustive list) a bonded tour group enjoying our inspection of a radiant, science-solved present / future; ... physical bodies wincing as if we are the knitted doll being subjected to clinical invasion; and, participants in an unsettling, even disturbing, trespass into a 'set' that is concomitantly domestic space... and a laboratory / surgery, whose alchemical transformations lure us into a black hole where the displaced pain of domestic inadequacy is absorbed and intensified as a medically sanctioned procedure that will solve everything.

Catherine Fargher performs science as a trespass that appropriates the human face. In adopting what the script calls the Scientist Persona, Fargher represents, in performance, the scientist as a persona whose mask is the human face itself. The Scientist Persona becomes an arbiter of human destiny ... by remaking the face itself as sophisticated achievement of science and its marriage with public relations. Fargher makes visible, and risible, the self-cloaked face of authority with its patina of certainty and security. *At the same time Fargher's tour-de-force is to make visible through the sheen, the ought-to-be concealed emotions that authority represses, such as doubt, cruelty and fear.* It is a well-observed, compelling performance. The precision, coldness and vocabulary of the science of bio-technology collide with the softness, confusion and terror of the 'natural' world.

This sense of collision between the scientific procedures and the corporeal or emotional response to those experiences reflects on theorist Michel Foucault's notions of state control created around bio-political regulation, and the many social and human implications of these controls. Bio-politics was discussed in his lectures to the College de France, *Society Must Be Defended*, and concerned the biological control of whole populations through regulation of, for example, births, deaths or health. Feminist theorist Elizabeth Grosz also asserts in her recent work *In the Nick of Time: Politics, Evolution and the Untimely*, that "we need to understand, perhaps with more urgency than in the past, the ways our biologies work with cultural variation that concern politics and political struggle" (Grosz 2005, 2).

The sense of stillness and presence created within the performance is a result of this corporeal response and it is further enhanced by the sound design which is discussed in the following section. It is arguable that the sound content, which is characterised by persistent and hypnotic repetition, creates an ambient environment that heightens the receptive capacity of the audience to become both still within themselves, and present to the work and the more complex meanings contained within it.

MUSIC AND SOUND

The challenge in designing the sound for *BioHome* was to devise a way to relate DNA sequences with knitting through the medium of music. The sound requirements of the project were twofold: 1. to provide an interactive interface for visitors to manipulate the soundscape of the installation, and 2. to

provide a live musical accompaniment to the theatre performance which is presented within the installation space. Knitting is a central metaphor in the performance, highlighting similarities between the use of patterns and stitches in knitting to the basic techniques of biotechnology or genetic engineering, i.e. working with DNA as the ‘building blocks of life’. It is also a metaphor for human reproduction. Much work has been done by musicians collaborating with scientists in the sonification of DNA sequences (Clark); in contrast a less scientific, more homespun approach was taken for the *BioHome* installation.

There is a technique used by molecular biologists to analyse strands of DNA called gel electrophoresis. This process results in a visual representation in which fragments of DNA are separated into bands. To create a unique musical timbre for *BioHome*, these DNA band patterns were ‘reinterpreted’ as overtones of an inharmonic sound spectrum and a metallic, gong-like sound was synthesised using Pure Data (Pd) music software. This timbre was then used to play melodic sequences based on various knitting patterns.

A large number of standard pattern stitches used in knitting have names that refer to nature, such as ‘moss’, ‘herringbone’ and ‘honeycomb’ stitches. The idea was to represent these knitting patterns as patterns in sound. The most obvious approach was to assign random values to the different knitting stitches (e.g. 1 for knit, 2 for purl, etc.) to create simple melodic sequences. The limited number of stitch types, however, resulted in little variation in the patterns so further modifications were made by changing rhythm and tempo, detuning pitches and applying various filters to alter the original gong-like sounds beyond recognition. The results were recorded as short audio samples which then became the musical source material for the installation as well as the live sound mix for the performance.

Through constant repetition, knitting can be a soothing, meditative activity which often becomes a background to some other action that requires more immediate attention in the foreground. As a parallel, the sound design for *BioHome* consists of continuously repeated sound patterns that form an audio backdrop for the installation. A patch created in Pd (Fig. 3) allows visitors to select a number of sound samples to be looped and played back at varying speeds. These sounds vary in length from half a second to 19 seconds and include several samples of the gong-like timbre described earlier (labelled A-F in the Pd patch), as well as sounds recorded in a laboratory (autoclave, biohazard bag, centrifuge, etc.). The speed at which these looped sounds are played is determined by sequences of values derived from three knitting patterns (labelled ‘moss’, ‘herringbone’ and ‘honey’): higher values increase the speed of playback, while lower values decrease the speed; negative values reverse the play back of sounds. It is also possible to control the sounds using the two vertical sliders labelled ‘Modify’ and ‘Volume’ in the Pd patch. The looped playback of different audio samples eventually results in a pervasive, womb-like ambience in which a sense of stillness is achieved through persistent and hypnotic repetition.

Figure 3: Pd patch for *BioHome: The Chromosome Knitting Project* installation 2006. Terumi Narushima.

During performance, a more elaborate Pd patch than the one shown in Fig. 3 is used to select and manipulate various sound loops live. The music is ‘knitted’ together from multiple strands or layers of sound to create varying textures. Although the music is computer-generated the sounds have an organic quality that bubbles, splutters and burps. Sometimes it is tongue-in-cheek to complement the humour of the performer’s narration; at other times it hints at a darker undertow of unspoken tensions and emotions that are hidden beneath the actor’s mask as she switches between different scenes and personas. It is during these transitions that the music is used to innervate the drama and suggest the

presence of an inner emotional life, as ambient sounds suddenly jolt into the foreground of the character's consciousness.

CONCLUSION

The synthesis of performance and sound design in *BioHome* and the meanings created through collaboration are a result of research and development experienced through the affective channel of the body. This 'knowledge' gained through the body and sensitivity to natural biological patterns has allowed theory and practice to be combined in a manner consistent with other feminist artworks. As Elizabeth Grosz asserts, biology has become an important site for feminist investigation, stating "The exploration of life, traditionally the purview of the biological sciences, is a fundamental feminist, political concern" (Grosz 2005, 2).

According to Grosz, feminist artists cannot afford to defend definitions of nature or the female body that fail to embrace the abundance and variation which biology allows and now entails, especially as our bodies are inherently transformational. The notions of 'presence' and 'stillness' discussed in the paper are the result of a variety of creative processes based on biological patterns and forms. It is hoped that the collaborative presentation of *BioHome* invites internal reveries and meditations for audience members, thus allowing a multiplicity of meanings to arise.

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BIOGRAPHICAL NOTES

Catherine Fargher has been active as a performer and writer since 1985. She has had eighteen scripts produced for radio, contemporary performance, new media, television and theatre. Catherine has performed widely in cabaret and contemporary performance in Australia. In 1998 she toured with other Australian, UK and New York artists for 'It's Queer up North' in Manchester, Glasgow, Warwick and London as well as WOW Café New York. In 2002 she was funded by the Australia Council New Media Fund for the *Motherload* project, exploring genetic science and human reproductive futures. She has recently submitted a Doctorate of Creative Arts at Wollongong University, developing performance texts from bioethical fables. Her fable *Dr Egg and The Man with No Ear* has been commissioned by The Sydney Opera House Trust for a new media/puppetry production in July 2007. Her collaborative work *BioHome: The Chromosome Knitting Project* will be performed at the Experimental Art Foundation Art and Biotechnology Event in October 2007.

Terumi Narushima is a Sydney-based composer who writes instrumental as well as electronic music. She completed her undergraduate degree at the University of Sydney and obtained a Master of Music (Composition) from Sydney Conservatorium in 2003. Her compositions have been performed in concerts broadcast on Australian radio and she has also worked as a sound designer/composer for experimental short films which have been screened at festivals in Australia and overseas. Her main musical interests include exploring alternative tuning systems and her sound installation, *Tritriadic Chimes: bells in just intonation*, has been presented at festivals including Carnivale Multicultural Arts

Festival at the Sydney Opera House (Australia 2001), MicroFest (USA 2001) and Florida Electroacoustic Music Festival (USA 2007). She is currently doing a PhD in Music at the University of Wollongong with Greg Schiemer as her supervisor.