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Publication Date

2010

Peer reviewed|Thesis/dissertation

Performing ARTs:
Technologies of Participation and Reproduction from Body Art to Bio Art

By

Kelly Ann Rafferty

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Performance Studies

and the Designated Emphasis

in

Women, Gender, and Sexuality

in the

Graduate Division

of the

University of California, Berkeley

Committee in Charge:

Professor Shannon Jackson, Chair

Professor Charis Thompson

Professor Brandi Wilkins Catanese

Spring 2010

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Abstract

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In order to articulate the contributions that experimental performance and feminist scholarship on reproduction have already made to one another and to highlight other fruitful areas for future engagement, I examine several key moments between 1991 and 2008 when two seemingly unrelated narratives have overlapped. These narratives concern (1) the development and implementation of reproductive technologies from the sonogram to *in vitro* fertilization to regenerative medicine, and (2) the expansion of a range of experimental performance practices in new media and bio art performance. The moments when these histories converge are marked by a series of performances by Deb Margolin, Critical Art Ensemble, Anna Furse, the Olimpias Performance Research Group, and the Tissue Culture and Art Project, and by a body of critical writings from the artists themselves and a group of performance scholars. This journey is also marked by strategic expeditions back into the 1960s to revisit and reinterpret foundational moments in the histories of feminist, activist, and new media performance. Moving between the 1960s and the 1990s/2000s, I use contemporary performance to re-imagine the relationship between gender, technology, and embodiment in some of our origin myths about performance art. I also use the historical performances to unpack the contributions and limitations of the contemporary work. In my analysis of these materials, I do two things: I tease out how the artists in question have used experimental performance to generate new theoretical, tactical, and physical ways of engaging with reproductive technologies. At the same time, I also examine the ways in which reproductive technologies – as a set of political, ethical, and representational issues and as material objects/practices – are pushing performance theory and practice in new directions, complicating our theorizations of participation and providing new avenues for spectatorial interaction.

Positioning Carolee Schneemann's *Eye Body* (1963) as the beginning of an unfolding of feminist corporeal interrogations of technology and technological

interrogations of corporeality, I argue in Chapter 1 that genealogies of new media and feminist performance must take seriously feminist performance's long history of investigating the politics of technology. I then lay out the project's topic, scope, and the secondary literature on notions of participation, reproduction, and technology within the fields of experimental performance, science and technology studies, and feminist theory. In Chapter 2, I present a close reading of feminist playwright and performance artist Deb Margolin's solo performance *Gestation* (1991) alongside cultural histories of the sonogram. I pair these stories to show how feminist performance artists' experience with technologies of representation became a place where important debates around technology, agency, and embodiment could be staged at a crucial time in the history of feminist theory. Intervening in ongoing debates within new media theory about interactivity and embodiment in Chapter 3, I detail the ways in which the tactical media collective Critical Art Ensemble crafted physical and affective structures of interactivity in order to engender certain forms of public resistance to *in vitro* fertilization in its groundbreaking 1998 performance *Flesh Machine*. In Chapters 4 and 5, I move on to analyze the risks and rewards that emerged from two long-term collaborations between art and biotechnology. In Chapter 4 I put British director and producer Anna Furse's *Glass Body: Reflecting on Becoming Transparent* (2006-2008) in conversation with performance projects by the Olimpias Performance Research Group to demonstrate how collaborations with biomedicine reshape issues at the center of debates around social practice. In Chapter 5, I recast the Tissue Culture and Art Project's 2002 bio art performance installation *The Pig Wings Project* within the tradition of feminist maintenance artists such as Mierle Laderman Ukeles, Betye Saar, and Mary Kelly in order to argue that together, this new constellation of maintenance artists has crafted a set of interactive performance practices which stage maintenance and the duration of performance in order to reveal the ways in which regenerative medicine disavows its dependence on feminized labor.

For Alfie

Acknowledgements

In Anusara Yoga, as in many other yogic traditions, we use a Sanskrit term *adhikara* to talk about what it means to be a student. *Adhikara* is the quality of competency in a student, his or her capacity or qualification to study something. In this tradition, the student cultivates a balance between humility, creativity, drive, sensitivity, and stamina in order to prepare the ground for the teachings of the *guru*, the weighty presence that changes the things around it. For the past six years, I have been graced by the powerful presence of three *gurus* – Shannon Jackson, Charis Thompson, and Brandi Catanese – who each dance the balance of *adhikara* in ways that are at once awesome and deeply grounding. Thank you for teaching me.

Writing this dissertation required participating in the process of imagining a “feminist future” for research on artistic work that bridges science, medicine, performance, and the visual arts. It meant finding labs and administrators in previously unexplored parts of campus, filing odd expense reimbursement forms, and learning how to talk to scientists. I thank Charis Thompson for helping me navigate the institutional and interpersonal complexities of this work. The process also involved using practice-based research methods to investigate the relationship between bodies, time, space, and technology. I was fortunate to be situated in a Graduate Program in Performance Studies that always tolerated and even generously encouraged my practical work. For the most patient and empowering guidance in these endeavors I thank Peter Glazer and Marty Berman.

Each chapter of this project came into being with the support of brilliant and kind colleagues. For help sorting through the ideas at the heart of Chapter 1, I thank the Gender and Women’s Studies 2008 Dissertation Writing Seminar, especially Lowry Martin, Robin Mitchell, Laurel Westbrook, Christine Quinan, and Sonal Thacker. I am also grateful to the participants of the “Desire” Dissertation Writing Workshop that was hosted by the UC Berkeley Center for the Study of Sexual Culture and Center for Race and Gender. I thank Deb Margolin and the Performance Studies Writing Accountability Group, especially Mona Bower, Charlotte McIvor, Joy Crosby, and Emine Fisek, for help with Chapter 2. Chapters 3 and 4 came into being with the help of Shannon Jackson’s 2006 Rhetoric Social Practice seminar and Charis Thompson’s 2008 Gender and Women’s Studies Transnational Science Studies and New Media seminar. In particular, I would like to thank Dalida Maria Benfield, Kris Trujillo, Ashley Ferro-Murray, Anna Furse, Petra Kupperts, and Erin Striff. The research and writing of Chapter 5 were generously supported by a Humanities and Social Sciences Pre-Doctoral Fellowship from the Berkeley Stem Cell Center. I am also most appreciative of the insights offered by Lily Mirels, Susan Foster, Lynette Hunter, and the 2008-2009 California Institute for Regenerative Medicine Fellows as I developed this material.

For me, theater is, at its core, about community and chance to play well with others. Berkeley has gifted me with the most wildly creative and generous of playmates. Monica Stufft, Heather Warren-Crow, Joy Crosby, Emine Fisek, Charlotte McIvor, Brandon Woolf, and Jonathan Combs-Schilling, thank you for playing so spectacularly and for helping me clean up when things got messy. For teaching me how to breathe and for keeping my head, heart, and limbs wired together, I thank my running buddies (Shannon Rafferty, Joe Rafferty, Brandon Woolf, and Kate Kokontis), Team Bramwell, my yoga *kula guru* (especially Saraswati Clere, Abby Tucker, Darcy Lyon, Sianna Sherman, and Jennifer Johung). For teaching me why and how, I thank Joe, Beth, Joseph, Shannon, and Terence Rafferty. For showing up every day to say “Yes, and . . .” I thank Alfie Turnshek-Goins (and Jelly and Scout).

Chapter 1

Introduction

The metaphors we use to describe the body are powerful performatives; they do things in the world. Take, for example, the metaphor of the body as a machine. Aristotle, like Descartes after him, turned to machines for analogies to explain human movement. The mechanistic theory of animation that Aristotle initiated did not, however, accumulate enough scientific plausibility until the seventeenth century when automata – machines fueled by an internal energy source instead of an external one such as the muscular force exerted on a hand crank – enjoyed growing popularity and production.¹ It was the automaton’s motor, its relative distance from the exertion of human effort, that gave it this power. As Georges Canguilhem explains in his famous essay “Machine and Organism:”

[T]he fact remains that for Aristotle, as later for Descartes, the comparison of the organism to a machine presupposes man-made devices in which an automatic mechanism is linked to a source of energy whose motor effects continue well after the human or animal effort they release has ceased.²

First theorized in the fourth century BC and rendered scientifically convincing in the seventeenth century, the mechanistic theory of animation inspired many twentieth century medical technologies, including prosthetics and organ transplantation.³ The motor, then, produced a potent set of bodily metaphors and medical technologies. As a result, it also lies at the crux of feminist body art’s genesis, which is where our story begins and ends. We are, after all, jumping from body art to bio art and back again. Like so many other stories about performance and big breaks, this one picks up at the moment when a young woman moves from the Midwest to New York City.

After earning her MFA in painting from the University of Illinois, Urbana in 1961, Carolee Schneemann moved to New York to continue painting and began working as a part of the Fluxus movement, Happenings, and the Judson Dance Theater. Schneemann has said that her early paintings and performances were created out of an interest in exploring how “materials function as a way to establish certain visual energies,” and at this time her “emphasis on tactility was directly related to the modernist hope in the redemptive power of things *as themselves*.”⁴ Schneemann’s early material works, which she often calls “concretions” or “painting constructions,” explored the tactility and scale of materials such as wood panels, fur, grease, shattered glass, and

1 Melinda Cooper, *Life as Surplus*, 107.

2 Georges Canguilhem, *Knowledge of Life*, 79-80.

3 Melinda Cooper, *Life as Surplus*, 107.

4 Schneemann quoted in David Levi Strauss “Love Rides Aristotle,” 30; Rebecca Schneider, *Explicit Body in Performance*, 32.

plastic sheets. Although, as Schneemann later states, her body of work as a whole has “[t]ransformed the definition of art, especially discourse on the body, sexuality, and gender,” it did not yet engage with overtly political issues surrounding gender and embodiment. 5 Schneemann was more interested at this time in participating in modernism’s exploration of objecthood. *Eye Body* (1963), however, marked a turning point in Schneemann’s work: it demonstrated a feminist politicization of her previous exploration of materials, tactility, and scale.⁶

In her New York loft, Schneemann assembled large square panels of wood to construct what looked like a theatrical backdrop that stretched nearly from floor to ceiling and wall to wall. Some of these panels were previously completed painting constructions such as *Maximus at Gloucester* (1963) and others were works in progress.⁷ She covered these panels of wood with collage materials that included motorized umbrellas, fur, a cow skull, tools, and “assorted detritus.”⁸ The act of building these constructions required the use of Schneemann’s whole body.⁹ The scale of the panels and the scale, shape, and texture of many of the materials required big, intense physical movements or sometimes small, focused, and precise movements as she handled broken shards of glass and shattered window frames. Schneemann also arranged objects and materials throughout the rest of her loft. Plastic sheets covered the floor. A dress form was positioned beside the large wooden panels. Other tools and materials were scattered here and there.

Schneemann also used her own body as a canvas for collage and a material of collage. She covered her naked body with grease, chalk, paint, ropes, plastic, and live snakes and stepped in to the environment that she built. Situated as an integral element within this environment, Schneemann posed for photographs taken by a 35 millimeter camera.¹⁰ In these photographs of *Eye Body*, the loft looks as if it is alive with texture and layers; Schneemann stands before her large wooden panels, and now more than ever they look like a theatrical backdrop, only the boundary between set piece and actor is blurred. Both the panels and Schneemann look as if they are simultaneously animate and inanimate, simultaneously art material and performer. While Schneemann begins to consume some of the materials, putting a snake in her mouth, the materials also begin consuming her body. Affixed to the backdrop of wooden panels, the plastic sheets, inverted umbrellas, and shattered window frames obscure the camera’s view of her body and make it look as if the backdrop was in the process of swallowing her whole.

5 Carolee Schneemann, “Biography.” Schneider comments on the politics of Schneemann’s early work when she writes, “In her early work, sensate involvement hovered without clear political articulation around notions of active objects, the object’s gesture, and eyes which touch.” Rebecca Schneider, *Explicit Body in Performance*, 32.

6 This is not to suggest that modernism’s exploration of objecthood did not also have its own politics. It was just not a feminist politics.

7 Carolee Schneemann, *Imaging Her Erotics*, 56.

8 Ibid.

9 Ibid., 55.

10 Michael Blackwood, *Reclaiming the Body*.

With *Eye Body*, Schneemann explored “the materiality of flesh and the object-status of the female body relative to its socio-cultural delimitations” in a performance that she staged for both spectators and a camera.¹¹ Covered in multiple slippery and coarse materials she incorporated her body as both visual object and artist/subject into a built environment. After *Eye Body* (1963), Schneemann continued making political art, exploring the politics of materiality, pleasure, and the body of the artist in now-(in)famous performances such as *Meat Joy* (1964), *Up to and Including Her Limits* (first performed in 1973), *Interior Scroll* (first performed in 1975), and the film *Fuses* (1967).¹²

For decades, Schneemann’s work was not well received by the art establishment and even more recently curators and scholars have failed to include her work in historical reevaluations of the 1960s and 1970s, the period in which her work was its most “transgressive.”¹³ Former museum director Marcia Tucker summed up Schneemann’s marginalization from both feminist and mainstream art when she wrote:

Carolee Schneemann’s work was equally difficult to pin down, but it became controversial and ultimately marginalized because of the way she used her own body; her style was direct, sexual, autobiographical, and confrontational. Her work couldn’t be called “conceptual” because it was too raw, too emotive, too immediate. Nor did people perceive its connection to “action” painting, which was firmly rooted in the heroic, male tradition. [. . .] Schneemann’s work, in the context of early feminist art activities, was viewed by many at that time as liberating; nonetheless, it ran counter to prevailing feminist politics because it didn’t seem to constitute a critique of patriarchy. It had a little too much pleasure, a little too much (hetero)sexuality, and an uncompromising refusal on the part of the artist to justify herself to anyone.¹⁴

Even those feminist critics who did locate a critique of patriarchy in her work often met it with “stony, embarrassed silence,” followed by charges of essentialism and “theoryless”-ness. ¹⁵ Performances such as *Meat Joy* (1964) and *Interior Scroll* (1975) had a strongly ritualistic quality, and as a result were often the targets of such accusations. As performance scholar Gunter Berghaus explains, “critics and curators of the time pushed her into a ‘Dionysian cul-de-sac,’ which blocked her recognition as a ‘serious’ artist, and her message – which contained ‘more than meat joy’ – went unheard for a long time.”¹⁶ Scholarly treatments of *Eye Body* were similar. Performance theorist Rebecca Schneider notes:

11 Carolee Schneemann, *Imaging Her Erotics*, 33.

12 Carolee Schneemann, “Biography.”

13 Dan Cameron, “In the Flesh,” 7.

14 Marcia Tucker, “Introduction,” 5.

15 Kristine Stiles “Schlaget Auf,” 22.; David Levi Strauss “Love Rides Aristotle,”

26.

16 Gunter Berghaus, *Avant Garde Performance* 145.

Schneemann's essentialism was most obvious in her goddess imagery – snakes placed across her body in *Eye/Body* were allusions to the Goddess. [. . .] Twenty years later, strictly materialist feminists similarly dismissed Schneemann's work, reading any gestures toward goddess-identified sacrality as always already nostalgic and therefore naively apolitical.¹⁷

If a critic could locate just one marker of essentialism, such as the snakes Schneider mentioned, then she had cause to dismiss the entire work (and often the artist's entire body of work) as nostalgic and naively apolitical.

Many feminist art historians and performance theorists have tried to reclaim Schneemann's work as valuable for a feminist political project that wants to think critically about embodiment. These reclamations of Schneemann's oeuvre do not, however, position Schneemann within a history of new media performance. I present a survey of these reclamations here to show how they overlook the role that non-filmic technologies have played in Schneemann's decision to incorporate her material body in her constructions, a decision that Schneider has said marked the feminist turn in her art practice.¹⁸

Schneider, along with feminist performance theorist Amelia Jones, has noted that while Happenings and other avant-garde performances staged the live nude female body, this body was never granted the agency and authority that Schneemann audaciously demanded in her work.¹⁹ By staging the female artist's body, "Schneemann projects herself as fully embodied subject, who is also (but not only) object in relation to the audience (her 'others')." ²⁰ The nude female body, which was previously only presented as the object of representation in live performance, simultaneously assumed a subject position in Schneemann's work. Jones has also argued that Schneemann challenges art history's tradition of disinterested spectatorship. She claims that Schneemann "activates a mode of artistic production and reception that is dramatically *intersubjective* and opens up the masculinist and racist ideology of individualism shoring up modernist formalism"²¹ "By exaggeratedly performing the sexual, gender, ethnic, or other particularities of this body/self," body artists such as Schneemann "aggressively explode the myths of disinterestedness and universality that authorize these conventional modes evaluation."²² Schneemann has been claimed and re-claimed not simply as a feminist artist whose work challenges masculinist artistic conventions and the meanings that have

17 Rebecca Schneider, *Explicit Body in Performance*, 37.

18 Schneeman's innovative use of film as a technology and as a raw material to be physically manipulated via burning, scratching, and layering has been widely discussed by Schneider, Ruby Rich, RoseLee Goldberg, Kerry Brougher, Russel Ferguson, and others.

19 Rebecca Schneider, *Explicit Body in Performance*, 35.

20 Amelia Jones, *Body Art*, 3.

21 *Ibid.*, 3

22 *Ibid.*, 5.

been layered upon the female body, but also as foundational to feminism and feminist performance in the US. In 1996 performance theorist Kristine Stiles called her “the pioneer of feminist performance,” and art historian Lucy R. Lippard claimed in 1976 that *Meat Joy* (1964) “anticipated not only the so-called 1960s sexual revolution, but feminism.”²³

How do the terms by which Schneemann gets located as the genesis of feminist performance also make it more difficult for us to account for the ways in which she deploys technology to achieve her feminist intervention? What kind of work needs to be done in order to argue that technology did play an integral role in this achievement. It was precisely Schneemann’s strategic use of low-tech motors in *Eye Body* that allowed for her to incorporate her own body in her work. The motors facilitated Schneemann’s initiation of the practice of feminist body art and at least one strand of its many political projects: interrogating the subject/object position of women’s bodies in society and demanding the female artist subject’s full participation within the art world.

In an interview filmed for director/producer Michael Blackwood’s documentary, *Reclaiming the Body: Feminist Art in America* (1995), Schneemann states:

I think it was 1963 when I first came to New York City and began an enormous construction. There was already a sense of specific exclusion of my work because I was told it resembled – in its rhythms and its density that it resembled Cornell and Rauschenberg and that these visual territories were already occupied. And yet I had, indeed, a related sense of materiality and energy and density in the work and so I decided that I would motorize many of the constructions that I was working on because the men had not already done that. Once I had the motors in place it seemed to me that the motors were an extension of both technology and simple mechanics and the energy of my body and I wondered, how could I combine my body with the materials of these painting constructions and the motors? And that was the impetus behind *Eye Body*, an event in 1963 in which I transformed my body for each shot of a 35 mm roll of camera so that it would become an extension of the painting constructions that surrounded me.²⁴

Technology, which was traditionally opposed to “nature” and considered, especially within the worlds of art and performance, to be a masculine territory, became the avenue through which Schneemann set out both to differentiate herself from her male colleagues and to conceptually bridge the gap between her body and her constructions. The motor, which rhythmically turned the umbrellas and brought them to life, issued an invitation to complete the feminist turn. Instead of suggesting binaries such as nature *or* culture, the body *or* technology, the motor suggested a way to say *both . . . and . . . and*: “the motors were an extension of both technology and simple mechanics and the energy of my body.”²⁵ The motor provided Schneemann with access to a feminist body politics and an

²³ Quoted in Rebecca Schneider, *Explicit Body in Performance*, 34.

²⁴ Blackwood, *Reclaiming the Body*.

²⁵ *Ibid.*

art practice that could hold together concepts and materials that art history, feminist performance theory, and new media performance genealogies were in danger of rendering ontologically opposed.

Because the technology of the motor invited her body into the frame, it also, ironically, became the means by which Schneeman guaranteed her own exclusion from success in the art world and from many feminist accounts of acceptable feminist art and performance. This is ironic because Schneemann had originally intended for the motor to guarantee her legitimation in the art world. It was supposed to set her apart from her male colleagues only inasmuch as it moved her on to unoccupied “terrain” and satisfied the art market’s desire for something “new.” The market did not, however, desire something that was so new that it was ontologically disruptive. Later in the same interview she explains:

I was very excited about them but I wasn’t sure what they meant art historically so I took them to the most adventurous curator at the time who was the director of the Jewish Museum and I showed him these photographs and asked for his opinion and he said, “These have nothing to do with the art world. If you want to take off your clothes and run around naked, you’ll find another place to do that.”²⁶

For this adventurous curator who was trained to see *either/or* instead of *both/and*, Schneemann’s naked, eroticized body was all that was legible in her documentation of the performance. Schneemann’s innovative motors with their own rhythmic animation were overshadowed by Schneemann’s body’s own “real” liveness and all that it signified. The encounter that she describes here is just one of the many instances in which she has been marginalized in the art world. As I documented above in my survey of the history of the ways in which scholars have taken up her work, Schneemann has also been omitted from genealogies of new media performance.

Despite the director’s discouragement, Schneeman defiantly continued exploring the ways in which technologies, especially motors, resonated with her body as a component of her painting constructions and other time-based performances throughout the 1960s, 70s, and 80s. In *Meat Joy* (1964), for example, a group of live performers writhed together in an environment of “raw fish, chickens, sausages, wet paints, transparent plastic, rope, brushes, paper scrap, moving colored lights, and the sounds of popular songs, traffic, and street vendors.”²⁷ In its physically and aurally indiscriminate layering of a variety of materials, *Meat Joy* mingles “the fleshy characteristics of primitive erotic ritual,” the paint, human bodies, and animal flesh, “with what might be thought of as the technological particles of modern ritual,” the motors, plastic, lights, and the sounds of cars.²⁸ Motors again provided the means by which Schneemann connected static images to the rhythms of material bodies in *Cluny* (1981-3), a series of three panels illuminated by rotating lights. On each panel is an image of Schneemann’s deceased cat,

²⁶ Ibid.

²⁷ Julia Ballerini, “Introduction,” 7.

²⁸ Ibid., 7.

Cluny, repeated ten times on a grid of dots. As the motorized lights cast their glow on the grids, the images of her cat washing, standing on a ladder, and finally as a corpse “shimmer, flicker and change,” and “keep to the rhythm of natural shifts and evolutions.”²⁹ Here the motors conjure the ghost of Schneemann’s beloved pet as they transform the texture of the material upon which the images are printed.

When we acknowledge the fact that motors and a mechanistic theory of animation prompted Schneemann’s turn to performance, to create something that would later be called feminist body art, we trouble the dominant genealogies of new media performance. While the practice of writing genealogies of new media performance is a relatively new one, the majority of the existing studies³⁰ draw strong connections between new media performance and Futurism, Fluxus, Japanese Action Art, the history of architecture, and the fields of robotics, nanotechnology, and (to some extent) biomedicine. Feminist theater and performance – especially from the 1960s, 70s, and 80s – are rarely considered part of this context or conversation.³¹ When these genealogies do occasionally include the work of women artists, they rarely, if ever, take them up as specifically feminist works.³² Gunter Berghaus’s *Avant-Garde Performance: Live Events and Electronic Technologies* is one of the only histories of new media performance that includes a discussion of the long and complex relationship between technology and feminist performance. Berghaus does, however, set up what I find to be a false opposition between early feminist performance of the 1960s and 70s and later new media performance – in particular a relationship between feminist body artists of the 1960s and 70s and what he deems to be a “separate” group of feminist new media performance artists that followed.

After Rebecca Schneider, I define feminist body artists as artists who “present their own bodies beside or relative to the history of reading the body marked female.”³³ Presenting her body in this way, the feminist body artist “grapples overtly with the history of her body’s explication, wrestling with the ghosts of that explication.”³⁴ Feminist body art as a specific performance practice began in the 1960s with artists such as Carolee Schneemann and Yoko Ono, and flourished in the late 1980s and early 1990s

29 Ibid., 10.

30 See Gabriella Giannachi, *Virtual Theatres* and Steve Dixon’s *Digital Performance*

31 Michael Rush’s *New Media in Art* is a notable exception. While his is not explicitly a history of new media performance but a more general survey of new media art which occasionally includes performance, it does more fully integrate feminist artists into its coverage of innovations in new media and it does so, for the most part, without ghettoizing feminist artists within their own “gender” or “identity” sections.

32 Giannachi’s *Virtual Theatres*, for example, includes a five-page discussion of Lynn Herschman’s *Lorna* (1982), *Roberta Breitmore* (1972-82), and *America’s Finest* (1993-5) that never addresses the critique of gender leveled by each of these pieces. Laurie Anderson and Orlan receive similar treatment in Dixon’s *Digital Performance*.

33 Rebecca Schneider, *Explicit Body in Performance*, vii.

34 Ibid.

with the work of artists such as Karen Finley and Holly Hughes. Feminist body artists, especially those working in the 1960s and 1970s were often overlooked by the mainstream art and theater establishment while they were also strongly criticized by feminist scholars and critics for creating “essentialist” work. These critics read feminist body artists’ use of the often-naked female body to evoke the Goddess, mother-daughter relationships, rituals, and nature as an expression of the artist’s desire to locate and celebrate a shared biological and spiritual essence among all women.

Berghaus claims that feminist performance artists began using new media in the 1970s (and in this instance, “new media” means video) in order to overcome the essentialist shortcomings of earlier feminist body art. In this work feminists were using video technologies to demonstrate the social construction of meaning as they privileged the signifier and highlighted the social processes that produced images and narratives.³⁵ Berghaus reads this move as feminist performance artists attempting to show “the surface of the human body,” not as the essence of the category “woman,” but “as a canvas or a screen, as a battle ground, as a site and carrier of inscription.”³⁶ As such, video provided feminists with a way out of the perceived essentialisms of body art. According to Berghaus, body art presented a “real” biologically and spiritually universal woman, but technology allowed feminist performance to position “the human body as a sign, as a code for social and artistic expression.”³⁷

Invoking the highly contentious debates around “essentialism” Berghaus sets up a problematic relationship between feminist body art and new media performance. He positions feminist body art of the 1960s and 70s as a sort of failure of feminism, an artistic mistake that feminist new media performance artists were able to overcome with the help of technology. According to Berghaus, early feminist body art was “naïve” and “limited” but then performance artists started using technology to fix the mistakes they made.³⁸ The terms “body art” and “essentialist” – used as categories or labels for describing particular kinds of performance work – get deployed in rather unproductive and polarizing ways in this genealogy of new media performance.³⁹ Neither essentialism nor body art are useful or accurate markers of a fixed relationship to technology. As we have seen, one of the first “essentialist” body artists, Carolee

35 Gunter Berghaus, *Avant-Garde Performance*, 214.

36 Ibid.

37 Ibid., 208.

38 In his genealogy, Berghaus also privileges film and video technologies, overlooking the ways in which feminists might have been using older, non-screen-based technologies in their work.

39 I do not mean to suggest, however, that Berghaus is solely responsible for establishing this opposition between body art and technology. I am using him to stand in for a larger trend within both feminist performance scholarship and in new media performance scholarship to not see technology when we look at certain works (and not see gender/race/sexuality when we look at other works, as we will discuss in Chapters 3 and 5). As I noted above, feminist critics have also participated in this practice.

Schneemann, has been using technology in innovative and politically powerful ways in her work for four decades. While genealogies of new media performance either implicitly or explicitly place feminist body art and performance in opposition to new media performance, it is clear that the relationship between body art and technology is much more complicated than these narratives represent.

Motors served several different functions in Carolee Schneemann's story of feminist performance, and, as a result, have also become one of the tools with which I will construct and unfold my own story of feminism and performance. Schneemann used simple motors to carve out her own space within modernist art's collage tradition, locating herself in a visual territory distinct from that of Robert Rauschenberg and Joseph Cornell. The motor, as a source of self-propelled mechanical movement, pulled Schneemann into the frame of her own work; it called her to participate in the work itself and not just the preparation of the work. In this way the motor was also used to initiate a new art practice, feminist body art, and to abruptly halt Schneemann's participation in the art world, both in her contemporary art market and in later histories of "good" feminist art. As a scholar, I am using Schneemann's motors to upset genealogies of new media performance by repositioning feminist performance art within these narratives. I am also using them to establish a foundational assumption, a platform from which I can begin asking a larger set of questions.

What happens when we notice that a key figure in our origin stories about body art initiated her practice through an interest in the relationship between her body and technology? What happens when we look at *contemporary* experimental performance with this observation in mind? If we know that critical engagements with gender, embodiment, technology, and formal innovations around participation are deeply tied up with one another and serve one another's development, what are we able to see? What kinds of questions can we now ask? We are able to ask how gender and co-formations of gender, race, class, ability, and sexuality are always already at stake in performance that foregrounds the politics of technology or stages it as a site for innovative interaction with people, institutions, discourses, or art practices. We are encouraged to acknowledge this presence and the contributions of feminist art and performance history even when the performance disavows it. Our foundational assumption also invites us to ask what it is about the technology itself that allows for certain kinds of participation, certain art historical interventions? We noted, for example, that the motor became the core of the mechanistic metaphor for human animation because its source of mechanical movement is temporally removed from the initiating labor of the human body. What do we stand to learn about the quality of engagement if we look more carefully at how the engagement is engineered technologically?

These questions allow me bring feminist art and performance history more squarely into focus within narratives of participation in experimental performance and within related debates about art and technology, where feminist art and performance's contributions have generally been overlooked or underestimated. The questions also allow me to draw attention to the importance of studying the unique histories from which these technologies emerge and the contemporary contexts within which they are used. These histories and contexts give us a much clearer understanding of how different

bodies interact with each technology and how that interaction in turn shapes innovations in participation. While scholars in Film Studies, Performance Studies, Visual Culture, and Art History have used this approach to understand how digital, film, and video technologies operate in art contexts, it has not been extended to the study of the many other technologies used in contemporary performance, which include everything from motors to medical technologies. In the process of answering these questions, I draw upon a large and disciplinarily diverse body of scholarship on participation in experimental performance since the 1960s, but I also push it towards a new interdisciplinary collaboration with feminist science and technology studies.

“Participation” in Experimental Performance since the 1960s

Experimental Performance

“Experimental performance” is a term that refers to a wide range of artistic events that take place in various disciplinary and institutional environments. While “performance” itself is an essentially contested concept that “problematizes its own categorization,”⁴⁰ I find Richard Schechner’s definition can be adapted to allow for the term’s essential contestability yet bounded in ways that protect its critical utility. Schechner defines performance by marking the difference between determining that something *is* performance and studying something *as* performance. While all performances, regardless of their geographic or historical location, are made of “twice-behaved behaviors” or “restored behaviors” which are “performed actions that people train to do,” “[s]omething ‘is’ a performance when historical and social context, convention, usage, and tradition say it is.”⁴¹ The events considered “performance” (often called performance art) in North America and Western Europe became an accepted and popular medium of artistic expression in the late 1960s and 1970s, although there is a much older tradition of avant-garde artists and theater practitioners turning away from the constraints of their media’s conventions towards performance.⁴²

One can study these performances, look at how they are created, and evaluate their political and aesthetic value, but one can also study other events *as* performance. To study something *as* performance is to undertake a specific scholarly task, to commit to understanding how objects, people, and/or events act in relation to one another. Schechner explains: “To treat any object, work, or product ‘as’ performance – a painting, a novel, a shoe, or anything at all – means to investigate what the object does, how it interacts with other objects or beings, and how it relates to other objects or beings. Performance exists only as actions, interactions, and relationships.”⁴³ Studying something *as* performance also enables oneself to ask certain kinds of questions. By studying an event, technology, or representation as performance one can ask “questions of subjectivity (who is speaking/acting?), location (in what sites/spaces?), audience (who

40 Marvin Carlson, *Performance: A Critical Introduction*, 1.

41 Rebecca Schechner, *Explicit Body in Performance*, 22, 30.

42 RoseLee Goldberg, *Performance Art*, 7.

43 Rebecca Schechner, *Explicit Body in Performance*, 24.

is watching?), commodification (who is in control?), conventionality (how are meanings produced?), politics (what ideological or social positions are being reinforced or contested?).”⁴⁴ In this project I am primarily interested in studying events that are designated *to be* performance. Thus, I use the term “experimental performance” to refer to time-based public events which take place within and between the spaces of avant-garde theater, the visual arts, site-specific/installation art, community-based art, and new media art. “Experimental” performances position themselves as innovative responses to the perceived conventions and constraints of their formal, disciplinary, and/or institutional traditions.

In the late 1960s and early 1970s, many performance artists who came from theater backgrounds placed “performance’s separation from and rejection of theatre” at the center of their artistic agenda.⁴⁵ Performance’s rejection of theater was articulated primarily as a rejection of a “literary theater.” In 1965 Michael Kirby argued that traditional theater is a “literary theater” because it relies on “intellectual relationships” and “information structure” while experimental performance depends on “sensory” relationships.⁴⁶ Experimental performance attempted to highlight the ways in which a wide network of sensory relationships – “among production elements, between production elements and performers, between production elements and audience, between the total production and the space in which it takes place” – generated meaning in a performative event.⁴⁷ As it drew attention to and foregrounded these relationships (which had always already existed in traditional theater but were not necessarily highlighted) experimental performance saw itself as expanding the opportunities for and the significance of audience participation in the production of meaning. Practitioners of experimental performance also wanted to expand and diversify the audiences participating in this production of meaning. They created performances about more economically and socially diverse issues, staged them in non-traditional venues, and put a wider range of bodies on stage. While the perceived antagonism between theater and performance is less of an issue today, its effects – an interest in foregrounding sensory relationships between bodies, production elements, and sites, expanding spectatorial and representational participation, and physically re-locating performance events – strongly influenced the construction of contemporary performance.

Visual artists also had their own reasons for taking up performance in the late 1960s and 1970s. The turn to performance was, in part, a turn away from defining visual art as the autonomous art object, and a turn towards defining visual art as constituted by the relationship between the art object, the spectator, and their physical, institutional, and/or discursive locations. In this light, art was recast as a live event in time; it was durational and thus, ephemeral. Many artists and art historians have used Marxist theory to articulate the value of performance’s ephemerality. Understood as a process and an interaction happening in time and not a concrete object that remains static over time,

44 Elin Diamond, *Performance and Cultural Politics*, 4.

45 Carlson, *Performance: A Critical Introduction*, 126.

46 Jill Dolan and Brooks McNamara, *The Drama Review*, 65.

47 Jill Dolan, *Feminist Spectator as Critic*, 155.

performance, it was argued, could not circulate in capitalist markets in the same way that a painting or a sculpture could.⁴⁸ The value of ephemerality has also been articulated through alternate political frameworks. Challenging the leftist use of increased visibility as a political tactic, Peggy Phelan makes a case for the political power of performance's appearing in order to disappear. She writes, "Visibility is a trap; it summons surveillance and the law; it provokes voyeurism, fetishism, the colonialist/imperial appetite for possession."⁴⁹ RoseLee Goldberg also celebrates the invisibility of performance when she writes: "With the constant threat of police surveillance, censorship and arrest, it was not surprising that most protest art related to the body. An artist could perform anywhere, without materials or studio, and the work left no traces."⁵⁰

Participation

As performance theorist Shannon Jackson has noted, the turn towards performance in theater and the visual arts has taken a variety of forms, ⁵¹ and each form enacts participation differently. Site-specific art, community-based art, and new genre public art are three very different visual-arts-based approaches to staging live, time-based interactions between objects, viewer-participants, and physical, institutional, and discursive locations. In a community-based artwork, "participation" might mean members of a particular community meeting twice a week for several months with an artist to conceptualize, build, and execute a live performance event. An individual might participate in the performance of a piece of site-specific art by passing through or avoiding the patch of sidewalk that an artist is scrubbing with a rag on her hands and knees. Site-specific art also often draws attention to the ways in which institutions such as the museum, gallery, or university have historically participated in the construction of artistic meaning. Another recent manifestation of the visual arts' turn towards performance is a set of practices that Nicolas Bourriaud has named "relational art." Relational art is "an art taking as its theoretical horizon the realm of human interactions and its social context rather than the assertion of an independent and *private* symbolic space."⁵² Eating noodles prepared by an artist in the company of other gallery-visitors could constitute participation in this realm. In the kinds of performance that share a theatrical genealogy, participation can look like something else altogether. A group of

⁴⁸ I don't mean to suggest, however, that performance exists "outside" of capitalist markets altogether. Rather, performance did not immediately fit neatly into the art world's markets which existed at that time for the circulation of concrete objects and particular kinds of celebrity. These markets and other systems of attributing value have certainly adjusted to accommodate performance in the years since.

⁴⁹ Peggy Phelan, *Unmarked*, 6.

⁵⁰ RoseLee Goldberg, *Performance Art*, 214).

⁵¹ Shannon Jackson, "Where is the 'Social' in Social Practice?" The genealogy of 'participation' that I trace here was inspired by Jackson's work on social practice and her 2007 graduate seminar on social practice at the University of California, Berkeley.

⁵² Nicolas Bourriaud, *Relational Aesthetics*, 14.

performers might encourage spectators to participate in the construction of a performance's meaning by creating an event that lacks a clearly defined narrative.

Each manifestation of the turn to performance invites us to notice different aspects of participation, to ask certain questions, to discover certain shortcomings. Feminist artists, for example, were among the first to draw attention to the ways in which increased participation served both aesthetic and political purposes. "Seeing art as a neutral meeting ground for people of different backgrounds, feminists in the seventies attempted artistic crossover among races and classes. Collaboration was a valued practice of infinitely varying possibilities, one that highlighted the relational aspects of art."⁵³ Feminist artist and critic Suzanne Lacy has written extensively about who gets to participate in new genre public art and what they are asked to contribute to these works. Art historian Grant Kester has examined the practical and theoretical resources that might be used to evaluate the quality of spectatorial and institutional participation in dialogical art. Others have pointed to the possibility that participation is at times dangerous. Non-artists are often, according to Hal Foster, invited to participate within an artist-as-ethnographer paradigm which relies on a realist assumption that posits the postcolonial other as "somehow in reality, in truth, not in ideology, because he or she is socially oppressed, politically transformative, and/or materially productive."⁵⁴ Performance theorist and artist Coco Fusco and scholar Rebecca Schneider have shown how racially Othered bodies and cultures have historically been coerced and appropriated into participating in performance.⁵⁵ Many forms of popular entertainment such as minstrelsy, lynching, and slave auctions – which Saidiya Hartman and Marvin Carlson claim are important precedents for contemporary performance art – either implicitly or explicitly entertained through enacting violence on black bodies.⁵⁶

As video recording and editing technologies became affordable to more of the US and European population in the 1970s and again when artists gained wider access to computer technologies in the 1990s, artists and critics began evaluating and experimenting with these technologies as new interactive or participatory tools in performance.⁵⁷ More recently, biological materials and technologies have also become avenues for expanding conceptions of participation in performance. While the ways in which new media have transformed audience participation are well documented, Lev Manovich has noted a tendency to overestimate the political efficacy of new media art

⁵³ Suzanne Lacy, *Mapping the Terrain*, 27.

⁵⁴ Hal Foster, *Return of the Real*, 174.

⁵⁵ Coco Fusco, *The Bodies that Were Not Ours*, 16.

⁵⁶ Saidiya Hartman, *Scenes of Subjection*, 3-8, 17-18, and Marvin Carlson, *Performance: A Critical Introduction*, 86.

⁵⁷ Innovations in participatory performance were not spurred simply by the increased availability of these technologies. As Dixon has argued, "[T]he catalysts for 'revolutionary' developments involving analog and electronic media within theater, dance, and performance during the 1960s, particularly in the later half of the decade, were more inspired by cultural and ideological change than technological leaps or the emergence of computer art." Steve Dixon, *Digital Performance*, 88.

and performance that rely on “decisions from a participant” in order to operate.⁵⁸ The tendency to characterize all new media as interactive “not only fails to account for the variety and specificity of new media, the term also tendentiously implies that old media are fundamentally non-interactive.”⁵⁹ Scholars of new media performance such as Gabrielle Giannachi, Gunter Berghaus, Petra Kuppens, and Steve Dixon have attempted to develop more sophisticated critiques of the kinds of participation enabled by specific new media technologies. They have looked at how participation has changed in the field over time, the kinds of bodies and embodied relationships it produces, and the ways it is shaped by race, class, gender, and sexuality. Giannachi, for example, argues that Guillermo Gomez-Pena’s new media performance work is especially adept at exploring the politics of interactivity by exposing “interactivity as a non-neutral tool.”⁶⁰ Gomez-Pena’s performances provide a space in which viewer-participants must encounter the Internet as a technology that “cannot be separated from the larger socio-political context in which it sits.”⁶¹ Overall, the field of new media performance theory and the site of new media performance itself have undertaken rich and complicated interrogations of participation in performance in recent years. However, the participatory technologies that they study have remained relatively limited. In this dissertation I join of growing group of scholars committed to expanding the parameters of new media to include medical technologies, analyzing them on their own terms, as devices and techniques with specific histories and contemporary contexts that often differ in significant ways from the digital and screen technologies at the center of most new media theory.

Performance, Reproduction, and Technology

My turn to medical technologies is also motivated by a feminist and disability rights political project. While this project emerges from an urge to think more specifically about how technologies shape the quality of the relationship between artist, artwork, and spectator, it stems from a dedication to the political work that performance can do in the world. The political question with which I am particularly concerned is how the high-tech medicalization of reproduction has complicated and enriched the projects of feminist and disability studies approaches to biopolitics.⁶² Early critical approaches to feminism, disability, and reproductive technologies operated from a basic resistance to the medicalization of the female body and from a fear that reproductive technology uses women’s bodies as an experimental site, furthers women’s subjection to patriarchal power and racism, is economically discriminatory, and promotes eugenics. Lending more attention to complex distributions of power within assisted reproductive technologies, recent scholarship has demonstrated a more ambivalent attitude towards

⁵⁸ Lynn Hershman, “Touch Sensitivity,” 194.

⁵⁹ Warner, “Computable Culture, 2.

⁶⁰ Gabriella Giannachi, *Virtual Theaters*, 140.

⁶¹ *Ibid.*, 144.

⁶² I use biopolitics broadly here to refer to the cultural and political components of the rise of biotechnology.

medicalization. Scholars such as Marilyn Strathern, Rayna Rapp, Charis Thompson, Melinda Cooper, and Dorothy Roberts have positioned reproductive technologies as not necessarily oppressive or exploitative in and of themselves, and they often explore the contexts in which the technologies could even be used to empowering ends. Most importantly, they situate reproductive technologies within networks that include global markets, legal systems, nation states, and militarisms. Reproductive technologies' situatedness within these networks shapes how the technologies are used, valued, accessed, and represented. Ultimately, it also changes how parents, children, gender, race, and ability are produced.

The questions that arise from their work are often staggeringly complex, and yet they are the questions with which we must grapple as social problems are increasingly being turned into biomedical ones. When does the use of medical imaging technologies such as the sonogram performatively enact fetal personhood at the expense of the mother's agency,⁶³ and when is it possible, instead, to move away from notions of "agentic, coherent, physically-bounded selves" towards a notion of the body as a "theater of self-invention" in which sonograms and other reproductive technologies serve as useful props?⁶⁴ How do the markets and protocols of egg and sperm donation, which support *in vitro* fertilization, allow for the creation of "families we choose" which reconfigure kinship beyond genetic ties?⁶⁵ Under which circumstances does *in vitro* fertilization commodify bodies, facilitate eugenics, and serve capitalism's quest for the perfect laborer or the nation state's desire to reproduce the ideal citizen?⁶⁶

Reproductive technologies are not simply the advanced devices and techniques built to help us make babies. They include the devices and techniques we use to interrupt reproduction, such as abortion and prenatal testing. They are also the strategies we have developed to biotechnically leverage the body's reproductive and regenerative capabilities, such as therapeutic cloning and tissue engineering. Some of the complicated questions that feminist and disability scholars have raised about these reproductive technologies include: How, on the one hand, can prenatal genetic testing allow families to make empowering choices? And how, on the other hand, does the constellation of prenatal genetic testing and abortion mobilize the rhetoric of "choice" to saddle women with an unreasonable responsibility? How does it impel women to choose to abort a fetus with a disability instead of placing the responsibility on society to change conditions that construct certain bodies as disabled (and therefore undeserving of life and/or difficult or impossible to support)?⁶⁷ Put differently, when is the "right to

63 Lauren Berlant, "Subject of True Feeling," and E. Ann Kaplan, *Motherhood and Representation*.

64 Rosalind Petchesky, "The Body as Property," 387, 390.

65 Kath Weston, *Families We Choose*, Charis Thompson, "Skin Tone and the Persistence of Biological Race."

66 See Susan Martha Kahn, *Reproducing Jews* and Lisa Handwerker, "The Politics of Making Modern Babies in China."

67 Browner and Press, "The Normalization of Prenatal Diagnostic Screening," 308.

privacy” used to abdicate a collective public responsibility to make our public and private environments accessible?⁶⁸ In what ways does regenerative medicine exploit and profit from the body’s reproductive capabilities? How have women and feminized labor contributed to these unfolding practices? How should their labor be regulated, compensated, and theorized?

In this dissertation I unpack contemporary performance’s contributions to feminist and disability scholarship on reproduction. The intersections of feminism, disability, performance, and reproduction are relatively under-theorized, but several scholars have already made key contributions to this discussion. Charis Thompson has approached the relationship between performance and reproductive technologies by looking at reproductive technologies *as* performance. In *Making Parents: The Ontological Choreography of Reproductive Technologies* Thompson argues that, in assisted reproductive technology clinics, parents and children are created through ontological choreography, the “dynamic coordination [. . .] of things that are generally considered parts of different ontological orders.”⁶⁹ The term might seem to suggest the existence of a choreographer-subject who consciously coordinates elements such as technological objects, human bodies, financial networks, medical protocols, and legal frameworks in order to make a parent out of him/her self or out of another subject. Thompson argues, however, that ontological choreography is the process that creates embodied subjects and the means by which others can recognize them as embodied subjects, along with knowledge, technologies, and social categories themselves. Ontological choreography is, in this sense, similar to Judith Butler’s notion of gender performativity, although ontological choreography (like the broader field of actor-network theory in which it is situated) is particularly attentive to the ways in which objects and institutions “outside” of the subject perform along with the subject in the constitutive performance of subjectivity. Butler’s gender performativity takes from performance the notion that all behavior is twice-behaved. Subjectivity, like theatrical performance, is created through training, rehearsal, and repetition. Ontological choreography additionally draws from the ease with which performance blends multiple media including light, sound, low-tech and high-tech objects, people, and emotions, in order to produce meaning. The term also strikes a chord with performance’s commitment to breaking down the author/spectator divide.

A small group of scholars writing about reproductive technologies have addressed the question of what performance can contribute to scholarship on reproductive technologies more indirectly. E. Ann Kaplan, Sarah Franklin, Susan Squier, and Peggy Phelan have approached this question by arguing for the importance of studying the role of representation in shaping reproductive technologies. Writing from different disciplinary locations, Kaplan, Franklin, and Phelan identify representations as sites for creating feminist change and suggest that changes in representation could cause political change. In *Motherhood and Representation*, Kaplan supports this claim by constructing a relationship between representation and “reality” that was (and maybe still is) common in

68 Barbara Katz Rothman, *Genetic Maps and Human Imaginations*

69 Charis Thompson, *Making Parents*, 8.

literary and film studies. She suggests, “to the extent that discourses construct mothers on the level of lived reality, work that helps to produce positive change on the discursive level (as I hope this book does) should be beneficial.”⁷⁰ Sarah Franklin makes her case on slightly different grounds, arguing that representations, specifically visual representations, are particularly powerful and relevant given the politics of visibility involved in reproductive technologies and their attendant medical imaging technologies. She writes, “cultural representations such as fetal images, have become key sites of struggle over the meanings through which reproductive politics are defined,” and it is important to study such cultural representations because “an appreciation of the specifically cultural dimensions of the changing construction of reproduction is critical to the maintenance of effective feminist challenges.”⁷¹ In her study of anti-abortion protest as performance Phelan crafts a similar critique. She writes: “Those who want to launch a counter-argument about the politics of reproduction must assess how they relate to the politics of representation. As the debate about reproduction develops so too does an ideology of representation.”⁷² Susan Squier, however, constructs a different, more specific relationship between representation and science. She wants to dismantle the very distinction between fiction/literature and science by claiming that narratives “function as working objects, in experiments that take place not in the biomedical laboratory but in the biomedical imaginary: the rich intertidal zone where, as Waldby puts it, ‘biomedicine makes things up.’”⁷³ By characterizing narratives as working objects, Squier is able to track the moments when science fiction propels scientific creativity. Not only does science fiction negotiate the space between the realms of research, medical practice, and public acceptance, it also constitutes “the speculative, propositional fabric of medical thought, the generally disavowed dream work performed by biomedical theory and innovation, the speculative thought which supplements the more strictly systematic, properly scientific thought of medicine, its deductive strategies and empirical epistemologies.”⁷⁴ According to Squier, fiction is in fact an integral part of the making of science – it does important scientific work that the scientific method can’t do. Over the course of the past fifteen years, performance as an artistic practice has been theorized as contributing to scholarship on reproductive technologies primarily through its status as a form representation.

This project looks closely at why participatory experimental performance as a unique form provides a useful structure for interrogating the politics of reproductive technologies. There is a long and growing tradition of artists using performance as a means of engaging with these biotechnological networks and imagining possible futures for them. These performances, however, remain under-explored within the fields of Performance Studies, Gender and Women’s Studies, Science and Technology Studies, and Disability Studies. I argue that performance – which brings people together to self-

70 E. Ann Kaplan, *Motherhood and Representation*, 7.

71 Sarah Franklin, “Postmodern Procreation,” 325-326.

72 Peggy Phelan, *Unmarked*, 130.

73 Susan Squier, “Liminal Lives,” 16.

74 *Ibid.*, 259.

reflexively interact with ideas, sounds, images, textures, objects, institutions, and one another in a specific time and place – is uniquely equipped to help us access many of the central complexities of the biopolitical questions I outlined above. Feminist performance artists, in particular, are trained to make choices about how to use bodies, time, technology, and their enmeshment in particular sites and discourses to have an effect on a spectator's experience of embodiment, sense of agency, and understanding of the world around him or her. At its best, performance art is also a form of training and speculative thought, a time and place where spectators can learn how to make these choices, too. The skills that performance hones are precisely the skills we need in order to viscerally understand the complex problems and possibilities that arise from reproductive technologies.

Chapter Breakdown

In order to articulate the contributions that experimental performance and feminist scholarship on reproduction have already made to one another and to highlight other fruitful areas for future engagement, I examine several key moments between 1991 and 2008 when two seemingly unrelated narratives have overlapped. These narratives concern (1) the development and implementation of reproductive technologies from the sonogram to *in vitro* fertilization to regenerative medicine, and (2) the expansion of a range of experimental performance practices in new media and bio art performance. The moments when these histories converge are marked by a series of performances by Deb Margolin, Critical Art Ensemble, Anna Furse, the Olimpias Performance Research Group, and the Tissue Culture and Art Project, and by a body of critical writings from the artists themselves and a group of performance scholars. This journey is also marked by strategic expeditions back into the 1960s to revisit and reinterpret foundational moments in the histories of feminist, activist, and new media performance. Moving between the 1960s and the 1990s/2000s, I use contemporary performance to re-imagine the relationship between gender, technology, and embodiment in some of our origin myths about performance art. I also use the historical performances to unpack the contributions and limitations of the contemporary work. Along the way I begin the work of examining what happens when we notice that critical engagements with gender, embodiment, technology, and formal innovations around participation are deeply tied up with one another and serve one another's development. This project will not, however, only involve temporal leaps. We will also move across several continents and performance venues. We have begun in Schneemann's New York studio and will travel to another New York performance art venue to revisit Deb Margolin before we leave the US to stop at galleries in Brussels, Venice, Helsinki, and Adelaide, Australia, a hospital in London, and two community health centers in Wales. These changes in geography and architecture also mark shifts in funding structures, political climates, critical debates, and modes of artistic and political engagement.

In my analysis of these events, venues, and locations, I do two things: I tease out how the artists in question have used experimental performance to generate new theoretical, tactical, and physical ways of engaging with reproductive technologies. At

the same time, I also examine the ways in which reproductive technologies – as a set of political, ethical, and representational issues and as material objects/practices – are pushing performance theory and practice in new directions, complicating our theorizations of participation and providing new avenues for spectatorial interaction.

Insisting that genealogies of new media and feminist performance must take up (and take seriously) feminist performance's long history of investigating the politics of technology, I present in Chapter 2 a close reading of Margolin's solo performance *Gestation* (1991) alongside cultural histories of the sonogram. I pair these stories to show how feminist performance became a place where important debates around technology, agency, and embodiment could be staged at a crucial time in the history of feminist theory. I argue that feminist performance artists' experience with technologies of representation became particularly useful at this juncture.

Intervening in ongoing debates within new media theory about interactivity and embodiment in Chapter 3, I detail the ways in which the tactical media collective Critical Art Ensemble crafted physical and affective structures of interactivity in order to engender certain forms of public resistance to *in vitro* fertilization in its groundbreaking 1998 performance *Flesh Machine*. This rich and contentious work complicates new media's theorizations of the dispersed, ruptured body while it also deploys relational tactics that critique the biomedical industry at the expense of a serious and sustained engagement with gender, disability, and critical race theories of embodiment.

In my readings of Margolin's *Gestation* and Critical Art Ensemble's *Flesh Machine*, I delineate the implications of studying performance and feminist scholarship on reproductive technologies in the presence of one another, staging my own collaboration between the two fields. In Chapters 4 and 5, I move on to analyze the risks and rewards that emerged from two long-term collaborations between art and biotechnology. To create the interactive performance installation at the center of Chapter 4, British director and producer Anna Furse collaborated with Chelsea and Westminster Hospital's Assisted Conception Unit, their Hospital Arts program, and the Wellcome Trust, the UK's largest non-governmental source of funding for biotechnology research. I put Furse's *Glass Body: Reflecting on Becoming Transparent* (2006-2008) in conversation with works by Petra Kupperts's Olimpias Performance Research Group to demonstrate how collaborations with biomedicine reshape issues at the center of debates around social practice, such as the polarizations of heteronomy and autonomy and intelligibility and unintelligibility.

In Chapter 5, I turn my attention towards the field of regenerative medicine and a recent work by the Tissue Culture and Art Project, who are the artists in residence at SymbioticA, the Art and Science Collaborative Research Laboratory in the School of Anatomy and Biology at the University of Western Australia. I recast the Tissue Culture and Art Project's 2002 bio art performance installation *The Pig Wings Project* within the tradition of feminist maintenance artists such as Mierle Laderman Ukeles, Betye Saar, and Mary Kelly in order to argue that together, this new constellation of maintenance artists has crafted a set of interactive performance practices which stage maintenance and the duration of performance in order to reveal the ways in which regenerative medicine disavows its dependence on feminized labor.

In an effort to summarize the attitude towards biotechnology that she hopes her book will communicate, Melinda Cooper ends the introduction to *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era* with the following words: “I hope to convey a sense of my own indecision as to the biopolitical futures enabled by contemporary life science production. As so much of contemporary biology insists, these futures can never be determined in advance.”⁷⁵ While I share Cooper’s indecision, I hope this text will also convey a sense of my excitement about the power of performance to shape these unfolding futures. In the pages of this dissertation, as in the performance spaces that the featured artworks once occupied, biopolitical problems get recast as the stuff with which we build beautiful, wild works of art. Through performance we find the pleasure that comes from speculative thought, from asking the difficult questions, from negotiating the rocky and dangerous terrain, from taking the time listen to what these questions sound like when they come from our bodies, our mouths, our writing. We learn, through performance (through writing a dissertation about performance) to take pleasure in the difficult labor of engaging, worrying over, fighting back, asking questions, making choices. We learn to seek out, maybe even to love the training that comes from performance so that we are more willing and able to fight for the future when we leave the gallery or theater.

⁷⁵ Melinda Cooper, *Life as Surplus*, 14.

Chapter 2

Theaters of Self-Invention:

Performing Medicalization, Maternal Agency, and Deb Margolin's *Gestation*

The award-winning feminist playwright and performance artist Deb Margolin was eight months pregnant when she premiered a solo performance piece called *Gestation* at Theater Club Funambules in New York City in the winter of 1991. Throughout *Gestation* Margolin embodied a multitude of characters who commanded the club's small stage like a rapidly replicating blastocyst taking over a uterus. Playing a pregnant insomniac, a pregnant prostitute, an anxious genetics lecturer, characters from late-night television, and a large pink fetus, Margolin crafted an uproariously funny meditation on pregnancy as a peculiar crisis of embodiment, which, I argue, was also an important work of feminist scholarship.

As contemporary bioartists, tactical media practitioners, and critics have demonstrated, art and performance have become important sites for the production of critical science and technology studies. Often overlooked, however, is the long tradition of critiques of science and technology within feminist performance. I read *Gestation* alongside feminist scholarship on reproduction from the early 1990s through the present in order to explore the crucial role that feminist performance as a mode of public critique has played in developing a feminist understanding of issues of agency and representation surrounding the medicalization of pregnancy, especially the increased use of assisted reproductive and medical imaging technologies which have transformed how we perceive and achieve motherhood.

I go on to argue that *Gestation* performed a crucial bridging between two phases of feminist scholarship on reproduction. During the first phase, which stretched from the late 1980s through the mid 1990s, feminist scholarship operated from a basic resistance to the medicalization of the female body and from a fear that technologies of reproduction further women's subjection to patriarchal power. Beginning in the mid 1990s and continuing through the present, the second phase of feminist scholarship on reproduction has explored the ways in which active patients, scholars, and artists might tactically engage with medical and biotechnologies to disrupt norms around race, class, gender, sexuality, and ability and produce new ways of being in the world. I use close readings of four scenes from *Gestation* to tease out precisely how feminism arrived at a more ambivalent, even cautiously hopeful, theorization of medicalized reproduction and, as such, began to radically re-imagine the relationship between motherhood and technology.

Performing Phase I

Passivity and the Model Patient

Gestation began with three scenes in which Margolin performatively critiqued the medicalization of reproduction by poking fun at the ways in which elements of medical

discourse, specifically representations of the pregnant body (I use the singular article “the” deliberately here), construct the ideal pregnant woman. From the moment she took the stage, Margolin sharply drew her audience’s attention to the ways in which certain traits such as passivity, compliance, whiteness, wealth, heterosexuality, and marriage get normalized and remain unmarked in these discourses while others such as activity, agency, non-whiteness, homosexuality, the choice to reproduce without a “husband” are marked as aberrant. The first of these three scenes began with Margolin standing in front of the audience, wearing a hospital gown, and wrapped in a bed sheet. A blood-splattered hospital curtain hung behind her, and she read from a book about childbirth from the 1950s. The excerpt that Margolin read described the labor process, explaining how “the parturient” behaves in “the labor room,” once “her husband has been dismissed and sent to the waiting room to join other expectant husbands and their retinues of expectant grandparents and aunts and uncles.”⁷⁶ This book, which Margolin’s stage directions call “outdated,” depicts the (heterosexual, married) pregnant woman as ultimately detached from her body and the events occurring in and around it.⁷⁷ She is “oblivious to all of this,” “sleeping soundly between uterine contractions; perhaps snoring,” “behav[ing] as if drunk” in response to the analgesia, and at risk of “jumping or falling out of bed if she is left alone.”

After reading this passage, Margolin opened the bloody hospital curtain to reveal a delivery table. She climbed on to the table and dutifully played the role of “the parturient” as the childbirth manual described it. As Lynda Hart describes it in her editor’s notes to the published performance text, Margolin “lies down, moans, tosses, snores, tries to sit up, lies back down, snores again, starts laughing as if drunk, half-sits again, lies back down, snores, rises, and finally sits.”⁷⁸ In this scene she comically replicated the childbirth manual’s scripted sequence of behaviors, and in doing so rendered visible and audible the ways in which obstetric medicine requires pregnant women to perform a carefully scripted role.

After Margolin’s pregnant character finished moaning, tossing, and snoring and “finally sits,” she turned towards her audience and, in sharp contrast to the passive, disconnected obstetric patient described in the childbirth book, proclaimed exactly what pregnancy has meant to her: insomnia, confusion, and failed communication. She was unable to sleep for one hundred and forty-eight consecutive nights. For a while her television provided reliable companionship during these sleepless nights, but then the cable company rewired her cable box and assigned a new number to each network. Just as the cable company rewired her cable box, pregnancy crossed the lines of communication stretching between her brain and her limbs. Drawing this opening monologue to a close, she said, “So I spent the first three months of my confinement forging new mental connections between numbers, letters, and channels, like someone learning to speak after a stroke.” Throughout the rest of the performance Margolin

⁷⁶ All unattributed quotations are from the Nov. 1st 1991 performance as documented by Tom Zafian.

⁷⁷ Deb Margolin, *Of All the Nerve*, 65.

⁷⁸ *Ibid.*, 66.

invited her intimate audience to forge its own new mental connections between a number of different fractured narratives: stories about prostitutes, genetics lecturers, and, as I will demonstrate, diverse feminist critical approaches to the medicalization of pregnancy. After they met Margolin's pregnant insomniac, the audience was introduced to several other characters. Pulling on a skin-tight black spandex dress and four-inch spike heels, the insomniac became a pregnant prostitute who could not seem to find any interested clients in the audience. After soliciting the audience as a no-longer-popular prostitute, Margolin donned a lab coat, grabbed a podium, and became a lecturer providing genetic counseling to an audience of expectant parents who were about to receive sonograms and undergo amniocentesis.

When she became the genetics lecturer, Margolin assumed the role of a clinician who blindly and blithely participates in the construction of the model obstetric patient, the very role that she critiqued in *Gestation's* opening scene. She employed metaphors of traditional heterosexual gender roles in order to explain genes and human reproduction to the audience. In her description of fertilization, for example, the lecturer repeatedly equated masculinity with activity and femininity with passivity. She repeatedly drew attention to the fact that women are simply born with all of the eggs that they will ever have while men are constantly working to produce sperm. She described the egg as aloof, "like a whore hanging on a lamppost, attempting to lure her clients without moving while the sperm are all lined up like moose in the wild, poised to spring into action and may the fastest man win."⁷⁹ The sperm succeeds in "melt[ing] the defenses of the egg" because he "wines and dines the egg with flowers and candy." The egg, finally, "drops her defenses, and when she does, one of the sperm rushes in." The genetics lecturer also cast the model patient as upper class, white, and married when she described fertilization as an upper-class white heterosexual sacrament. The egg "promenades down the Fallopian tube like a society woman." The moment of fertilization is "the royal wedding." It's "like Prince Charles and Lady Di," because "then the sperm and the egg united begin to march down the Fallopian tube toward the grand altar of the uterus." With this monologue Margolin drew her audience's attention towards the many commonalities among obstetric medicine's construction of the ideal patient and genetics' gendering and racialization of conception on a cellular level. Like the good, fertile egg at the moment of conception, the model (white, upper- or middle-class, married) obstetric patient is passive and aloof while gestating and birthing her child.

In the three early scenes from *Gestation* that I have discussed thus far – the childbirth book reading/reenactment, the insomniac's monologue, and the genetics lecture – Margolin performatively critiqued the medicalization of reproduction, and in many ways, the analysis that Margolin performed in these scenes was characteristic of feminist scholarship on reproduction in the US through the mid-1990s. I will discuss the scholarship that followed in the late 1990s and early 2000s later, but now I want to look at exactly how feminist scholarship on reproduction in the US through the mid 1990s critiqued the medicalization of pregnancy and highlight some of the similarities between these analyses and the ones leveled during these three scenes from *Gestation*.

⁷⁹ Ibid., 78.

US feminist scholarship on reproduction arose within a larger project of exploring through theory and praxis what “the body” was and should be for feminism. In many histories of twentieth century US feminism, “the body” gets positioned at the center of the women’s movement as a constellation of political and theoretical causes in which most of the many diverse feminist communities were deeply invested.⁸⁰ According to one historian, “often more uncomfortable to deal with than legal or economic rights, body issues are seen to be at the root of the age-old prejudices against women.”⁸¹ More often than not “the body” was politically mobilized as a reproductive body. As Shulamith Firestone writes in *The Dialectic of Sex*, “The heart of women’s oppression is her childbearing and child-rearing roles,” and women must be freed from, “the tyranny of their reproductive biology by every means available.”⁸² Although many liberal feminists would not have argued that there are any truly significant differences between men and women, nearly all except the most conservative of the branches of the women’s movement fought for unrestricted access to safe and affordable birth control and abortions as ways for women to take back control of their own bodies. The body of the fetus also played an important role in histories of mid-to-late twentieth century US feminism. As the New Right coalesced around abortion-rights issues (especially in the 1980s) the body of the fetus, represented and documented through new technologies, was said to exist not in a woman but in a “maternal environment.” It was (a fear of) the body of the fetus disabled by Thalidomide and the rubella epidemic, however, that launched abortion on to the national stage in 1962 and prompted doctors to press for new liberalized state abortion laws.

US feminism’s interest in the body extended beyond abortion politics and encompassed a larger concern for the care of women’s bodies during the 1960s, 70s, and 80s. Women’s relationships to their own bodies as mediated by the medical establishment became a central issue in the women’s health movement, a movement that began in the early 1970s as a current within the larger women’s movement. Women’s health activists worked with women to demystify medicine through self-help and they worked with health care providers to end the then (and sometimes still) common practice of treating natural processes as diseases. They also worked with health care providers to prevent unnecessary surgeries, to protect women from DES-related cancers⁸³ and infections from poorly-designed intrauterine devices, and question the new reproductive technologies that were emerging at the time including pre-natal testing, *in vitro* fertilization, and surrogate motherhood.⁸⁴ The medicalization of women’s health,

80 See Ginette Castro, Flora Davis, Dorothy Roberts, and Winifred Wandersee.

81 Flora Davis, *Moving the Mountain*, 258.

82 *Ibid.*, 92.

83 Diethylstilbestrol is a synthetic estrogen that was a teratogen when given to pregnant women.

84 Activists working to end violence against women and to put an end to prostitution and violent pornography also operated from an interest in protecting, preserving, and/or restoring a woman’s bodily health and integrity.

especially of reproduction, was constructed in these feminist discourses as something from which women needed to be protected.

The medicalization of reproduction, in particular, played a central role in the development of late twentieth century feminist scholarship. As feminist science and technology studies scholar Charis Thompson has argued:

[T]he high-tech medicalization of reproduction combines (or has been presented as combining) the economic, technical, rhetorical, personal, legal, and political elements through which the phases and conflicts of recent feminism have been articulated. In other words, reproductive technologies have been performed as the perfect feminist text for the last two decades. From early feminist writings that denounce the infertility business through increasingly sensitive work on the experiences and consequences of infertility, feminist treatments of infertility have come to embrace both sides of the feminist tension.⁸⁵

Feminist scholarship on assisted reproductive technologies, an important subsection of the larger field of feminist scholarship on reproduction, developed over two temporally and ideologically distinct phases, according to Thompson. While the specific dates might not necessarily apply in all cases, Thompson's rubric also accurately reflects a shift/evolution that occurred in the broader field of feminist scholarship on reproduction. Thompson explains that the scholarship of Phase I, which extended roughly from 1984 to 1991, operated from a basic resistance to the medicalization of the female body and from a fear that technologies of reproduction from sonograms to *in vitro* fertilization exploit women's bodies as an experimental site, further women's subjection to patriarchal power, are economically discriminatory, and promote eugenics. Lending more attention to complex distributions of power within assisted reproductive technologies, Phase II's scholars, writing roughly from 1992 to 2001, have argued that reproductive technologies have "the potential to articulate new ways of embodying reproduction, some of which would disrupt conventional families and gender stereotypes."⁸⁶ While Phase I scholarship emerges from a place of deep technophobia, Phase II scholars approach the continued high-tech medicalization of reproduction with cautious optimism (and, at times, technophilia).⁸⁷ I will return to Phase II scholarship later, but now I want to look at how these three early scenes from *Gestation* and other Phase I accounts critiqued the medicalization of pregnancy.

Phase I feminist scholarship on reproduction and, I suggest, Margolin's opening scene, argued that gestation had become by the 1970s an occasion for medical technologies and rituals to render women compliant, passive, desexualized, and

⁸⁵ Charis Thompson, *Making Parents*, 56

⁸⁶ *Ibid.*, 70.

⁸⁷ In this chapter I use Thompson's Phase I and II rubric not because it necessarily applies to every feminist scholar's work on reproduction but because it highlights the dynamic nature of the field and provides shorthand for marking the significant shift that occurred around the 1990s.

objectified. These scholars argued that obstetrics and gynecology require that their patients play a clearly defined role⁸⁸, and as Margolin humorously demonstrates, the model obstetric and gynecological patient is white, heterosexual, middle-class, and without disabilities. The pregnant or potentially pregnant woman under obstetric care is required to perform this role for her spectator-physician, or she risks punishment.⁸⁹ To *perform*, however, does not mean to *make a spectacle of oneself*. The model patient does not ask questions or resist orders. She is compliant, passive, and accepting. As performance scholar Terry Kapsalis illustrates:

This is perhaps epitomized in some of the “model patients” chosen by contemporary medical educators to teach students pelvic exams -- cadavers, plastic dolls, and anesthetized women -- models without feeling or feelings, models who can neither speak up nor act out. (6)

This passivity is necessary in order to alleviate the anxieties that arise within men and the white US masculinist culture at large when women are exposing their naked bodies to physicians who were usually male and/or trained by a male-dominated medical establishment. According to Kapsalis, passivity, in this context, facilitates desexualization. Analyzing a 1971 article in which the authors lay out a model of the ideal pelvic exam, Kapsalis argues that their model of the ideal pelvic exam implies that “the only way a woman may be treated nonsexually is if she is *desexualized* by assuming the role of the passive recipient of the exam” (13). According to the article’s authors, any demonstration of action or agency prevents desexualization and places the physician in a compromised position.

Passivity facilitates the desexualization of the patient by rendering her absent and objectified. Apparently, present, active subjects are sexual beings whereas absent, objectified women can be encountered and engaged as amputated body parts:

The medical apparatus, with its attendant technologies and modes of vision, addresses live bodies, but the effects of this apparatus upon the patient-subject [. . .] may in fact render her *absent*. [. . .] Absence in gynecology is not simply a physical absolute, but is created by a system that frequently dissociates women

⁸⁸ For an extended discussion of exactly how this patient is constructed with examples drawn from extensive fieldwork in a variety of clinics, see Kapsalis, Thompson, and Rapp.

⁸⁹ Terry Kapsalis, *Public Privates*, 6. If, however, she is the object of obstetric or gynecological *experiments*, she has often historically been a poor woman of color. For a discussion of experimentation on unanaesthetized slave women as it relates to the founding of modern gynecology, see Chapter 2 in Kapsalis and the Olimpias’ *Anarcha*. For a discussion of the ways in which young poor women of color are still used to test new reproductive technologies, see Dwyer and Wall’s essays in Kaplan and Squier’s *Playing Dolly*.

from their bodies, making them into “pelvis[es]-that-incidentally-belong-to-[people].”⁹⁰

Other scholars have also argued that the increased intervention of anesthesia and medical technologies such as the sonogram and assisted reproductive technologies has only exacerbated this objectification and erasure of subjectivity, giving predominantly male doctors and scientists more control over and visibility of the pregnant body. According to such critics, reproduction “had become mechanized and pathologized by a patriarchal and increasingly interventionist medical establishment” to the extent that many women were made to feel like “the pregnancy could progress with much more efficiency” if women simply weren’t around.⁹¹

Medical Imaging Technologies and Fetal Subjectivity

It is the increased intervention of medical technologies, specifically the sonogram, which Margolin interrogated throughout *Gestation*’s final moments. If we return for a moment to our discussion of the performance itself, we remember that Margolin introduced her audience to the narrative voice of the childbirth manual, a pregnant prostitute, and a genetics lecturer. When the genetics lecturer concluded her narrative, the lecture ended at the moment when the fertilized and now implanted egg began to replicate and become a zygote. Explaining the effect that this process of fertilization, implantation, and replication has on the body of the woman, she said:

Now let’s step back for a moment and get the picture, because that’s what we’re here for. Now the egg, which has become a zygote, and has dug in, is in the body of a living, breathing woman. Now as soon as it digs in, this same woman may begin to weep, wheeze, gag, gasp, sneeze, vomit, sleep, vomit, sneeze, gag, gasp, weep, and wheeze. Which does not lead to sleep, ladies and gentleman, no! Where does it lead? It leads right into the center of the night.

These lines triggered a series of quick transformations which I described above as Margolin’s multitude of characters taking over the stage like a rapidly replicating blastocyst taking over a uterus. Margolin returned to the birthing table to become the insomniac, and she talked about how bad the late-night television has been during her pregnancy. Next she transformed into the prostitute and became increasingly aggressive with her solicitations of the audience. Finally “she pull[ed] a string, and a diaphanous, television-screensque scrim [fell] from the ceiling.”⁹² The small pink screen hung down stage center squarely between the audience and the performer, framing the audience’s view of Margolin when she stood on stage. Sound cues marked the changing of television channels, and Margolin stood behind the screen acting out Gold Bond

⁹⁰ Terry Kapsalis, *Public Privates*, 22.

⁹¹ Charis Thompson, *Making Parents*, 57.

⁹² Deb Margolin, *Of All the Nerve*, 73.

Medicated Powder commercials, episodes of *The Joker's Wild*, and other hits from early '90s late-night television.

Suddenly, the lighting shifted to reveal Margolin lying supine on the delivery table in a flesh-colored leotard about to give birth. As the stage directions note, "the voice of FETUS is heard, coming from WOMAN's mouth; WOMAN is now like someone speaking in tongues, or someone possessed."⁹³ The insomniac thrashed while the fetus called out various commands. Eventually a recording of the insomniac's voice was heard. In the recording, she read from the childbirth book that she introduced in the first scene while the fetus (embodied and voiced by Margolin) continued to call out instructions such as "Mommy push mommy squeeze mommy squeeze." These instructions, which Margolin has called "prayers,"⁹⁴ continued as the audience heard a recording of a newborn baby crying. The lights faded on Margolin and the voice of the fetus/child continued speaking softly beneath the sounds of crying.

When I first saw this scene, I was struck by Margolin's choice to end the piece this way. Why had she chosen to close the show with the disembodied voice of the outdated childbirth manual, the dually embodied and disembodied voices of the fetus, and the image of the fetus curled up inside his or her mother? We might read this choice as Margolin erasing the insomniac mother from the piece's final scrim-framed image, and we could argue that Margolin gave the fetus the last word and privileged his or her subjectivity over that of the mother at this moment. If we look closely at the ways in which Margolin structured her relationship with her spectators throughout *Gestation*, we might also find an alternate way to read this final scene.

Throughout the performance, Margolin directly addressed her spectators and implicated them in each of the performance's dispersed and interrupted narratives, casting them in a number of roles. She cast them first as the insomniac's "retinue of expectant aunts and uncles." Later they played the parts of the prostitute's prospective clients and then a crowd of expectant parents attending a genetics lecture. Margolin's spectators were, in a sense, always performing on stage *with* her and participating in her narrative, *except* when they were separated from the playing area by the pink scrim.

Lying behind the scrim and playing the role of the fetus, Margolin erected a boundary between performer and spectator during the piece's final scene, just as she established a boundary during the scene in which she plays characters on late-night television. During most of the performance, Margolin and her spectators inhabited specific spaces together, be it a waiting room, lecture hall, or street corner and acted in these spaces together. During these scenes, Margolin invited spectators to interact with her, asking them questions such as, "What are you doing here? [. . .] I mean, me, I'm behaving as if drunk and am oblivious to all this, but what's your excuse?" At other moments she asked a spectator to help her demonstrate parts of the genetics lecture and tried to seduce specific members of the audience. When Margolin lowered the pink scrim and created a "screen," however, Margolin and the spectator were suddenly acting in two different spaces. Margolin performed within a commercial or a game show while

93 Ibid., 76.

94 Ibid., 78.

the spectator had to passively watch her, via the technology of the television, from his/her position outside of the commercial or game show. They could not even change the channel. When she played the role of the fetus in this final scene, Margolin acted from within the mother while the spectator had to watch, via the technology of the screen (this time the scrim doubles as a sonogram's monitor), from outside of the mother. Standing/lying behind the screen, Margolin stopped asking her audience questions or welcoming them to help her perform.

If up until this moment in the performance there had never been a fourth wall between Margolin and the audience; if there had never been a boundary between performer and spectator, why should there have suddenly been one then? Why couldn't the audience be inside the womb with Margolin? Why couldn't the walls of the theater be the walls of her uterus? It is possible to read this sudden shift in spatial relationships and participatory structures as Margolin's critique of the ways in which visual technologies such as the television and the sonogram have been deployed in politics and popular culture? The scrim (a low-tech citation of the sonogram) in *Gestation's* final scene distanced the viewer from its previously intimate and interactive relation to the mother's body, and it transformed the relationship into a voyeuristic one. In this alternate reading of the scene, the *sonogram*, not Margolin herself, gave the fetus/child the last word and image in the show because it constructed a fetal subject that takes precedence over the subjectivity of the mother.

Read in this way, *Gestation's* final scene performs an analysis of medical technologies of visualization that is very much in line with Phase I approaches to these issues. "The fetus," whose voice and image draw *Gestation* to a close, had by the late 1980s and early 1990s become a politically-charged and over-determined character on the contemporary "American" political stage. "The fetus" performed via high- and low-tech mediation in protests, hell houses, Congress, and feminist scholarship in the humanities and social sciences. Feminist art historians and literary and performance scholars, for example, argued that it was important to take representations of the fetus seriously because, as Peggy Phelan argued in *Unmarked*, "those who want to launch a counter-argument about the politics of reproduction must assess how they relate to the politics of representation. As the debate about reproduction develops so too does an ideology of representation."⁹⁵ I would also add that it was and is still important to take these images seriously because the ideology of representation that has developed around the fetus has not only defined abortion politics. It has also informed the discourses that constitute the science and politics of reproductive technologies, and now affects how we do and do not proceed with stem-cell research, cloning, and personalized medicine.

Phase I scholarship argued that medical imaging technologies like the sonogram produce images of the fetus that have been made to perform in narratives which present gestation first and foremost as the construction of a fetal subject. In these performances, pregnancy is represented as the process by which the fetus gains status as not only a patient of medical science but also as a "future citizen" who collects "fetal rights" that

95 Peggy Phelan, *Unmarked*, 130.

often rival the mother's rights.⁹⁶ During the 1980s and 1990s a number of feminist theorists drew attention to the tendency that doctors, politicians, and political activists have of representing the pregnant body in such a way as to separate, to borrow a phrase from Peggy Phelan, the "continuous body" of the pregnant woman into two independent subjects.

Historically, popular, legal, and medical discourses positioned the fetus as second to, governed by, protected through, and subsumed within the mother. The nineteenth-century obstetrician, for example, valued the mother's health over the health of her fetus. As Sandra Matthews and Laura Wexler explain, "the nineteenth-century obstetrician was an 'accoucher.' That is, he saw his primary job as ensuring that the mother got up again from the childbed; only secondarily could he place a healthy infant in her arms."⁹⁷ Since the mid-1960s, however, the fetus has been positioned to play an increasingly prominent role in the American narrative of gestation. New visual technologies such as the sonogram have been refined and used more widely since the early 1970s, and as a result, have most strongly influenced the representational practices involved in rendering the fetus visible. These practices were first made popular by Lennart Nilsson, whose color photographs of conception and gestation were published in his book, *A Child is Born*, and reproduced in *Life* magazine in 1965. His significantly magnified photographs situate the fetus as "a space traveler floating in a disembodied amniotic sac, with a fuel supply attached in the form of a placenta."⁹⁸ By magnifying these photographs, Nilsson effectively erased the mother and "the world of her actual, material, and complex body" from the picture, separates the fetus from the woman, and establishes the fetus as an independent individual.⁹⁹ Nilsson's photographs and their accompanying texts also emphasize the parts of the fetal body that would become eyes, ears, lips, fingers, toes, and other visual markers of humanity. With these images, Nilsson presented the fetus as already a baby, a complete subject, instead of a being in the process of becoming. According to E. Ann Kaplan, "the emphasis is all on the baby-to-be read back into the zygote."¹⁰⁰

A basic survey of abortion debates, popular films, obstetric textbooks, or articles about pregnancy in national newspapers from the past thirty years reveals the prevalence of this representational practice across a wide range discourses. It is deployed over and over again, from Bernard Nathanson's anti-abortion film, *A Silent Scream*, to a widely-used and seemingly apolitical textbook such as *Williams' Obstetrics*. The fetus is represented through a variety of visual techniques such as the sonogram, photograph, line drawing, film, and/or video in such a way as to erase the mother, render the fetus an independent subject, and eliminate race, class, and gender.

Lauren Berlant unpacks the political implications of these practices in her contribution to Wendy Brown and Janet Halley's *Left Legalism/Left Critique*. She argues

⁹⁶ Lauren Berlant, "Subject of True Feeling," 109.

⁹⁷ Sandra Matthews and Laura Wexler, *Pregnant Pictures*, 121.

⁹⁸ *Ibid.*, 163.

⁹⁹ E. Ann Kaplan, *Motherhood and Representation*, 203.

¹⁰⁰ *Ibid.*, 204.

that these images of the fetus -- innocent, white, sexless, and whole -- circulate within a sentimental system of rhetorics of utopian/traumatized feeling. Sentimentality, according to Berlant, has long been the means by which subaltern groups represent their pain, a universal true feeling, in the dominant public sphere. First the oppressed group tells the graphic story of its pain. Next, the dominant subject identifies with this pain. Finally the dominant subject uses the law to create a structural social change that would eradicate the pain and return society to its original utopic state. The traumatic model of pain, “falsely promises a sharp picture of structural violence’s source and scope . . . promoting a dubious optimism that law can provide the best remedies for their harms.”¹⁰¹ By overidentifying the eradication of pain with the achievement of justice, the model equates freedom with pleasure and promotes the sense that changes in feeling amount to substantial social change.

Anti-Abortion activists have used photos like Nilsson’s and films like Nathanson’s to represent an oppressed group’s pain in order to ask for the pain’s legal eradication. These images are so persuasive because they represent the fetus as innocent, white, sexless, and whole. Because they do not represent the fetus as racially, culturally, and temporally specific, situated, and developing, they put the fetus in the perfect position to become a political commodity and a national icon. Berlant explains:

What constituted this national iconicity was an image of an American, perhaps the last living American, not yet bruised by history: not yet caught up in the excitement of mass consumption or ethnic, racial, or sexual mixing, not yet tainted by knowledge, by money, or by war. This fetus was an American to identify with, to aspire to make a world for: it organized a kind of beautiful citizenship politics of good intention and virtuous fantasy that could not be said to be dirty, or whose dirt was attributed to the sexually or politically immoral.¹⁰²

Berlant highlights the fact that this use of the fetal image -- which began with Nilsson and the sonogram, has been reiterated by pop-culture, law, and medicine, and has been facilitated by advances in medical imaging technologies -- has very specific and significant political effects when it is activated within the contemporary American political system, a system saturated with rhetorics of utopian/traumatized feeling.

Performing Phase II

Medical Imaging Technologies and Maternal Agency

As you can see, in Phase I studies of the politics of visibility involved in the increasingly high-tech medicalization of reproduction, scholars focus on the kind of agency and subjectivity that medical representational practices afford the fetus and a claim that this agency and subjectivity are awarded to the fetus at the expense of the mother’s own agency and subjectivity. While it is possible that *Gestation*’s final scene

¹⁰¹ Lauren Berlant, “Subject of True Feeling,” 108.

¹⁰² Ibid., 109.

shared a similar critique of the sonogram's politics of visibility, I find that in this scene, Margolin actually performed a much more complex reading of the sonogram's politics of visibility that revealed a more ambivalent relationship to (this particular) medical imaging technology. While I suggested earlier that *Gestation's* final scene performatively accused the sonogram of giving the fetus the "final word" and "final image," I actually want to argue that Margolin managed to allow a multitude of voices to speak and bodies to be seen as the performance drew to a close. She managed to keep the continuous body intact despite (or with the help of?) the sonogram. If we look closely at Margolin's body itself, we can begin to see how.

As videographer Tom Zaffian said, Margolin was "just slightly more than a little bit pregnant" when she performed *Gestation*.¹⁰³ She was eight months pregnant at the time of this performance, so even as she played the role of the fetus, Margolin was still visibly and undeniably pregnant and no amount of costuming or special lighting could hide that. Although she wore a flesh-colored leotard and curled into the fetal position, there was no mistaking her for a fetus. In fact, *because* she wore a leotard and was not covered in a sheet or anything else that might obscure the spectator's view of her belly, there was no way to not simultaneously see fetus *and* pregnant woman when watching this scene. Margolin chose to play the role of the fetus herself instead of using pre-recorded images and projections to represent the fetus, so Margolin's pregnant body was insistently visible and present on stage. While the *narrative* shifted towards the fetus, the stage picture did not. The mother's body was never visually erased, and the mother and fetus occupied the same representational space quite literally. They shared the stage and Margolin's body, even if the spectator could not share the stage with them.

Margolin, as a visibly pregnant feminist performance artist, insisted on her own physical and vocal presence in this closing moment and as such managed to deploy the sonogram (in a low-tech citational way) while also leaving the continuous body intact. Margolin's physical and vocal presence – which anyone who has met her or seen her perform knows is uniquely powerful and captivating – kept the sonogram from constructing a fetal subjectivity that could overtake her own. Here Margolin insisted on the possibility of agency and subjectivity for both mother and fetus. It was Margolin's body, her powerfully embodied physical and vocal presence, in fact, that allowed her to re-envision the relationship between mother, fetus, agency, and sonogram. Margolin suggests during this scene that the pregnant woman who interacts with medical technologies has to remain present; she must insist on her presence and refuse to play the role of the model patient. She must take the stage and talk about her insomnia, her sexual desires, her battles with the cable company. If she performs a new role, or rather multiple roles – insomniac, prostitute, lecturer, television actor, fetus, mother – for herself as a obstetric patient, then the sonogram will not disrupt her continuous body.

Margolin's insistence on the possibility of simultaneous agency and subjectivity for mother and fetus marks a significant departure from Phase I scholarship's understanding of the relationship between agency and the increasing high-tech medicalization of pregnancy. *Gestation* at this moment reads more like a performance of

103 *Gestation*, back cover.

the move towards Phase II scholarship, which has often been hopeful about the power new reproductive technologies might have to produce new ways of embodying reproduction, than a piece of Phase I scholarship. While Margolin hardly claimed that the sonogram will transform gender, family, or representational conventions, she also did not argue that medical representational practices necessarily disrupt the continuous pregnant body as some Phase I scholars have (which I discussed earlier). *Gestation* instead created a bridge between these approaches, arguing that increased medicalization and application of medical technologies and increased objectification by such technologies does not necessarily *always* lead to a decrease in women's agency. As Charis Thompson has argued, "objectification is only sometimes a reductive state in opposition to the presence or goals of a subject. In the various nonreductive manifestations of objectification, patients can manifest agency (and so enact their subjectivity) through their objectification."¹⁰⁴

Gestation is, thus, an important precursor to contemporary feminist scholarship on reproduction and biotechnology (and to much contemporary biological art and new media performance) which interrogate the ways in which active citizen/performers might tactically engage with medical and biotechnologies to disrupt race, class, gender, sexuality, and ability norms and produce new ways of being in the world. UK feminist scholar and artist Anna Furse is just one of many scholars and artists who have carried Margolin's work forward (and, interestingly, backward as she draws connections between her work in 2007-8 and that of women's health activists of the 1970s). Furse's work on assisted reproductive technologies is just one example of how Phase II feminist scholarship has continued to re-imagine agency in relation to medical imaging technologies and the larger medicalization of reproduction. Furse has argued in both her text and performance work that medical imaging technologies such as the sonogram can provide an opportunity for women to collaborate with science, technology, and individual physicians and clinicians to see inside and thus empower themselves. According to Furse, this empowering collaboration can trace a connection back to a period of time in the early 1970s when women were encouraging each other to look at their own vaginas in hand mirrors, to take the speculum and use it "as a tool for empowering self-knowledge."¹⁰⁵

Furse claims:

With new reproductive technologies, not only do we see beyond the flesh and the mysterious dark interior of women's genitalia, for example, but also women become the gazer *and* the gazed. The possibility of self-seeing has become (normally) painless and vivid. There are surely ever increasing possibilities for empowerment in this, preceded as it has been by our earlier fumbblings with the cold clamp of the speculum.¹⁰⁶

¹⁰⁴ Charis Thompson, *Making Parents*, 179.

¹⁰⁵ Anna Furse, "Art of ART."

¹⁰⁶ Ibid.

While Furse significantly and strategically links her political project to that of women's health activists of the 1970s, she does activate a very different notion of empowerment. In contrast to a Phase I understanding of achieving empowerment via "ownership" of one's body where ownership was granted to "agentic, coherent, physically-bounded selves," Furse, like other Phase II feminists, suggests that ownership and empowerment emerge through the process of coming to see the body as a "theater of self-invention."¹⁰⁷ I borrow Science and Technology Studies scholar Rosalind Petchesky's phrase "theater of self-invention" because it rather beautifully foregrounds one of the significant contributions made by *Gestation*, Furse's *Glass Body*, and other Phase II works; namely, that selves are invented or performed in relation to audiences within and without the body and with the help of theatrical technologies (props) like sonograms, assisted reproductive technologies, and other biomedical devices. This fact of course highlights one of the things that feminist theater and performance can (and in fact has) teach feminist scholarship as a whole. Feminist theater and performance artists have been working with stage technologies for a long time in their own literal theaters of self-invention, and they have learned a thing or two about how to use their tools to represent and invent themselves in collaboration with each other and their multiple audiences.

107 Rosalind Petchesky, "The Body as Property," 399.

Chapter 3

The Dispersed, Ruptured Body:
Interacting with Critical Art Ensemble's *Flesh Machine*

Interactivity and Embodiment in New Media

As feminist theorists from across the humanities and social sciences have reconsidered their attitudes towards the medicalization and technologization of reproduction, so too (although to a lesser extent) have new media theorists engaged in a complex interrogation of the relationship between bodies and technologies. The relationship between embodiment and interactivity in new media theory and practice has historically been a complicated and, although ubiquitous, often under-explored one. This fraught relationship stems in part from the fact that new media artists and scholars have positioned their work as both literal and theoretical attempts to transcend the body. As theater and new media scholar Gunter Berghaus has noted, "Cyberidentity is not rooted in a physical body but functions as an extension of the mind."¹⁰⁸ In this way, "virtual existence in cyberspace is constituted through discourses that are firmly rooted in a body-hostile" Cartesian duality.¹⁰⁹

Articulating their positions as responses to the perceived centrality of this split within new media art, many contemporary new media artists and theorists have argued that new media technologies can be deployed to help users more deeply engage with their embodiment instead of transcending it. While these efforts to re-embody new media are politically, theoretically, and aesthetically important, I am interested in how they might grow and change through an engagement with the ways in which recent advances in biotechnology have changed what bodies mean, how they circulate, how they are represented, and how they come into being. Instead of placing new works of media art into one of two categories (transcendent vs. embodied), what would we see if we looked at how virtual and organic embodiment are both conditions of our contemporary reality and powerful forces that shape what our bodies mean and how they function in various locations? Representational and material bodies are deeply imbricated and together come to mean and do different things in different contexts. I use Saskia Sassen's concept of imbrication here to accommodate, as she does, both the interdependence of two entities that are often set up in opposition to one another and their irreducibility. While these imbricated entities are found, through her analysis and throughout this chapter, to not inherently oppose one another, they are also irreducible and do not become hybrids. The concept of imbrication thus serves to "destabilize the master categories through which digital space has been conceptualized and interpreted."¹¹⁰

¹⁰⁸ Gunter Berghaus, *Avant-Garde Performance*, 243.

¹⁰⁹ Ibid. 249.

¹¹⁰ Saskia Sassen, *Territory, Authority, Rights*, 326.

In this chapter I draw on Disability Studies and feminist Science and Technology Studies to complicate new media theory's ongoing inquiry into interactive new media art and performance by looking at how artists are using technology to facilitate empowering experiences of embodiment. Through a close reading of Critical Art Ensemble's (CAE's) 1997 performance *Flesh Machine*, I unpack how spectatorial experiences of interactivity produce and are produced by CAE's specific understandings of and methods of engaging politically with assisted reproductive technologies (ARTs).

In 2006 feminist art historian and performance theorist Amelia Jones published *Self/Image: Technology, Representation, and the Contemporary Subject*. The book was an important contribution to an ongoing discussion with scholars such as Laura Marks, Vivian Sobchack, and Katharine Hayles about how one creates and interacts with art, performance, installation, and their associated technologies as an embodied subject in post-industrial global capitalism. In it Jones asks: How do I physically interact with art? How do these interactions affect my understanding of my body's boundaries and composition? What are the political implications of the resulting shifts? Her answers are often vivid and personal, but Jones's book is also a critique of the more collective Euro-American need to have "both body and image . . . 'read' clearly as a 'sign' for something else – the person or thing."¹¹¹ She notes that "Cartesian or high-tech fantasies of transcending the body through pure thought, in more recent terms, via free-floating internet subjectivities, are extensions of this logic of the body *as* a kind of detachable image or sign for the self."¹¹² Her book centers on how Euro-American culture has deployed technologies of visual representation to confirm the self as "a coherent knowable entity," but it is also interested in how some artists, on the other hand, use these technologies to explode the boundaries of the body and therefore "interrogate the very limits of subjectivity itself."¹¹³

Insisting upon the meeting of surfaces – feet and screen, arm and video projection – works by Mona Hatoum, Pipilotti Rist, and Bob Flannigan create what Jones characterizes as a productive confusion between the viewer's self, her body, and the body of/in the image. Hatoum's screen or the surface upon which Rist projects her images serves "not a [as] divider but [as] a site of the reciprocal exchange of flesh."¹¹⁴ Engaging the viewer in this reciprocal exchange of flesh, the installation doesn't dangle the flesh of the other out in the visual field as a possessable object.¹¹⁵ It also refuses to represent the subject as anything but "dispersed," "ruptured, penetrated, shattered, and dissolved" according to Jones.¹¹⁶ Jones argues that this work enacts the bodies of both artist/image and viewer/participant as dispersed and reciprocal. As such, it "can be counterposed to the tradition in European art of producing bodies in pictures as a way to [. . .] *secure* the making and viewing subject by allowing him to take a position of

111 Amelia Jones, *Self/Image*, xv.

112 Ibid.

113 Ibid., xvii.

114 Amelia Jones, *Self/Image*, 156.

115 Ibid., 155.

116 Ibid., 238.

viewing and knowing that enables him to imagine he is transcending his body through pure thought and knowledge.”¹¹⁷ “The reciprocal exchange of flesh” and “the dispersed, ruptured body” are seductive phrases, so much so that they become rhetorically powerful. Jones argues that by facilitating the “reciprocal exchange of flesh” and turning the subject into “the dispersed, ruptured body” these works subvert Cartesian and high-tech fantasies of transcending the body, objectifying the other, and rendering the body coherent, bounded, and knowable.

But, turning these phrases over in my mind – “The reciprocal exchange of flesh,” “the dispersed, ruptured body” – I wonder exactly which bodies and body parts are circulating? How are they getting from point A to points B, C, and D? I consider patients from the global north buying organs from people in the global south, wealthy white couples implanting their embryos in the bodies of gestational surrogates or paying to have them stored in cryopreservation tanks. I think of hospitals selling biological waste such as tumors, foreskin, and bones to research labs and biotech corporations. I think of these emerging practices of organ and tissue commodification in which corporations and research institutions profit off of what Catherine Waldby has called the body’s biovalue. Biovalue is “the surplus of *in vitro* vitality produced by the biotechnical reformulation of living processes.”¹¹⁸ This means that human tissues such as DNA or stem cells “can be leveraged biotechnically so that they become more prolific or useful, through processes like the fractioning of blood, the use of polymerase chain reaction (PCR) to amplify genetic sequences, the creation of cell lines, genetic engineering, and cell nuclear transfer.”¹¹⁹ These particular dispersed bodies lead me to a blind spot within this kind of new media theory. Jones is clearly interested exclusively in how the viewer’s live body engages with the digital representation of a body and not with the interactions of two live bodies. What do we as critics do, however, when we’re faced with a work of art that requires a direct confrontation with the imbrication of biotechnologies and representational technologies, which has resulted in both the literal and representational dispersion of the body? What happens when bodies are organically and virtually dispersed throughout an installation? Where do we find the theoretical and methodological resources we need to tease out the political and aesthetic implications of this dispersion? And how might our attention to these issues further enrich our understanding of the ways in which spectatorial bodies engage with new media performance?

Critical Art Ensemble’s Digital Cultural Resistance

Critical Art Ensemble’s *Flesh Machine* project was one of the first interactive new media performances to ask spectators and critics to interrogate the dispersal of virtual and organic body parts. Critical Art Ensemble is a collective of tactical media practitioners whose stated mission is to foster the development of “temporary public

¹¹⁷ Ibid., emphasis mine.

¹¹⁸ Catherine Waldby and Robert Mitchell, *Tissue Economies*, 32.

¹¹⁹ Ibid.

relationships . . . that can make possible critical dialogue on a given issue.”¹²⁰ For over twenty years CAE has devised performances that “provide a tactile relationship to the material” and guide spectators to do hands-on work that will give them the tools they need in order to understand and actively influence a range of issues.¹²¹ In fact, CAE uses tactical media art along with critical writing to respond to global political issues ranging from aboriginal rights in Australia to transnational corporate food consolidation. In the group’s critical writings, CAE positions itself within a genealogy of “digital cultural resistance” that includes both visual artists such as Marcel Duchamp, Andy Warhol, and the Situationists International and street theater practitioners such as the Living Theater and Augusto Boal.¹²² CAE shares with these neo-avant-garde artists and theater practitioners a dedication to tactically employing art practices to resist hegemonic cultures and political economies. The group has, however, also intentionally differentiated itself from these neo-avant-garde artists and theater practitioners by claiming that these older artistic practices have not stood the test of time; in their view, such practices are ineffective because the forces of hegemonic power – specifically capital – have changed significantly since the 1960s and ‘70s.

In the late 1950s and ‘60s the Situationists, for example, dedicated their artistic practice to combating what they called “the society of the spectacle.” In his famous Situationist manifesto, *The Society of the Spectacle*, artist Guy Debord proclaimed:

The whole life of those societies in which modern conditions of production prevail presents itself as an immense accumulation of *spectacles*. All that once was directly lived has become mere representation. [. . .] The spectacle appears at once as society itself, as a part of society and as a means of unification.¹²³

The spectacle, according to Debord, is not only ubiquitous, it “epitomizes the prevailing model of social life,” and is entwined with capitalism, the dominant mode of production.¹²⁴ It is “both the outcome and the goal of the dominant mode of production.”¹²⁵ Debord called for a unified vision of art and politics that could adapt to and grapple directly with this society of the spectacle. Situationist political-artistic forms and tactics included those which detourn, or misappropriate, traditional artistic forms such as painting or sculpture in such a way as to move “beyond anything that could recall subservience to a form of plastic beauty.”¹²⁶

CAE contends that the society of the spectacle is not static. It has transformed drastically over the past thirty years and so too must cultural resistance practices. Calling for a historical genealogy of the spectacle, art historian Jonathan Crary has laid out an

¹²⁰ CAE, *Digital Resistance*, 87.

¹²¹ Joan Hawkins, “Taste Politics,” 8.

¹²² CAE, *Digital Resistance*, 77, 83-84, 87.

¹²³ Guy Debord, *Spectacle*, 12.

¹²⁴ *Ibid.*, 13.

¹²⁵ *Ibid.*

¹²⁶ Guy Debord, “Situationists,” 165.

important set of questions: Does spectacle “still mean today what it did in the early ‘60s? What constellation of forces and institutions does it designate? And if these have mutated, what kind of practices are required now to resist their effects?.”¹²⁷ CAE has addressed these questions in detail (although not explicitly) in its critical writings and concluded that the forces and institutions designated by spectacle have indeed changed. They note that one of the most significant differences between contemporary and historic societies of the spectacle is that corporations and governments have recently learned to manipulate representation as cleverly as artists have. In *Digital Resistance* CAE explains, “The 1960s are over, and there is no corporate or government agency that is not fully prepared to do battle in the media.”¹²⁸ Resistant art should, therefore, “aim directly for policy shift, rather than trying to accomplish this task indirectly through media manipulation.”¹²⁹ CAE explains:

The Situationists were correct in their claim that power resides in the spectacle; however, this claim was truer in the past – when the opening shots were fired in the revolution of the economy of desire over the economy of production. Information technology quickly divorced power from the spectacle, and power now wanders invisibly in a cybernetic realm outside of everyday life.¹³⁰

While those in power have learned how to manipulate media, the growing prevalence of information technology has transformed the society of the spectacle into an “electronic theater.” The phrase “electronic theater” names the contemporary phenomenon of “abstracted representations of the self and the body, separate from the individual, simultaneously present in numerous locations, interacting and recombining with others, beyond the control of the individual and often to h/its detriment.”¹³¹

The “electronic theater” is a new configuration of power against which artists must resist, and artists, according to CAE, must use new tactics. The ensemble has argued that while “the Situationists alarmed us to [the electronic theater’s] construction when they presented their critique of the spectacle, [. . .] the strategic error came when anachronistic forms of resistance (occupations, strikes, protests, etc) were used as a means to stop construction.”¹³² Extending their critique to contemporary performance art, they write:

With an understanding of the virtual theater, one can easily see just how anachronistic most contemporary performance art is. The endless waves of autoperformance, manifesting themselves as monologues and character bits, serve

¹²⁷ Jonathan Crary, “Spectacle, Attention, Counter-Memory,” 455.

¹²⁸ CAE, *Digital Resistance*, 15.

¹²⁹ Ibid.

¹³⁰ CAE, *Electronic Disturbance*, 68.

¹³¹ Ibid., 58.

¹³² Ibid., 77.

primarily as nostalgic remembrances of the past, when the performative matrix was centered in everyday life, and focused on organic players.¹³³

In an attempt to overcome the limitations of both Situationist tactics and performance art and more effectively combat the political and social effects of the “electronic theater,” CAE practices “tactical media.” It defines “tactical media” as “a form of digital interventionism” that “challenges the existing semiotic regime by replicating and redeploying it in a manner that offers participants in the projects a new way of seeing, understanding, and (in the best case scenario) interacting with a given system.”¹³⁴ Tactical media is composed of “any media necessary,” and CAE encourages amateur engagement with various media so that artists and collaborators are not bound to one specialization and rendered incapable of communicating with others outside that arena or unable to leave that arena when necessary.¹³⁵ Tactical media include practices such as simulationist infowar and recombinant theater. CAE identifies basic tenants and shortcomings of simulationist infowar explaining, “First and most obvious, this form of resistance would be covert. Second, reliable insider intelligence would need to be acquired.”¹³⁶ Secrecy is crucial to the success of simulationist info war because it removes the public from the combative tactical action and contains the risk of the threatened agency acting out against “unsuspecting elements of the public sphere.”¹³⁷ One of simulationist infowar’s shortcomings, according to CAE, is that it is fundamentally a destructive tactic.

Recombinant theater, CAE’s second form of tactical media practice, “consists of interwoven performative environments through which participants may flow.”¹³⁸ It is intended to be used as a productive tactic rather than a destructive one. Recombinant theater combines avant-garde street theater with interactive information, communication, and biotechnologies. CAE defines street theater as “ephemeral autonomous situations from which temporary public relationships emerge that can make possible critical dialogue on a given issue.”¹³⁹ Street theater needs to be augmented with technologies because it has limited range and efficacy. It “cannot bear the burden of a complex conceptual structure,” and “is limited to everyday life.”¹⁴⁰ If the issue under consideration is relatively basic and is understood as something that people encounter in their daily lives, then street theater can be effective. If, however, artists want to address complex issues that are imagined to exist far outside the realm of everyday lived experience, street theater must become recombinant theater, according to CAE.

133 Ibid., 59.

134 CAE, *Digital Resistance*, 7-8.

135 Ibid., 8.

136 Ibid., 22.

137 Ibid., 23.

138 Ibid., 87.

139 Ibid.

140 Ibid., 90, 92.

For CAE, biotechnology is one of the complex issues that exist far outside the realm of everyday lived experience. The group claim that they have no “general position” on biotechnology in general, but they are interested in projects of critique and demystification.¹⁴¹ CAE wants to “critique the representations, products, and policies related to emerging biotechnologies.”¹⁴² It also wants to demystify the technologies and the science that contributed to their creation. For CAE, “biotechnology and the science behind it have to be one of the most misunderstood areas of production in the cultural landscape.”¹⁴³ With recombinant theater, CAE wants to give the usually hidden scientific process a “public appearance.”¹⁴⁴ Between 1997 and 2007, CAE staged a wide variety of “public appearances” for biotechnology all over the world, from Washington, DC to Ljubljana using recombinant theater techniques. In *Marching Plague* (2005-2007), for example, CAE orchestrated a gallery installation and a series of live, site-specific performances that were equal parts science experiments and participatory performances around issues of germ warfare. The gallery installation introduced spectators to the history of germ warfare and the various state-sponsored hoaxes that have been involved in convincing publics that germ warfare programs are necessary. In live site-specific performances across Europe, CAE re-created some of these legendary germ warfare hoaxes with the help of a crew of spectator-scientists. In *Free Range Grain* (2003-2004) CAE invited spectators to interrogate another potentially troubling form of biotechnology: genetically modified foods. In a live performance designed specifically for European audiences, CAE staged a lab in which spectators could test food for traces of genetically modified plants and begin to recognize the connections between food and politics. As spectators learned to track the movement of genetically modified corn and soy across Europe’s borders, they could see a “relationship between commodity and borders in a global economy” beginning to unfold.¹⁴⁵

In 1997 CAE commenced one of its first recombinant theater projects, *Flesh Machine*. Disturbed by the proliferation and of normalization of another form of biotechnology, assisted reproductive technologies, the group wanted to create a work that would help the general public engage in critical dialogue about ARTs and begin resisting what they took to be the eugenic, pancapitalist agenda behind the use of ARTs. ARTs engage a constellation of complicated political and medical issues, involve specialized scientific knowledge and expensive technologies, and can often seem to be far removed from people’s everyday lived experience even though their repercussions are simultaneously intimate and far-reaching. In *Flesh Machine*, CAE inaugurated what would become a four-year-long endeavor to use communications, information, and biological technologies to ameliorate these problems of complexity and proximity. *Flesh Machine* (1997-1998) was followed by *The Society for Reproductive Anachronisms* (1999-2000), *Intelligent Sperm On-line* (1999), and *Cult of the New Eve* (1999-2000).

141 CAE, *Molecular Invasion*, 3.

142 Ibid.

143 CAE, “Biotech Projects.”

144 Ibid.

145 Ibid.

Each of the projects that followed *Flesh Machine* expanded and further refined a different aspect of the initial performance. *The Society for Reproductive Anachronisms* was a fake activist group that set up information tables in the street and in galleries to warn people of the dangers of medicalizing the reproductive process. *Intelligent Sperm On-line* was staged in universities where egg and sperm banks recruited students to become donors. In the performance, members of CAE posed as donor scouts and used eugenic language to talk about what they wanted in a donor. Staged in museums, on street corners, and in the lobbies of hospitals, *Cult of the New Eve* was a live performance in which cult members recruited new initiates and practiced rituals that highlighted the representational tropes that structure the public rhetoric around new biotechnologies. For CAE, these tropes constitute an “appropriation of Christian promissory rhetoric by biotech researchers and businesses in order to persuade the public of the utopian nature of new biotechnology.”¹⁴⁶

Flesh Machine was a multidimensional work that began as a touring performance in 1997, but also includes a website and book-length critique of biotechnologies that conceptualize ARTs as key components of the eugenic pancapitalist machinery. The touring performance itself, which was staged at a number of museums and galleries in European cities such as Brussels, Venice, and Helsinki, began with a lecture. During the lecture, spectators found themselves in a darkened room while two people – a woman and a man – stood and sat in two puddles of light. Dressed in lab coats with their hair carefully slicked back and held in place, the performers identified themselves as employees and spokespeople of a large biotechnology company, BioCom, a satirical company that aims “to completely invade the flesh with vision and mapping technologies (initiating a program of total body control from its wholistic, exterior configuration to its microscopic constellations), and to develop the political and economic frontiers of flesh products and services.”¹⁴⁷ They gave a “professional”-looking presentation, complete with projected slides and diagrams of the human reproductive system, that was intended to “critically contextualize the event that follow[ed] by problematizing various elements of new reproductive technology.”¹⁴⁸

After attending the lecture, spectators were invited to use a CD-ROM created by BioCom. The CD-ROM presented a catalog of BioCom’s goods and services, giving spectators an overview of all that BioCom has to offer from pharmaceuticals, to reproductive technologies, to an egg and sperm donor program. BioCom’s egg and sperm donor program was actively recruiting new egg and sperm donors, so spectators were asked to take a test (also on the CD) to determine whether they had desirable eggs and sperm. Critical Art Ensemble borrowed this test from an actual fertility clinic. Along with the applicant’s detailed medical history, the quiz evaluated spectators’ responses to a range of questions and prompts including:

Give the country of origin of most of your ancestors and yourself.

¹⁴⁶ CAE, “Biotech Projects.”

¹⁴⁷ CAE, “Biotech Projects.”

¹⁴⁸ Ibid.

Which best describes your musical ability?

Sing or play instrument proficiently

Evidence of good ability but untrained

Ability unknown but enjoy listening

Tone deaf

How often do you lose your temper?

Frequently

Seldom

Never

Are you tactful and work well with your associates? [sic]

Describe any significant intellectual, artistic, or academic achievement of your parents or siblings.

[List] age and health data on all blood relatives. Be specific and as accurate as possible. If you are not sure, put a question mark. Include stillborns and infant deaths.

List all drugs, prescription and non-prescription, that you have taken during the past 12 months.

Has any member of your family had one or more children with serious birth defects?¹⁴⁹

After perusing BioCom's list of products and services, spectators could read a section of the CD-ROM called "In the News," which offered a compilation of recent headlines in the field of genetics. If they were curious about the longer history of human genomics, spectators could click on the "Info and Support Materials" button to get a more detailed account of the basic principles of genetics and the history of the Human Genome Project. Those who were interested in learning more about reproductive technologies and *in vitro* fertilization could also check out the section of the CD-ROM entitled "For the Family." This annotated digital photo album, called "IVF, a true story," was described as "the story of one couple's struggle with infertility and BioCom's attempt to make a dream come true."¹⁵⁰ Narrated from the perspective of the married white heterosexual woman undergoing IVF, the story began with a description of the woman's regimen of hormone injections. Photos and Quicktime videos of the husband plunging syringes into the wife's legs were accompanied by text that highlighted how surprisingly disruptive this process was. The woman noted at one point that "everyday life was disrupted by the emotional and physical effects of the drug."¹⁵¹ When the hormones helped the woman to super-ovulate, she visited the BioCom clinic to have the eggs removed. An image of the vaginal egg removal was paired with text stated:

I had taken a tranquilizer before we left for BioCom, but I was still very nervous about the collection process. I was given an IV of pain killer and more

¹⁴⁹ Ibid.

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

tranquilizers. Each follicle was punctured and drained to extract the egg from inside. The entire process was extremely painful. Luckily they were able to reach the follicles vaginally; if they hadn't, the needle would have been inserted into my ovaries through my abdomen.¹⁵²

The woman's eggs were then fertilized by her husband's sperm, resulting in six healthy embryos. The story ended with the couple waiting to have the embryos implanted in the woman's uterus.

CAE gave spectators time to explore the BioCom CD-ROM and encouraged them to take BioCom's egg and sperm donor screening test. At the end of this phase of the performance, participants who "passed" BioCom's donor screening test were separated from those who "failed" and invited to participate in the rest of the performance. Those spectators who failed the test were only allowed to passively view the bizarre process that unfolded. While the actions that followed take place every day in the context of hospitals and clinics, it is unusual to encounter them in a gallery space. The successful participants were invited, one by one, to sit in a chair. A serious man in a lab coat swiped the insides of their forearms with an alcohol-soaked pad before inserting a needle and withdrawing enough blood to fill a small vial. A stern woman in an apron and cap – she looked like a nurse – stood close by with a cup of something for the donor to drink. Everyone was allowed to watch as the blood was placed into a centrifuge, as scientists in the on-site lab extracted and then amplified the "successful" spectators' DNA. Each spectator's extracted and amplified DNA was then used alongside other genetic representations of him or her to create a multi-media donor profile of the person. The artists assembled these multi-media profiles of the "approved" donors, and each one included a range of genetic representations: several flash-frozen cell samples from the donor, their amplified DNA, the completed donor profile test, and their photograph. The profiles were then installed in the gallery as a part of the work of art. By assembling and installing these representations within *Flesh Machine*, CAE wanted to give spectators the opportunity to "assess the potential value of their bodies as commodities, and hence their place in the new genetic market economy."¹⁵³

In the digital video installations by Mona Hatoum and Pipilotti Rist featured in Amelia Jones's work, representations of the human body are composed of pixels, a projection surface, a screen, and/or different forms of contact between the body of the spectator and the image. In *Flesh Machine*, however, CAE crafted representations of the human body that included both photographs and parts of the spectator's body itself. Spectators contributed to the construction of the work through active participation in critical thinking, dialogue, and use of conventional human-computer interfaces, as is the case in a great deal of contemporary relational and new media performance. *Flesh Machine* is unique in that a select group of its spectators were also asked to literally turn over parts of their bodies to be used by the artists and community of spectators as a kind of art material. Biological materials – the objects themselves and data representations of

¹⁵² Ibid.

¹⁵³ Ibid.

them – were collected and displayed alongside other objects and data as constitutive elements of the work of art.

While, as I stated earlier, material and representational bodies are imbricated and produce our experiences of embodiment, it is useful at this juncture to examine some of the differences between the ways in which material bodies and representational bodies operate in biomedical arenas. The fact that CAE used material body parts to construct their performance installation instead of solely using pixelated digital representations of bodies is theoretically significant. It is significant, not because these material body parts are irreducible or fully present, but because spectators have physical and affective relationships with their material bodies that are in certain ways different from the physical and affective relationships they have with representations of their bodies. One of the main differences is that the particular material body parts incorporated in *Flesh Machine* are those which often become the raw materials of biomedical practices and procedures: blood and DNA. These biomedical processes are always situated within and materialized by a variety of discourses, but a real egg can sometimes become a living human embryo while most representations of an egg can never become a living human embryo. If we think of an egg's DNA code as a representation of the egg as well, then it becomes conceivable that a representation could at some point become a human embryo. It would, however, take very different kinds of work to turn this representation into an embryo than it takes to turn an egg into an embryo. Oftentimes both material eggs and representations of eggs work together in the process of making parents, but there are clearly important differences between the two. Tracking these differences, especially as Science and Technology Studies has understood them, could greatly enrich new media theory and help new media scholars account for multiple kinds of relationality which include more expansive networks and a variety of technologies beyond screen-based ones. It also helps us ask an important and entirely overlooked set of questions when we interrogate interactive new media performance: Whose bodies are interacting? Which parts? And how?

In order to unpack exactly how and to what effect *Flesh Machine* helps us achieve these goals, I want to address two related questions: How are *Flesh Machine*'s dispersed bodies different from the bodies circulating through Pipilotti Rist and Mona Hatoum's installations? What might *Flesh Machine*'s dispersed bodies have to teach us about material and representational dispersions alike? In significant ways, *Flesh Machine* is rather similar to the works by Rist and Hatoum that anchor Amelia Jones's inquiry. Through active, embodied participation in the performance, spectators of each of the three works are made acutely aware that subjectivity is constructed relationally. In *Flesh Machine*, spectators make significant contributions to the artwork, but these contributions are never framed as individual acts of isolated subjects. Because the spectator's contribution to the artwork is made in the context of the donation of genetic and reproductive material, the spectator's body and body parts are always situated in relation to the people who will receive this donated tissue, the company that will broker and profit from this donation, and the person or patented technology that this donation will likely become in the future. Within this performance, a tissue is not something that only belongs to the spectator; it is a *connective tissue*, drawing the participant into a network

of bodies. But *Flesh Machine* does something else that is rather interesting and innovative. In addition to encountering their subjectivity as constructed in relation to other people, spectators must repeatedly, throughout the course of the performance, also encounter their bodies as always already incorporated into a network of technologies, corporations, laws, patents, and global marketplaces, which is to say specific, historically located, material objects, systems, economies, and institutions. *Flesh Machine* took the business of blurred boundaries, embodied confusion, and connectivity beyond what we see in Rist or Hatoum's work by including syringes, centrifuges, and cryopreservation tanks. Along the way it also drew our attention to the fact that their medical technologies and Rist and Hatoum's screen-based technologies are implicated in both the management of large bodies of data and of individual material bodies and body parts. The piece also inadvertently pushes those of us who think, write, and make art about embodiment and technology to be more accountable and precise in our own work. In *Flesh Machine*, CAE made a significant and instructive elision. This elision is useful in that it encourages us to pay attention to exactly which body parts are being dispersed in a given performance and how they are circulating.

Flesh Machine's spectators took an egg and sperm donor-screening test. Then those who passed the test were separated out from the crowd and asked to have their blood drawn and their DNA extracted and amplified. Note the significant slippage here. Reproductive cells – eggs and sperm – are not the same as, nor can they be reduced to, blood cells or the DNA within a cell nucleus. Although pluripotency, induced pluripotent stem cells, and reprogramming are moving one strand of research towards this convergence, having one's blood drawn and one's DNA extracted and amplified are still very different physically, socially, and technically from having eggs harvested from one's body or from donating one's sperm. Although eggs and sperm contain DNA, scientists do very different things with isolated strands of DNA than they do with eggs and sperm. Scientists use DNA to test for paternity or to place a suspect at a crime scene, for example. They might use it, amplified through PCR, for genetic research. They look for the genes that contribute to particular physical processes such as the development of disease and the promotion of healing.¹⁵⁴ Scientists and physicians use donated eggs and sperm for a variety of purposes such as stem cell research or fertility treatments. Eggs and sperm get used with certain goals in mind: to make certain kinds of knowledge, to make cures and treatments for diseases, to make profits, and in many instances, to make persons. Within the context of fertility medicine, eggs and sperm are used to produce embryos, families, gender identities, social statuses, embodied experiences, economies, and insurance policies (among other things). Eggs and sperm also find themselves in very specific locations. Embryos are implanted in women's uteruses, but are oftentimes cryogenically frozen, donated to other individuals for implantation, or used for stem-cell research. Egg and sperm banks also do very different things with each tissue and produce very different relationships between donor and tissue. As this laundry list of the varying uses, hopes, and results of the scientific and medical entanglements with DNA and

154 See Paul Rabinow for a more detailed discussion of the polymerase chain reaction and the politics surrounding the acquisition of DNA samples.

reproductive cells demonstrates, genetic material is often not the same, biologically, socially, economically, or politically, as reproductive material. When these two materials do converge, it is the result of a tremendous amount of technical and political work. Feminist Science and Technology Studies has shown us that much of what ARTs are now and will be in the future can not be reduced to genes. Recent advances in biotechnology have allowed us to carve the body into discrete replicable, marketable, and mobile units, each with its own biovalue, and each have many repertoires, only some of which readily access value. Heeding Feminist Science and Technology Studies' call to pay attention to which body parts are dispersed and how, I would like in the remaining pages to look more closely at this particular moment in the performance – when those who pass the test are invited to have their blood drawn, where reproductive cells converge with DNA – in order to examine the structures of affective interactivity that in play during this moment and the political repercussions of these structures.

Critical Art Ensemble's Orthopedic Interactivity

As I detailed above, CAE has explicitly positioned itself within a genealogy of avant-garde art. Historically, avant-garde artists have taken the position that “the growing authority of positivistic science and the profit-driven logic of the marketplace” has caused people to objectify the world, to value people and things “not for their intrinsic worth, but for their potential to create wealth or promote industrial expansion.”¹⁵⁵ Because people have become habituated to this instrumentalizing worldview, the avant-garde work of art must violently shock viewers out of this perspective. Whether through dadaism's use of the absurd, the situationist's détournement, or Brecht's alienation effect, avant-garde art aims to shock and disrupt habitual ways of seeing. Much of this work operates through a mode of address that art historian Grant Kester has called “orthopedic.”¹⁵⁶ Art work that engages its audience via an orthopedic mode of address “conceives of the viewer as an inherently flawed subject whose perceptual apparatus requires correction.”¹⁵⁷ Underlying this aesthetic are two assumptions. Kester explains:

First is the belief that the viewer's cognitive or epistemological orientation to the world is somehow defective. This captures a basic truth: we are surrounded by hegemonic cultural systems (in the mass media, journalism, etc.) that are heavily biased by political ideologies. At the same time, the orthopedic orientation preserves the idea that the artist is a superior being, able to penetrate the veils of mystification that otherwise confuse and disorient the hapless modern subject. And second, there is the assumption that the artist is uniquely suited to both recognize this defect and remedy it.¹⁵⁸

¹⁵⁵ Grant Kester, *Conversation Pieces*, 27.

¹⁵⁶ *Ibid.*, 81.

¹⁵⁷ *Ibid.*, 87-88.

¹⁵⁸ *Ibid.*, 88.

The orthopedic mode of address establishes a clear status relationship between the artist and the viewer. Instead of assuming that viewers have insight to share and multiple and complicated ways of viewing their diverse environments, the artist occupies a higher status position and from this position offers to help the viewer who occupies a lower intellectual and aesthetic position.

Flesh Machine, like much avant-garde art, is structured by an orthopedic mode of address. The avant-garde tradition has been specifically invested in critiquing capitalism and opening the public's eyes to the ways in which the market instrumentalizes and objectifies people, art, and nature. Likewise, in *Flesh Machine* CAE characterizes ARTs as eugenic technologies designed to create capitalism's ideal bodies. The body that it genetically engineered through ARTs is, first and foremost, a healthy producer and consumer. According to CAE, ARTs exist to "[build] a better organic platform."¹⁵⁹ In its *Flesh Machine* "position paper," CAE argues that through ARTs, "capitalism will achieve its goals of genetic ideological inscription, while at the same time realizing tremendous profits for providing the service."¹⁶⁰ In this project, as in many of its other performances, CAE's primary investment is in preparing and compelling spectators to resist further inscription in the pancapitalist machine.

In order to impart this critique to its viewers, CAE employs didactic avant-garde shock tactics. For example, *Flesh Machine* begins with a lecture in which performers in lab coats operating data projectors presented the audience with information that was intended to "critically contextualize the event that follow[ed] by problematizing various elements of new reproductive technology."¹⁶¹ CAE thus began the performance by establishing an unequal status relationship. Knowledgeable artists on stage lectured seated spectators in an attempt "to penetrate the veils of mystification that otherwise confuse and disorient the hapless modern subject."¹⁶²

After attending the lecture, spectators sat at computers and explored the BioCom CD-ROM. According CAE's own documentation of the performance, audience members who "gather information," from the CD-ROM found that "underneath the spectacle, there is a critical subtext aimed at directing the viewer towards a more skeptical view of the utopian presentation."¹⁶³ This critical subtext, which enlightens the naïve spectator, operates through avant-garde shock tactics. For example, one of the images included on the CD-ROM was the now familiar image of an egg, rendered through medical imaging technology, being penetrated by sperm. This egg, however, was imprinted with a bar code; it is marked as a "product," and the accompanying text, "BioCom. Building a better organic platform,"¹⁶⁴ emphasized this reading. These images, designed to startle viewers out of their habitual ways of thinking about ART, resemble situationist

159 CAE, "Biotech Projects."

160 Ibid.

161 Ibid.

162 Grant Kester, *Conversation Pieces*, 88.

163 CAE, "Biotech Projects."

164 Ibid.

détournement; mainstream forms such as medical imaging technologies misappropriated, recontextualized, and paired with text that will help viewers see what these images “really” mean.

We find the most dramatic example of CAE’s orthopedic mode of address at the moment when, after taking the egg and sperm donor-screening test, spectators who “passed” the test were invited to leave the rest behind and contribute their body parts to the artwork. What exactly happened in this moment? The artists, double-cast as the avant-garde’s high-status agents of shock and as BioCom’s high-status employees, decide who is worthy of contributing and who is not. Basing this decision on criteria that included sexual orientation, employment status, income, race, and ethnicity, the artists theatrically mark some people as successes and some as failures. In order for this moment to function as a critique of ARTs within CAE’s political and aesthetic framework, it must be shocking and affectively disruptive. Those who failed would have to feel disappointed or enraged by their failure in order to learn something valuable about the danger of eugenics. Through CAE’s shock tactics, spectators were given the opportunity to experience discrimination and to realize that ARTs are terrifying because they expand the parameters of who is deemed unfit to reproduce. The logic unfolds as follows: Before ARTs, certain groups of people were dissuaded or prevented from reproducing. In the US and Europe these groups have historically included people with disabilities and poor women of color.¹⁶⁵ ARTs, however, allow global capital to lump more and more of us who were formerly considered able-bodied and genetically desirable into this category. We should resist the increasing use of ARTs and the expansion of companies like BioCom because we are afraid of having to join the ranks of those who are marked as unfit to reproduce because of their perceived race, class, or disability.

CAE founding member Steve Kurtz has called this moment of marking the reproductively fit and unfit a “theater of separating people out.”¹⁶⁶ During a 2008 lecture at the University of California, Berkeley, Kurtz explained that CAE prefers to use affect instead of logic or reasoning in its work because affect gets spectators to engage more fully and personally with the issues at hand. He used this moment from *Flesh Machine* as one example of a successful deployment of affect. He noted that within this “theater of separating people out,” those spectators who “failed” the test were (performatively if not literally) told, “you’re a genetic retard,” and they actually got upset during this part of the performance.¹⁶⁷ In the lecture, Kurtz went on to perform another “theater of separating people out,” by again differentiating people who are “actually” unfit to reproduce from those who are “wrongly” marked genetically undesirable by corporations like BioCom. Showing the Berkeley audience a projection of the donor screening test from *Flesh Machine*, Kurtz scrolled through the long list of questions and compared the questions he thought should be relevant to screening with those which he

165 See Dorothy Roberts, *Killing the Black Body*, Adrienne Asch, “Prenatal Diagnosis and Selective Abortion: A Challenge to Practice and Policy,” and Adrienne Asch and Michelle Fine, “Shared Dreams.”

166 Steve Kurtz, “Art and Discipline.”

167 Ibid.

felt should not be relevant. Unreasonable questions, for Kurtz, included questions about whether one played a musical instrument or had “homosexual tendencies.”¹⁶⁸ Reasonable inquiries included questions about whether one had certain medical conditions or illnesses. The distinction Kurtz made between these two kinds of questions lays bare the assumption that physical conditions like illness or disability would be reasonable grounds for refusing someone’s egg or sperm donation whereas socioeconomic status, sexuality, or educational background would be unreasonable grounds.

When *Flesh Machine* marks a group of spectators as unfit to reproduce, and then this group reacts negatively to this action and thus engages with the issue at hand more deeply and personally, with whom are they supposed to be angry for being labeled this way? Who gets established as the person who made this powerful distinction? As the agent that enacted the sorting process, BioCom was set up as the source of the name-calling. BioCom designed and administered the exam and chose the donors it deemed worthy. It is, according to CAE, the agent of late capital, and it is looking to design the perfect laborer. Therefore, the people who use the eggs and sperm that were donated through this screening process, the people who want to reproduce and need to overcome fertility problems to do so, were rhetorically framed as complicit with BioCom. Those who use ARTs are the vectors through which BioCom achieves its eugenic, capitalist program. Because of their false consciousness, these users buy into the “scam” and invest their bodies, time, and money into this process. They become externalities: the laborers and material resources for which BioCom does not have to pay. In fact, the laborers pay BioCom. Narrativizing this process, the BioCom CD-ROM included a feature called “IVF: a true story” which represented in detail, through words, photographs, and quicktime videos, one white heterosexual couple’s “struggle with infertility and BioCom’s attempt to make a dream come true.”¹⁶⁹ During this part of the performance, CAE made its joke and elicited its desired affective response at the expense of fertility patients.

CAE’s orchestration of the “theater of separating people out” – those who “passed” vs. those who “failed” – and its characterization of people who use ARTs were also based on the assumption that those who use donor eggs and sperm in their fertility treatments are a homogeneous group and they are all looking for the same characteristics in an egg or sperm donor. ARTs should, however, be placed within the racialized and gendered histories of the right to have as well as not to have children. While cost and differences in state insurance policies render ARTs financially inaccessible to many potential users and create a constituency of users that is more homogenous than it should be in the US, users negotiate the process of selecting eggs and sperm in diverse ways. As Charis Thompson has demonstrated in her work on the issue of skin tone in egg donation, users do, at times, deem “difference” (as marked through a donor skin tone that is perceived to be different from one or both of the users) a desirable trait in a donor. Furthermore, traits that were not evaluated in CAE’s donor screening test often shape the

¹⁶⁸ CAE, “Biotech Projects.”

¹⁶⁹ Ibid.

ways in which donors get ranked. A donor can achieve high status by “being ‘easy to work with,’ being a repeat donor, and having been successful in initiating a pregnancy in the past.”¹⁷⁰ Patients have diverse and legitimate reasons for using ARTs and selecting donors. They do not always blindly submit themselves to disempowering objectification and instrumentalization. In fact, as Thompson has noted, “donors and recipients alike find important kinds of subjectivity, empowerment, and agency.”¹⁷¹

It is important to note here that Kurtz and CAE can be very funny, and they use humor proficiently in Kurtz’s lectures and in CAE’s art and performance work.¹⁷² In both performances – the lecture and *Flesh Machine* – the “genetic retard” label is intended to be humorous. The term elicited laughs during the lecture, and *Flesh Machine*, in general, is intended to be a humorous send-up of corporations who develop and sell ARTs. I get the sense from colleagues who attended these performances that spectators did in fact “get” the joke and enjoy it. ¹⁷³ It is important, however, that we look at how these jokes get made, at how the “theater of separating people out” was supposed to affectively influence spectators. In this case a crude joke and an orthopedic lesson get made in place of a more nuanced discussion of ARTs, eugenics, and reproductive choice. Gamete donor-user relationships are shaped by intersectional experiences of class, gender, ability, and ethnoracialization, and it could have been equally interesting to craft a critique of ARTs that did not simply further reify those persons already deemed vulnerable. A critique of ARTs should trouble as well as have room for the imaginaries and scholarship of fertility patients and people with disabilities.

Conclusions

CAE’s structure for spectatorial participation was tied to a political project based on the assertion that ARTs are the “rationalization and instrumentalization of the reproductive process.”¹⁷⁴ According to CAE, ARTs alienate us from our bodies and are a means by which transnational corporations exercise power over our bodies. *Flesh Machine* is designed to inspire participants to organize and resist the development of new

¹⁷⁰ Charis Thompson, “Skin Tone,” 11.

¹⁷¹ Ibid., 1.

¹⁷² It is also important to note here that in his Berkeley presentation, he was speaking as Steve Kurtz about work that the Critical Art Ensemble made together and not as “Critical Art Ensemble.” It is possible that if other members of the collective were speaking about this work they would have employed a different tone to discuss this work and had other opinions on what they took away from the work. It is difficult, especially after Kurtz’s now infamous federal terrorism/wire fraud case, to disentangle Kurtz, his public persona, and the entity “Critical Art Ensemble,” but I want to avoid, as much as possible, letting Kurtz stand in for the entire collective.

¹⁷³ Considering how prevalent humor is throughout avant-garde art, it is surprising that Kester does not account for the role that humor plays in the orthopedic mode of address.

¹⁷⁴ CAE, “Biotech Projects.”

ARTs, maintain the connection between sexuality and reproduction, and promote alternative herbal and nutritional methods of treating fertility problems.¹⁷⁵ In its layering of images, technologies, blood, tissue, and DNA, *Flesh Machine* asks us to look more closely at the imbrication of representational and material bodies. By demonstrating some of the political stakes involved in the process of creating the “dispersed, ruptured body,” *Flesh Machine* offers spectators the opportunity to affectively experience the ways in which our material and representational bodies constructed and performed.

It also offers critics the opportunity to trace the intersections and divergences of the two forms of embodiment, to account for multiple kinds of aesthetic relationality, and thus create a space within new media theory for more expansive networks and a variety of medical and biological technologies. When we are attuned to specific bodies’ enmeshments in more expansive networks, which include medical and biological technologies, corporations, laws, patents, and global marketplaces, we can move with greater facility between the representational and the material, the population and the individual. We are able to see how both medical and new media technologies are implicated in the management of large bodies of data and of individual material bodies and body parts.

As exemplified by the “theater of separating people out,” *Flesh Machine*’s affective structures also have their own limitations. The structure of affective interactivity provided by the orthopedic mode of address resulted in a piece of art that functioned in and through the process of eliding the arguments of disability studies and feminist ART scholars and by ignoring patterns of ethnoracialization, global inequities, and class in the flows and disruptions of eggs, sperm, and DNA. The structure allowed certain claims for empowerment to be made at the expense of a more complicated understanding of the politics of ARTs.

175 Ibid.

Chapter 4

“Where is your body now?”:

Locating a Biomedical Social Practice

After spending time visiting Carolee Schneemann’s studio and the theater space that housed Margolin’s *Gestation* in New York and a handful of art galleries throughout continental Europe, we now find ourselves inside a London hospital and a particular set of theoretical debates with their own disciplinary histories. In 2006 the Athletes of the Heart, a production company lead by artistic director Anna Furse, created a performance installation called *Glass Body: Reflecting on Becoming Transparent* and staged it inside of London’s Chelsea and Westminster Hospital. Created in collaboration with Chelsea and Westminster’s physicians, medical imaging department, and Hospital Arts Division, *Glass Body* was an interactive aesthetic experience that was also designed to help heal and empower members of the hospital community (particularly patients in the Assisted Conception Unit and their families). Aligned with two social projects – a specific mid-to-late 20th century Western feminist consciousness-raising project and a hospital arts agenda that aims to promote patient recovery through visual art and performance – *Glass Body* fits squarely within a field of art-making and social engagement called social practice. However, *Glass Body*’s agenda, aesthetics, and location within a healthcare context invite a reassessment of the relationship between the aesthetic and the social in debates around social practice.

One of the many terms used to describe relational, process-based artwork that addresses social and political issues through collaborative means, social practice often takes place outside of theaters and galleries. Social practice is also typically community-based and site-specific, as artists work with and for a particular group of people or social issue. For example, artist Suzanne Lacy’s social practice has involved collaborations with a wide range of communities, including older women in Los Angeles and La Jolla, California (*Inevitable Associations* (1976) *Whisper, the Waves, the Wind* (1984)) and youth and police officers in Oakland, California (*The Roof is on Fire* (1993-1994) and *Code 33* (1998-1999)). Lacy collaborated with these particular communities in order to explore what happens politically and aesthetically when complicated conversations about gender, aging, violence, and discrimination are staged as art.

In its reorientation of the modernist tradition and its investment in social and political sites, social practice has presented a unique challenge to critics. Visual art critic Claire Bishop, for example, has had trouble calling much social practice “art” at all.¹⁷⁶ Even critics who do not share Bishop’s opinion often struggle to find ways to think the social and the aesthetic together. Some writers rely on more traditional art historical critical standards which cast an artwork’s social commitments as contaminates, while others want to evaluate the work for its political rather than aesthetic efficacy; in a sense they want to read it as social or activist work instead of art. According to Lacy and Nina

176 Claire Bishop, “Antagonism and Relational Aesthetics.”

Felshin, one of the reasons why critics have such a difficult time adequately addressing this art is that “we have tended to separate our political and aesthetic language in this country since the ascendancy of formalist criticism in the forties.”¹⁷⁷ As Shannon Jackson has demonstrated, these separations produce a list of binaries that get rehearsed over and over again in critical studies of social practice. Using two controversial articles by Bishop – one published in *October* and one in *Artforum* – as a pathway into the heart of current debates about social practice, Jackson writes:

[T]ogether, the essays resemble a familiar lexicon for understanding (and casting judgment upon) a social practice. Such a critical barometer measures an artwork’s place among a number of polarizations: 1) social celebration versus social antagonism; 2) legibility versus illegibility; 3) radical functionality versus radical unfunctionality; and 4) artistic heteronomy versus artistic autonomy. The thrust of Bishop’s “discontent” is that “the social turn” in art practice is in danger of emphasizing the first terms in this series of pairings over the critical, illegible, useless, and autonomous domains that art must necessarily inhabit in order to be itself.¹⁷⁸

These polarizations have long and complex interdisciplinary histories, which, as Jackson notes, are in large part rooted in a nineteenth century aesthetics of transcendence and later mobilized by Theodor Adorno, Georg Lukacs, and Walter Benjamin’s critiques of Bertolt Brecht.¹⁷⁹ Adorno and Lukacs criticized Brecht’s attempts to make committed, socially useful art, but for very different reasons. On the one hand, Adorno felt that by abandoning autonomy as art’s highest goal, Brecht’s work sacrificed aesthetic criticality. On the other hand, Lukacs argued that heteronomous art – art that does not pretend to exist autonomously from the conditions of its production but is rather determined by these conditions – is socially and politically useful, but Brecht’s work was too unintelligible to be efficacious. If Brecht was too accessible for Adorno, he was not accessible enough for Lukacs. Benjamin, meanwhile, “argued that Brecht was the ur-example of an aesthetic practice that was at once socially engaged and formally innovative, not an instrumentalization of aesthetics.”¹⁸⁰

Visual art critics Grant Kester and Nicolas Bourriaud, among others, have identified a need to develop a new critical methodology for understanding social practice, one that can establish a different relationship to concepts like autonomy and heteronomy. In *Relational Aesthetics* Bourriaud argues:

A certain aspect of the program of modernity has been fairly and squarely wound up (and not, let us hasten to emphasise in these bourgeois times, the spirit informing it). This completion has drained the criteria of aesthetic judgment we

¹⁷⁷ Suzanne Lacy, *Mapping the Terrain*, 42.

¹⁷⁸ Shannon Jackson, “What is the ‘Social’ in Social Practice?,” 139.

¹⁷⁹ *Ibid.*, 140-141.

¹⁸⁰ *Ibid.*, 141.

are heir to of their substance, but we go on applying them to present-day artistic practices.¹⁸¹

In light of this “draining,” there has been an interest in evaluating socially engaged art based on the quality of the relationships established in the constellation of work, viewer, and site. Tentatively (and with carefully-articulated reservations¹⁸²) invoking Claire Bishop’s praise of work that foregrounds the tensions between autonomy and heteronomy, Jackson invites us to turn our attention to the ways in which “the best collaborative practices of the past ten years address this contradictory pull between autonomy and social intervention, and reflect on this antimony both in the structure of the work and in the conditions of its reception.”¹⁸³ Taking this impulse in a different direction than Bishop does, Jackson goes on to suggest that the relationship between autonomy and social intervention does not need to be conceptualized as one of antimony. To accomplish this feat, she teases out the Minimalist genealogies that inform the social practices of two very different artists and shows how the artists’ social commitments help them to shed new light on Minimalist formal conventions. Along the way Jackson gently demonstrates how “helpful” it can be “to keep eyes and heart trained on the particular ways in which the avowal of heteronomy can have simultaneously aesthetic precision and social effects.”¹⁸⁴

In this chapter, I track Furse’s avowals of heteronomy to show how *Glass Body* produced “both innovative aesthetic forms and an innovative social politics.”¹⁸⁵ I borrow from Jackson’s method for engaging with social practice to analyze *Glass Body*, but I also use Furse’s work, alongside a selection of other hospital arts practices developed by Petra Kuppers, as an opportunity to unpack the ways in which a healthcare context complicates debates about social practice. The specific kinds of heteronomy with which *Glass Body* grapples -- gender politics, feminist activism, the history of medicine, and the relationship between representation and wellbeing – influence the ways in which terms like form, content, politics, aesthetics, legibility, and efficacy relate to one another. I then go on to explore how queer, critical race, and disability studies can help us problematize the social politics that emerge from some of Kuppers’ and Furse’s aesthetic forms.

Inspired by Anna Furse’s experience conceiving a child through *in vitro* fertilization, *Glass Body* was a participatory, multimedia performance installation that layered live solo performance, video projections, sound art, and interactive digital technologies. The thirty-minute piece, which one critic called “a small thoughtful gem of medical, cultural, and artistic enquires,”¹⁸⁶ was staged inside an oval pod for twenty spectators at a time. During the piece, the solo performer, a butoh dancer named Marie

181 Nicolas Bourriaud, *Relational Aesthetics*, 11.

182 Shannon Jackson, “Social Practice,” 115-116.

183 Claire Bishop quoted in Shannon Jackson “Social Practice,” 115.

184 Shannon Jackson, “What is the ‘Social’ in Social Practice?,” 149.

185 Ibid., 149.

186 Sara O’Reilly, “Glass Body.”

Gabrielle Rotie, completed a sequence of gestures. She neatly laid out a child's matching pants and shirt and then folded them back up again. She put on a pair of elbow-length gloves and then shoes that were far too small for her feet. With the help of a large magnifying glass, she searched the surface of a doctor's examination table. Lying back on the table, she balanced a silver bowl full of sand on her belly. She stood up and poured out the sand. She coaxed an impossibly long strand of pearls from her mouth.

Concurrently, a video projection coated the installation's walls and seeped on to the performer's body, her props, and her examination table. Images – water, ships, periscopes, and, finally, a woman washing herself – processed gently across these surfaces, and so began the story of a woman's experience with IVF. Doubled by the video's image of this woman and then tripled by a voiceover narration, the solo performer was no longer solo; she became three versions of herself. Silent and live. Fractured and digital. Audible and disembodied. The woman in the video washed her arms with a heavy, textured sponge while lines of text graced the screen. *I know flesh is not the deepest thing. I know how luminous the darkness can be. My elusive child will teach me this.*¹⁸⁷ A close-up shot of a little girl's legs and feet appeared, and the audience learned right away that, despite the live performer's gestures of longing, vulnerability, and exposure, this story had a doubly happy ending. The woman gave birth to a child, *and* she learned something important along the way. This uplifting story of ovulation, IVF, gestation, mothering, and self-discovery unfolded on the walls of the installation, but it was intercut with three other stories. The first was a history of sonar that began with the sinking of the Titanic and ended with obstetrics. The second story was a history of our "insatiable appetite for looking"¹⁸⁸ inside ourselves. This history of gazing inward connected Victorian England's use of x-ray technology for entertainment with the role that medical imaging played in treating wounded World War II soldiers, the rise of photography and cinema, and current obstetric medical imaging practices. The third story explained "where [IVF] babies come from."¹⁸⁹ This poetic meditation explored the ontology of the gamete and the techniques involved in extracting, fertilizing, and implanting eggs. Together these stories formed a larger narrative about the strength that images give us to survive.

Layered on top of one another, the video projection and the performer's gestures each informed the audience's reading of the other. The video presented clues on how to interpret the performer's gestures. When the voice in the video noted that eggs, the largest cells in a woman's body, are the size of grains of sand, it became clearer that pouring out a bowl of sand was a gesture of vulnerability and exposure; it was an offering. The gestures, on the other hand, underscored the significance of the facts and historical events represented in the video. It was clear, through the performer's act of gazing through a magnifying glass, that when the woman's physician examined her uterus with a sonogram, the woman was not only looking inside herself, she was also

187 Athletes of the Heart, "Video Footage."

188 Ibid.

189 Ibid.

discovering “how luminous the darkness can be.”¹⁹⁰ The moment in which the woman used a medical imaging technology was thus illuminated as a ritual that marked and also performed one of her major life transitions.

As the first half of the brief performance drew to a close, the director and the performer invited the spectators to participate in a series of conversations about the power of images that were conducted through several different media. Furse and Rotie spoke with spectators about the installation, but they also distributed Petri dishes with small slips of paper and pencils inside, inviting spectators to write a response to the piece and contribute a few words that would become a part of the work itself. Furse and Rotie also invited the spectators to use several touch screens to interact with a software program that allows users to design digital images of the human reproductive system. Writing words with pencils on paper, using the tips of their fingers to grab, drag, drop, and assemble images, speaking with their voices in a group conversation, the *Glass Body* spectators were able to interact with the installation in ways that were as diverse and multisensory as the work’s initial performative provocation.

The careful layering of these media and modes of engagement produced aesthetic and social/political effects that were greater than the sum of their parts. The Viewpoints method for training performers, which was developed at the intersections of postmodern dance and experimental theater, describes gesture as a shape – the contour a body makes in space – with a beginning, middle, and end.¹⁹¹ Gesture takes form as a body making shapes in time. But certain times, certain kinds of time, transform gesture into ritual. Moving in this time, gestures create meanings far more substantial than the significance usually ascribed to the daily actions that they complete. Lifting a magnifying glass. Folding a child’s shirt. The body holds the significance of this time like a sponge holds water. Through the act of the ritual/gesture, the body wrings out the sponge and shares the weight with its audience. Rituals are the events that mark and also perform our major life transitions; they are both the guideposts and the episodes in the journey of becoming who we are. By raising the magnifying glass, the body commits to an act of unflinching introspection. By folding the shirt it honors the act of waiting, sanctifying the process of passing from the place where it now resides to its desired destination. *Glass Body* performatively generated a timespace in which gesture could become ritual while simultaneously representing *how* people, objects, and institutions create this kind of timespace. For less than half an hour, a solo performer and twenty spectators used video projections, soundscapes, simple objects, touch-screen computers, and Petri dishes to explore how the process of *in vitro* fertilization could become a process that transforms gesture into ritual and makes an action do more than it seems to do.

The Aesthetics of Consciousness-Raising

Glass Body functioned on one level as a meditation on ritual and transformation, but it was also committed to two social and political projects: hospital arts and feminist

¹⁹⁰ Ibid.

¹⁹¹ Anne Bogart and Tina Landau, *The Viewpoints Book*, 7.

consciousness-raising. Furse has argued in both her text and performance work that medical imaging technologies such as the sonogram can provide an opportunity for women to collaborate with science, technology, and individual physicians and clinicians to see inside and thus empower themselves. According to Furse, this empowering collaboration can trace a connection back to a period of time in the early 1970s when women were encouraging each other to look at their own vaginas in hand mirrors, to take the speculum and use it “as a tool for empowering self-knowledge.”¹⁹²

Furse claims:

With new reproductive technologies, not only do we see beyond the flesh and the mysterious dark interior of women's genitalia, for example, but also women become the *gazer* and the *gazed*. The possibility of self-seeing has become (normally) painless and vivid. There are surely ever increasing possibilities for empowerment in this, preceded as it has been by our earlier fumblings with the cold clamp of the speculum.¹⁹³

The “earlier fumblings” to which Furse connects her work often took place within the context of feminist consciousness raising groups where women gathered to develop theory and activism that was based on women’s lived experiences of oppression. In these spaces, women were encouraged to tell their stories and, through narrating their own experiences in and to an intimate, supportive community, cultivate an awareness of how their lived experiences were shaped by gender politics. By literally and metaphorically looking inside herself and telling the community what she saw, the group member raised her consciousness and radicalized herself for political activism. The choice to conceptualize her work in relation to a particular form of 1970s feminist activism is of course a political choice for Furse, but in what ways was it also an aesthetic one? How did Furse’s alignment with this particular political project and modality for activism, shape the artwork’s form?

Glass Body initiates its inquiry into ARTs from the position of the fertility patient, and the piece’s structures of interaction unfurl from this location of first-person lived experience. Artistic director of Athletes of the Heart and director of the MA in Performance Making at Goldsmiths, University of London, Anna Furse conceived a child via *in vitro* fertilization (IVF) and went on to create a trilogy of theater/performance works in response to her experience. *The Peach Child* was a multi-media children’s puppet show based on a Japanese infertility folk tale that premiered in 2001 and was written and directed by Furse with financial support from an Arts Council Award for the Little Angel Theatre, Japan Festival 2000/National Children's Theatre Festival UK 2000. The second performance in the trilogy, *Yerma’s Eggs* (2001-3), paired physical theater with video projections of documentary and cutting-edge biomedical representations such as 3D/4D ultrasound imagery to explore infertility and ARTs. *Yerma’s Eggs* was funded

¹⁹² Anna Furse, “Art of ART.”

¹⁹³ Ibid.

by an Impact Award from the Wellcome Trust, the UK's largest non-governmental source of funds for biomedical research.¹⁹⁴

Also funded by the Wellcome Trust, *Glass Body* began as a performance installation set in London's Chelsea and Westminster Hospital in their well-known and highly regarded Assisted Conception Unit. Because *Glass Body* was installed in a hospital, the spectators who attended this free performance, which was staged twice a day for two weeks, included physicians from throughout the hospital, patients and their families, and members of the general public who came to the hospital for the express purpose of attending the performance. Since its installation in Chelsea and Westminster Hospital, *Glass Body* has assumed several different forms. It has become a website that includes production photos, the video that was projected during the performance, an education pack, and a reproductive toy. In May of 2008 it became a radio play commissioned by the BBC and broadcast on BBC R3.¹⁹⁵ In 2007 Furse and her production company took *Glass Body* on a five-week UK tour, installing it in theaters, a university, and at Guy's Hospital in London.

In addition to creating these three performance works about her experience with ARTs, Furse has also written a book called *Your Essential Infertility Companion* and several academic articles about ARTs. In one such article, "The Art of ART," Furse writes:

We sub-fertiles see inside ourselves. We see infinitesimally small fragments of our genetic material begin to grow. We are hooked into our relationship with this process and its manifestations via available technologies. Becoming an IVF user is a journey into a collaborative relationship with science and technology. Willy nilly, as Donna Haraway asserts, we become a cyborg, our chances of reproducing totally locked in to the application of technologies via which we see ourselves with fresh eyes, hope with fresh heart, submit our bodies to explicit interventions.¹⁹⁶

Furse's personal interpretation of IVF as something that is performed in and through a collaborative relationship with science and technology shaped the process of devising and producing *Glass Body*. She worked with a hospital, physicians, and an organization that funds biomedical research to create the piece, but her collaborations with science and technology did not end there. Because the piece was installed in a hospital, the collaboration extended throughout the duration of the show's run. Hospital administrators and staff had to help manage the installation of the work, the traffic of audiences in and out of the performance, and the maintenance of the site. Throughout the process, they had to adjust to the disruptions and new opportunities that the performance generated.

194 Athletes of the Heart, "Projects: Past: Glass Body."

195 Anna Furse, Interview.

196 Anna Furse, "The Art of ART."

In *Glass Body*, those who create and facilitate the use of ARTs are literally and rhetorically positioned as collaborating with fertility patients and with the “general public” (the audience) to generate both a child and a work of art. This choice to place collaboration at the core of her performative explorations of ARTs is not only an aesthetic one for Furse; it is political. For example, Athletes of the Heart’s previous piece, *Yerma’s Eggs*, was built around the company’s experiences of gender, sexuality, ethnicity and reproduction. Reflecting on this choice, Furse wrote:

I didn’t want to write a play, impose my authority on a single-track narrative, as this would imply working on but one of so many possible medical infertility factors. I wanted to get under the skin of the subject via the body in performance - expressionistically, viscerally, and reflect complexity and contradiction via a layering of elements.¹⁹⁷

Collaboration, combined with multi-layered, multi-media performance, became a way to preserve the complexity and contradiction inherent in her company’s diversely raced, classed, and gendered engagements with biomedical technologies.

A press release issued by Athletes of the Heart proclaimed, “It’s about wonder,” and this statement captures *Glass Body*’s organizing ethic.¹⁹⁸ To wonder, according to the Oxford English Dictionary (OED), is “to be struck with surprise or astonishment, to marvel.”¹⁹⁹ The person who wonders takes a humble subject position in relation to the wondrous object or phenomenon, ready to accept whatever this object or phenomenon has to teach him or her. The OED states that to wonder is “to feel some doubt or curiosity; to be desirous to know or learn [. . .] often implying profound admiration.”²⁰⁰

The main character in *Glass Body* was a sub-fertile woman who was represented as a trilogy of digital image, recorded sound, and live body. This main character approached the process of IVF with wonder. The medical imaging technologies used in IVF rendered her body transparent and taught the sub-fertile woman a great deal about herself and her child. She was humbled and awed by all that the process of conceiving her “elusive child” taught her. The character’s wonder, however, was not naïve; it was historicized. Her personal story was infused with a historicization of modern medicine’s fascination with the insides of bodies and the links between military and medical imaging technologies. The character was well aware of the terrain she entered when she began IVF. That knowledge co-existed with her feelings of joy and amazement. In *Glass Body*, awareness of the cultural, political, economic, and military networks that produce ARTs does not negate the other complicated affective, familial, racialized, classed, and gendered networks within which ARTs get used.

Wonder shaped the ways in which spectators were invited to engage with this woman’s experience of IVF. She approached the process of becoming a spectator and a

197 Ibid.

198 Athletes of the Heart, “Press Release.”

199 *OED Online*.

200 Ibid.

participant in the spectacularization of her own body from the humble, open-to-learning position of wonder. In several different ways, *Glass Body* invited spectators to follow suit and approach the opportunity of becoming a spectator and a participant in the spectacularization of their bodies in the same way. *Glass Body*'s main character made herself vulnerable to the audience by presenting her live body along with private, high-tech medical imagery of her body and of her child. According to several reviewers in the London press, the performer and the images were gorgeous, as was the accompanying soundscape, and it was difficult not to marvel at their beauty and complexity. In her review for *The Guardian*, Lyn Gardner wrote, "the intimacy of the experience creates a dreamy spell that gets under your skin so that long after it has finished you have a heightened awareness of your body."²⁰¹ Spectators were repeatedly encouraged to turn this humble gaze inward, to make themselves vulnerable and fully physically present to themselves and to one another. Early on in the piece, the video's voice-over slowly addressed the audience with a series of questions as if she were leading a guided meditation:

Are you in your body? If I asked you now to allow everyone here to look inside your body, would you let them? How would you feel about becoming a picture? Where is your body now? Can you feel your own skin? Touching your clothes. Touching your own body? Because you might not be sitting too comfortably. You might be standing. Holding something in your hand. What is it? Paper? Plastic? Glass? Under your skin, what next? Muscle. What do these look like? What color are they? Where do they hurt? [. . .]202

These questions continued until the voice asked, "Where exactly is your womb? Ovaries? Testes? Where do babies come from?"²⁰³ Upon the performance's conclusion, spectators were invited to explore possible answers to these questions through conversation, writing, and digital play.

This introspection was never, however, framed as an isolated, individual experience. The Athletes of the Heart's ethos of collaboration was evident in this aspect of the performance as well. *Glass Body* stages IVF as a collaboration between science, technology, physician, and patient. It takes institutions, histories, and other people to help us see inside ourselves, and *Glass Body*'s spectators examined their own bodies within this context. This notion that others contribute to our own self-knowledge was reinforced by several elements of the performance. For example, before exiting the installation, each spectator was given a Petri dish with paper and a pencil inside, and s/he was asked "to write a private thought [to] leave as an 'archive of glass body words.'"²⁰⁴ This notion was also reinforced by the physical structure of the installation. *Glass Body* was staged inside a small oval pod that was "designed to contrast dramatically with the

201 Athletes of the Heart, "Projects: Past: Glass Body."

202 Athletes of the Heart, "Video Footage."

203 Ibid.

204 Anna Furse, Interview.

airy, light-filled glass and steel structure of [Chelsea and Westminster's] atrium.”²⁰⁵ Only twenty spectators could fit inside the intimate space, and when this small group crowded into the womb-space a richly textured soundscape enveloped them. Further intensifying the sense that they as a group had been transported to a very different place, the soundscape wrapped the spectators in the rhythmic sounds of waves crashing on a beach, a film projector clicking, a fetal heartbeat, and a submarine's sonar beeping as regularly as a mother's heartbeat. Because of the installation's size and shape, the spectators were literally and figuratively all in this (foreign place/project) together. The pod served as a theater of inclusion in which spectators and artists occupied the same metaphorical body and participated on more equal footing in a common knowledge project that was motivated out of wonder.

The Politics and Aesthetics of Accommodation

Furse's commitments – to collaboration, collectivity, and the view that medical technologies can help us become more intimately aware of our bodies instead of necessarily alienating us from them – are political ones by which she aligns herself with a tradition of feminist consciousness-raising groups and the feminist health social movements of the 1970s and 1980s. They are also aesthetic ones that shape spectators' sensory experiences. *Glass Body* is, however, simultaneously enhanced and hindered by its similarities with feminist consciousness-raising groups. While the assertion that personal self-knowledge was transformative and politically empowering for Furse, the intimate, community-based structures that produced this knowledge in 1970s feminist consciousness-raising groups and in *Glass Body* can often suffocate different experiences of gendered embodiment that are shaped by the intersections of race, class, sexuality, and ability. These structures often made participants feel claustrophobic as they were encouraged to erase their differences for the sake of the group. Practices of erasing difference were, in fact, prevalent throughout the women's movement in the 1960s and 1970s, especially within the arena of reproductive politics. 1970s debates around sterilization, for example, demonstrate exactly how these kinds of erasures happen. As feminist scholar Dorothy Roberts explains:

I think for a long time the denigration of black women's reproduction was just ignored by mainstream feminists because they had the image of the white mother in mind. [. . .] A perfect example is sterilization. In the seventies, a group of feminists opposed waiting periods and rigid informed consent procedures for sterilization. Women of color said, "Let's put limits on sterilization because doctors are guilty of abuse." But this just didn't register with some of the mainstream reproductive rights groups that had been pushing for greater access to sterilization for white, middle-class women. While poor black women were, in

²⁰⁵ Sara O'Reilly, "Glass Body."

some cases, forcibly sterilized, sometimes without their knowledge, let alone consent, white women had a hard time getting sterilized.²⁰⁶

An unwillingness to situate one's experience within a specific raced, gendered, and classed position also persists in *Glass Body* where the pod became a space where whiteness and certain kinds of ability went unmarked and heterosexuality and reproductivity were represented as normative and natural. Even as reproduction was rendered technological and celebrated as technological, the drive to reproduce was compulsory.

Furse paired performance with the personal, historical, social, and technological terrain of ARTs to craft a specific spectatorial encounter and aesthetic experience and to further one kind of feminist political project. Staging a theater of inclusion with wonder as its prevailing ethic, Furse created a spectatorial experience which foregrounded collaboration between participants who were assumed to have relatively equal status relationships and be invested in the same project of self-exploration together. As we have seen, her structures for spectatorial participation were tied to her political project. Furse has argued that the experience of undergoing IVF provides a "particular way of seeing life itself."²⁰⁷ *Glass Body* was an exploration of this new way of seeing predicated on humble, active, and historicized collaboration with medicine and technology. It suggested that this new way of seeing is not only personally enriching, but it is politically empowering. At the same time, it is important to note that Furse's heteronormative and technophilic approach obfuscated the ways in which ethnoracialization and non-normative sexuality along with other embodied experiences such as pain and fatigue might complicate one's sense of wonder in undertaking the project of "becoming transparent." Lesbian parenting in the U.S., for example, might involve an aversion to the kind of hyper-transparency often required by clinics of women who want to use donor sperm and other ARTs. White, middle-class, heterosexual, married women are far less frequently asked to prove their reproductive fitness through an over-exposure of personal, medical, and family histories. The historical contexts in which one chooses to reproduce also color or complicate one's sense of wonder at the process of high-tech reproduction. As Kath Weston has argued, the "lesbian baby boom" – facilitated in part by greater access to ARTs – occurred in the U.S. in the context of an AIDS crisis.²⁰⁸ Pronatalism in the AIDS-ravaged gay community is, according to Weston, tied to a project of "replacing what was lost to AIDS" which not only politicizes the wonder of reproduction but also binds it to a process of mourning and community-building.²⁰⁹ Whether it is complicated by the process of mourning a loss or restoring a ravaged community, the wonder of technologically-assisted reproduction is not something that is accessible to the populations that need it most. According to Roberts, "the profile of people most likely to use IVF is precisely the opposite of those most likely

206 Moira Brennan, "She Says: An Interview with Dorothy Roberts."

207 Athletes of the Heart, "Projects: Past: Glass Body."

208 Kath Weston, *Families We Choose*, 183.

209 Ibid., 182.

to be infertile,” since “[t]he people in the United States most likely to be infertile are poor, Black, and poorly educated.”²¹⁰

Furse hoped *Glass Body* would provide, among other benefits, an opportunity for spectators to identify with people who grapple with sub-fertility:

I aim to get under the skin of the subject matter and confront material emotionally, viscerally, and poetically, so that the spectator might identify with the infertile perspective, a rare opportunity in these days of media sensationalism.²¹¹

The singular “infertile perspective” with which she hopes people will identify is one that regards the process of becoming transparent, of becoming the body spectacular, as a wonder and a “sheer thrill.”²¹² This perspective is informed by Furse’s experiences of (dis)ability and ethnoracialization and does not necessarily extend to those women who have different experiences of embodiment. According to bell hooks’s theory of the oppositional gaze, spectatorial practices that derive pleasure from processes other than identifying with representations require a certain amount of distance between the spectator and the representation.²¹³ The tight, intimate, collaborative structure of the piece leaves little room for a non-identificatory spectatorial position for those who do not experience ARTs, transparency, or spectacularization as wondrous or thrilling.

The concept of wonder has a long and complicated history of associations with spectacles of disability. In the context of *Glass Body* the term serves to place the performance within the frame of Disability Studies scholarship and frames sub-fertility²¹⁴ as disability. All who identify or have been identified as having a disability, however, would not necessarily share Furse’s attitude towards the medicalization and spectacularization of her own body. Wonder is deeply enmeshed in what Rosemary Garland-Thomson has called “freak discourse.” Freak discourse, which renders certain bodies exceptional, monstrous, wondrous, or freakish, has grown and transformed since its first manifestations in Stone Age cave drawings and prehistoric gravesites, while maintaining some recognizable characteristics.²¹⁵ The discourse’s genealogy can, according to Garland-Thomson, be characterized as “a movement from a narrative of the marvelous to a narrative of the deviant.”²¹⁶ The bodies that once inspired wonder in spectators, physicians, and other viewers now inspire horror or pity. Although the freak show’s popularity peaked in the late nineteenth century, and the display of most

210 Dorothy Roberts, *Killing the Black Body*, 252.

211 Athletes of the Heart, “Projects: Past: Glass Body.”

212 Ibid.

213 bell hooks, “The Oppositional Gaze: Black Female Spectators,” 95.

214 Furse prefers the term “sub-fertile” over “infertile” because very few men and women are completely infertile. See Furse, “Art of ART.”

215 Rosemarie Garland-Thomson, *Freakery*, 1.

216 Ibid., 3.

physically deviant people is now considered distasteful, freak discourse has persisted and proliferated into many of the contemporary scientific discourses – genetics, embryology, anatomy, and reconstructive surgery – tied to assisted reproductive technologies.²¹⁷

Furse's whiteness also affords her a relationship to spectacularization and bodily display not shared by many other feminist performance and installation artists. It was Yoko Ono's *Cut Piece* (1964), followed by performances by artists such as Adrian Piper, Robbie McCauley, Coco Fusco, Nao Bustamante, and Spiderwoman Theater that initiated a practice of staging non-white bodies as appropriate author-subjects in feminist body art. In their diverse and wide-ranging performances, these women drew attention to the ways in which racialization complicates the politics of body art as they had previously been articulated by white feminist performers and critics. For example, McCauley, in her performances, and Fusco, in her performances and scholarly writings, have shown how racialized bodies and cultures have historically been coerced and appropriated into participating in performance.²¹⁸ Many forms of popular entertainment such as minstrelsy, lynching, and slave auctions – which Saidiya Hartman and Marvin Carlson claim are important precedents for contemporary performance art – either implicitly or explicitly entertained through enacting violence on black bodies.²¹⁹

I raise these concerns about race, disability, and spectatorship not because I want to suggest that Furse should be held responsible for representing every possible perspective on spectacularization, or that is not useful for her to approach IVF with wonder. I do this because the forms of spectatorial engagement built into, or at least encouraged by a work of art, are of central concern when this work is positioned as a form of social practice or even art therapy. *Glass Body* premiered at the Chelsea and Westminster Hospital and was staged as a part of its Hospital Arts program, which is charged with “creating a healing environment where the visual and performing arts are combined to help relieve anxiety and assist in recovery.”²²⁰ The piece is not necessarily charged then with the responsibility to heal every spectator, but the hospital arts framework does shift the critical attention towards the therapeutic quality of the spectators' interactions. It invites questions about different spectators' therapeutic needs and how the work might go about accommodating this range of needs.

Glass Body was charged with the tasks of helping to create a “healing environment” “relieve anxiety” and “assist in recovery,” and according to hospital administrators it was a “resounding success.”²²¹ In her documentation of *Glass Body* Furse quotes Hospital Arts administrator Alex Minton as saying, “The research for the performance was meticulous, with the balance of emotional response and technical information clearly structured so as to not baffle the audience.”²²² For this

217 Ibid., 13

218 Coco Fusco, *Bodies That were Not Ours*, 16.

219 Saidiya Hartman, *Scenes of Subjection*, 3-8, 17-18 and Marvin Carlson, *Performance: A Critical Introduction*, 86.

220 Chelsea and Westminster Health Charity, “About Hospital Arts.”

221 Athletes of the Heart, “Projects: Past: Glass Body.”

222 Ibid.

administrator, success was a result of balancing between the poles of emotional content and technical content, finding the right blend of art and politics. But are there other ways of evaluating the success of Furse's engagement with hospital arts that do not re-activate the binaries of celebration/antagonism, legibility/illegibility, radical functionality/radical unfunctionality, and artistic heteronomy/artistic autonomy? What might it look like, for example, to stage a successful hospital arts performance that foregrounded accessibility (as a part of its radical functionality) so as to avow the disability politics in play in a hospital arts context? What is the relationship between this particular kind of radical functionality and legibility? Do functionality and legibility necessarily align in an accessible hospital arts performance?

In order to answer these questions we need to first look at what access means at the intersections of healthcare and performance. Which methods, formal structures, and aesthetics provide the most/best opportunities for empowering participation and collaboration, particularly within a medical context? Of course there is no singular or easy answer to this question, especially because the practice of staging interactive new media performance installations in healthcare settings is a relatively new one. With *Glass Body*, Furse experimented with a structure inspired by 1970s feminist consciousness-raising groups, while other artists have deployed different models. As scholars and artists interested in the co-formations of disability, gender, and sexuality, Carrie Sandahl, Terry Galloway, and Donna Marie Nudd call this goal of using empowering methods and aesthetics to drive performance-making "the ethic of accommodation." They have drawn on their lived experiences as queer and/or disabled women, along with many years of experimentation to develop working methods that move beyond simply inviting everyone to participate in making a performance:

Equal treatment does not always translate into equal opportunity. Genuine inclusiveness requires a willingness to make changes to core beliefs, practices and aesthetics. In some cases, practicing this ethic requires a willingness to spend time and money to change the fundamental structures of an organization.²²³

Galloway, Nudd, and Sandahl have based the ethic of accommodation on a social model of disability, which posits that disability is not the result of an individual medical pathology, but rather a disjuncture between bodies and environments. As one of the environments in which this disjuncture appears, performance becomes a site where a number and range of accommodations need to be made.

There are a number of companies working in the U.S., Europe, and Australia who are grappling with what it means to use an ethic of accommodation to stage performance work. For the San Francisco-based performance project *Sins Invalid*, accommodation is not only about making rehearsals accessible to wheelchairs; it is about making the "changes to core beliefs" that Galloway, Nudd, and Sandahl advocate. In *Sins Invalid's* work, accommodation means creating a space where disability can be understood and explored as constituted in and through experiences of race, ethnicity, gender, and

223 Terry Galloway et al., "Actual Lives," 228.

sexuality. Because the voices and experiences of artists of color and LGBTQI artists are marginalized even within disability culture, staging disability, race, ethnicity, gender, and sexuality as co-formations becomes a powerful way for the company to challenge dominant perceptions of people with disabilities. Although they present their work in theater/performance spaces, Sins Invalid's mission and collaborators are closely aligned with medical issues and healthcare. In its vision statement, the group explains that it understands disability as having "deeply felt connections to all communities impacted by the medicalization of bodies."²²⁴ Co-founder and director Patty Berne also active within the field of reproductive and genetic technologies, advocating for LGBTQI community and disability rights within conversations about reproduction, genetics, and politics.

Based in the San Francisco Bay Area and Ann Arbor, Michigan, artist/scholar Petra Kuppers has extensive experience designing collaborative arts projects in healthcare settings. Her work usefully illustrates some of the alternative approaches to interactive performative explorations of healthcare that attempt to implement the ethic of accommodation. Like Furse, Kuppers is an academic who engages in collaborative performance-as-research, often within a social practice/community arts infrastructure. In the late 1990s she created the Olimpias Performance Research Group, a loosely organized, ever-changing collective of artists, scholars, activists, students, and members of various communities from around the world who create performance research projects. For the Olimpias, performance research entails using movement, presence, installation, new media, video, sound, poetry, photography, painting, blogging, and other forms of writing over a sustained period of time, often twelve to eighteen months, to create an environment for the exploration of complex issues. These issues are often, although not exclusively, related to embodiment, difference, and presence. Kuppers serves as the group's artistic director and its conceptual and infrastructural force. Her institutional homes at Goddard College and in the University of Michigan's Departments of English, Women's Studies, and Dance serve as the group's geographic, financial, and digital home bases.²²⁵ A disabled dancer and community artist, Kuppers lives with pain and fatigue and is interested in crafting "research-focused environments open to people with physical, emotional, sensory and cognitive differences and their allies."²²⁶

Since the late 1990s Kuppers and her Olimpias collaborators have created over 20 such environments, including a series of collaborations with Welsh mental health system survivors,²²⁷ designed to enrich disability culture and build a "more inclusive future."

²²⁴ Sins Invalid, "About Us: Our Mission."

²²⁶ Petra Kuppers, "MFA in Interdisciplinary Arts Program: Petra Kuppers."

²²⁷ Quoting activist and mental health support worker Yan Weaver, Kuppers explains the term "mental health system survivor" in the following way: "Calling ourselves 'survivors' is not meant to imply that we no longer use services – we may or may not – it is not meant to imply that we no longer experience mental and emotional distress, rather; 'we call ourselves survivors because we are alive.' [. . .] 'Survivor' is also about self definition [and] can be seen as more validating, more affirming of a person's strengths." The Olimpias, *Sleeping Giants*.

228 Kuppers' collaborations with Welsh mental health system survivors began in 1997 when Kuppers and a group of collaborators from Welsh Mental Health Day Care Services, a community dance organization called Tan Dance, and the Swansea University Adult Outreach Department began hosting weekly two-hour movement workshops for people who used Mental Health Day Care Services.²²⁹ In each session Kuppers led an average of ten participants through "relaxation and visualization exercises and the creation of improvised dances."²³⁰ This project was eventually called *traces* and was followed by several other collaborations with mental health system survivors – including *Earth Stories* (2001) and *Sleeping Giants* (2003) – that took a slightly different form. During *Earth Stories* and *Sleeping Giants*, Kuppers and her collaborators convened for workshops over the course of several weeks in which they developed material for a videopoem. Kuppers chose the videopoem as the form for the group's artistic product because she found the form to be exceptionally accessible. Kuppers's videopoems layer still and moving images with music and poetry, all created, directed, and edited by members of the group. Video has, in fact, become one of the preferred media for Olimpias collaborators because they are often unable to commit to the rigorous and rigidly scheduled rehearsal and performance schedules of theater and dance. As collaborators grapple with fatigue, transportation restrictions, or episodes of mental health distress, the temporality of more traditional theater and dance production becomes less desirable. The videopoem is, for Kuppers, a form that only enhances video's accessibility because it allows for the integration of photography, individual words, sound, and movement. This flexibility accommodates the diverse forms of communication used by members of the group:

There are other ways of communicating than in long sentences, or even in words at all. Previous participants have just offered individual words, which were then woven into the group work. Others have brought in musical instruments, rather than speak or write. There are so many art approaches to a theme: writing, dancing, singing, drama, still images made out of bodies, music, photography, a small, still ritual.²³¹

In the process of creating the *Sleeping Giants* videopoem, for example, collaborators contributed movement, music, text, and vocal work that were each related to a local myth about a sleeping giant. A mountain formation that locals call "the sleeping giant" presides over the Welsh village of Ystradgynlais. The mountain resembles a person lying on his or her back, and many tales about encounters between villagers and giants have circulated throughout Ystradgynlais. In the Olimpias project, collaborators were invited to use a local myth as a "mask" to help them represent their individual experiences with disability while simultaneously "inscrib[ing] [them]selves into the public narratives of

228 Petra Kuppers, "MFA in Interdisciplinary Arts Program: Petra Kuppers."

229 Petra Kuppers. "Toward the Unknown Body," 130.

230 Petra Kuppers, "Dancing Silence: Traces."

231 The Olimpias, "Thinking About Access," *Sleeping Giants*.

[their] location.”²³² In the three-minute videopoem, this inscription shows up not as a coherent narrative about giants engaging with people experiencing mental health distress or about giants as representations of mental health distress, but rather as a series of brief and often disconnected fragments of images, spoken text, and music overlapping and sometimes interrupting each other. The videopoem opens with a shot of the mountain from inside a car that is transporting collaborators from one place to another. Throughout the piece, footage of the mountain shot from a moving camera (moving in a car, moving as the videographer walks from one place to another) reappears every few seconds. The sleeping giant never gets too far away, even if the camera must briefly cut to other images. As the car drives along the edge of the mountain formation, one voice says, “I live in the land of the sleeping giant.”²³³ A new voice chimes in, “I wish I could lie still for a long long time like you do.”²³⁴ Underscoring these images and words, another performer is playing a simple sprightly tune. Suddenly we cut to performers in a dark room creating colors, shapes, and shadows through the interplay of candles, flashlights, and pale pink skin. A performer slowly presses the head of a flashlight against the palm of his/her hand, and the hand illuminates the surrounding space with a soft amber light. Meanwhile a voiceover says, “I can see the light through the crevices in his fingers.”²³⁵ The camera cuts to another shot of the mountain and then to a close-up of a performers’ faces, still, broad, and reclined like the sleeping giant’s or speaking short pieces of text. The piece ends with footage – taken from one of the group’s workshops – of two performers dancing and walking quietly through a field that lies below the sleeping giant.

In these three Olimpias projects – *traces*, *Earth Stories*, and *Sleeping Giants* – the collaborators used movement, sound, images, and text to make an artistic (rather than exclusively therapeutic) intervention into the lives of people who are diagnosed as mentally ill, but they also wanted to have an effect on society as a whole. Often within healthcare contexts, dramatic techniques are used as a form of therapy, but Kupperts is careful to note that this was not the objective in these particular workshops. She explains:

We are not primarily engaging in the kind of drama work that is often termed "socially driven," which uses role play, autobiographical writing, and other techniques to foster self-expression and social and political awareness. While these emancipatory elements are at work in our weekly meetings, our prime impetus has been toward experiencing movement not as a mimetic vehicle but as an expression in and of itself. The project works with the idea that movement is both expression and source of life: a communicable form of being in the world.²³⁶

²³² The Olimpias, “Interview,” *Sleeping Giants*.

²³³ The Olimpias, *Sleeping Giants*.

²³⁴ Ibid.

²³⁵ Ibid.

²³⁶ Petra Kupperts. “Toward the Unknown Body,” 130.

While these workshops certainly could have had a therapeutic effect on those involved, they were not designed under the traditional model of drama therapy that is often used in medical settings. We see here that when a social practice takes the form of arts therapy, a new polarization between the aesthetic and therapeutic accompanies what Jackson called the “familiar lexicon” of social practice critique: social/political vs. aesthetic; celebration vs. antagonism; legibility vs. illegibility; functionality vs. unfunctionality; and heteronomy vs. autonomy.²³⁷

Kuppers’s collaborations with mental health services survivors, like all Olimpias work, were process-oriented rather than primarily focused on producing a conventional stage production. While Olimpias performance research projects privilege process over product and do not begin with polished formal theatrical productions in mind, they do end up producing a variety of valuable products. In this instance, the products of the collaborative process included websites and CD-ROMs that were installed in community centers, university art centers, art festivals, and adult education centers across the U.K.. Kuppers describes *traces* in the following way:

traces uses video and photography by the Olimpias to re-create part of the session experience. In a video installation, huge images of the participants' concentrated faces and bodies surround a platform which invites the spectator to enter physically, to move from watcher to witness. The living performance traces in these images provide a counterpoint to many traditional representations of people in mental health settings, which focused on loss of control and chaos. *traces* documents the beauty, dignity and privacy of all its group members.²³⁸

In the context of mental healthcare, it was important to produce something beyond the process itself, something that could be shared with different publics. By designing movement to be shared and then performing these improvised dances that they created together in their workshops with others, the Olimpias collaborators created and disseminated alternate representations of mental illness for society and asserted the right of people diagnosed as mentally ill to represent themselves. The Olimpias mental health workshops and the resulting videos, websites, and installations also evolved into a scholarly article written by Kuppers and published in the academic journal *Theatre Topics*. These extensions of the projects serve specific political functions. As Kuppers writes in a different context, “writing about art extends the circle of art’s reach and political vibrancy.”²³⁹ For various reasons including the politics of art markets, the formal constraints presented by particular works of art, the ephemerality of performance, and the limits of individual performers’ bodies, many works of art reach limited audiences. As feminist critics such as Jill Dolan have argued, one of the objectives of feminist research and scholarship should be help expand the reach of feminist art, to bring diverse audiences to important and often under-valued work. The Olimpias

237 Shannon Jackson, “What is the ‘Social’ in Social Practice?,” 139.

238 Petra Kuppers, “Dancing Silence: Traces.”

239 Petra Kuppers, “MFA in Interdisciplinary Arts Program: Petra Kuppers.”

document and disseminate their work through photography, video, and written transcripts and on websites and DVDs and in academic journals and books in order to provide broader access to their feminist disability culture work.

Legibility, Efficacy, and Accommodation

Access, for the Olimpias, is in part about creating multiple forms of documentation and extending the reach of alternative representations of disability. For this series of projects, the group's interest in other forms of access also shapes both the process of creating the work and the final product's formal components. When critics such as Claire Bishop align social practice with a privileging of legibility over illegibility, an underlying concern is that artists are dumbing-down complicated aesthetic and social issues in the name of accessibility. For Bishop, this is an artistic failure. For Adorno it is also a political one. In "Commitment," Adorno labeled Brecht's intelligibility, his desire to be "unequivocally clear," as "political naïveté."²⁴⁰ He explains, "For the sake of political commitment, political reality is trivialized, which then reduces the political effect."²⁴¹ I find in Kuppers's and Furse's work invitations to question these stories about social practice, to start looking for the places where social commitment does not necessarily align neatly with legibility and where we can find multiple forms of political efficacy in tension with one another.

For example, in much of the Olimpias' work their dedication to an ethic of accommodation produces a kind of illegibility in the work (for collaborators and spectators alike). Intentional indeterminacy structures both the product and process of the Olimpias collaborations with mental health system survivors. All Olimpias projects operate under a ground rule about collaboration. Collaborators are not expected to participate in more than one workshop, rehearsal, online discussion, and/or performance. Collaborators are invited to participate as often and regularly as their interest levels, availability, geography, and abilities dictate. This policy is designed to honor and protect "physical, mental and emotional differences and the different temporalities created by them."²⁴² The thematic and structural openness of Olimpias projects allow participants to find their own motivations for collaborating on the project. Collaborators are welcome to come to the project for their own unique reasons and to answer their own research questions. These questions may not overlap with other collaborators' interests. Olimpias performance research projects are often long and unfold over time and thus participants are encouraged not to pin down too specifically what a project is at any given moment so as to avoid proscribing what it can or cannot be in the future. An openness of intention and structure also creates accessibility. Olimpias projects must remain receptive to what participants are physically and emotionally capable of doing at a given time, so they are structured to allow for variations in participant energy levels, health, interest, and time availability. Finally, the openness protects against the foreclosure of meaning from the

²⁴⁰ Theodor Adorno, "Commitment," 307.

²⁴¹ Ibid., 310.

²⁴² Petra Kuppers, Email to Author.

outset or upon its completion. While a limited number of broad social and political commitments support the work, each project is not determined to mean any one thing.

At times this openness can become frustrating, especially to collaborators who are trained to make art in a very different way or to funding organizations or institutional review boards who want to see a project's methods and outcomes clearly defined. The performance-based "products" of Olimpias collaborations rarely, for example, have the kind of high production values that *Glass Body* did. Tighter budgets and shorter or more fractured rehearsal processes keep this aesthetic at an inaccessible distance. Because Olimpias projects must remain open to a multitude of voices, the specific line of inquiry is rarely as fully fleshed-out and coherent as Furse's complex integration of the history of medical imaging with her experience of IVF. These tensions and indeterminacies, however, also serve to protect mental health system survivors from having aspects of their lives that they would like to keep private made accessible to their audiences. Instead of presenting each collaborator's experience with disability as a clear individual narrative, such as Furse did (albeit in a fractured, contingent way), the videopoems and websites present "a refracted, complicated image of how a person might experience mental health distress."²⁴³ Mental health system survivors are often subjected on a regular basis to analysis by various individual and institutional "spectators," from therapists to social workers to arts philanthropies interested in the efficacy of the projects they fund. Many mental health system survivors are thus acutely aware of the power dynamics involved in sharing personal information and prefer not to render themselves fully legible in their social practice.²⁴⁴

Kuppers's work with mental health system survivors highlights how an ethic of accommodation and a political commitment to accessibility might challenge assumptions about legibility in social practice by questioning the desirability of intelligibility in certain healthcare contexts. Furse's *Glass Body* provides yet another opportunity to think in a more complex way about legibility and efficacy, inviting us to see how a work of art can have multiple, opposing effects that do not necessarily neutralize each other. For Adorno, legible art is not capable of achieving radical political change. Instead of inviting the public into an external space from which to observe given reality and imagine an alternate one, he worries that committed art is bound by and only serves to reinforce the status quo. Defending his claim that "lyric poetry after Auschwitz is barbaric," Adorno explains:

The esthetic principle of stylization, and even the solemn prayer of the chorus, make an unthinkable fate appear to have had some meaning; it is transfigured, something of its horror is removed. [. . .] Works of less than the highest rank are even willingly absorbed, as contributions to clearing up the past. When genocide becomes part of the cultural heritage in the themes of committed literature, it becomes easier to continue to play along with the culture which gave birth to murder. There is one nearly invariable characteristic of such literature. It is that

243 The Olimpias, "Interview," *Sleeping Giants*.

244 The Olimpias, "Thinking About Access," *Sleeping Giants*, 1.

it implies, purposely or not, that even in the so-called extreme situations, indeed in them most of all, humanity flourishes.²⁴⁵

By making meaning out of difficult situations, these events – whether they are small personal experiences or large-scale atrocities – become palatable and more easily incorporated into the body politics. But what happens when we move from the camp to the clinic? How might we think about the relationship between legibility and political consequence in a healthcare context? What other, unintended conservative political projects might a committed artwork such as *Glass Body* serve in Chelsea and Westminster Hospital’s Assisted Conception Unit?

While socially engaged performance practices often focus on using empowering, democratic methods, dismantling dominant stereotypes, and fostering respect for diverse positions, they can just as easily serve other political projects.²⁴⁶ As evidenced by any number of “experiential” marketing techniques used to sell international brands like Adidas and Red Bull, collaborative public performance is an excellent experiential marketing technique.²⁴⁷ Is the ease with which collaborative public performance transforms into experiential marketing something that artists should necessarily resist when working in a healthcare context? Kupperts has noted that the videos produced during the *traces* process have become so valuable partly because they “make excellent marketing materials.”²⁴⁸ One of the project’s collaborating organizations, a mental health self-help non-profit, screens these videos at a booth that they set up at local markets. The video not only “tactically undermines stereotypes of disability;” it helps the organization raise funds.²⁴⁹

Glass Body also had a complex relationship to this issue of performance-as-marketing. The Wellcome Trust, the UK’s largest non-governmental source of funding for biomedical research, funded the piece. Established in 1936 by American pharmaceutical magnate Henry Wellcome to improve human and animal health, the organization has since divested itself of any direct interest in the pharmaceutical industry. The Trust does, however, invest a significant portion of its funds in transferring basic research into healthcare products.²⁵⁰ In addition to the Wellcome Trust, Furse’s collaborators included the Chelsea and Westminster Hospital’s Hospital Arts division, the hospital’s imaging department and assisted conception unit, and Professor Stuart Campbell, the pioneer of diagnostic ultrasound and the director of ultrasound at Create Health, a London ART clinic. Given the fact that *Glass Body* was created with the help of several parties that are fully invested in biomedicine as an industry and a path to human health, it is important to ask whether or not *Glass Body* was used as an

245 Theodor Adorno, “Commitment,” 313.

246 Petra Kupperts and Gwen Robertson, “Introduction,” 4.

247 Bernd H. Schmitt, *Experiential Marketing: How to get Customers to Sense, Feel, Think, Act, Relate to Your Company and Brands*, 3.

248 Petra Kupperts, “Community Arts Practices,” 45.

249 Ibid.

250 Wellcome Trust, “About Us: History of Henry Wellcome,”

experiential marketing event and to look at how that fact affects Furse's feminist political project.

In many ways, *Glass Body* was a perfect piece of experiential marketing. In the medical history that Furse constructed, medical imaging technologies are represented as great achievements that saved lives during World War II and give patients the unique opportunity to construct a new self through the process of visually exploring the insides of their bodies. The story that it told about IVF focused exclusively on a successful outcome (the birth of a child) and the dignified act of suffering for a greater purpose. The way in which *Glass Body* staged this story encouraged spectators to identify with the protagonist and experience some of what it was like for her to go through this adventure. Not only was the piece visually and aurally stunning and enveloping, *Glass Body's* structures of affective interactivity were well suited to helping spectators develop a meaningful and personally relevant relationship to IVF. This evidence adds up, but even if we are sure that the work served to promote an expensive medical procedure or a certain biomedical model of health, it does not mean that the piece should be written off as just another cog in the wheel of global capitalism. What else might have been happening underneath or even because of *Glass Body's* positioning within the infrastructures and institutions of biomedicine? What kind of work was Furse able to do within this position that she could not have done from outside of it?

Instead of aligning the piece with experiential marketing and thus writing it off as politically toxic, it might be more useful, instead, to look at how artists and scholars are positioned inside and outside of systems and institutions, and at how this positioning shapes the aesthetics and politics of their work. For example, in addition to providing her with the resources to produce such a complex multimedia performance installation with high production values, Furse's collaboration with the Wellcome Trust, Chelsea and Westminster Hospital, and the Create Health Clinic positioned her to stage an intervention that she would not have been able to make outside of these institutions. She made a work of art that was formally complex, involved sophisticated screen technologies, and demonstrated an artful command of the history of medical imaging technologies. These characteristics lent the piece a certain weight and status within the hospital environment where sophistication, expertise, precision, and wonder were highly valued. Encountering this piece as a high-status work that performs the aesthetics and expertise privileged within its environment, spectators were more likely to perceive it as something that *belonged* there and to feel that the positions and behaviors represented in this piece were valuable there. As such, the piece modeled and validated for the audience a particular way of using ARTs, a way to be a patient. The patient role that Furse represented and gave her audience the chance to rehearse was multiple – live body, fractured image, and voice. She was not a singular, coherent subject. She had the authority to work alongside hospital administrators and medical pioneers to represent her own story, to use their resources to share her thoughts on the process of relational subject formation. The interactive arts practices included in the piece – writing inside Petri dishes and using touch screens to design representations of reproductive organs – extended Furse's authority to the other patients in the room. The spectators were not only encouraged to tell their own stories, which is a core component of much social practice,

but they were also shown that patients' self-representations were highly valued in that particular environment.

We find, however, that a significant obstacle impedes this line of argumentation if we return briefly to the beginning of the chapter and remind ourselves of the ways in which *Glass Body*'s commitment to a political project (inspired by a particular kind of feminist consciousness-raising) shaped the piece's formal structures and its overall political efficacy. In that earlier analysis we identified some of the factors that inhibit the efficacy of a form of political activism that is structured around the affective, identificatory power of first person narrative. These limits centered on the fact that this particular staging of a first person narrative within an aesthetic/ethic of "wonder" produced an inability/unwillingness to address and accommodate diverse experiences. They push us yet again to think more carefully about the political work that *Glass Body* does. In the context of our current debate about how Furse's legibility and status may or may not have served as experiential marketing, we are forced to look at how authority moves between institution and performer and between performer and spectator. How much of the authority afforded to Furse – the authority to collaborate with high status members of the medical institution, to use their tools, to speak for herself (it is, in fact, Furse's performing *Glass Body*'s voiceover) – was "earned" through her status as a white, middle-class heterosexual woman? Were all members of her audience afforded the same power to represent themselves, to enact alternate versions of themselves within the space of the performance and the space of the hospital? As scholars such as Dorothy Roberts, Adrienne Asch, Charis Thompson, and Kath Weston have demonstrated, this is certainly not the case within an ART clinic. The co-formations of race, ethnicity, class, gender, sexuality, and ability greatly affect the kinds of power and authority a person is granted in such spaces. They shape the stories people tell about themselves and their families, and they determine how people interact with technologies and processes of medicalization. As debates over the autonomy and heteronomy of social practice continue to unfold, one of the questions we should ask when we are thinking about how legibility does or does not line up with artistry or political efficacy is "to whom is the work legible, and in what time and place?" In my reading of *Glass Body*, legibility – what it means and what it accomplishes – depends. It depends on the place from which you are looking and what you are able/trying to do in that place.

Chapter 5

Regeneration: Tissue Engineering, Maintenance, and the Time of Performance

The Tissue Culture and Art Project (TCA) is a collective of artists that has become famous for creating technologically sophisticated performances that involve staging living tissue sculptures within elaborate temporary tissue engineering laboratories. Previous performance works have included a living “victimless” leather jacket grown from immortalized cell lines, a quarter-scale replica of the artist Stelarc’s ear grown from human cells, and a living chimeral mass of the cells of several different organisms taken from tissue banks, laboratories, and museums. One of their most technologically and politically sophisticated works was their 2002 *Pig Wings Project*. Two years in the making, *The Pig Wings Project* began at Harvard University and was eventually performed in the Art Gallery of South Australia as a part of the Adelaide Biennale for Australian Art. Oron Catts and Ionat Zurr, the founding members of TCA, were inspired to undertake this project during their 2000 residency at the Tissue Engineering and Organ Fabrication Laboratory in Massachusetts General Hospital at Harvard Medical School. As they observed and worked with the scientists in this lab, they were struck by what they found to be the virtually unacknowledged ethical implications of certain areas of tissue engineering and regenerative medicine, specifically xenotransplantation and the practice of using animals as bioreactors to grow human parts. Considering a possible near future in which more and more animal organs are transplanted into humans and partially living/partially constructed beings were regularly bought and sold, they wondered: What kind of relationships will we form with such objects? How are we going to treat animals with human DNA? How will we treat humans with animal parts? What will happen when these technologies will be used for purposes other than strictly saving life?²⁵¹ As artists who pose complex ethical questions through the production and exhibition of performance, they got to work on *The Pig Wings Project*, which they hoped would inspire audiences to confront these very issues. When their Harvard residency ended, Catts and Zurr continued to work on the project with TCA collaborator Guy Ben-Ary at their institutional home, SymbioticA, the Art and Science Collaborative Research Laboratory in the School of Anatomy and Biology at the University of Western Australia.

Catts, Zurr, and Ben-Ary decided to use pig stem cells and tissue engineering technologies to grow pig tissue into the shapes of three different kinds of wings. To make the wings, they harvested bone marrow stem cells from a pig’s femur and differentiated these cells into bone and cartilage. The cells were isolated and the artists then grew some of the cells into “two-dimensional layers (for about four months) and wrapped them around polymer constructs,” while they took another portion of the differentiated cells and “proliferate[d] them in tissue flasks and created cell suspensions that were combined with [three dimensional bioabsorbable scaffolds] in a dynamic bioreactor.”²⁵² The polymer constructs and three dimensional bioabsorbable scaffolds

251 TCA, “Previous Work: Pig Wings.”

252 Ibid.

were modeled after a bat's wings, an angel's wings, and a dinosaur's wings. The wings were significant in that they evoked the hype surrounding tissue engineering while representing three possible futures for the technology: good (angel wings), evil (bat wings), and neither good nor evil (dinosaur wings). When the engineering process was over, the three sets of resulting wings each measured 4 cm x 2 cm x 0.5 cm. While the engineering process may have been the most technologically sophisticated component of the *Pig Wings Project*, the project only became more complicated once it was time for the sculptures to perform.

The *Pig Wings* performances took place over the course of ten days at the Art Gallery of South Australia within an installation that TCA constructed for the event. The focal point of the installation was a small, cramped laboratory. Barely large enough for one technician, or two technicians with well-controlled elbows and knees, the lab was enclosed within a glass cube that resembled an oversized museum display case. One side of the cube was made of plastic with a zipper running down its center. On the inside of the plastic wall, just to the left of its zippered entrance, a blue apron hung on a hook. A table with a microscope on it was set to the right of the entrance, and to the left a compact, microwave-sized incubator sat atop a small refrigerator. The incubator housed three Petri dishes, each with a wing sculpture inside, and protected the sculptures from contamination and fluctuations in temperature. The incubator's transparent glass door was aligned flush against the left-hand wall of the cube so that the sculptures were visible to those outside of the cube through multiple layers of glass and plastic. Behind the incubator and the refrigerator, a laminar flow cabinet covered the entire back wall of the laboratory. Lit by several harsh, blue germicidal lamps and used as a sterile environment for feeding and tending to the sculptures, this waist-high glass-hooded workbench served as the stage upon which most of the performance's visible action took place.

The performers in TCA's works are the living engineered tissues themselves, the artists who create and maintain them, and the gallery visitors who encounter them. These performances thus begin the moment someone enters the gallery and extend through the moment of the sculpture's death. The *Pig Wings* performance ran for ten days. Although TCA's continuous performances can last for weeks at a time, they are not scripted or tightly scheduled beyond these pre-determined beginnings and endings. Rather than arriving at the gallery at a previously agreed-upon time for a show that was scheduled to begin and end at the same time for all parties involved, the *Pig Wing* spectators were free to join the ongoing performance as they pleased and leave it when they decided it was over between the hours of 10:00 am and 5:00 pm.

While this form of participatory spectatorship is relatively common within a gallery setting, as opposed to a theatrical performance venue, *The Pig Wings Project*, like many of the performance installations designed by the TCA, demand an unusual form of participatory spectatorship. Viewing one of their works often feels more like visiting a premature infant in a neonatal intensive care unit (NICU) than walking through an installation at an art gallery. When these small living sculptures are displayed, they reside in incubators and bioreactors – carefully regulated environments full of glass, glare, and gear. These incubators and bioreactors are sometimes displayed on their own within a gallery, but more often than not they are just one part of a larger temporary laboratory

installed within the space. Upon entering the *Pig Wings* gallery, for example, viewers had to peer through layers of glass and plastic and around networks of tubes and wires to catch a glimpse of fragile pale pink beings lit strangely by the green glow of a digital read out, the harsh blue light spilling out of the nearby laminar flow cabinet, or the flashing red light that indicated that the bioreactor was on. The spectator's viewing experience, like that of the NICU visitor, was also always under the threat of interruption. Periodically, repeatedly, and seemingly at random, trained technicians (Catts and Zurr) dressed in costumes that evoked both a mechanic's coveralls and a scientist's lab coat, entered the space, unzipped the laboratory cube's plastic door, put on the apron, and engaged in the complicated task of feeding the wings. They began by carefully moving the Petri dishes containing the fragile beings out of the incubator and in to the sterile laminar flow cabinet. Using pipettes they transferred a refrigerated nutrient solution into the Petri dishes and then returned them to their temperature-controlled, sterile home. This sudden burst of activity, interjected into long spells of relative stillness and performed along the back wall of the laboratory, obstructed the spectator's view of the wings but offered him or her something new to observe: complicated, precisely-orchestrated acts of maintenance. These acts of maintenance were not, however, theatricalized or stylized. They were simply the gestures and actions of scientists going about their daily work. They were the techniques that Catts and Zurr learned at Harvard and perfected in their own lab at SymbioticA.

Incapable of caring for themselves, the pig wings, like infants in the NICU, relied on people and technologies to maintain them. Maintenance's dual meanings – the action of keeping something in working order and the action of providing the means of subsistence or necessities of life – are appropriate here.²⁵³ In the *Pig Wings* installation and the NICU, the changing needs of an emergent life, alongside the infrastructural needs of an institutional home (the museum and the hospital), dictate the activities and temporality that structure each space and the outsider's engagement with the space. TCA renders the gestural, scenographic, and temporal connections between the maintenance labor involved in both tissue engineering and human reproduction particularly clearly in *The Pig Wings Project*. In this chapter I look closely at TCA's accounts of how they designed, installed, and performed the piece, in order to argue that TCA's choices around gesture, scenography, and time/duration allow us to link maintenance, tissue engineering, and reproductive/domestic labor in politically powerful ways (with the help of three important works of feminist art from the 1970s).

Growing, Feeding, and Killing *Pig Wings*

In 1996 tissue engineering artist Oron Catts and wet biology art practitioner Ionat Zurr joined forces to create the Tissue Culture and Art Project, an arts collective dedicated to making biological artworks, specifically, works that would serve as both critiques of certain aspects of the biomedical industry and as invitations for spectators and collaborators to think critically about the future of biomedicine. While Catts and

253 "Maintenance."

Zurr have stated that their art “critically engage[s] with the biomedical industry,” the critiques of biomedicine are not as coherent and the mode of address is not as didactic in their work as they are in the works of other bio artists such as Critical Art Ensemble or SubRosa.²⁵⁴ Instead TCA creates work that, to its audience, feels more like a question or an invitation than a statement or provocation. Most TCA performances are more puzzling than shocking, and it is often difficult to decipher which political positions underlie their artwork and their extensive written commentary on the artwork. This difficulty may stem from the fact that unlike the other artists discussed in this dissertation who align their work with at least one political project – whether it is feminisms, Marxism, or anti-capitalism – TCA is primarily invested in what they call questions of “ethics.” According to Zurr, “The Tissue Culture and Art projects are, in themselves, driven by ethical considerations; they are in their very content and form, conceived in ethical terms.”²⁵⁵

The ethical questions that preoccupy TCA arose from the artists’ experience in the field of tissue engineering. TCA believes that the medical and agricultural design of biological objects has “an enormous potential to change our culture for good and for bad.”²⁵⁶ Tissue engineering is the practice of using support systems built from artificial and biological materials to direct and control the growth of human and non-human tissues. Engineered tissues, which are used to replace or support ailing body parts such as skin, bladders, and fingers, are also part of the much hoped-for and hotly debated promise of stem cell research. Proponents of stem cell research argue that pluripotent human embryonic stem cells and induced pluripotent stem cells “offer a potentially limitless source of cells for tissue engineering applications” providing cures for diabetes, Alzheimer’s, macular degeneration, or spinal cord injuries, to name a few.²⁵⁷

Cautiously optimistic²⁵⁸, TCA finds the promise of tissue engineering ethically complicated because the technology represents a shift from what they call “slow and non-purposive biological evolution” to “fast and goal-oriented technological” evolution.²⁵⁹ They argue that this shift in tempo and teleology presents ethical problems not simply

254 Oron Catts and Ionat Zurr, “Agents of Irony” 160.

255 Oron Catts and Ionat Zurr, “Ethical Claims,” 10.

256 TCA, “Previous Work: Previous Stages.”

257 Hipp and Atala, “Tissue Engineering, Stem Cells,” 1.

258 I call TCA “cautiously optimistic” because it does not approach biotechnology as something that can be accepted or rejected. Not only is it not going anywhere, it is now seamlessly intertwined with our everyday lives and thus forcing some productive, boundary-destabilizing conversations. TCA explains, “TC&A, as opposed to the art of the 60’s and 70’s do not reject technology as such. Furthermore, unlike the art of the 80’s and 90’s does not look at the border between the machine and the human body, but rather looks at the seamless interaction between living entity and non-living entity outside of the human body. In many ways, TC&A looks at the introduction of a high-tech nature which blur the boundaries among different organisms and species in their environment.” TCA, “Previous Work: Previous Stages.”

259 Ibid.

because it could result in new dangerous technologies or biological exploitation, but because our culture and society are fundamentally unprepared to comprehend and address these new dangers.²⁶⁰ We do not know how to answer questions like:

Who is going to make the decision about the direction this technology is going to take us? On what set of values are these decisions going to be based? Do we have the tools to evaluate what is good or bad in regard to biological technologies and in regard to its [sic] ecological outcome and its [sic] culture/social aspect? Are our cultural values going to change as these technologies take over? And if we are not sure about the answers for the questions above then can we generate a shift in cultural perception that will open a way to utilize biotechnology for a utopian future?²⁶¹

According to TCA, we have difficulty answering these questions because our anthropocentric, consumerist epistemologies encourage us to overestimate the distance between humans and animals, between the living and non-living, between beings and materials that are consumable and those that are not. As scientists create a sheep-human chimera, use a mouse as the medium upon which to grow an ear, and coax stem cells to differentiate across nanowires, tissue engineering collapses the boundaries between these categories. If tissue engineering uses human and non-human animal tissues as the tools and raw materials for building new technologies, and we want to proceed ethically with this work, we need to radically reconceptualize our cultures of production and consumption and the theories we use to value non-human animals.

While TCA's concerns are often shared by political projects such as animal rights activism, environmentalism, conservationism, and anti-consumerism, TCA does not use performance as an explicitly political, activist tactic. It is instead, "the optimal medium to generate a discussion and debate dealing with the contradictions between what we know about the works and society values which are still based on old and traditional perceptions of the world."²⁶² Performance is, for TCA, an opportunity to train in ethical decision making, to practice collaborative critical thinking in the company of fellow spectators, "semi-living" beings, and their "techno-scientific bodies."

TCA has coined the term "semi-living" to describe the category of beings produced by tissue engineering. TCA describes the semi-living as "parts of complex organisms which are sustained alive outside of the body and coerced to grow in pre-determined shapes. These evocative objects are tangible examples that brings (sic) into question deep-rooted perceptions of life and identity, concept (sic) of self and the position of the human in regard to other living beings and the environment."²⁶³ In most of their works, TCA creates semi-living beings in the lab and then puts them on stage to "perform" in art galleries and other art settings so that the lay public can encounter and

²⁶⁰ Ibid.

²⁶¹ Ibid.

²⁶² Ibid.

²⁶³ Oron Catts and Ionat Zurr, "Agents of Irony," 154.

interact with the beings and their “techno-scientific bodies.” TCA defines “performance” and the “techno-scientific body” in the following way:

In TC&A’s work, we, the artists, position the semi living entities on center stage while all the surroundings, including ourselves become parts of the ‘Techno-Scientific Body.’ In the context of Semi-Living a techno-scientific body is the artificial environment that sustain (sic) (and in some cases stimulate (sic)) the growth of living fragments of bodies. The techno-Scientific Body includes the components such as a bioreactor, incubator, specialized nutrient solutions, and other biological agents, as well as the human operators.²⁶⁴

Because the semi-living are always staged within the context of their techno-scientific bodies, the performance with which spectators are invited to interact is in fact the choreographed interaction of a range of different actors including humans, machines, tissues, and the exhibition space itself.

In some of their earliest projects, TCA noticed that spectators were not engaging with the work in the way that the artists had hoped they would. They found that spectators were not approaching the sculptures as a peculiar kind of life form and/or were not grappling with the ethical implications of the existence of such life forms. Spectators were not taking up TCA’s invitation to “reassess their perceptions of life.”²⁶⁵ In an article about their semi-living performances, TCA identifies three roots of this perceived failure. First, the semi-living are discursively unapproachable. TCA explains:

[I]n many cases the existence of the Semi-Living within the installations seems to be almost hidden by the bodies and technologies that already have a well-established contextual discourse. One can argue that the main reason for this is that the Semi-Living represent a condition/situation that lacks articulate cultural discourses and tools to respond to its existence, so many people will tend to ignore it [sic], and focus instead on the familiar (in terms of both objects/subjects and discourse).²⁶⁶

These tissues are relatively high-tech, recent innovations typically found in research laboratories or hospitals and have not yet experienced the kind of wide-spread use and mass cultural attention that other tissue-based technologies such as *in vitro* fertilization have experienced.²⁶⁷ As such, tissue engineering is an ethical problem that is

²⁶⁴ Ibid., 154-5.

²⁶⁵ Ibid., 161.

²⁶⁶ Ibid., 155.

²⁶⁷ One of the stem cell scientists with whom I worked during the spring of 2009 did helpfully point me to a recent episode of *South Park* called “Eek! A Penis!” which managed to tackle an amazing range of topics including gender reassignment surgery, stem cell research, and tissue engineering. Fortunately for TCA, Trey Parker and Matt

particularly difficult to interrogate in a performance that does not also include a significant amount of context-setting and direct provocation through explicit questions or prompts. Critical Art Ensemble's *Flesh Machine* or Anna Furse's *Glass Body* included interactive digital histories of the biological and medical technologies staged along with pithy taglines such as "It's about wonder and the body spectacular." TCA's performances, however, are rarely contextualized or mobilized in direct ways (at least by the artists themselves).²⁶⁸

TCA goes on to identify a second cause of this spectatorial failure to engage. They argue that, "another explanation might be that the Semi-Livings, though constantly changing, growing, mutating and dying, are doing so in a in a scale of time and space which is not easily detected by humans."²⁶⁹ The key indications of "life" – growth, change, and even death – are not readily apparent to spectators within the specific performance environment that TCA had created. For example, the typical spectator's participation in the performance is relatively brief, ranging from a few moments as he or she walks through the gallery to, at the most, a few hours. While the format of a weeklong participatory endurance performance may have provided spectators with the opportunity to enter into "semi-living time," TCA's choice to use the more conventional format of the gallery performance installation was a choice to operate in a kind of temporality that did not align with that of tissue engineering. TCA also chose not to use microscopes or other imaging technologies – which may have provided spectators with a sense of the scale of semi-living growth and death – to mediate the spectator's encounter with the beings.

This issue of mediation is a fraught one for TCA and lies at the center of their third explanation for the perceived failure of some of their early work:

The Semi-Livings . . . are living fragments which were stripped of their "host" body . . . and its immune system. As a result they have no way to resist infection when exposed to the external environment; they must be contained in sealed and sterilized vessels in order to survive. It means that every physical interaction with the Semi-Livings is mediated through technology; in the form of a bioreactor, a pipette and a sterile hood. Furthermore in order to maintain the life of the Semi-Living, we have to build a fully-functioning tissue culture laboratory that provides the appropriate conditions and enables the procedures involved in caring for the Semi-Living.²⁷⁰

The semi-living appeared to be discursively *and* physically unapproachable, making it even easier for spectators to focus instead on the technologically sophisticated apparatus surrounding and supporting the semi-living. As extremely vulnerable and non-verbal

Stone, the creators of *South Park*, are hard at work building smart and critical cultural discourses around tissue engineering.

268 Athletes of the Heart, Press Release.

269 Oron Catts and Ionat Zurr, "Agents of Irony," 155.

270 Oron Catts and Ionat Zurr, "Agents of Irony," 155-6.

beings, the semi-living could not participate in the forms of “direct” and “unmediated” interpersonal performance that are often used to generate the kinds of collaborative critical thinking that TCA so desires.²⁷¹

To address the three roots of the spectatorial engagement problem, TCA developed what it calls the feeding ritual and the killing ritual. To perform the feeding ritual, the artists would enter the gallery dressed in costumes that evoked both a mechanic’s coveralls and a scientist’s lab coat and use the sterile laminar flow cabinet and pipettes to feed the sculptures their nutrient media. To perform the killing ritual, the costumed artists would reappear, remove the tissues from their sterile containers, and hand them over to the audience to be touched and thus contaminated. Sometimes the sculptures would die immediately and other times several minutes passed before they died. TCA sees these rituals as a way to activate the power of performance to spark ethical inquiry through the “disruption” provided by physical and affective interaction. They explain:

By celebrating and terminating semi-living art forms, we trouble the conventional art viewer’s autonomous reflective space (as does all performance art). Our installations involved performative elements that emphasize the responsibilities, as well as the intellectual and emotional impact, which results from manipulating and creating living systems as part of an artistic process.²⁷²

TCA talks about their decision to include feeding and killing rituals in some of their work as a move away from visual art, towards performance, and they characterize this move as a successful remedy to the problems that spectators were having engaging with their work.²⁷³

Within a visual arts context, performance has earned a host of heterogeneous associations, many of which Michael Fried famously delineated in his “Art and Objecthood” essay in 1967. In “Art and Objecthood,” performance appears under the guise of “theater” and “theatricality” and is used to name minimalism’s corruption of modernism’s medium specificity, its privileging of the situated spectator’s encounter with the work of art, and the fact that this encounter is durational and can not exist in “no time at all.”²⁷⁴ For TCA, the turn towards performance, initiated by the introduction of feeding and killing rituals, is a turn towards these particular associations, and thus becomes a way for TCA to draw the viewer’s attention towards collaborative durational maintenance labor. TCA artworks that predated the feeding and killing rituals functioned more like visual art objects, even though they did include semi-living “performers.” Visitors to the galleries in which these works were displayed approached the works as visual art from their “autonomous reflective space.” Not only did the entrance of

²⁷¹ For examples of this kind of performance work see Kester, *Conversation Pieces*.

²⁷² Oron Catts and Ionat Zurr, “Agents of Irony,” 156.

²⁷³ Ibid., 156-7.

²⁷⁴ Michael Fried, “Art and Objecthood,” 145.

costumed artist/performers during the feeding and killing rituals disrupt this autonomous reflective space, ushering the viewer into a collaborative performative space (because now there was suddenly nowhere to stand that was “outside” the work of art), it also brought the viewer out of the time of visual art and into the time of performance. While the time of performance, in this instance, did not fully align with tissue engineering’s temporality, it highlighted duration as a core conceptual component of the work in a way that visual art often cannot. The rituals, like all performance, happen over time and the kinds of time used in these rituals help the viewer to know something new about the semi-living. The slow precision involved in feeding and growing these fragile beings juxtaposed with the speed and facility with which they can be destroyed, tell the viewer something about who/what the semi-living are. They drew attention to the fact that the viewer and the semi-living are spending time together, growing, changing, and dying together.

There were, however, certain aspects of performance from which TCA worked hard to distance itself. Performance’s associations with spectacle and artifice did not serve TCA’s larger goals for their project. Critical of the ways in which non-human beings are made to perform for their food in front of human audiences in zoos and circuses, TCA wanted to make sure that their feeding *rituals* did not resemble zoo or circus feeding *spectacles*. TCA even decided to abandon scheduled feeding times in their performances because it felt that set feeding times were a zoo convention that encouraged a form of spectatorship that demanded spectacle. Because scheduled feeding times allowed for spectators to plan to arrive for that particular aspect of the performance, it raised spectators’ expectations that something specific, something “theatrical” was going to happen. Most significantly, then, performance was a way for TCA to both demonstrate and implicate the viewer in the everyday, non-spectacular labor that goes into keeping the semi-living semi-alive. Feeding and killing are all that “happen” during these performances; they are the only perceptible actions taking place and they are the only obvious actions in which viewers can participate. Thus an encounter with maintenance labor becomes one of the primary places from which viewers begin thinking about the nature of semi-living beings.

During *The Pig Wings Project*, TCA’s desire to stage the ways in which scientists care for the semi-living bumped up against the ways in which the Art Gallery of South Australia cares for works of art. This friction, however, ended up being a productive one. In order for the pig wings to perform live in the piece, TCA needed to install a laboratory in the gallery that would house all of the devices used to keep the sculptures alive and also provide adequate space for Catts and Zurr to administer to them. After much deliberation, the gallery allowed TCA to install the small laboratory that I described at the beginning of the chapter. The installation of this project required such deliberation because this gallery, like many others, did not have policies and practices in place to deal with the set-up and maintenance of biological art. The simple prospect of creating such an installation raised many questions for the gallery staff. Would the structure of the

gallery be damaged by the construction of this lab? Did the gallery's insurance cover living works of art? What if something went "horribly wrong?"²⁷⁵

While this gallery, like most galleries, had no experience turning one of its rooms into a laboratory, it also had no experience exhibiting a work of art that grew and changed over time. One of the major questions that arose was how the gallery's security guards should protect the work. Would they be responsible for taking care of the sculptures? What would happen if they, or one of the spectators damaged the sculptures? The guards and gallery staff knew how to protect certain kinds of sculptures and how to manage the technologies that support/constitute certain kinds of art – like the monitors and projectors used in video installations or the lighting used in live performances – but the technological support that the TCA sculptures/performers needed was foreign and intimidating to the guards and staff. TCA assured everyone that the guards were not responsible for caring for the sculptures. Instead, the artists would come into the gallery every day for the first ten days of the exhibition to feed the pig wings. At the end of the ten days, the tissues would die and the dead tissue would be put on display. This daily feeding ritual performance required moving the wings from the incubator to the sterile hood and back again, and it was performed in front of whoever was present at that time of day, usually the gallery's security guards and visitors. During *The Pig Wings Project* the artists ended up doing maintenance labor that is often assigned to the gallery. This arrangement presented another obstacle for the gallery to overcome. Until very recently it has been unusual for a gallery to have a work of art in its collection that would be repeatedly moved around by the artist during the span of the exhibition. Traditionally, the boundaries between visual art and performance are clearer, and the duration of performance works is structured differently. Either the artist comes in, installs a work of art, and then leaves, or the artist comes in performs for a set period of time – for twenty minutes or two hours or three days – without interruption, and then leaves until the next scheduled performance. The performer sometimes leaves documentation behind for the gallery to display and sometimes takes all of the set and props with him or her. The *Pig Wing Project's* indeterminate status as a laboratory, visual art object, and piece of performance was a very unusual one for the gallery's administrative, curatorial, legal, and human resources structures to negotiate.

Despite their initial hesitation, or possibly because of it, the festival's curator and the gallery's security guards grew quite attached to the semi-living sculptures and had a difficult time letting them die during the final killing ritual. As the end of the ten days of feeding approached, the guards asked if they could learn how to feed the tissues for the duration of the exhibition so that the sculptures wouldn't have to die prematurely. Due to health and safety regulations, TCA did not allow the guards to assume responsibility for caring for and feeding the sculptures. The wings were killed as planned. When it came time to kill the wings, the biennial's artistic director, Peter Sellars, who was slated to perform the task, began to cry. He told Catts and Zurr that "each time he has to turn off the Bill Viola installation he feels how the artwork dies (until the next day when the

275 Oron Catts and Ionat Zurr, "Agents of Irony," 159.

video projection is turned on again) but he never thought that he would literally kill an artwork just by touching it.”²⁷⁶

In an article about the performative strategies they have developed to help audiences engage with the semi-living, TCA highlight these two events – the guards asking to care for the sculptures and Sellars crying – as evidence of the feeding and killing rituals’ efficacy. The guards’ and curator’s emotional attachment to the sculptures and desire to keep them alive were, for TCA, indications that the rituals worked; that the guards and curator had, in fact, reassessed their perceptions of life. The underlying assumption here is that in order to care about the fate of the sculptures, the guards and curator would have encountered the sculptures as living and as more valuable/interesting alive than dead. They would have taken at least the first step in the process of interrogating how the existence of semi-living beings affects their understanding of life itself by encountering the sculptures as alive and by letting the sculptures have an effect on them. If “an indifferent relation to the Other” is one of the attitudes that TCA is trying to combat with their work, then affective attachment is useful.²⁷⁷ Whether we agree or not that affective attachment is necessarily a good indicator of critical engagement, we can still see – through the way that TCA diagnosed the limitations of their early work, devised solutions, and evaluated the efficacy of these solutions – that Catts and Zurr are making an interesting claim about what we need to know and do in order to imagine possible futures for tissue engineering technologies.

TCA turned from visual art to performance in order to highlight the role that maintenance labor and a certain kind of temporality played in their work. Furthermore, the guards and curator – the people who spent the most time on the project, put forth the most collaborative effort to bring it into being, and worked the hardest to maintain it once it was installed – were identified as the best examples of successful engagement with the work. As Catts and Zurr explain:

Throughout the time that the *Pig Wings* were alive, these reluctant staff witnessed every Feeding Ritual and observed first hand the growth of the Semi-Livings. They were there when we talked about our fears that the *Pig Wings* will be contaminated, and realized the level of investment in time and emotion that goes in to keeping them alive.²⁷⁸

The subtext underlying TCA’s choices seems to be that spending time maintaining semi-living beings is the best way to understand the various ethical issues they raise. It is only through durational maintenance work that we can begin to understand the ontology of tissue engineering. Since we need to radically transform our understanding of what is natural, human, and consumable in order to imagine and eventually create an ethical biofuture for tissue engineering, we must start spending time – a lot of time – engaging in the forms of maintenance specific to the semi-living. We must start building a

²⁷⁶ Ibid.

²⁷⁷ Oron Catts and Ionat Zurr, “Ethical Claims.”

²⁷⁸ Oron Catts and Ionat Zurr, “Agents of Irony,” 159.

relationship with the semi-living and those who create and care for them. We must get our hands “wet.”

Feminist Maintenance Art

Conversations about technologically complex contemporary art are increasingly structured around the concept of the digital, so much so that the terms “New Media Art” and “Digital Art” are often used interchangeably. When critics analyze biological artworks, the temptation is to use theories of the digital and the connections between the digital and the genetic – connections made mostly through metaphors of DNA as code – to understand the different issues at play in the work. Feminist art historian Maria Fernandez describes this tendency within new media theory quite clearly when she writes:

As with other live entities, humans are viewed primarily as patterns of information transferable to various media, such as computers. In this scheme of things, embodiment is secondary; the organism has been replaced by its code . . . Although a small number of theorists have cautioned against ‘forgetting the body’ they are a minority”²⁷⁹

As I demonstrated in my discussion of Critical Art Ensemble’s *Flesh Machine* in Chapter 3, the concept of the digital does not always help us get at what is most important in a work of biological art. Biological artworks do not always involve genetic or molecular interventions and those that do are often “about” much more than DNA as code. As Catts and Zurr have noted: “Life is not a coded program, and we are not our DNA.”²⁸⁰ In the body, DNA functions within the context of the cell, the tissue, and the organ. It is from these relationships of the cell to the tissue and the tissue to the organ that Catts and Zurr (as TCA and as members of SymbioticA) seem to draw much of their artistic inspiration. They note that in cell theory, “Metaphors of community, labor, and the nation-state have been attached to the conceptual understandings for the way cells, tissues, and organs are operating within and without a body.”²⁸¹ Catts and Zurr have found these metaphors to be useful ways of getting at what is most important about their performance work. They even characterize their tissue sculptures as, “rather humble, collaborative, dynamic living communities that are in need of care.”²⁸²

While they may be the first artists to connect artistic acts of care and maintenance with cell theory, Catts and Zurr are of course not the first artists to make art about the labor that goes into maintaining humble, collaborative, dynamic living communities that are in need of care. Since the 1960s, feminist artists such as Mierle Laderman Ukeles, Mary Kelly, and Betye Saar have been using visual and performance art practices to

²⁷⁹ Maria Fernandez, “Postcolonial Media Theory,” 520.

²⁸⁰ See Oron Catts and Ionat Zurr, “The Ethics of Experiential Engagement,” 126.

²⁸¹ Ibid., 137.

²⁸² Oron Catts and Ionat Zurr, “Are the Semi-Living Semi-Good,” 7.

examine this kind of labor. Their explorations, however, bring issues of race, class, and gender into our conversation about maintenance. Instead of naturalizing or essentializing certain kinds of labor, regeneration, and collaboration, Ukeles, Saar, and Kelly shed light on the work that goes in to assigning certain jobs to certain people, valuing some kinds of work over others, making some work visible and other work invisible. By looking at TCA's work alongside signature pieces by Ukeles, Kelly, and Saar, we are able to further complicate our understanding of what maintenance work is, who does it, and what it accomplishes. This analysis will eventually help us demystify the gendered labor that undergirds tissue engineering as a practice and as a financial product.

After giving birth to her first child in the late 1960s and noticing that her daily domestic responsibilities were commandeering the time and energy she had reserved for her artistic work, Mierle Laderman Ukeles became frustrated with the polarization of her art and everyday life. Curious about the relationship between household maintenance and creativity, she began breaking down the "assumptions that estranged her work as an artist from her work in the family."²⁸³ The result of this process was her 1969 "Manifesto for Maintenance Art," which deconstructed avant-garde and conceptual art's claims to originality, development, individuality, and dynamic change by revealing the ways in which maintenance is disavowed in the work. She argued, "Avant-garde art, which claims utter development, is infected with strains of maintenance ideas, maintenance activities, and maintenance materials. Conceptual & Process art, especially, claim pure development and change, yet employ almost purely maintenance processes."²⁸⁴ Contrasting the drive to separate oneself and "follow one's own path to the death" with the drive to work together to guarantee a larger group's survival, Ukeles aligned the avant-garde with "the Death Instinct" and maintenance art with "the Life instinct." She described "the Life instinct" as "unification; the eternal return; the perpetuation and MAINTENANCE of the species; survival; systems and operations; equilibrium."²⁸⁵

With the creation of this manifesto and a solidified dedication to work that arises from the Life instinct, Ukeles launched a maintenance art practice that she continues to this day. Her first major works of maintenance art were three live performances staged at the Wadsworth Athenaeum in Hartford, Connecticut in 1973. In these performances Ukeles scrubbed the inside and outside of the museum during visiting hours, orchestrated a collaborative cleaning of a display case, and took the museum keys and locked and unlocked various gallery and office doors at will. Staging and celebrating the "basic human operations"²⁸⁶ that support the museum's operation, Ukeles was also signaling that these basic *human* operations are in fact gendered practices. The fact that maintenance work is "women's work" when it is done in private, is part of why we denigrate and hide the work when it is done in public, even when it is performed by men. Since the 1970s, Ukeles has continued to extend her feminist analysis of the gendering of

283 Patricia Philips, "Maintenance Activity," 171.

284 Mierle Laderman Ukeles, "Manifesto for Maintenance Art," 2.

285 Ibid., 1.

286 Robert C. Morgan, "Touch Sanitation," 57.

artistic and maintenance labor to include public sanitation. As the New York City Department of Sanitation's official artist-in-residence, Ukeles has undertaken a number of large-scale multi-year performance and installation projects that aim to do away with the negative stereotypes tainting maintenance work by making maintenance a "shared concern."²⁸⁷ She has also collaborated with local government sanitation services in Japan, France, and the Netherlands to create large-scale public performances and installations.

Ukeles's early maintenance works and the larger arc of her career are significant, in part, because of the way that they connect feminized domestic labor to the maintenance of institutions and to the maintenance of cultural categories like the avant-garde or conceptual art. In the context of our discussion of the Tissue Culture and Art Project here, her work helps us complicate the performance of and logic surrounding maintenance labor in *The Pig Wings Project*. Ukeles's theory and practice of maintenance art not only illuminate gender more generally as a significant blind spot in TCA's understanding of labor, they also invite us to look for the kinds of labor that do not appear (or appear to be valued) in TCA's work. While TCA might value certain technically sophisticated aspects of the care of fragile living systems as high-status and enriching for spectators, they choose not to stage much of the work that goes in to running a lab or a museum. The museum's guards, for example, only accidentally and covertly became primary collaborators in the *Pig Wings Project*. It was only as the end of the ten-day-long performance drew near that Catts and Zurr became aware of the extent to which the guards were caring for the sculptures. Catts and Zurr claim that the guards wanted to keep the sculptures alive because the guards were present during every feeding ritual and during the conversations in which the artists expressed their "fears that the pig wings would get contaminated."²⁸⁸ While this may be the case, the artists fail to mention that the guards were also caring for the sculptures on a daily basis by maintaining the installation's security and that this labor might have also contributed to their feelings towards the sculptures.

If we want to pause for a moment here to look more carefully at the relationship that the guards developed with the sculptures through the acts of caring for them and observing others care for them, feminist artist and theorist Mary Kelly's groundbreaking installation *Post-Partum Document* serves as a useful interlocutor. From 1973 to 1979, Kelly painstakingly documented the development of her son from birth to age five. The documentation took the form of intimate hand-written and typed notes, figures represented as scientific data, imprints of hands and body parts in clay, and other fragments of early life. When the piece was first installed in 1977 at the Institute for Contemporary Arts in London, each of these 139 pieces of documentation were organized into six sections plus an introduction and mounted to the gallery wall. *Post-Partum Document* was inspired, in part, by Kelly's membership in a feminist group that she describes as committed to changing "the iniquitous conditions of 'all' women's labor, blatantly enforced in the workplace . . . and more subtly sustained in the home through

²⁸⁷ Ibid.

²⁸⁸ Oron Catts and Ionat Zurr, "Agents of Irony," 159.

the naturalization of the woman's role in child care.”²⁸⁹ Curious about the psychic structure of this sexual division of labor, Kelly created *Post-Partum Document* as a dialogue with Lacanian psychoanalysis that would illustrate the social construction of subjectivity through the day-to-day relationship between a working mother and her young son. The piece is, among other things, evidence of the daily labor that goes in to creating interpersonal relationships and thus subjectivity. The detail and precision apparent in each of the piece's 139 individual elements (along with the simple fact that the piece has so many individual parts) visually represent the *amount* and *kind* of effort involved in building relationships/subjects. For Kelly, this process is a great deal of work and this work is difficult, skilled, and emotionally taxing.

For TCA, the labor of creating and sustaining semi-living sculptures is also plentiful, precise, and draining. But if the process of Mary Kelly caring for her young male child contributed to the creation of socially-constructed subjects who were “working mother” and “son,” what kind of beings did TCA's labor produce? And if there were certain social and political markers/consequences attached to “mother” and “son” in 1970s London, what are the social and political markers/consequences attached to the beings produced through the *Pig Wings Project*? TCA calls their tissue sculptures “semi-living” even though they are, technically, fully alive.²⁹⁰ The artists find this term useful because it designates the sculptures as ontologically different from but closely related to living beings. It also invites viewers to question for themselves what the difference actually is between semi-living and living things. For TCA, however, tissue sculptures are only semi-living because they have been separated from their “original” bodies, were created through significant human intervention, and are radically dependent on support from other technologies and forms of life to survive. While TCA might never suggest that full-fledged life belongs only to those who are self-sufficient, biologically whole, and created “naturally,” it is still problematic on many levels to suggest that dependency, technological intervention, discontinuity, and dispersal place organisms at a distance from the essence of life itself.

TCA asks their audiences to care for the tissue sculptures in a way that also produces both productive and unsettling relationships between humans and tissue culture. As evidenced by their choice to designate the gallery guards and curator model spectators, the artists suggest that a certain kind of emotional connection between spectator and sculpture is ethically valuable. A connection which results in tears and/or a desire to go to greater lengths to protect and maintain the sculpture is, for TCA, better than one which does not. When, in our particular cultural and historical context, is it useful for those who care for tissues (both up close and at a distance) to become emotionally attached to them? When is this kind of attachment dangerous? When I discussed *The Pig Wings Project* with a group of research scientists affiliated with the

²⁸⁹ Mary Kelly, *Imaging Desire*, xvii.

²⁹⁰ The stem cell scientists I interviewed were unequivocally and unanimously opposed to the term semi-living. They felt like it was not only inaccurate – the tissues are unequivocally alive and “semi” is a marker of quantity, not quality – but also misleading and not at all productive given TCA's goals for the *Pig Wings Project*.

Berkeley Stem Cell Center at the University of California, several scientists noted that the quality of their feelings towards the tissues with which they worked had a noticeable effect on the way they worked. When experimenting with human and human embryonic stem cells, these researchers found themselves working much more attentively than they did while using nonhuman animal stem cells. They also said that they were less likely to use more cells than they absolutely needed. While cost, availability, and material transfer agreements also influenced the way they handled these materials, the feelings they had about the nature of the cells themselves certainly played a significant role. This emotional attachment to human cells was described as helpful, ethical, and productive in that it respected some kind of innate value in the cells while also encouraging responsible use of resources. One of the women scientists, however, reminded the group that we have seen too many instances where an emotional over-investment in the fact that certain tissues are alive can wreak political havoc. President George W. Bush's ban on federally funded human embryonic stem cell research and his practice of calling cryo-banked embryos adoptable "snowflakes" are just two examples of why it might not always be useful to encourage sentimental relationships with all forms of tissue culture simply because they are alive.²⁹¹

While considering Kelly's work in the context of tissue engineering helps cultivate an appreciation of the intense labor that goes in to reproducing human stem cells *in vivo*, *in vitro*, and in the nursery, Betye Saar's box assemblage *Liberation of Aunt Jemima* turns our attention towards the different ways in which living beings are valued economically and exchanged in through markets. Betye Saar is an assemblage artist who describes her method as a process of recycling. She takes objects, stereotypes, emotions, and derogatory representations of African-Americans and repurposes them into box assemblages, altars, and installations that explore race and gender. Saar's artistic career took flight in 1972 with the exhibition of *Liberation of Aunt Jemima*, a work in which Saar armed a large figure of the pancake brand's marketing icon with a broom, rifle, and pistol. Standing tall and squarely facing her viewer, this figure of Aunt Jemima is sandwiched between a Warholian panel of pancake ads behind her and a painting of a black female domestic worker carrying a crying light-skinned child in front of her. Bound by these images but emboldened by the arsenal of weapons at her fingertips, Aunt Jemima is represented as a woman in the process of securing her freedom. By figuring liberation as a work in progress, *Liberation of Aunt Jemima*, along with Robbie McCauley's 1989 serial performance *Confessions of a Black Working Class Woman*, Kara Walker's 1995 *The Battle of Atlanta, Being the Narrative of a Negress in the Flames of Desire*, Carrie Mae Weems's 2004 *Louisiana Project*, and the Olimpias Performance Research Group's 2006 *Anarcha Project*, ask us to look for the residues of slavery that *still* stick to care work in American institutions like medicine (*Anarcha*) and education (*Sally's Rape*) or in service-oriented jobs (*Aunt Jemima*). They ask us to track the ways in which these histories are recycled and rematerialized in different

²⁹¹ See my discussion of Lauren Berlant's work in Chapter 2 for examples of how certain kinds of sentimental attachment to embryos and fetuses affect political debates around reproductive rights in the US.

contemporary environments. Assemblage, for Saar, allows for the interplay of drastically different times and contexts as objects from one place are layered over and framed by objects from another. Saar explains: “I am intrigued with combining the remnants of memories, fragments of relics and ordinary objects with the components of technology. It’s a way of delving into the past and reaching into the future simultaneously.”²⁹²

The Time of Performance

How do tissue-engineering technologies reach into the past and the future simultaneously? How do living beings circulate through markets within the intersecting worlds of stem cell research and regenerative medicine? Biotechnologies like tissue engineering have proliferated and complicated what Catherine Waldby and Robert Mitchell have called tissue economies.²⁹³ A tissue economy is, for Waldby and Mitchell, “a system for maximizing [the *in vitro* productivity of human tissues], through strategies of circulation, leverage, diversification, and recuperation.”²⁹⁴ This economy involves “hierarchizing the values associated with tissue productivity.”²⁹⁵ The cells and tissues used in tissue engineering circulate and are valued differently than donated blood, organs, or gametes for reasons that have to do with how they are procured and what they can offer (more on this later). They are, however, all implicated in networks of power and abuse:

“[T]he redistribution of human tissues can also produce injustice and exploitation, because one person makes a bodily sacrifice in favor of another’s health and life. Often the transfer of tissues from one person to another follows the trajectories of power and wealth.”²⁹⁶

A larger percentage of the American population is physically involved in tissue economies than one might expect. According to a 2006 New York Times Magazine cover piece, tissue samples from over 278 million Americans are stored by the FBI, military, National Institutes of Health, university research labs, drug companies, and even cosmetic companies.²⁹⁷ We discard our tissues during routine medical procedures such as blood tests, during major surgeries, and, sometimes, in death. The California Supreme Court ruled in 1990 that this act of separating our tissues from our bodies also divests us of our legal and financial control over these cells. A person’s discarded tissues are no longer his or her property. They belong to the person who picks them up and turns them into something new. Research scientists, government agencies, and biotech companies are free to recycle and repurpose our discarded tissue to cure diseases, develop

292 Elizabeth A Sackler Center for Feminist Art, “Feminist Art Base: Betye Saar.”

293 Catherine Waldby and Robert Mitchell, *Tissue Economies*, 181.

294 *Ibid.*, 31.

295 *Ibid.*, 31.

296 *Ibid.*, 8.

297 Rebecca Skloot, “Taking the Least of You,” 1.

groundbreaking research, test the safety of eyeliner, earn patents, or make profitable new technologies. While individuals do have property rights over sperm, eggs, and embryos, researchers can experiment on and commercialize any other tissues without soliciting the patient's permission or granting him or her a cut of the profits. The most famous unwitting and uncompensated tissue donor is Henrietta Lacks, whose immortal cancerous cervical cells were turned into a cell line, called HeLa cells, in 1951. By far the most widely used cell line in history, HeLa cells were used to create the polio vaccine in 1954 and it is estimated that the total number of cells that have been propagated in cell culture now outnumber the cells in Henrietta Lacks's body.²⁹⁸ Lacks died in 1951 at the age of thirty-one in the Johns Hopkins Hospital's segregated ward for black patients, and while her husband and children were devastated when they finally learned what had happened to their mother's cells, none of the Lacks family has ever been compensated.²⁹⁹

Stem cells, like Lacks's immortal cancer cells, can be made to replicate themselves endlessly, but stem cells can also differentiate into different kinds of tissue. As a result of these unique regenerative capacities, stem cells are valued and circulated differently and are involved in different forms of exploitation and profit. The field of regenerative medicine combines stem cell science with tissue engineering; its goal being to use stem cells to reconstruct three-dimensional living organs and tissues *in vitro* and then transplant them back into the patient's body.³⁰⁰ Regenerative medicine's stem cells can come from aborted fetuses, frozen embryos, and foreskins of circumcised children. Because totipotent and pluripotent stem cells, some of the most potentially useful and flexible cells, come from embryos that had been difficult to access under the Bush administration, many researchers have proposed the use of therapeutic cloning to enable patients to essentially donate an embryo and thus stem cells to themselves.³⁰¹ In 2007, however, scientists in the US and Japan were also able to create pluripotent stem cells from human somatic cells by inducing a forced expression of a gene in the cell. Scientists hope that these induced pluripotent stem cells (iPS cells) will perform as well as human embryonic stem cells (hES cells) and thus enable regenerative medicine to avoid the contentious debates around the ethical and legal status of the embryo in the US. Once stem cells are harvested from these various sources, they are cultured and encouraged to multiply into a three-dimensional form, usually with the help of bioabsorbable scaffolds. Ideally, the resulting organs and tissues are then transplanted into a patient's body.

Physicians, researchers, investors, financial markets, governments, and other parties value regenerative medicine in very specific ways. Physicians and patients believe that it has the "potential to overcome the intractable problems associated with organ transplantation and prosthetics – immune reactions, the scarcity of transplantable organs, the limited life span and wear-and-tear of medical implants in the body."³⁰²

298 Van Smith, "Wonder Woman," 1.

299 Ibid.

300 Melinda Cooper, *Life as Surplus*, 103.

301 Ibid., 104.

302 Ibid.

Because tissue engineering harnesses the body's regenerative capabilities, producing organs through the body's ability to recreate itself, physicians are no longer limited by organ scarcity or use-by dates.³⁰³ The possibility of using therapeutic cloning to produce organs from the patient's own stem cells also helps physicians avoid the immune system's usual hostile response to transplanted tissue. While there are times when it is useful to conceptualized regenerative medicine as an "upgraded version" of the fields of organ transplantation and prosthesis, tissue engineering is working with completely different concepts of time, transformability, and value.³⁰⁴ In *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era*, political theorist Melinda Cooper argues that tissue engineering operates in a different biomedical paradigm than organ transplantation and prosthetics.³⁰⁵ By looking closely at how this biomedical paradigm is constructed, we can eventually see how maintenance art arms spectators with the tools to assess and critique the most salient characteristics of this paradigm.

Cooper identifies several core elements of the tissue engineering paradigm such as its topological (as opposed to metric) geometry and its conceptual affinity with the science of embryology, but I want to focus here on her analysis of the way they circulate in markets, the time in which they operate, and the stories they encourage us to tell about our future. While organ transplantation relocates already given forms, tissue engineering is involved in the genesis of form, which Cooper calls organogenesis.³⁰⁶ During organ transplantation, doctors must suppress the body's response to change in order to prevent the organ from dying and to prevent the patient's body from rejecting the organ. Tissue engineering, however, works with and takes advantage of the body's ability to change.³⁰⁷ The embryonic developmental sequence is the stage at which the human body is best able to change, the time when it does the most and the most drastic changing. The fundamental principle of regenerative medicine is "to recapitulate selective aspects of the embryonic developmental sequence . . . in which tissue initiation, formation, and expansion take place."³⁰⁸ Theoretically, tissue engineering is capable of preserving permanent embryonic growth potential, of "reliving the emergence of the body over and over again, independently of all progression."³⁰⁹

Tissue engineering's investment in repeatedly reliving the emergence of the body means that tissue engineering exists in and creates a unique and non-chronological temporality:

303 Ibid.

304 Ibid.

305 For a more detailed discussion of the biomedical paradigm of organ transplantation and prosthetics, see Chapter 1, specifically the analysis of Carolee Schneemann's *Eye Body*.

306 Melinda Cooper, *Life as Surplus*, 111.

307 Ibid.

308 Ibid., 121.

309 Ibid.

Here it is not only spaces, forms, and bodies that become continuously transformable, but also the divisible instants of a chronological lifetime, so that any one body can be returned to or catapulted into any point in its past or future, and into any past or future it *could have* and *could still* materialize. . . . In principle, then, the adult body will be able to relive its embryogenesis again and again – including those it has never experienced before. 310

The stem cell's temporality, its never-ending emergence and unlimited potentiality, allow it to be incorporated into different economic infrastructures than those that predominate in other areas such as reproductive medicine or medical devices.³¹¹ While commodification was once the standard form of economic incorporation for biomedicine, financialization reigns in the field of tissue engineering. Cooper explains:

[W]hat has prevailed is not so much the commodification of tissues and processes – or a limited form thereof – but rather their integration into highly financialized, promissory forms of accumulation. . . . What is being constituted here, I suggest, is something like *a market in embryonic futures*, one that brings the promise of capital together with the biological potentiality of cell lines and attempts to conflate the two.³¹²

What happens in this process is not simply the commodification of life but rather its transformation into a form of speculative surplus value that may index a commodity but is not equivalent to it.³¹³ This financialization of human tissues, Cooper argues, is part of a larger shift away from a Fordist mode of production, away from a model that focused on the reproduction of standardized forms to one that is invested in the regeneration of the transformable and emergent. Neoliberal biopolitics moves away from the Fordist model of production and its reliance on “the ideal of reproductive labor and the family wage as a national biological reserve” and instead attaches itself to the promise of “a speculative future, where the technological capacities of the biotech revolution are credited with overcoming all limits to growth in the present.”³¹⁴ This hope rests, of course, on a foundational myth, a story that neoliberalism tells itself about biotechnology's ability to overcome all ecological or economic limits. Imagining utopias of perpetual growth, regenerative medicine's biopolitical perspective refuses to acknowledge the significance of two key elements: eggs and excess. The tissues that regenerative medicine uses to create this perpetually embryoid state either come directly from women's bodies or are the result of their reproductive labor. As Cooper writes, “What embryoid capital demands is a self-regenerating, inexhaustible, quietly sacrificial source of reproductive labor – a kind of global feminine. Its mystification relies in the

310 Ibid.

311 Ibid., 140.

312 Ibid., 141.

313 Ibid., 148.

314 Ibid., 150.

belief that the embryoid body is capable of regenerating itself.”³¹⁵ Echoing the “sourball” in Ukeles’s *Manifesto for Maintenance Art* who asks “after the revolution, who is going to pick up the garbage on Monday morning?”³¹⁶ I would add that embryoid capital’s mystification also rests on the belief that the embryoid body can clean up after itself.

Looking at TCA’s *Pig Wings*, Kelly’s *Post-Partum Document*, Saar’s *Liberation of Aunt Jemima*, and Ukeles’s larger body of work together under the rubric of maintenance art helps us become acutely aware of the reproductive, technical, relational, janitorial, and curatorial labor that supports the process of emerging. These pieces perform the maintenance work on which regeneration relies. Of course each artist could not and did not accomplish this feat on his or her own; TCA does not explicitly thematize gender, race, or class and Ukeles, Kelly, and Saar were certainly not engaging with tissue engineering technologies. Joined together by the act of maintenance, however, these artists form a kind of transhistorical bioethical task force that refuses to let its audiences disavow the work of the global feminine, which props up regenerative medicine’s utopian fantasy. The artists also disabuse us of regenerative medicine’s utopian fantasy by helping us imagine tissue engineering’s possible dystopias. Unlike the nightmare of the systemic, mechanical breakdown which prevails in the Fordist model of production, tissue engineering’s dystopia is one of excess, a “crisis of overproduction” or the “excess vitality of cancer.”³¹⁷ Ukeles’s *Turnaround Surround* (1989-present) and *Flow City* (1983-1991) bring spectators to a landfill and a waste transfer station for an up-close encounter with our current crisis of overproduction and the techniques we have developed to stave off the arrival of the global wastelands represented in dystopic films like Disney/Pixar’s WALL-E.³¹⁸ *Post-Partum Document*’s seemingly endless repetition of framed fecal stains and its graphs charting fluctuations in the volume of excrement produced by the child visually and spatially represent the frustration and fatigue that come with battling the body’s excess vitality day after day. TCA’s documentation of *The Pig Wings Project* indicates that the Art Gallery of South Australia’s staff also feared the regenerative capacities of uncontrolled tissues also. As the artists negotiated with gallery, deciding how the work would be installed and cared for, one administrator asked TCA, “what if something goes horribly wrong?”³¹⁹

Maintenance art also gives us a real sense of the ways in which tissue engineering produces and operates within a different kind of time. By staging the duration and unique temporality of the labor that goes into maintaining life’s ability to replace and restore itself, these works provide spectators with an opportunity to dwell in the time of regeneration. Describing the time of regeneration, Cooper writes:

³¹⁵ Ibid.

³¹⁶ Mierle Laderman Ukeles, “Manifesto for Maintenance Art,” 1.

³¹⁷ Melinda Cooper, *Life as Surplus*, 121.

³¹⁸ Thank you to Shannon Jackson for drawing the connection between WALL-E and the tradition of maintenance art. “High Maintenance: The Sanitation Aesthetics of Mierle Laderman Ukeles,” *Social Works*.

³¹⁹ Oron Catts and Ionat Zurr, “Agents of Irony,” 159.

What regenerative medicine wants to elicit is the generative moment from which all possible forms can be regenerated – the moment of emergence, considered independently of its actualizations. In what sense, then, are we to understand the term “moment”? . . . [Regenerative medicine] suggests that the ‘instant’ even when reduced to an extreme point of suspense is always undercut by the continuity of transformation, change, or becoming. The instant, in other words, is never contained in itself, never present to itself, but (following Deleuze) perpetually about to be and already past, about to emerge and already subsided, about to be born and already born again.”³²⁰

In maintenance art, the actions staged are also perpetually about to be and already past. Mary Kelly hung one hundred and thirty-nine objects on the wall of an ICA gallery as a representation of the repetitive yet always changing work that went into caring for her child for only a fraction of his expected lifespan. In her collage, Betye Saar combines objects from multiple historical periods to represent Aunt Jemima as still in the process of freeing herself from the representations of racism and enslavement that both multiply and recede around her. Over the course of their ten-day performance, TCA repeatedly appeared unannounced in the gallery to feed their sculptures, completing the same tasks over and over again as needed and then disappearing just as quickly and unceremoniously. Peggy Phelan famously described performance’s ontology as “becoming itself through disappearance.”³²¹ With maintenance art, aligned as it is with the Life Instinct, this disappearance is coupled with the threat and promise (maybe even the necessity) of the never-ending emergence of fragile lives and the never-ending reappearance of those who labor to grow and maintain these lives. Maintenance art is ephemeral, but it is not an ephemerality that results from the avant-garde’s Death Instinct; its ephemerality emerges from the fact that in every instant, living beings, systems, and institutions are growing and changing, demanding different forms of care.

³²⁰ Melinda Cooper, *Life as Surplus*, 127.

³²¹ Peggy Phelan, *Unmarked*, 146.

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