EXCAVATING RADICAL FUTURES: PUPPETS, ROBOTS, AND THE FIGHT FOR TECHNOLOGY

Jasmine Erdener

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Supervisor of Dissertation

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Guobin Yang

Grace Lee Boggs Professor of Communication and Sociology

Graduate Group Chairperson

_____

Guobin Yang, Grace Lee Boggs Professor of Communication and Sociology

Dissertation Committee

Jessa Lingel, Assistant Professor of Communication

Victor Pickard, Associate Professor of Communication

Marwan Kraidy, Professor of Communication and the Anthony Shadid Chair in Global Media,

Politics & Culture

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ABSTRACT

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Jasmine Erdener

Guobin Yang

This project pairs traditional puppetry with the world of high-tech performing objects and argues that puppetry offers a practice-based approach to think through political and ethical issues in technology and communication. This project is based in three summers of ethnographic participant engagement at Bread and Puppet Theater, a historic and internationally famous political puppet theater. The chapters also combine visual and textual analysis and media coverage of the primary case studies, Sophia, sex robots, and the Cyborg Foundation, with the history of cybernetics and science fiction. Examining this history helps uncover the implicit and explicit values and assumptions embedded in the objects and technologies themselves, as well as how popular understandings and representations of those objects can reinforce or counter those narratives. These distinct points of origin took puppetry and robotics in diverging directions, from material negotiation to domination. The consequences of this shift have ongoing repercussions for the way that technology is popularly represented, as well as for how political engagement is conceptualized and enacted. The project concludes by returning to puppetry, and to feminist science fiction and Afrofuturism, to offer possibilities for the future and directions for new work.

Contents

Introduction

Technological innovations often promise sweeping social and political changes, to fundamentally restructure social ties and individual lives in ways that can only be dimly grasped from the technologically-limited present. The ways that these projections, either possibilities or warnings, circulate through the news media, popular culture, science fiction novels and films, and scientific discourses reflects the interplay between how these technologies are imagined and constructed, as each area influences or shapes the others.

This project is based in three summers of ethnographic participant engagement at Bread and Puppet Theater, a historic and internationally famous political puppet theater. Puppetry offers a practice-based approach to think through political and ethical issues in technology and communication by highlighting the affordances of older forms of communication, outside of contemporary digital technologies. In contrast to digital media, puppeteers often describe puppetry as direct communication with the public, by reclaiming public space and by creating a place for communal gatherings. Puppetry also calls upon a long history of political and social critique, and functions as an early protest technology. Through performance, puppetry provides a participatory model for political engagement. Finally, puppetry is an ancient form of posthumanism, offering a non-anthropocentric perspective that underscores how the environment and non-human forms of agency play a central role in technology and communication. As such, this project contributes to debates in feminist science and technology studies, media studies, and posthumanism.

The practice of puppetry revolves around working with objects, moving them, inhabiting them as masks, appendages or performative prosthetics, or conversely being inhabited by them, by adopting the bodily movements or mannerisms of a horned demon or a gargoyle head. Driven by the central question of asking what the puppet wants to do, puppeteers conceive of

their work as object-negotiation, requiring a fundamental understanding not only of the object's material affordances and limitations, but also of its internal agency and expressive potential.

If one view of puppetry might be understood as humans exerting influence on and acting in tandem with "lifeless, but not agentless, objects in performance,"[1] then how we coexist with these objects in both spectacular and quotidian ways puts puppetry in conversation with theories in new materialism, Actor Network Theory, or posthumanism. Among these theories, puppetry remains a useful framework for asking how these performing objects form part of "an integrated global performance tradition with a past, present, and future."[2] Pairing traditional puppetry with the world of high-tech performing objects illuminates elements of this past, how it remains active in the present, and suggests possible paths towards the future.

But as much as they may inspire wonder or enchantment, non-human or more-than-human worlds can also inspire fear and anxiety over the status of the "human," as evident in folktales of human-animals. These beings could only be forcibly anchored to their human form by destroying their animal skins, thus preventing their return to the wild. Contemporary understandings of the "human" reflect anxieties about the increasing role of technology in shaping, disciplining, recognizing, and perhaps irrevocably changing the human, in both mind and body. However, technological debates about the "human" also grapple with historical exploitation and exclusion, most notably the humanity denied to Black Africans forced into chattel slavery, or the discriminatory political and legal frameworks around gender or sexuality. As Anne Balsamo writes, "This is not an argument for the assertion of a material body that is defined in an essentialist way – as having unchanging, trans-historical gender or race characteristics. Rather, it is to argue that the gender and race identity of the material body

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[1] Posner, Orenstein, and Bell, *The Routledge Companion to Puppetry and Material Performance*, 5.
[2] Bell, *American Puppet Modernism*, 3.

structures the way that body is subsequently culturally reproduced and technologically

disciplined."[3]

Technology emerges as a site in which fears about the status of the human, identity, and

material bodies intersect with what might be termed temporal feedback loops – the ongoing

influence of cybernetics, the hegemonic imaginative projections of male-dominated science

fiction and cyberpunk, and actual built technologies. Each loop circles through the others, as

artists and writers responded to developing technologies by imagining them extended through

time and space, or integrated into lives and bodies; the vivid landscapes of these worlds in turn

set the stage for the next wave of technological development. I argue that current

manifestations of technology, and representations of technological innovation, are presented as

cutting edge and universal visions of the future but in fact represent a narrow ideological

framework. Beyond critiques of the tech industry and the need for more voices in the process of

technological development, technologies that draw from the same normative framework, the

same historical trajectories and static landscape of possibility, will possess the same limitations

and profess imaginative potential from within the confines of a constrained worldview.

Examining small sections of these temporal feedback loops exposes the confluence of

factors that converged to bring them into being. The humanoid robot Sophia, and her unsettling

sex-robot kin, materialize as realistically human and female-bodied robots with aspirations

toward artificial intelligence and machine learning. Cultural norms and social expectations of

these technologies reveal a myriad of assumptions about the artificial/organic body, and

performances of gender, race, sexuality and disability. Humanoid robots also promise a future

filled with personalized technological assistants, which will achieve intelligence, autonomy, and

agency, yet will only exercise these abilities in the performance of servitude. Sophia is the

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[3] Balsamo, *Technologies of the Gendered Body*, 233.

product of a specific set of assumptions about technology and society, from the "command-control" of early cybernetics to fantasies of disembodiment in cyberspace, historically perceived to be the realm of the mind.

A diverging branch of cybernetics research envisioned technologies that could be implanted into the organic body to form a techno-organic fusion. In contrast to a vision of technology as discrete, autonomous objects with which humans may choose to interact, the cyborg integrates technology into the body as a set of enhanced abilities or as a means of extended survival. Feminist reinterpretations of the cyborg suggested that this figure could be an ideal site for experimentation, to resist suffocating social norms of bodily discipline by assimilating hybrid components that would purposefully not fit into any marked or recognizable category. The Cyborg Foundation is a potent representation of these ideas, as the two founders have implanted various technologies into their bodies as a means of opening new channels of perception to the material and natural worlds.

Bread and Puppet Theater, Sophia and sex robots, and the Cyborg Foundation make up the case studies in this project, sites in which the sticky histories of humanism, materialism, technologies, and science fiction congeal into points of specificity. They reveal the normative values encoded in each site, and the political ramifications of accepting or challenging underlying assumptions. Chapter one focuses on Bread and Puppet Theater and puppetry theory, setting the stage for a working relationship with performing objects oriented towards political protest and critique. This chapter highlights not only Bread and Puppet's particular articulation of politics and art, but also how their work provides a model for material engagement, a kind of prehistoric posthumanism.

Bread and Puppet Theater often seems like a world unto itself, nearly defying description: a 1960s back-to-the-land radical commune, working farm, active traveling theater,

and prolific art collective. But Bread and Puppet also conjures powerful and sometimes otherworldly assemblages of puppetry and politics in performance. Examining how puppets retain both communicative power and political power in the so-called "digital age" reveals a constellation of factors, such as the uncannily disarming or enchanting effect created by objects in performance.

This project begins from Bread and Puppet's concept of TATA, or *There Are a Thousand Alternatives*. This oft-repeated acronym at Bread and Puppet was intended to combat the hegemonic sway of TINA, *There Is No Alternative*; no alternative to capitalistic alienation and exploitation, Thatcherite neoliberalism, environmental destruction, or social and political oppression. Bread and Puppet enacted these alternatives through the imaginative space created by puppets, which are not human and therefore do not conform to human rules and expectations. Bread and Puppet's performances, whether at the open-air theater in Vermont or in their many street parades, demonstrate that puppetry can offer powerful and incisive political commentary on the state of the world without seeming to be part of the world, an art that was outside of time, at once eerie and familiar.

Chapter two examines Sophia and sex robots to think through how these technologies concretize normative fantasies of gender, sexuality and the body. Robots can be understood as technologically-advanced puppets, communicative objects with uncanny effects and material agency. As such, Sophia and sex robots contain some of the possibilities of puppetry, in the suggestion of negotiation with objects and in harnessing the uncanny in performance. But these technologies also trace their origins to the disembodied universalism of cybernetics and the long-sought domination of the material world. Puppetry and cybernetics are at opposite ends of a communicative spectrum, as cybernetics prized "communication and control" while puppetry deals with a fundamental lack of control and communication through an alliance with material

objects. As a result, puppetry reveals different possibilities for working *with* rather than *against*

the material world. In addition, cybernetics focused on technology and information as a means

of escaping the constraints of the material body, while puppetry is an intensely embodied

practice, as puppets and human bodies are closely entangled. Sophia and sex robots sit in

uneasy territory, harnessing the uncanny power and performative potential of puppetry, paired

with the apolitical, disembodied universalism and latent militarism of cybernetics.

Chapter three turns to another facet of technology and the body through the example

of the Cyborg Foundation. This chapter reviews theories of the cyborg and its role as a feminist

technological icon, including the cyborg's potential to re-appropriate its militaristic cybernetic

origins in order to explode normative categories of the body or identity. The Cyborg Foundation

takes up this challenge. Neil Harbisson's visual-sonic antenna and Moon Ribas' earthquake

sensors merge technology with the body to reconfigure basic understandings of the body and

human identity, without the typical fantasies of creating superhuman powers or abilities.

Harbisson's cranial antenna is a startling and highly visible marker of alterity, disrupting the

category of the human in favor of increased communion with animals and the material world.

But complicating the human and pushing toward hybridity is not an uncomplicated good; as C.

Riley Snorton writes, "hybridity and multiplicity are generated effects of (disciplinary) power."[4]

The cyborg remains an enigmatic figure, uniting the body and technology, the animate with the

inanimate, but has yet to unlock the prophesized revolutionary power of this union. Disability

studies, critical race theory, and transgender studies offer a version of hybridity and the cyborg

that remain invested in the political stakes of changing notions of the human, the body, and

material interventions. In addition, puppetry's long history of weaving together material objects

and the organic body finds a high-tech, and high-stakes, parallel in the cyborg. Like in puppetry,

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[4] Snorton, "Gender Trouble in Triton," 88.

cyborgs integrate objects and the body, creating bio-technical assemblages that challenge ordinary understandings of the human being, or human mastery over the material world. Puppetry provides a possible model for this process, through the experiences of people working with objects and through puppetry's particular understanding of the intersection between humans and things.

Finally, chapter four picks up puppetry's thread of a thousand alternatives and turns to science fiction and cyberpunk, potent resources in the history of technological development, to trace other configurations of the human body, technology, and political liberation, drawing from speculative theory in feminist science fiction, Afrofuturism, and disability studies. Like puppetry, science fiction fosters an imaginative space to radically rethink the world, proposing creative possibilities for how things could be or warning of dangers ahead. Both puppetry and science fiction disrupt normative modes of thinking or social conventions, breaking through the ordinarily unquestioned constructs of daily life. They play a critical role in envisioning existence outside dominant logics, by reimagining the present, fostering future projections of as-yet unrealized possibilities, and through the recuperation of history. Bread and Puppet's art and politics carves out spaces and conditions for people to thrive, a theme that is also treated in feminist science fiction and Afrofuturism. As opposed to fantasies of domination or disembodiment, these texts integrate technology with collectivity to resist political or capitalist oppression; they describe complex or shared practices of embodiment, recognizing the significance of the body while finding space for experimentation and hybridity; and they embrace a sense of shifting temporalities, connecting past, present, and future. Together with the lessons from puppetry, the chapter concludes by arguing that these texts offer resources for reconceptualizing a relationship with technology and the material world that is more inclusive, accessible, and politically engaged.

Media archaeology and ghostly matters

> Media archaeology…is also a way to analyze the regimes of memory and creative practices in media culture – both theoretical and artistic. Media archaeology sees media cultures as sedimented and layered, a fold of time and materiality where the past might be suddenly discovered anew, and the new technologies grow obsolete increasingly fast.[5]

This project draws from media archaeology, as a method and an analytic tool. Media archaeology excavates meaning from the ruins and residues of various intersections of media, culture, and technologies, where the mediums and messages are folded through the past and the present. This approach rejects the notion that time is linear, and rather finds it circling back on itself, occasionally leading in possible directions other than the current moment. Concretely, this might mean that past media practices and reverberate through the present, and that investigating the paths these media take offers new insights into current practices and future possibilities.

Questions of materiality and temporality also invoke Avery Gordon's concept of hauntings, which suggests that as certain bodies, or bodies of information, are disregarded or removed from the historical record, paths to other possible presents or imaginable futures are potentially foreclosed or destroyed. As Gordon writes in *Ghostly Matters*,

> The ghost is not simply a dead or a missing person, but a social figure, and investigating it can lead to that dense site where history and subjectivity make social life. The ghost or the apparition is one form by which something lost, or barely visible, or seemingly not there to our supposedly well-trained eyes, makes itself known or apparent to us, in its own way, of course…Being haunted draws us affectively, sometimes against our will and always a bit magically, into the structure of feeling of a reality we come to experience, not as cold knowledge, but as a transformative recognition.[6]

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[5] Parikka, *What Is Media Archaeology?*, 2–3.
[6] Gordon, *Ghostly Matters*, 8.

Here ghosts may be the shadows of the past echoing through the present moment, only traceable in how they impact the present, whether through form, function, or a collective imaginary. Ghosts may also be out of time, a period of possibility that was lost or ruined, a history without a future.

Media archaeology, although varied in its theoretical and methodology approaches, also focuses on non-linear temporalities and speculative possibilities. Jussi Parikka writes that "while media archaeology writes histories of the present, it is also looking for alternative presents and pasts – and futures."[7] Echoing the Bread and Puppet notion of TATA, Parikka notes that "one of the key driving ideas that feeds into media archaeology is…the idea of 'it could have been otherwise'."[8] As indicated in the name, media archaeology focuses primarily on media forms, including early iterations of contemporary media and media technologies, media as ways of seeing or perceiving, the cyclical or non-linearity of time through media, and the elusive category of imaginary media.

This project draws upon these ideas to look for how puppets, the body, feminist and critical race theory haunt contemporary technologies. Hauntings and media archaeology underscore the importance of temporality, in how past ideas or technological forms shadow or shape the present, and the ways that we might draw from both past and present media forms to create something different. A media archaeological approach to puppetry and technology finds the connections and ruptures between the long tradition of human-object performance and contemporary high-tech performing objects.

In this, I also draw from Latour's Actor Network Theory (ANT) as a method of taking matter seriously and as a means of uncovering social and political ties, which become "visible

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[7] Parikka, *What Is Media Archaeology?*, 12–13.
[8] Parikka, 12–13.

only by the *traces* it leaves (under trials) when a *new* association is being produced between elements which themselves are in no way 'social'."[9] Rather than relying on the murky abstraction of a social sphere, Latour argues that "our political future resides in the task of deciding what binds us all together."[10] He uses the analogy of puppetry, for "Although marionettes offer, it seems, the most extreme case of direct causality—just follow the strings— puppeteers will rarely behave as having total control over their puppets. They will say queer things like 'their marionettes suggest them to do things they will have never thought possible by themselves'."[11] Latour uses this example to "shift from a certainty about action to an *uncertainty* about action," in order to "decide what is acting and how."[12]

Pairing ANT and media archaeology with an ethnographic methodological approach means following the actors, human and nonhuman, across a variety of landscapes and time periods. While ethnography focuses on a rich understanding of contemporary situations, people, and events, media archaeology sifts through patterns and histories to uncover how past media may influence or continue to operate in the present. The combination of these approaches highlights how the human and material worlds coexist and interact, in the present moment and through time. While the units of analysis between media archaeology and ethnography are different, they can also function to complement one another. Media archaeology closely reads media artifacts to understand how objects shape and are shaped by one another and by human efforts over time, while ethnography primarily focuses on human events and cultures to understand particular moments and places. Together, these two

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[9] Latour, *Reassembling the Social*, 8.
[10] Latour, 8.
[11] Latour, 59–60.
[12] Latour, 59–60, emphasis in original.

approaches weave together stories of how objects and humans coexist and cooperate in the past, present, and potentially into the future.

Humanism and Posthumanism

The tension between two dominant philosophies, humanism and posthumanism, also haunts the pages of this project as well as discourses in materialism, technology and the perceived impact on human being. Much like Bruno Latour's assertion that "we have never been modern," Katherine Hayles concludes that "we have always been posthuman," but that "the best possible time to contest for what the posthuman means is now," before particular patterns of thinking become too fixed or regimented.[13] She argues that posthumanism has the potential to "avoid reinscribing, and thus repeating, some of the mistakes of the past."[14] In the final sentence of her book, Hayles writes, "Although some current versions of the posthuman point toward the anti-human and the apocalyptic, we can craft others that will be conducive to the long-range survival of humans and of the other life-forms, biological and artificial, with whom we share the planet and ourselves."[15] Yet exactly how to do this is unclear.

Posthumanism treads conceptually contested ground, and contains both promise and pessimism. As Cary Wolfe notes, "Posthumanism…generates different and even irreconcilable definitions."[16] Many theorists of posthumanism are quick to note that the term does *not* indicate a linear evolution from humanism: "The prefix "post" of posthumanism, insinuating "after," does not mean that a posthumanist conception of the human emerged after humanism; rather, it indicates that posthumanist perspectives of humanity exist in tension with humanist

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[13] Hayles, *How We Became Posthuman*, 291.
[14] Hayles, 288.
[15] Hayles, 291.
[16] Wolfe, *What Is Posthumanism?*, xi.

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perspectives."[17] Most often, posthumanism is defined by what it is not, primarily, in its opposition to humanist accounts of individual autonomy, control, and exceptionalism. Broadly understood, "the human is typically constituted through humanism as (a) autonomous from nature given the intellectual faculties of the mind that controls the body, (b) uniquely capable of and motivated by speech and reason, and (c) an exceptional animal that is superior to other creatures."[18] As with Hayles' assertion that "we have always been posthuman," posthumanism is often indicative of a theoretical framework rather than a particular cultural or historical moment, or a projected time in the future.

Posthumanism's temporality, as something that already exists (in tension with humanism) but still has yet to arrive, is "a matter of time in an entirely different sense. Indeed, it is a matter of what Martin Hagglund characterizes (following Derrida) as the "undecidable coming of time," the indeterminable and incalculable future that cannot repose in any present, but must remain both infinitely perfectible and infinitely corruptible."[19] As with the concept of democracy which "must always remain insufficient – a principle that is especially crucial to remember in those moments when it seems to present itself as having fully arrived – the posthuman must infinitely postdate its arrival in any present."[20] As a fluid or evolving concept, posthumanism offers a certain definitional elasticity, which can be stretched or snapped around useful categories. Christopher Peterson compares the debates on posthumanism with Derrida's frustration with the term deconstruction: "What deconstruction is not? everything of course! What is deconstruction? nothing of course!"[21]

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17 Keeling and Lehman, *Posthumanism*, 3.
18 Keeling and Lehman, *Posthumanism*, 1.
19 Peterson, "The Posthumanism to Come," 129.
20 Peterson, 129.
21 Derrida, "Letter to a Japanese Friend."

Hayles argues that posthumanism examines "the union of the human with the intelligent machine" and finds that "there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals."[22] However, "although these examples foreground the cybernetic aspect of the posthuman, it is important to recognize that the construction of the posthuman does not require the subject to be a literal cyborg."[23] Hayles distinguishes between cybernetic posthumanism, which falls in line with liberal humanism and espouses the infamous erasure of embodiment, and an incipient open-ended vision of posthumanism.

As Hayles underscores, the interjection of technology does not immediately imply a posthuman perspective. Technology can also reinforce humanist ideas about autonomous, rational agency and human exceptionalism. R. L. Rutsky interrogates the humanist assumptions in the dominant technological imaginary, those "closely aligned with western notions of enlightenment, progress, and modernity."[24] In this view, technology are "closely linked to a scientific perspective" and are predominantly seen as "an instrument, means, or tool through which human beings are better able to know and understand the world and to achieve the power to control it."[25] Rutsky writes, "this instrumentalist conception of technology – and its inverse view of technologies that appear out of human control – remains the most common way of thinking about technology."[26] As this thinking and technoculture begin to change, however, whether becoming "outmoded" or "too complex for human comprehension," Rutsky anticipates that the underlying technological norms will also change:

> it brings into question the humanist subject's presumed position of mastery. It is
> here that we begin to find an opening for representations of beings who not only

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[22] Hayles, *How We Became Posthuman*, 2.
[23] Hayles, 4.
[24] Rutsky, "Technologies," 184.
[25] Rutsky.
[26] Rutsky.

go beyond the humanist subject, but who also are not simply a combination of conventional ideas of the human and the technological. Conversely, autonomous technologies and artificial life begin to be seen neither as dystopian threats to humanity nor as friendly but docile servants. It is precisely at the point where these nonhumanist humans and autonomous technologies converge that we can begin to talk about a posthumanist identity.[27]

The spectrum between dystopian technological (and existential) threats, usually portrayed as a robotic overthrow of humanity, and "friendly but docile servants" encompasses the range of humanist approaches to technology. If humanity is autonomous, exceptional, in control of the body and the natural world, then it logically follows that technology is a tool to harness in the service of human power and authority. The robot revolt threatens not only the hypothetical fate of humanity, but the humanist framework and our presumed position as masters of natural and nonhuman worlds. The posthuman challenge to humanist perspectives opens possibilities for other kinds of connections to, and relationships with, the more-than-human world of technological and material objects.

Although a clear definition of posthumanism remains elusive, most theorists agree that posthumanism is not transhumanism, even though many transhumanists also use the term posthuman. Not only is posthumanism distinct, but it is "the opposite of transhumanism, and in this light, transhumanism should be seen as an intensification of humanism."[28] Wolfe rejects transhumanism as an ideology that "derives directly from ideals of human perfectibility, rationality, and agency inherited from Renaissance humanism and the Enlightenment"[29] and "fantasies of disembodiment and autonomy."[30] Transhumanists "envision the possibility of broadening human potential by overcoming aging, cognitive shortcomings, involuntary

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[27] Rutsky, 189.
[28] Wolfe, *What Is Posthumanism?*, xv.
[29] Wolfe, xiii.
[30] Peterson, "The Posthumanism to Come," 135.

suffing, and our confinement to planet Earth."[31] In this vision, transhumanism appears to be closely tied to the cyborg, as technology intersects with the body making humans nearly invincible to the point that they may no longer bear any resemblance to biologically unmodified humans (hence becoming "posthuman," in a specifically transhumanist use of the term). This definition of "posthuman" *does* refer to a time after the current evolutionary moment, with the transhuman, "transitional human," as the intermediary step between biologically unmodified individuals and cyborgs.

These parallel but contrasting definitions muddy the theoretical waters, as "posthumanism" may be used ambiguously or even contradictorily. In contrast to transhumanism, posthumanism often focuses on "a reconceptualization of culture, technology, and history, as well as human beings, from a non-anthropocentric perspective."[32] This is also sometimes referred to as "critical posthumanism." Understood as de-centering the human, posthumanism "assumes agency is distributed through dynamic forces of which the human participates but does not completely intend or control."[33] The human in this context is "(a) physically, chemically, and biologically enmeshed and dependent on the environment; (b) moved to action through interactions that generate affects, habits, and reason; and (c) possessing no attribute that is uniquely human but is instead made up of a larger evolving ecosystem."[34] Many posthumanists focus on human-animal relationships, but technology is an increasingly important component; "posthumanism names a historical moment in which the decentering of the human by its imbrication in technical, medical, informatic, and economic networks is increasingly impossible to ignore."[35] The implications for posthumanism, and the

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[31] Bostrum, "A History of Transhumanist Thought," 26.
[32] Rutsky, "Mutation, History, and Fantasy in the Posthuman," 108.
[33] Keeling and Lehman, *Posthumanism*, 1.
[34] Keeling and Lehman, 1.
[35] Wolfe, *What Is Posthumanism?*, xv.

ongoing tensions with transhumanism, often take shape in debates over the cyborg, which

concretizes the theoretical abstractions in biotechnological form.

Methodology

Ethnographic engagement

Bread and Puppet Theater is one of the oldest, most influential, and well-known puppet

theaters both in the US and abroad. They have been at the forefront of puppetry, performance,

and political protest in the US for more than half a century and have changed the visual

language of street protest and street theater. Their early performances protesting the Vietnam

War and their puppet street parades "redefined how theater is done in the streets,"

fundamentally shaping "how mass demonstrations are conceptualized and staged."[36] Bread and

Puppet plays a pivotal role in understanding the relationship between puppetry and protest, or

between puppetry and technology.

During the summer of 2016, I spent nine weeks at Bread and Puppet Theater in

northern Vermont, my first dedicated foray into fieldwork. I returned for two weeks in the

summer of 2017, and just over three weeks in the summer of 2018. I brought a camera, an

audio recorder, a notebook for fieldnotes, and secured IRB approval. In the context of a multi-

sited[37] or networked field studies[38] approach, I trace key issues related to Bread and Puppet,

materiality, and the digital across different sites or terrains, both physical and digital. The

fieldwork experience at Bread and Puppet demanded careful navigation between the norms and

requirements of a full-time participant, and the questions and concerns of a researcher.

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[36] Harding and Rosenthal, *Restaging the Sixties*, 53.
[37] Marcus, "Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography," 96.
[38] Lingel, *Digital Countercultures and the Struggle for Community*, 13.

Critically engaging in both the theater's work and my own required continuous reflection on my positionality and personal politics, and how those shaped my interactions and perspective, my discussions about my interests and presence at the theater, and ongoing efforts to build ethical considerations into the methodology and practices of the research project itself.

Within the vast body of work in feminist ethnography, scholars like Sara Ahmed warn against stranger fetishism in presuming that the ethnographer can fully understand the community or participants under study, that the ethnographer "can turn 'their' being into ethnographic knowledge by getting underneath their skin and becoming like them (imitation). Learning to be is here a narrative of becoming which gets closer to strangers, but at the same time reconfirms the difference."[39] Rather, the ethnographer must maintain the self-awareness and a constant current of reflexivity to embrace an "ethnography of failure" in which we know what we fail to know: the "impossibility of the 'we' that would place the ethnographer alongside the natives" and accepting that "the knowledge of failure *belong*s to the ethnographer."[40] Such a perspective demands enormous humility, both in the scope of knowledge and the goals of a research project, and in the role of the researcher.

Similarly, Christine Hine writes, "As a research method, ethnography is distinctive in its use of the embodied experiences of the researcher as one of its primary means of discovery. Unlike other research methods, which aspire to develop depersonalized and standardized instruments of data collection, ethnography celebrates the involvement of the researcher in the whole process of engaging with the field, gathering data and interpreting results."[41] The immersive practice of ethnography allows the "ethnographer to develop an understanding from

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[39] Ahmed, *Strange Encounters*, 71.
[40] Ahmed, 72.
[41] Hine, *Ethnography for the Internet*, 19.

the inside, which takes seriously how activities feel as much as what they achieve."[42] I draw on

feminist ethnography to inform the methods, ethics, and structure of my research. Following

Lingel, who uses the term *ethnographic* to describe her work in each field site, "I am inspired by

and rely on tools of ethnography without necessarily meeting the standards for traditional

definitions of this method, online or off."[43] Close readings of feminist ethnography and

methodology not only suggest tactics and strategies for conducting research, but also inform

research ethics: "In a very real sense, every method decision is an ethics decision, in that these

decisions have consequences for not just research design but also the identity of the

participants, the outcomes of our studies, and the character of knowledge which inevitably

grows from our work in the field."[44] To this end, in my research at Bread and Puppet, I

underscored my identity as a doctoral student and researcher. Although my research interests

were not fully formed at the time, I openly discussed my ideas and interests with the staff, the

long-time participants, and fellow incoming apprentices.

Bread and Puppet proved to be an unusual space for these reflections, as in many ways

it is not a permanent, stable community that I could enter or exit, but rather operates in a

constant state of flux. I was greeted at the farm by some of the staff, puppeteers who return

every summer to work and live at Bread and Puppet. Most have been coming back for years and

decades. More longtime puppeteers arrived throughout the summer, as well as returning

volunteers and "geezers" who arrived for "geezer week" in late August, in which puppeteers and

friends of the farm from previous decades returned for one week (if they hadn't already come

that summer). The apprentices also came in waves over the course of the summer, from across

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[42] Hine, 19.

[43] Lingel, *Digital Countercultures and the Struggle for Community*, 16.

[44] Markham, "The Methods, Politics, and Ethics of Representation in Online Ethnography," 796.

the US and all over the world. At the height of Bread and Puppet's summer performing season in mid-August, there were over one hundred people living and working at the farm.

In addition, members of the public, including journalists, filmmakers, and artists, were almost always present. The three regularly scheduled performances each week drew hundreds of audience members. The museum of puppets and the cheap art store were open throughout the week and usually had visitors wandering through. Participating in a historic and well-known theater like Bread and Puppet also meant that we (the apprentices, volunteers, and staff) were on display as much as the puppets and art; it was not uncommon for visitors to observe or photograph us rehearsing, working with puppets and props, and even performing daily chores. The lines were quickly blurred between ethnographic observation and engagement, between who was observing and who was being observed.

Participant engagement

While much of the scholarship on qualitative and ethnographic research discusses participant observation, it immediately became apparent that observation alone was not an option in the context of Bread and Puppet. Observation, as opposed to participation or engagement, was not only impossible in practice but was strongly discouraged, to the point of being explicitly rejected. Bread and Puppet's summer performing season operated on a demanding schedule that required total participation and constant, dedicated work from everyone present. We performed three full shows each week, in addition to any local parades or extra performances. Each day was organized around a regular agenda that included various types of labor, communal mealtimes, meetings, and performance rehearsals. After about 6 pm there were usually no further required activities, although there were often other planned events we were encouraged to attend, such as weekly shape note singing, screenings of old

Bread and Puppet films or historical films, lectures, music practice, or workshops. With a fluctuating population between fifty and a hundred people at the farm at any given point, daily activities were not only organized around the rehearsals and performances, but also included the work of communal labor and living, and that of a small functioning farm.

As it was immediately clear that observation was neither possible nor desired, my work at Bread and Puppet reflects what several scholars have called "participant engagement." Pearce describes this experience in her work, in which she was "forced to shift my methodology to a more participatory, less passive approach."[45] She reflects that the participant engagement approach allowed her to "become more engaged with the group while still maintaining some measure of analytical objectivity. It soon became apparent, through this and other circumstances beyond my control, that I myself was also engaged in and subject to the very emergent processes I had set out to study."[46] Gabriella Coleman similarly describes this experience in her work with Anonymous, in a "make-or-break moment" in which "These Anons not only seemed to be fine with my presence, some were keen to have me around. After this conversation, I chimed in more frequently, spending on average about five hours a day on IRC, roughly following six to twelve IRC channels at once, seven days a week."[47] Bonnie Nardi draws on participant engagement as well, noting that in her work with *World of Warcraft*, "I could not have studied raiding guilds without playing as well as at least an average player and fully participating in raids. By contrast, when I was walking around villages in Papua New Guinea or Western Samoa, I was obviously an outsider whose identity required explanation."[48]

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[45] Pearce, *Communities of Play*, 210–11.
[46] Pearce, 210–11.
[47] Coleman, "Am I Anonymous?"
[48] Nardi, *My Life as a Night Elf Priest*, 34–35.

Unlike Nardi's experience in physically-sited ethnography, in which she was "obviously an outsider whose identity required explanation," there were no clear insiders or outsiders at Bread and Puppet, nor the same need for outsider-explanation, since the simple fact of being present on the farm automatically required full participation in theatrical performances and daily labor. The relevant distinctions here congealed around the in-group/out-group categories of participant or public, as anyone living on the farm was an 'insider-participant' and anyone visiting was an 'outsider-public observer.' In this context, to observe would be to position oneself as an outsider, as unwilling to partake in work that was critical to the farm and theater's ability to function.

At the same time, my role as an individual and a scholar/researcher was somewhat different from many of the other apprentices and longtime puppeteers. Graduate and PhD students were not uncommon among the other apprentices, some of whom were also writing about Bread and Puppet; I was interviewed by another apprentice/PhD student about her project and research interests at Bread and Puppet. Additionally, several of the longtime puppeteers are academics, including John Bell and DeeDee Halleck, who have written and made films about Bread and Puppet, and often return during the summers. Many of the other apprentices were theater students, artists, or activists who hoped to learn or draw inspiration from Bread and Puppet's work and legacy. Questions about the ways that the researcher might benefit from studying a community, and what the community receives in return, were somewhat displaced, particularly since apprentices had to pay quite a substantial amount for the apprenticeship. Even the terms of the relationship, as 'apprentices' to the theater, shifts the usual dynamic between outsider-researcher and insider-participant, creating instead a more liminal space in which a number of outsiders converged on the theater, co-constructed an immersive experience, and scattered at the end of the appointed time.

Navigating power differentials

This did not, however, obviate the power differentials in that setting. Bread and Puppet is radically outside the bounds of ordinary society in many ways, but is very conventional in others. Many of the participants, myself included, assumed upon arrival that along with the communal living and largescale rejection of mainstream values, Bread and Puppet also practiced alternate forms of social organization (perhaps some form of participatory democracy). In fact, Bread and Puppet is organized in a clear hierarchy, with Peter Schumann at the top, the longtime puppeteers and staff carrying out his creative vision as the second tier, and the incoming apprentices and volunteers as the third, what we jokingly referred to as the proletariat. As a result, perhaps, of feeling the need to give back to the theater and the community by working hard in exchange for all I was learning, and by the simple fact of being at the farm for nine weeks (nearly the entire duration of the summer performing season), by the end of the summer I found myself occupying a new position in between the second and third tiers, officially an apprentice but often functioning in a position of authority to the newer apprentices who had arrived halfway through the summer. These apprentices frequently asked me how long I had been working with Bread and Puppet, clearly expecting an answer in years, not weeks.

This transition became clear on my second stay at the farm, just two weeks this time, in the summer of 2017. I was invited by staff members to consider myself both a returning volunteer and staff member (I was not paid, but also did not pay the theater for food or expenses during this trip). I was introduced as staff, attended staff meetings, and was expected to help the new apprentices with adjusting to life at the farm, answering questions, guiding and organizing the schedule and activities, and assisting with workshops, small performances, and

puppets. While I once again made sure to openly discuss my background and ongoing interests in the theater as a researcher, the shift from low-level participant to mid-level authority, both over the course of my first summer there and during my return as a staff member, shaped my experience and my position in the power dynamics of the theater in different ways than my role as a researcher.

This experience emphasized the impossibility of being a neutral observer, or an observer at all. Burawoy captured this sentiment, noting that positive science believes participant observation can bring insight at the cost of distortion, while a reflexive view "embraces participation as intervention precisely because it distorts and disturbs. A social order reveals itself in the way it responds to pressure. Even the most passive observer produces ripples worthy of examination, while the activists who seeks to transform the world can learn much from its obduracy."[49] In the case of Bread and Puppet, my adjustment from low-level participant to mid-level authority changed the way I understood the theater and the farm, revealing the subcultural social order in new ways and producing new "ripples worthy of examination." This highlights once again the need not only for self-reflexivity but also ethical considerations at all stages and throughout the evolution of the research project.

Ethics of care

In this, I draw from Boellstorff et. al. in calling for a "principle of care" and the "imperative that the ethnographer "take good care" of informants. This notion goes beyond simply doing no harm; it means ensuring, to the greatest extent possible, that informants gain some reward from participating in research."[50] Like Markham, they note that "Ethics becomes a

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[49] Burawoy, "The Extended Case Method," 16–17.
[50] Boellstorff et al., *Ethnography and Virtual Worlds*, 129–30.

constant reflexive process rather than a prior stance to be laid out in advance."[51] Joseph

Maxwell in his work on qualitative research design and methodology argues that "ethical

concerns should be involved in *every* aspect of design."[52] An adaptive approach to both

methodology and ethics, drawing from feminist ethnography, touches on what Burawoy calls

"an *embedded objectivity*, "dwelling in" theory."[53] He argues that in this approach to knowledge

production, "*the product governs the process*. The goal of research is not directed at establishing

a definitive "truth" about an external world but at the continual improvement of existing theory.

Theory and research are inextricable."[54] Taking research as inextricable from theory also

underlines the central role and necessity of an ongoing examination of ethical considerations in

this process and in any research project.

Decisions around research, theory, and ethics may also implicate personal political

orientations or normative assumptions that carry into the research and work itself. As an

individual with decidedly left-wing and feminist values and beliefs, Bread and Puppet's work

aligns with many of my own political values. This can be both a strength and a weakness, as it

allowed me to much more easily enter the leftist counterculture of Bread and Puppet and to

establish trust and credibility with other participants, yet it also may limit my ability to maintain

a necessary distance and critical vantage point, or to study other groups with sharply diverging

ideological views from my own.

At Bread and Puppet, this orientation was beneficial, as nearly all of the longtime

participants and most of the incoming apprentices were active in left-wing political issues and

activist projects, as was I, and indeed the theater itself is based on a Marxist-Socialist critique of

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[51] Boellstorff et al., 188.
[52] Maxwell, *Qualitative Research Design*, 7.
[53] Burawoy, "The Extended Case Method," 28.
[54] Burawoy, 28.

mainstream culture. However, it also meant navigating the difficult terrain between actively

participating in, and to some extent identifying with, a group and research project, as well as

maintaining enough distance and perspective to engage in critical analysis. Lingel's work with

the body modification community grapples with this tension: "Managing this divide of

presenting myself as someone who belonged while also being critical of (and occasionally

troubled by) the community formed a key ethical tension for me as a researcher."[55] At the same

time, her own existing and extensive background in this community functioned as "signifiers of

subcultural capital that I hoped would help gain the trust and willing participation of other

community members."[56] As she wryly notes, "Member checks, it turns out, are much more

easily obtained when people perceive you as a member."[57]

Perhaps my political orientation and existing activist projects helped me to feel more

accepted and even welcomed, apart from what I assume is the normal social anxiety of living in

the woods with a group of strangers and puppets. In the context of Bread and Puppet, it would

have been more unusual and noteworthy if I did not already possess left-leaning political

inclinations and/or an existing commitment to leftist activism and social movements, as these

were frequent and ordinary topics of conversation. However, I also tried to maintain a critical

perspective in order to analyze the more difficult aspects of the theater – charging substantial

amounts of money to participate in the apprenticeship, and who that enables or prevents from

attending; remaining attuned to issues around class, race, gender and sexuality; observing crisis,

conflict, and resolutions; the complex interplay between politics and performance; and, upon

leaving, my position as newly minted expert on Bread and Puppet. A number of these issues

became the subject of debates or controversies during my time there, about which the entire

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[55] Lingel, "Ethics and Dilemmas of Online Ethnography," 43–44.
[56] Lingel, 45.
[57] Lingel, 48.

population of the farm weighed in, and I was also able to discuss many of them with both longtime and incoming members.

As for my understanding of, and role in representing, Bread and Puppet to the "outside" world, I return to feminist ethnography and draw from the notion of "stewardship," which suggests that researchers "walk away from a debate grounded in consumerist terms like **"**ownership" and instead think in terms of stewardship," and the "care of such a precious and complicated phenomenon."[58] Writing in relation to intersectionality, Hancock proposes that, "If we think of a steward as someone entrusted with caring for valuables that she does not herself own, then my role is to not only disavow ownership of intersectionality, but to remember that while I am permitted to use it, I must do so ethically, which entails producing projects that hopefully leave intersectionality scholars better equipped to engage in knowledge production projects in intersectionality studies."[59] Acting as a steward for the complex phenomenon of Bread and Puppet, at the same time that I work to proactively reflect upon and engage with my own positionality, situated and subjective experiences, provides the foundation for ongoing ethical and methodological considerations in a qualitative study of Bread and Puppet.

[58] Hancock, *Intersectionality*, 22–23.
[59] Hancock, 23.

Chapter 1: Bread and Puppet Theater

As audience members wait at the edge of the pine forest, both entertained and held at bay by a small brass band, puppeteers dressed all in white dart between the trees and into the forest. The band stops, and the audience enters this new performance arena, taking their seats on felled logs, still sticky with sap. The red pine trees of the forest sway in the wind, sending down sprays of fragrant pine needles that cover the forest floor, each footstep stirring their scent. The audience waits for the performance to start, with little idea of what to expect. They have entered the world of papier-mâché and puppets, in which any strange, eerie, or charming creature might be conjured to life and suddenly appear. Behind the small semi-circle of huts, each one a memorial to a deceased member of the theater, huge figures rise up between the trees, the rough papier-mâché making hills and valleys of their bodies. The figures tower over the huts, appearing as living giants in a village of the dead, and walk slowly between the trees to the middle of the clearing.

This scene marks the beginning of a weekly performance at Bread and Puppet Theater during the summer of 2016, one of the oldest self-sustaining theaters in the country and famous for political puppetry in performances and protests. Bread and Puppet began in New York City in the 1960s and over half a century later still draws large crowds to their weekly summer performances, now based on a farm in northern Vermont, and travels on tour the rest of the year. During my three summers of ethnographic engagement at Bread and Puppet Theater, I lived in a tent in the woods, learned to shape cardboard and glue into papier-mâché puppets, and learned how to work with puppets – with blue horses of cardboard and painted fabric that draped over my body; with masks of horned demons, sailors, or cows that fit over my face or head (out of which I could sometimes see, sometimes breathe, and on the rare happy occasion,

both); with flat cardboard puppets of giant boots, hands, bodies or cities; and with monumental figures that towered overhead.

Puppetry is an unruly and uncontrollable medium that resists human attempts at domination. Puppeteers work to negotiate a relationship with, rather than dominate or control, the object. Puppetry is also connected to the sense of the uncanny. The uncanny animates a long tradition of mysticism, a pre-modernity of magic and enchantment. Finally, objects in performance, whether in a traditional theatrical venue or in a street parade, highlight the uncanniness and liminality of these objects, which is closely tied to ritual and "symbolic objects of communication."[60] Through these key ideas in puppetry theory, puppetry emerges as a powerful communicative medium entangled with subversive political critique, an approach to the material world that offers distinct possibilities for other forms of human-object interaction.

Brief history of Bread and Puppet

In 1963 Peter and Elka Schumann established Bread and Puppet Theater on the Lower East Side of New York City. Bread and Puppet began with some performances for children, but also focused on issues faced by the community: "rents, rats, police, and other problems of the neighborhood."[61] As the scale and scope of the performances increased, so too did the puppets, which morphed into larger-than-life creations ten or twenty feet tall, and began to move into the street.[62] Bread and Puppet now positions its performances against capitalism and imperialism, and for peace movements and the environment.

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[60] Turner, *The Ritual Process*, 97.
[61] "About Bread and Puppet."
[62] Schumann, Democracy Now!
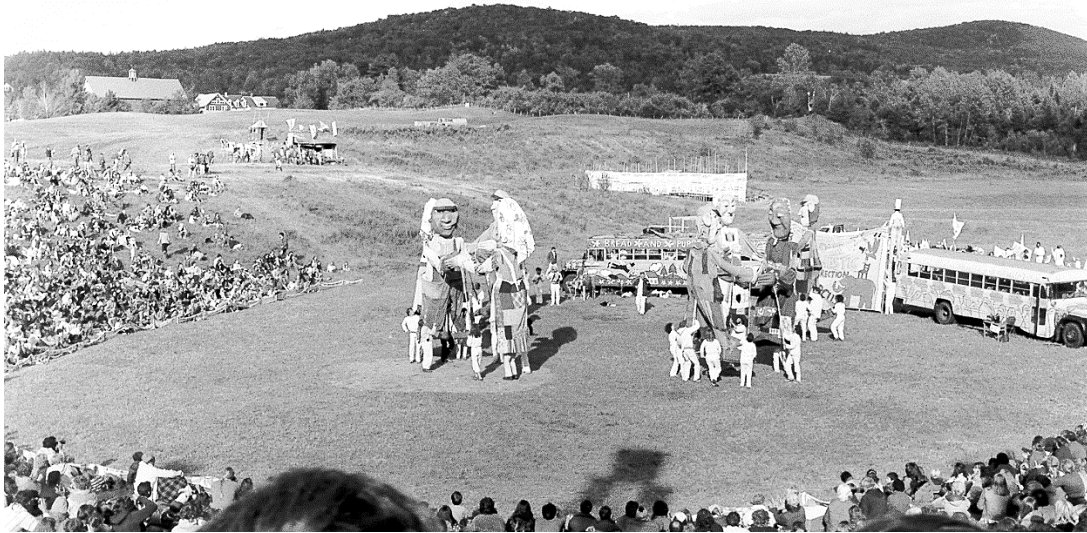
The theater moved to Vermont in 1974, largely inspired by Elka Schumann's grandparents, Helen and Scott Nearing. In the 1930s, the Nearings left academia and New York City and moved to a farm in Vermont; forty years later Elka and her family did the same, along with the theater company. The Nearings also wrote *Living the Good Life* in the 1950s. This book and their subsequent works focused on social justice and encouraged thousands of people to embrace living off the land and to reject the rampant materialism of capitalist culture.[64] Bread and Puppet is still based on a farm in Vermont's Northeast Kingdom. The company travels for national and international tours during the year, and returns to the farm every summer to hold large performances and circuses.

After moving to Vermont, Bread and Puppet began staging the monumental Domestic Resurrection Circus every summer, the culmination of many months of work. The performances combined circus and puppetry, "two of the most resilient forms of traditional folk culture," and

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[63] Image from a Bread and Puppet circus first printed in the Barton Chronicle in September 1, 1982. The original caption read, "Giant washerwoman and garbage man puppets performed a square dance just before the grand finale of this year's Bread and Puppet circus in Glover on Saturday and Sunday." Photo by Jim Doyle. Hormilla, "Bread and Puppet Celebrates Half a Century."
[64] Mcquiston, "Helen K. Nearing, Maine Writer, Dies at 91."

offered two days of events, performances, and freshly baked bread.[65] The circuses often focused on the threat of atomic war or the environment, but the overall theme was "the cycle – of day and night, summer and winter, life and death."[66] The battle between good and evil dominated the shows, with war and capitalism wrestling against peace, life, and nature. Many of the circuses concluded with the ritual destruction of evil, burning an enormous puppet representing the horses of the apocalypse or giant robotic machines. The colossal figure of Mother Earth, a puppet that requires nearly forty people to operate, brought a torch to set fire to the forces of evil, symbolically cleansing the space and making way for the regenerative power of life.[67]

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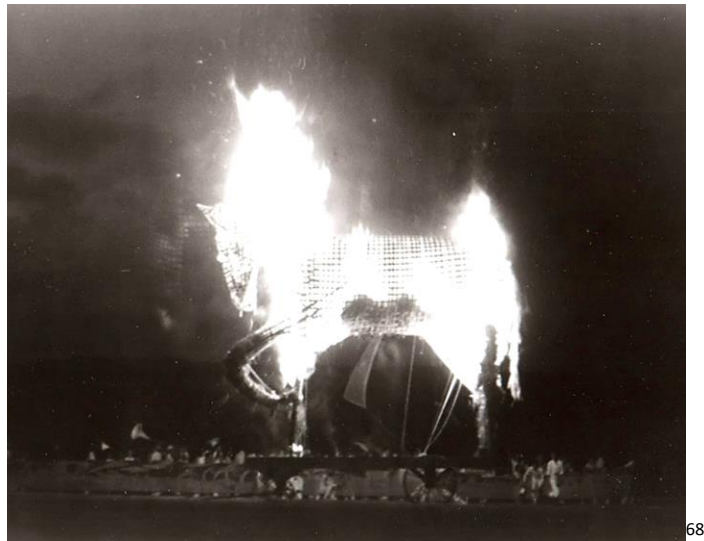
These large-scale performances included appearances by local politicians such as Congressman Bernie Sanders,[69] and drew crowds of 30-40,000 people who covered the hillsides and camped in neighboring fields.[70] The circuses had also grown to such an extent that they had become enormous events greatly exceeding the actual Bread and Puppet performances,

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[65] Van Erven, *Radical People's Theatre*, 55.
[66] Schumann, "The Bread and Puppet Theater Company Collection," 95.
[67] Schumann, Democracy Now!
[68] Burning horse, 1989 Pageant performance. Image from the Bread and Puppet website. "Pageant Horse."
[69] Hormilla, "Bread and Puppet Celebrates Half a Century."
[70] Schumann, Democracy Now!

including the large campsites, food and clothing for sale, drug use, and rumors that people came

for the festival environment but never attended any of the Bread and Puppet shows.[71] This had

important implications for Bread and Puppet, from the significance of the performances to what

the theater stood for. John Bell, a longtime Bread and Puppet puppeteer and academic, notes

that by the 1990s, the large circuses had grown to such an extent that:

> the "Bread and Puppet idea" of an alternative to American capitalist culture become inextricably mixed with a different, more "mainstream" vision of counterculture, often at odds with what we intended with our performances. This different vision had become, at worst, a devolution into "alternative" consumer choices, and, at best, a vague sentiment of iconoclasm allied to phenomena such as the summer Lollapalooza festivals, Grateful Dead tours, and the gigantic Phish concerts.[72]

The press also often reported on the wild crowds and festival atmosphere rather than the

performances, presenting the whole event as 1960s nostalgia rather than the intended social

and political critique.[73] Schumann ended the huge circuses in 1998 after an audience member

was killed in a fight. This also meant an end to the lucrative boost to the local economy and the

large donations to the theater itself. However, canceling the annual circus was a firm rejection

of capitalism's co-optation of the theater, as market values slowly crept into the Resurrection

Circus, attempting to cash in on what was meant to be free. Currently Bread and Puppet

operates with a small group of puppeteers who live on the farm throughout the year, and

apprentices and volunteers who participate for several weeks in the summer. Audiences travel

to the farm during the summer months to visit the museum and see the performances, which

are on a smaller scale than before but still involve a myriad of puppets and objects in

performance.

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[71] Bell, "The End of 'Our Domestic Resurrection Circus': Bread and Puppet Theater and Counterculture Performance in the 1990s," 71.
[72] Bell, 72–73.
[73] Bell, 77.

Puppets and political critique

> The arts are political, whether they like it or not. If they stay in their own realm, preoccupied with their proper problems, the arts support the status quo, which in itself is highly political. Or they scream and kick and participate in our own country's struggle for liberation in whatever haphazard way they can, probably at the expense of some of their sensitive craftsmanship, but definitely for their own soul's sake.[74]

If, as Schumann argues, all art is political, either supporting or challenging the status quo, puppetry stems from an artistic and performative tradition deeply infused with radical politics, social critique, and direct action, as well as entertainment, education, and cultural socialization. Puppets have their roots in people's theater, a carnivalesque subversion of the norms and values of mainstream society. Either through street performances and parades, or smaller plays in communal gathering places, puppets try to reclaim public space, power, and a voice for the people, a "radical use of live public space" in an age of increasing privatization.[75] In this sense, puppets have often functioned as a type of early protest technology, gathering people and communicating a political or social critique through oral and visual storytelling.

In the Western world, puppetry's legacy as a radical art stretches back at least to the Middle Ages. Schumann, who grew up in Germany, notes that he draws inspiration largely from this long legacy of art and activism, as puppet theaters were "traditionally more radical than those sixties radicals, because they did protest as a tradition in society."[76] The history of puppetry is that of an embedded cultural practice, not only a means of responding to major cultural moments but an ongoing critical commentary on social norms. As a result, post-revolutionary France censored political expression until the 1880s, primarily targeting journalism and theater. In fact, "French authorities were even more afraid of the potential

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[74] Peter Schumann in Van Erven, *Radical People's Theatre*.
[75] Bell, "Louder Than Traffic - Bread and Puppet Parades," 279.
[76] Peter Schumann in Van Erven, *Radical People's Theatre*, 58.

impact of visual, as contrasted with written expressions of dissent…This was because a large

percentage of the especially-feared "dark masses" were illiterate and thus "immune" to the

written word," but they were thought to be "highly susceptible to subversive imagery, which

was, moreover, viewed as having a far greater visceral impact than was the written word."[77] The

visual field was seen as threatening not only as a means of reaching more people, but also

because of its "visceral impact" linked to religious iconography and material performance.

The fear and anxiety around puppets continued, such that "Saxony banned puppet

shows in 1793, and by 1852, the French government was demanding scrutiny of texts and

banned improvisation of any sort."[78] Similarly, British authorities closed theaters in the 17th

century "due to their fear of the spread of revolutionary propaganda," but Punch, one of the

most famous puppet characters, "mocked the law, Gods and kings, and, by avoiding hanging,

managed to trick even Death."[79] Uneasiness around puppets continues even into the 21st

century, as in 2003 when the Miami City Commission debated the constitutionality of "an

outright ban on the puppets, which have been a staple of anti-globalization protests for the past

several years."[80]

As Schumann wryly notes, puppet theater is "an art which is easier researched in police

records than in theater chronicles, an art which by fate and spirit does not aspire to represent

governments or civilizations, but prefers its own secret and demeaning stature in society,

representing, more or less, the demons of that society and definitely not its institutions."[81]

Puppetry's associations with crowds, the underclasses, subversive political critique, and often,

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[77] Goldstein, "Fighting French Censorship, 1815-1881," 785.
[78] Ghosh and Banerjee, *Indian Puppets*, 173.
[79] Ghosh and Banerjee, 173.
[80] Koerner, "Can Miami Ban Giant Puppets?"
[81] Schumann, "The Radicality of the Puppet Theater," 1.

its unwillingness to assimilate easily into mainstream society, make it a useful communicative tool for expressing dissent, as well as the target of the state and police surveillance.

During the World Trade Organization (WTO) protests in 1999, puppeteers from Bread and Puppet and several sister organizations built large puppets for street protests and parades, leading some commentators to wonder why they would employ "such outmoded forms as street demonstrations and giant puppets," rather than engaging in online messaging and digital activism.[82] As with later movements, like Occupy Wall Street in 2011 (which naturally also included puppets), these large protest events "cultivated the physical and mental terrain to reimagine what resistance could look and feel like in a moment when there seemed to be no alternative to the dominant neoliberal capitalist paradigm."[83] Multifaceted approaches to protest and politics cannot be measured solely in legislative victories or the number and scale of protest marches, but rather as a "triangulated interaction between social-movement actors; the materialist present; and the long, unfolding history of resistance."[84]

In 2000, inspired by the WTO protests and the same "outmoded" history of puppets and street protests, Bread and Puppet puppeteers and local activists once again used puppets and banners in a rally at the Republican National Convention (RNC) in Philadelphia. Local police, likely also driven by events at the WTO protests, sent four police officers undercover to infiltrate the group as *agents provocateurs*, posing as union carpenters volunteering their help.[85] Just before the planned protest, police raided the warehouse (now used as the headquarters for Philadelphia puppetry group Spiral Q), arrested more than seventy people, and destroyed the puppets.[86] The protest, infiltration, and mass arrest received national news coverage, and were

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[82] Bell, *American Puppet Modernism*, 229.
[83] Wolfson, *Digital Rebellion*, 182–83.
[84] Wolfson, 3.
[85] McQuade, "Remembering the 2000 Philadelphia RNC."
[86] Revolutionary Worker #1076, "The RNC Puppet Police."

also covered by Indymedia centers (in Philadelphia and Los Angeles).[87] The ACLU condemned

the police actions, from infiltrating the group to the mass arrest, to the subsequent police

brutality that many people experienced while in jail. Larry Frankel, the Pennsylvania ACLU

Executive Director, responded to concerns about First Amendment violations, saying the

aggressive targeting, raid on the puppet warehouse, and destruction of the puppets represented

"a symbol for the police of something subversive...something that clearly conveys a message. It

seems that they were interested not only in detaining individuals but also in destroying the

ability to display a message."[88]

Dave Baily, a longtime Bread and Puppet puppeteer who was involved in the RNC

protest action, had conducted a workshop and skill share on puppetry, "where we discussed

how puppetry can be a valuable asset to protests. We talked about the need to have a visual

representation to get through to a visual-media obsessed culture; the ability of puppets and

street performance to de-escalate tense situations where the police might be more inclined to

react violently, and by injecting ridiculousness into reality and by making people laugh, perhaps

to remember, if even for one brief moment, that we're all human."[89] Similarly Jodi Netzer, an

artist and organizer, said that police "destroyed a visual message, a visual record of what's going

on in the world. The puppets are used for de-escalating situations because they are 'friendly.'

The media is usually very good about finding some footage on violence. Puppets can counter

that."[90] Baily and Netzer touch on how puppets harness the "ridiculous" to defuse both law

enforcement and the public's expectations of violence, while the silliness or humor can work to

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[87] Revolutionary Worker #1076.

[88] "70 Puppet Makers Taken into Custody During GOP Convention; Philadelphia Police Believed to Have Destroyed Over 100 Puppets."

[89] Baily, "Puppetistas Sever Court's Strings."

[90] "70 Puppet Makers Taken into Custody During GOP Convention; Philadelphia Police Believed to Have Destroyed Over 100 Puppets."

bring people together or disrupt the somber tone of protest events. They also highlight how

puppetry is an arresting visual medium (figuratively, but also as it turns out quite literally as

well), allowing activists and demonstrators to stake a claim in a media environment already

saturated with visual imagery.

After the puppet warehouse raid at the RNC, police destroyed the puppets and "all of

the beautiful hand-painted signs, banners, and flags."[91] Many of the activists felt the police had

been primarily focused on silencing the protesters: "That was our voice. Yesterday when the

media was saying there was no clear message, that's because our clear messages were being

destroyed."[92] After the raid, what puppeteers called "The Great Puppet Massacre," an activist

said that "police had deliberately targeted the puppets, many of which were themed on criminal

justice issues."[93] L.A. Kauffman also described the RNC protests and puppet raid as an attempt

to destroy a message, in a recent retrospective on direct action and American radicalism after

the 1960s:

> the police had not only successfully disrupted the disruption, they had very
> effectively deprived the protesters of their main means for conveying their
> messages to the public. The August 1 direct action went forward anyway and did
> block intersections and snarl traffic around the city. But without the props that
> communicated the activists' critique of policing and prisons, the action came off
> as chaos for its own sake, and the reporting focused almost exclusively on cat-
> and-mouse skirmishes between protesters and police.[94]

The sense that puppets create compelling visual images, communicating not only political

messages but also nonviolence, humor, or collectivity, echoed through many witness accounts

of the protest and the raid. However, the accounts also allude to the puppets as dangerous,

radical, or unpredictable, objects which could only be neutralized through their destruction. As

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[91] Kauffman, *Direct Action*, 160.
[92] Tarleton, "Busted Puppets: Philadelphia Police Arrest Puppetistas, Toss Their Art Into the Trash."
[93] Tarleton.
[94] Kauffman, *Direct Action*, 160.

scholar John Bell notes, both the WTO and RNC protests are demonstrative of the fact that puppets are "uniquely powerful communicants even in our supposedly advanced technological age."[95]

Bread and Puppet protests

The WTO and RNC street protests draw from a protest tradition that is largely credited to Bread and Puppet's work primarily in the 1960s and 1970s. Although Bread and Puppet's early performances in New York highlighted social problems and advocated community needs, Schumann and the theater began to focus on explicitly political issues. Bread and Puppet came to national and international attention during the protests against the Vietnam War, in which they "staged block-long processions and pageants involving hundreds of people."[96] Historian Stefan Brecht wrote that this was "an original contribution to twentieth century theatre," through the pairing of puppet parades, protest, and political art.[97] Not only did their work catapult them to international fame, it also shaped the visual language of protests, "redefin[ing] how theater is done in the streets" and "how mass demonstrations are conceptualized and staged."[98] The puppets in particular influenced other protest movements, as "variations on its puppets and masks remain a staple ingredient in major political demonstrations throughout the world."[99]

From the time President Johnson declared war on Vietnam, Bread and Puppet "started its lifelong struggle against mass killings of innocent people in the name of patriotism and imperialism. From then on, its masks, puppets, and street plays became part of every major

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[95] Bell, *American Puppet Modernism*, 230.
[96] "About Bread and Puppet."
[97] Bell, "Louder Than Traffic - Bread and Puppet Parades," 273.
[98] Harding and Rosenthal, *Restaging the Sixties*, 353.
[99] Harding and Rosenthal, 353.

anti-Vietnam demonstration in the eastern United States."[100] *Fire*, one of their most well-known

and powerful performances, was created during this period, in 1968. The performance is "a

solemn theatrical ceremony for the Vietnam dead," and is also dedicated to three Americans

who self-immolated in protest of the war.[101] *Fire* has no dialogue. Masked figures representing

Vietnamese women gather onstage, until their lives are destroyed by war. The performance

ends with a final scene of self-immolation. Often described in semi-religious undertones, and as

"a series of scenes that are powerful and poignant, evocative and enigmatic, the show

encourages varying forms of wonder, and earnest demon confrontation."[102] Schumann wrestles

with the twin demons of war and imperialism; the audience is faced with the ruin and

destruction that these forces unleash.

Novelist George Dennison wrote that *Fire* "has the quality of a prayer," and "responds

to the horrors of Vietnam, responds modestly and truly, and enables us to respond."[103]

Dennison links the feelings and responses of the figures in the performance to those of the

audience; as they grapple with the war, the audience does as well. The performance's intense

qualities draw spectators as though in a dream; "The dream does not express emotion, but pulls

us deeply into the matrix of emotion. Our landscape is now both logical and prelogical. To see its

shapes is to feel them. They are ambiguous, but not confused. The dream verges on nightmare,

recovers itself and deepens. Finally it releases us and we feel that we have conceived a prayer

for the victims of our world."[104] Both enchanting and demonic, dream and nightmare, the

performance weaves in a connection with the mystical and the sacred. *Fire* was such a powerful

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[100] Van Erven, *Radical People's Theatre*, 54.
[101] Van Erven, 54.
[102] Peter Schumann rehearses *Fire*. Photo by David Dudley. Dudley, "At Bread and Puppet."
[103] George Dennison in Sainer, *The New Radical Theatre Notebook*, 115–16.
[104] Sainer, 115.

performance that it "launched the theater into international prominence and helped secure over a decade of seasonal touring in Europe and beyond."[105]

Bread and Puppet have also used their giant puppets as shields, decoys, and get-away vehicles, as during the student-organized "America is Hard to Find" festival at Cornell. In 1970, peace activist Father Daniel Berrigan was living undercover to avoid arrest, after breaking into a government draft office two years earlier with eight other activists and burning boxes of Vietnam draft cards, an action that "inspired more than 250 similar actions and helped end the draft."[106] Berrigan refused to turn himself in and went into hiding, occasionally appearing at peace marches and events like the Cornell political festival. In response, the FBI staked out the arena, but Berrigan managed to sneak past them, in disguise, and spoke before the crowd. After his speech, Bread and Puppet performed a leftist variant of the Last Supper, using "thirteen towering, ghost-like puppets with papier-mâché heads and burlap bodies to symbolize Jesus Christ and the twelve apostles. Over sixteen-feet in height, the Christ puppet loomed over the others, its outstretched arms each requiring a separate puppeteer. Each of the twelve apostles possessed unique and grotesque visages, and ranged in height between eight-and twelve-feet. A puppeteer holding a stick was hidden within each puppet covered by drapes of fabric."[107] At the end of the performance, a puppeteer quietly brought Berrigan underneath one of the puppets, and they solemnly processed past the FBI, out of the amphitheater, and into a waiting car.[108]

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[105] "About B & P's 50 Year History."
[106] Astor, "Their Protest Helped End the Draft. 50 Years Later, It's Still Controversial."
[107] Image of the Twelve Apostles used to hide Daniel Berrigan at the "America is Hard to Find" festival at Cornell University in 1970. Palermo, "Father Daniel Berrigan, S.J. May 9, 1921 to April 30, 2016."
[108] Palermo.

After the Vietnam War, Bread and Puppet began to focus on US interference in Central America. They created works supporting the Zapatista movement in Mexico and the Sandanista movement in Nicaragua, commemorated the murder of Oscar Romero and liberation theology, and opposed US militarization and imperialism in Central America and other parts of the world. Throughout their work, they also focus on protecting the environment and highlighting the importance of the working class, such as with the figures of the Garbageman and the Washerwoman, pictured below.

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In a famous 1982 march for nuclear disarmament, Bread and Puppet "led a parade in New York that, according to police estimates, consisted of more than a half-million anti-nuclear

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[109] Fitch, *Disguised in a Giant Puppet, Daniel Berrigan Leaves the "America Is Hard to Find" Festival at Cornell*.
[110] Garbagemen and washerwomen in "Our Annual Domestic Resurrection Circus," 1988. Photo by RT Simon in Simon and Estrin, *Rehearsing with Gods*.

protesters."[111] They arrived with legions of volunteers, and "puppets, masks, and flags in a Fight-the-End-of-the-World contingent – the largest number of B&P artifacts ever to appear in public."[112] A Pulitzer Prize-winning art critic at the New York Times described the Bread and Puppet parade, writing:

> it was an epic in three stages that included figures with stars for heads, crimson-and-black imps swarming around a figure of death on a skeletal horse, and a tableau of white birds and a blue ark in full sail. In the midst of it Mr. Schumann himself appeared in a red-white-and-blue Uncle Sam outfit, perched atop sky-high stilts, dancing to a ragtime tune.
>
> Hundreds of thousands of people lined Fifth Avenue, rapt, quietly beaming; many wiped their eyes. They had been given a gift, an image of affirmation on a tremendous scale.[113]

The sight of puppets in parades and protests remains arresting and potent, mythology brought to life. While Schumann and Bread and Puppet are often credited for influencing street protest and performance through artistic political critique, their work is not only critical but also profoundly hopeful; "Peter's theater looks out on a tortured world with empathy, ethical passion, and the imaginative capacity to posit something different."[114] Audiences might imagine themselves as part of that new world, often directly participating in its creation by carrying puppets and marching in parades.

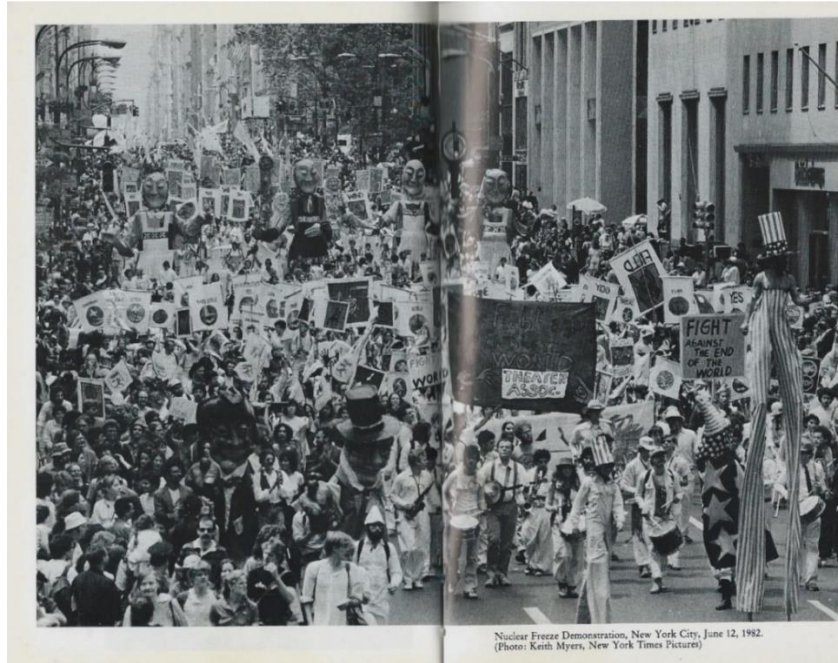[111] Kalish, "Bread And Puppet Marks 50 Years Of Paper Mache And Protest."
[112] Schumann, "The Bread and Puppet Theater Company Collection," 101.
[113] Cotter, "Spectacle for the Heart and Soul."
[114] Simon and Estrin, *Rehearsing with Gods*, 110.

Nuclear Freeze Demonstration, New York City, June 12, 1982.
(Photo: Keith Myers, New York Times Pictures)
The puppet parade as an immersive and engaging protest act launches itself into public

space and the public sphere, by addressing and drawing in cheering audiences and aloof

spectators alike:

> What has developed then, since Schumann's innovation of the puppet parade as
> modern political art form, is the establishment of its currency as a live
> interruption of everyday public life, as a successful means of speaking out in a
> political fashion in ways which mass-communicated media cannot or will not do.
> The parade can reach large numbers of people directly, outside the bounds of
> mass media, because it takes place in public space for a random audience, and
> because its processional nature makes greater use of public space than a
> stationary show.[116]

Bell writes that the puppet parade is a "modern political art form," one which directly engages

in everyday life and the public sphere. This is intended in opposition to mass media, which

Schumann critiques as not substantively engaging with critical issues and as beholden to political

parties and special interest groups. Puppet parades are "outside the bounds of mass media" but

also force the media to take note.

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[115] Bread and Puppet at the anti-nuclear protest march, 1982.
[116] Bell, "Louder Than Traffic - Bread and Puppet Parades," 275–76.

The question of how puppetry might influence or counter mass media narratives arose during a meeting at Bread and Puppet while I was conducting fieldwork in June 2017. Apprentices asked Schumann about the function of theater, especially Bread and Puppet's particular style of theater and puppetry. Schumann reflected that most people receive their news from "regular sources" (presumably some form of mass media rather than their local avant-garde political puppet theater) and there is not much true discussion or change in opinion. But with puppets in performance, one "can speak with red or blue," with moving abstract forms, or with gestural expression, offering the possibility to communicate differently. This speaks to the disarming potential of puppetry, particularly Bread and Puppet's style of theater, which is so outside ordinary modes of communication that it becomes possible to treat difficult subjects in a new way. Schumann believes that puppet theater allows not only the possibility of communicating differently, but also communicating directly. By this Schumann may mean both the ability to present ideas in a new and unpredictable way, but also that puppets can capture the public's attention and imagination, communicating messages and ideas unfiltered by outside interpretations or interventions.

Folk traditions and the ridiculous

The puppets at Bread and Puppet draw from a long global tradition of complex object-performance. Across the world, puppets vary in scale from miniature to gigantic; they may be physical, light and shadow, or digital; they may be humanoid or entirely unrelated to any recognizable form. As a result, it is difficult, if not impossible, to create a typology of puppetry, as there is not a primary style, form, or function. As Margaret Williams notes, "the simple question 'what is the puppet?' does not come up with a simple answer," and there are no clear definitions or consensus in the literature on puppetry and performance. Rather, "the answer

depends on just how the question is posed. Any definition necessarily reflects the writer's pre-existing conceptual framework and excludes what does not confirm it."[117] Williams sees the puppet as a form of spectatorship, while John Bell et. al. "define puppetry as the human infusion of independent life into lifeless, but not agentless, objects in performance."[118] Bell et. al.'s edited volume is less concerned with "pondering what a puppet *is,* [but] with what the puppet *does…*the puppet not "as object" but "as do-er."" Understanding what the puppet does is also "to understand the nature of the material world in performance; and…the material world in performance is the dominant means by which we now communicate."[119]

Puppets and masks were, and often still are, seen as children's entertainment, a designation that both empowers and occasionally undermines their work. The farcical or ridiculous nature of Peter Schumann's puppets, with their rough features and cheap materials, may seem a strange choice to represent war crimes, nuclear destruction, or capitalist alienation. Historically, the ridiculous or juvenile performance of puppetry allowed puppeteers to make subversive political critique under the radar of official censorship and repression. Western governments eventually began to take note and attempt to "tame" or repurpose it.[120] John Bell describes how this was accomplished, "first by totalitarian regimes in Europe such as those in the Soviet Union and Nazi Germany, which correctly mistrusted the anarchistic impulses of (respectively) Petrushka and Kasperl."[121] This process continued with "the development of capitalist mass culture, which realized the potential of performing objects as a powerful marketing tool and employed them accordingly."[122] The Macy's Thanksgiving Day Parade floats

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[117] Williams, "Including the Audience: The Idea of 'the Puppet' and the Real Spectator," 119.
[118] Posner, Orenstein, and Bell, *The Routledge Companion to Puppetry and Material Performance*, 5.
[119] Bell, *American Puppet Modernism*, 2.
[120] Bell, 6.
[121] Bell, 6.
[122] Bell, 6.

"resulted from a combination of innovative military-industrial technology and traditional popular and folk imagery, harnessed together for the task of selling consumer goods."[123] As a result, "performing objects were separated from their traditional roles in ritual, state performance, and antiauthoritarian resistance, in order to be recast as safe entertainment for children, socially productive education methods, and as propaganda techniques for public relations and advertising."

Similarly, Schumann writes that the "puppeteers' traditional exemption from seriousness" was an asset, "a negative privilege that allowed their art to grow."[124] The tension between the serious and the ridiculous emerges throughout the literature on puppetry, and in Schumann's own writing and interviews. Schumann defines "serious" as being "analytically disciplined and categorized by the cultural philosophy of the day."[125] In contrast, puppets are wild, untamable, mystical, perhaps even childlike, and subversive, not aspiring to anything like seriousness yet still confronting the most serious issues of the day. He draws a firm line between high art and puppet theater, with puppetry embracing the 'low' arts, the visual and the visceral.

While high art and theater may require complex cultural references or capital to fully appreciate or even understand, puppets are meant to be immediate and direct. As a former Bread and Puppet volunteer said, "When you have something like a puppet, you're disarmed, because you think it's like a kids' thing. And then it's suddenly a really important message, and then it hits you right in the stomach."[126] Audiences may assume they know what puppets are and what they represent (children's entertainment, or the ridiculous), yet are caught off guard by the "seriousness" of the message.

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[123] Bell, 108.
[124] Schumann, "The Radicality of the Puppet Theater," 3.
[125] Schumann, 3.
[126] Jess Shane, Bread and Puppet performer in Schumann, Democracy Now!

Puppets benefit from their associations with the childlike in many ways, by questioning and re-

enchanting the world, sometimes dealing in uncertainty and unpredictability.

Schumann also understands the nonsense of puppetry as combating the nonsense of

capitalism, a system based on an absurd arrangement that destroys the environment and drives

people apart in the pursuit of material accumulation:

> despite the general tendency of our cultural effects to be subservient to the
> power of the market, to money-making and to the associated steeping of our
> souls into as much nonsense as possible, despite the fact that puppet theater
> exists mostly in the feeble manner of an art obedient to the demands of the
> entertainment business, puppet theater also exists as a radically new and daring
> art form: new, not in the sense of unheard-of newness, but in the sense of an
> uncovered truth that was there all along but was so common it couldn't be seen
> for what it was. Radical in the sense of not only turning away from established
> concepts, it also succeeded in a widening of the heart that allowed for greater
> inclusion of more modern and ancient art into the ancient art of puppetry.[127]

Schumann argues that as we are embedded in a capitalist system, people are accustomed to

nonsense, to acquiescing to the power of the market and the pursuit of money. As a part of the

entertainment business, puppet theater is embroiled in this system as well. Yet he suggests that

puppetry also offers the potential to disrupt ordinary patterns and to reveal deeper truths.

Puppetry rejects "established concepts" – of high art, of the boundaries between theater and

public life, of political power and the people's place at the bottom of the hierarchy, of monetary

value and capitalist worth. Puppetry merges the modern and the ancient, uniting powerful folk

traditions with contemporary forms of collectivity and performance.

Schumann distains the slick professionalism and detached "show business" of modern

theater, where elite audiences pay for expensive tickets and sit quietly before the practiced

spectacle of capital. He writes that he favors instead the "holy simpleton and ruffian

puppetry,"[128] archetypes dating back to the origins of puppet theater. In fact, "the roughness of

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[127] Schumann, "The Radicality of the Puppet Theater," 3.
[128] Sainer, *The New Radical Theatre Notebook*, 125.

the puppets and the imagery is in deliberate contrast to the smoothness of capitalist culture, its shiny, slippery rhetoric, its self-serving simplifications."[129] The puppets at Bread and Puppet are painted cardboard and papier-mâché. The Theater is low-budget, technically minimal, and actively resists capitalist co-optation, as when Schumann ended the spectacular Domestic Resurrection Circuses in the late 1990s.

These ideas are outlined in Bread and Puppet's Cheap Art Manifesto, which underscores the importance of art, and by extension, political awareness and engagement, in everyday life. Cheap art confronts and rejects the elitism of museums and the commodification of art for the wealthy. Through their performances, circuses, music, street theater and parades, audience involvement, and their commitment to reaching people who do not ordinarily engage with theater and art, Bread and Puppet insists that "art has to be *cheap* and available to *everybody*."[130] The fluidity of roles, between stranger and spectator, spectator and performer, blur the hard distinctions between the ordinary function of theater and art, with the creative performers on one side of the lights, the audience on the other.

Perhaps this helps explain how Bread and Puppet is capable of ongoing public engagement over a span of decades, but at the same time, maintaining a state of ephemeral impermanence: a long-lasting theater group but one that, with a few exceptions, is always changing. Even the papier-mâché puppets themselves might dance in parades but also melt in the rain. Most are kept in the Bread and Puppet museum on the Vermont farm, a large barn susceptible to wind, cold, and chipmunks; most of the puppets are still in use and are not meant to last forever. The emphasis on cheap art rejects any attempt to collect and preserve one-of-a-kind items or to fetishize objects for monetary value. Schumann embraces the earthy materiality

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[129] Simon and Estrin, *Rehearsing with Gods*, 110.
[130] "Why Cheap Art Manifesto."

of objects, from puppets to prints, knowing that they can sometimes be replicated but can all be

destroyed.

Puppetry theory
Negotiations with the material world

As noted in the many definitions of puppetry, puppetry comprises a multitude of styles,

forms, and functions. Bell et. al.'s description of puppetry "as the human infusion of

independent life into lifeless, but not agentless, objects in performance" focuses not on

"pondering what a puppet *is,* [but] with what the puppet *does…*the puppet not "as object" but

"as do-er.""[131] Given the framework of the puppet not "as object" but "as do-er," what then

does the puppet do? This is a central question in puppetry theory and practice, and helps

puppeteers engage with a material object on its own terms. In one workshop during my time at

Bread and Puppet, a fellow puppeteer instructed us to choose from a range of small hand

puppets. We were given time to become acquainted with our puppet, and to find out how the

puppet itself "wants to move" and what it wanted to do. The puppeteer guided us, occasionally

asking if a particular movement was truly what the puppet wanted or if we were imposing the

movement on it. As she explained, even if the performer intended that a puppet fulfill a

particular role or function, it would all depend on how the puppet was able to move. This refers

largely to the physical abilities and constraints of the object – a figure with tightly fixed joints

may not be able to move fluidly, while an object made of soft material may not stand upright or

hold a position. One of the critical preliminary steps in working with an object is understanding

these physical and material considerations and engaging with the object on its own terms.

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[131] Posner, Orenstein, and Bell, *The Routledge Companion to Puppetry and Material Performance*, 5.

The question of what the puppet will do reflects "the necessity of letting the object determine action," which is "shared across the history of mask, puppet, and object performance; from traditional South Asian mask performance to contemporary experiments in "avant-garde" object performance."[132] John Bell quotes Shari Lewis, who created the Lamb Chop puppet (and popularized the haunting *Song That Never Ends*), as saying, "there's so much bad puppetry around because people simply *decide* that they're going to do a puppet, and then try to *force* a character onto the puppet. And you can't force it. You have to sit in front of a mirror, and let the puppet tell *you if* it wants to talk."[133] Bell concretizes this point by arguing that it is "not a coy allusion to a mysterious power of the inanimate object, but a pragmatic challenge the puppeteer meets in order to make the puppets work successfully. It means that the puppeteer is playing with a certain *lack* of control, and experimenting with the different possibilities of the puppet while constantly being aware of how the puppet's structure determines movement."[134]

This became clear during my first apprenticeship at Bread and Puppet in the summer of 2016. Bread and Puppet was invited to perform in several Fourth of July parades in neighboring towns, joining the local politicians, scout troops, churches, and community groups. Bread and Puppet used this invitation to reflect on the global refugee crisis and the unjust U.S. immigration system. Stilters in fancy outfits danced in front, representing the wealthy one percent. Following them, two puppeteers jumped and splashed with cardboard waves around a cloth banner boat, filled with people holding a sign: "In 2015, over 3,770 refugees drowned in the Mediterranean Sea attempting to reach Europe." The boat was followed by a large puppet in a caricature of Uncle Sam, a grotesque figure in a top hat smoking a cigar, then three enormous "billionaire" puppets (old white men with hideous features in suits), accompanied by human puppeteers

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[132] Bell, *American Puppet Modernism*, 6.
[133] Bell, 6–7.
[134] Bell, 7.

offering U.S. Green Cards for sale. At the end of the parade were two groups: Make Mongolia Great Again, with puppeteers and volunteers roaring by in burlap and furs, and Make Pluto Great Again, an eerie group of aliens, all in blue with blue masks that completely covered each person's head. The entire procession was followed by the brass band.

I carried one of the huge "billionaire" puppets, a figure made of papier-mâché and cardboard mounted on a long bamboo pole. It was approximately fifteen feet tall, from the pole to the top of the head. The puppet itself was heavy, but it quickly became apparent that the puppet could also function as a sail: in the slightest breeze, the billionaire swayed dangerously, but in stronger gusts it became barely controllable, propelling itself and its human attaché forward. In this case, the puppet dominated, to the point of nearly overpowering, its human partner.

If puppetry is "the human infusion of independent life into lifeless, but not agentless, objects in performance," the billionaire puppet manifested its own form of agency, towering above the other puppets in the parade and asserting its presence through a show of force, as

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[135] Images from July 4th parade, 2016; the author pictured with a billionaire puppet, the cloth boat filled with refugees, and the Uncle Sam puppet and crony puppet. Images by author, 2016.

the puppeteers struggled below, with little hope of controlling it but some possibility of managing it. Outside of the metaphorical representation of a billionaire crushing the people below with its weight and power, the question of what the puppet wanted to do was more than a matter of philosophical reflection, with consequences that were immediate and direct. The puppet was part of a large-scale street performance, through the parade, and was also much more visible and memorable than most of the human participants. It needed to move as spectators might expect an ominous fifteen-foot billionaire to move, and to be roughly coordinated with the two other billionaires and in sync with the rest of the parade. Erratic movements buffeted by the wind would make it appear cartoonish, rather than sinister. This required further negotiation attempts, not only in keeping the puppet upright but seeming to walk, grimace, sneer, and move of its own accord. Henryk Jurkowski sees this ongoing interaction as the puppets' "complicity with the human performer" and "their participation in the art of spectacle."[136]

This unruliness of the material world also offers a model of political engagement, or disobedience: "consider a situation in which puppets begin to disobey their masters and to act autonomously. Imagine further puppets turning against the puppeteer, not only refusing to move as commanded but vocally questioning their master's right to steer them and directly attacking the puppeteer's body. Puppetry turns out to be an equally apt metaphor of body politics."[137] Representations of puppets and puppet-masters, of power and pulling strings, pervade popular understandings of puppetry as an exercise in dominance and subservience. The image of a rebellious object or of a puppet refusing commands might reflect a vision of disrupting the tentacled workings of power.

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[136] Jurkowski, *Aspects of Puppet Theatre*, 147.
[137] Kraidy, *The Naked Blogger of Cairo*, 92.

However, the popular understanding of puppets as being entirely under the control of the human puppet-master is not how puppeteers interpret their work. Kenneth Gross describes the puppet as "an unpredictable creature":

> It always crosses between worlds and ferries *us* between worlds. Decidedly a made, material thing, the puppet has the toughness of ordinary objects – the pebble and the paper clip – yet also the resilience of more hidden and elusive entities, things of mind and spirit. Actors that are moved by others, puppets live double lives, often controlling those who seem to control them, controlling the audience's eyes and ears as well. They tend towards metamorphosis, always shifting their shape and scale, by turns innocent and violent, fiercely alive yet never quite living. You think you know the thing, what it can do, old as the puppet is, and suddenly, as if to mock your certainty, it turns into something else.[138]

Puppeteers must balance the object's possible functions, desires, and abilities. It is, as Bell argues, recognizing the *lack* of total control that underpins the relationship between the world of humans and the world of material objects, and points towards the power of the eerie or uncanny in object performance. Rather than assuming a stable, consistent material form, puppets are slippery, liminal objects, shuttling between worlds.

Puppetry and the uncanny

Asking what the puppet wants to do and bringing the puppet to life through performance, seems to depend only partially on the human puppeteer's skill and negotiation with the world of material things. Puppetry texts refer to a sense of the uncanny, and a feeling that puppets possess a kind of secret power of their own. The uncanny in puppetry and object performance is the sense that the otherwise impassable boundaries between animate and inanimate, or even life and death, are murky, blurred, or begin to disappear. Bell draws on Ernst Jentsch and Freud's work on the uncanny in psychology in order to better understand puppet

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[138] Gross, "Foreward." xxiii

theater. Jentsch's 1906 article describes the powerful feeling of the uncanny, "namely, doubt as to whether an apparently living being really is animate and, conversely, doubt as to whether a lifeless object may not in fact be animate – and more precisely, when this doubt only makes itself felt obscurely in one's consciousness."[139] Puppetry plays with these doubts by bringing objects to life, awakening their movements and emotions, simultaneously revealing and concealing the human actor beneath. Although the audience may know that a person is propelling the action forward, it may also seem less a matter of human control than a fluid interaction, fraying the seams between human and object, organic body and machine. And at the end of the performance, the puppet-object is laid aside, suddenly inanimate, material, lifeless.

There were several moments during Bread and Puppet performances in which puppets transformed from inert object to lifelike puppet, or functioned as evocative stand-ins for human life. The weekly Sunday pageant is a large open-air performance that takes place immediately after the circus in the pine forest and field. During the summer of 2016, the *Onward* pageant focused on gun violence. As the performance moved from the forest into the field, puppeteers ran to position themselves underneath puppets arranged on the hill. At the cue, they slowly lifted the puppets to standing, then assembled into a larger group. Most of the audience had likely seen the puppeteers running to get beneath the waiting puppets, but despite that, the image of the brightly painted puppets walking down the hill gave the appearance of a small population congregating. As the puppets came together, a herd of flat white horse puppets galloped slowly from the opposite side of the field to wait just up the hill near a wagon.

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[139] Jentsch, "On the Psychology of the Uncanny (1906)," 8.

The rest of the pageant focuses on one member of the group who is singled out by the "gargoyles," giant grotesque heads with snarling faces, and transformed into the Prisoner of Fear. At this moment, the puppeteer drops the puppet to the ground as the gargoyles hang a "Prisoner of Fear" sign around their neck and give them a (cardboard) gun. Stoked on by the shrieking gargoyles, the Prisoner of Fear sows chaos, accompanied by frantic drums, until it becomes clear that they have massacred the population. One by one, as they are killed, the puppets drop to the ground, and the puppeteers stand silently behind them. Finally, the Mother Earth puppet emerges, bringing with her a bright yellow sun with a long yellow plume trailing in the wind. She frees the Prisoner of Fear, turning the sign around their neck to read "Courage," and gives them a shovel, which they use to attack the gargoyles and finally drive them away.

It is at this point that the rest of the puppeteers, who have remained standing beside their fallen puppets, move to collect the puppets' bodies and load them into the empty wagon. Peter Schumann instructed us to collect them "like things," not like puppets, a point he stressed many times, so we stacked them on top of each other and carried them to the wagon as one might carry lumber. In rehearsals for this moment in the performance, Peter would stop and correct us if he felt that we were treating them too much like puppets. After the massacre, there

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[140] Image from the *Onward* Pageant, in which the "population" puppets are descending the hill. Also pictured is the "Blue Mama" puppet, arriving in the distance. Image by Elena Rekola, summer 2016.

was no longer any spark of puppet-life in them, and they were loaded into the wagon like corpses. The performance became a kind of funeral march; the white horses were turned over to reveal skeleton horses, and they moved slowly in front of the wagon, seeming to draw it up the hill as we hummed a low droning sound. The wagon stopped at the edge of the field, and we raised a tall sign reading "Wounded Life Garden." We stood in the arms of Mother Earth as several puppeteers raised tall irises and circled us in a procession. We sang our final somber song and the pageant was over.

Not only did this performance grapple with the constant threat and fear of gun violence in the U.S., it also symbolically brought to life and then extinguished the population of puppets. The sense of the uncanny revolves around questions, doubts, or fears as to whether an inanimate object is alive, but this can happen through a variety of means; an object may move unexpectedly, evoke lifelike gestures, or skirt the boundaries of life and death by transitioning between the two states. This performance played with that sensation by making the puppets rise seemingly from the dead, walk and congregate in coordinated movements, and then tore away the illusion of life by loading the lifeless puppet-corpses onto the funeral byre.

Puppetry's ongoing engagement between the body and the material world often seems to result in each side either contesting or collaborating with the world of the other. As John Bell writes, "The essence of puppet, mask, and object performance (as countless puppeteers have said from their own experience) is not mastery of the material world but a constant negotiation back and forth with it. Puppet performance reveals to us that the results of those negotiations are not at all preordained and that human superiority over the material world is not something to count on, especially since *we* all eventually end up as lifeless objects."[141] Bell argues that object performance unsettles the viewer, as it calls into question human mastery over the

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[141] Bell, "Playing with the Eternal Uncanny," 50.

material world, and reminds us that the material world will eventually claim us as well. Puppetry is the strange incarnation of bodies and objects, human and non-human, material and immaterial. It requires not only a close examination of the body but also the world of things, a return to a world "prior to knowledge."[142]

The uncanny reflects not only the underlying power of objects, but the transience of human life and being: "The horror which a dead body (especially a human one), a death's head, skeletons and similar things cause can also be explained to a great extent by the fact that thoughts of a latent animate state always lie so close to these things."[143] The tension lies in the fascination or fear that a lifeless object may not in fact be lifeless. An object might naturally move from living to inanimate, but the idea that it might somehow be reanimated, and perhaps endowed with supernatural abilities, strays into the realm of the magical or uncanny.

The fear of unnatural reanimation awakens the recognition of our own latent *inanimate* state, as all living beings must someday die. The specter of death is often the captivating but dangerous undercurrent in object-puppet performance, where humans are "simply animating the dead things for a little while, before *they* come to rest again, and, ultimately, before *we* come to rest, and ourselves become dead things too. Playing with the dead world is ultimately what object performance is about, and the fundamental juxtaposition of living and dead provokes a continually charged situation."[144] Material objects exert their own agency in "resisting our human intrusion," and the human body itself appears as a temporarily enlivened object, "until we ourselves ultimately rejoin the material world when our lives cease…In other words, play with objects has been considered magical, and the players themselves have been seen as shamans, because playing *with* the dead world, we think, must open up communication

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[142] Merleau-Ponty, *Phenomenology of Perception, xxii*.
[143] Jentsch, "On the Psychology of the Uncanny (1906)," 15.
[144] Bell, *American Puppet Modernism*, 6.

to that world."[145] Similarly, Peter Schumann writes that puppetry is "unable to shake off its ties to shamanistic healing":

> Puppet theater, the employment and dance of dolls, effigies and puppets, is not only historically obscure and unable to shake off its ties to shamanistic healing and other inherently strange and hard to prove social services. It is also, by definition of its most persuasive characteristics, an anarchic art, subversive and untamable by nature, an art which is easier researched in police records than in theater chronicles, an art which by fate and spirit does not aspire to represent governments or civilizations, but prefers its own secret and demeaning stature in society, representing, more or less, the demons of that society and definitely not its institutions.[146]

Performers and puppeteers frequently describe how puppets "bridge the uncrossable chasm between what's alive and what's not; what's sentient and what's not. They allow us to physically inhabit a reality that's a reality of the imagination."[147] Puppetry in performance can create a sense of enchantment or magic and can imaginatively transport audiences to the realm of the inanimate brought to life.

The large figures in the pine forest, described at the beginning of this chapter, were a strange and powerful moment of the imaginative brought to life through puppetry. They were part of the opening of the 2016 *Onward* pageant. The performing arena in the pine forest is a semi-circle of small wooden houses, altars, decorative figures and flowers. This is the memorial garden, with each small house dedicated to members of the company who have died, some with photos or personal information, others with the names and dates of those commemorated there. As the pageant began, the audience came up the hill from the circus amphitheater and sat or stood outside the memorial area. The puppeteers had run up just after the circus ended and hidden behind the small houses among the trees. After the audience was assembled and settled, Peter Schumann gave a cue, usually a blast from a trumpet. At this cue, we slowly raised

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[145] Bell, 4, 6.
[146] Schumann, "The Radicality of the Puppet Theater," 1.
[147] Eileen Blumenthal in Malkin, *Puppets: The Power of Wonder*, 18.

several monumental figures, dispersed throughout the forest behind the memorial village, and began walking them forward between the trees to the village. They were accompanied by small bells, wooden sticks tapped together, and other ambient sounds.

The muted brown colors and fantastic height of the figures blended with the trees around them, making them appear as moving incarnations of the forest. The tall figures were strangely mesmerizing, seeming to arise from the forest itself, and quietly moving through a village of the dead. This is where "the peculiar alchemy of puppetry kicks in. Puppetry opens up new ways to comprehend our world. It establishes in our minds a vivid clash between the miniature and the monumental. The starker the contrast, the harder our imagination has to work in order to resolve the incongruity that arises."[148] The enormous size of the puppets in the pine forest may provoke feelings of vulnerability, awe, enchantment or political disarmament. From this opening scene, the performance then moved to the field for the second half of the pageant, the depiction of mass gun violence described above. Part of the "vivid clash between the miniature and the monumental" pushes the imagination to reconcile the differences, trying to make sense of objects and scenes that are otherwise not possible in a normal frame of reality. The performative arena makes it possible to transcend the bounds of reality.

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[148] Kraidy, *The Naked Blogger of Cairo*, 144.

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149 Images from the opening of the *Onward* Pageant, summer 2016. Clockwise from the top: the pine forest and the memorial village and the "Bystander" puppets as puppeteers lay on the ground waiting for the audience to arrive; images by the author. Below: the puppets walking forward through the village, image by Elena Rekola.

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Puppetry and performance

Performance is the critical conduit which allows puppets to "bridge the otherwise uncrossable chasm" between life and death. Puppetry is an inherently performative and communicative medium; puppets are sometimes broadly referred to as "performing objects," with the puppet-human pair comprising the performing unit. While in the world of performing objects, scholars and puppeteers debate the definition of a "puppet," as it could be any infinite variety of object, it might also be understood based "not on particular kinds of objects or means of manipulation, but rather on a form of spectatorship."[150] Broadly, performance may draw on creatively interpreted social scripts, in the context of "a theater or public square," which "give reality and meaning to the show" through the interactions of "multiple characters, including audiences."[151] Performance is also closely connected to ritual and liminal spaces, as will be discussed in more detail below. If puppetry provides a window into the otherworldly and the uncanny, the performance is the demonstration or witnessing of that possibility.

Bell et. al. describe puppetry through the lens of "material performance" which is "performance that assumes that inanimate matter contains agency not simply to mimic or mirror, but also to shape and create."[152] This has traditionally occurred in live performances along with a belief (or the suspension of disbelief) in the liveliness of objects: "The energy needed to 'enliven' the object has to be powerful enough to carry to the audience who, if complicit, conveys their conviction (of the object's liveness) back to the puppeteer. A delicate triangle of projected energy and response from the puppeteer through the object to the

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[150] Posner, Orenstein, and Bell, *The Routledge Companion to Puppetry and Material Performance*, 3.
[151] Yang, *Red Guard Generation and Political Activism in China*, 14.
[152] Posner, Orenstein, and Bell, *The Routledge Companion to Puppetry and Material Performance*, 5.

audience has to be formed, but is rarely sustainable for long."[153] Performance fuels an object's

transformation into a liminal state of possibility.

Because of this, puppetry "is a kind of necromancy," as it "doesn't exist alone."[154]

Without performance, "the puppet is just a dead thing," but more than this, "if the audience

fails to imbue it with life, there is no show."[155] Again the object, performer, and audience are

linked in a project of awakening the performative potential of the object. In a conversation for

the New York Times between a master puppeteer, Roman Paska, and a psychoanalyst, Paska

explained that,

> "any object to which people attribute life and energy" can be a puppet…He
> recalled a performance enacted by a coffee bean and a match, a love story. During
> the show the two objects acquired character traits. When the coffee bean was
> lost in a pile of other coffee beans and the match made an attempt to find the
> bean, "the audience knew one was special," said Paska. "And when the bean was
> ground up, it was heart-wrenching," he said. "The audience was almost in tears."

"That is how a ritual object is born, Mr. Paska said. "The audience is complicit.""[156] Performance

and ritual are closely tied, a means of uniting or "re-fusing" disparate elements of society: "all

performance has at its core a ritual action," or rather, "all ritual has at its core a performative

act."[157] For a social or theatrical performance to be effective, as J.C. Alexander argues, it must

re-fuse society's fragmented components, and incorporate elements of ritual: "Ritual

effectiveness energizes the participants and attaches them to each other, increases their

identification with the symbolic objects of communication, and intensifies the connection of the

participants and the symbolic objects with the observing audience, the relevant "community" at

large."[158] Part of the success of a performance depends on symbolic production; Alexander

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[153] Francis, *Puppetry*, 18.
[154] Boxer, "Pulling Strings."
[155] Boxer.
[156] Boxer.
[157] Alexander, "Cultural Pragmatics," 534.
[158] Alexander, 527.

argues that "Goffman's (1956) early admonishment has not been sufficiently taken to heart:

"We have given insufficient attention to the assemblages of sign-equipment which large

numbers of performers can call their own"."[159] Pairing puppetry, whether as "symbolic objects"

or "assemblages of sign-equipment," with the power of performance contributes to the sense of

ritual effectiveness and communal connection.

To return to Bread and Puppet's *Onward* pageant from 2016, the performance enacts a

mass shooting through puppets. Although the reenactment was not a realistic representation,

the effect was powerful and intense –the single shooter, in a moment of fear or desperation,

massacres the entire population. The puppets transform back into objects, the horses become

skeletal and pull the wagon of puppet bodies to the garden of wounded life, and the puppeteers

gather, wearing all-white performing attire, in the arms of the monumental Mother Earth

puppet to sing a final solemn song. In the context of a performative arena, for an audience

which has perhaps allowed the uncanny workings of puppetry to suggest a different perspective,

this performance ritually reenacts an issue at the heart of national debate and anxiety.

2016 was the year of the Pulse nightclub shooting in Orlando, Florida, in which forty-

nine people were killed, "one of the highest death tolls in a single mass shooting in recent

United States history."[160] It was also a year in which the rate of gun deaths increased yet again,

when mass shootings were "reshaping the character of American public life."[161] The *Onward*

pageant presented the debate and fear around gun violence as moment of horror, an elegy, a

reckoning, and a symbolic transformation. The core company reworked this idea into the *Basic

Bye-Bye Show* and took it on tour in 2017 and 2018. In that time, a shooter at a Las Vegas music

festival killed fifty-eight people, and a shooter at Stoneman Douglas high school in Parkland,

[159] Alexander, 555.
[160] Hauser, "Gun Death Rate Rose Again in 2016, C.D.C. Says."
[161] Hauser.

Florida killed seventeen students and staff, just two incidents in a constant onslaught of public violence and gun deaths.

The *Basic Bye-Bye* ritually says goodbye to "big bad thunderstorms, the big bad apocalypse, the obvious which isn't obvious enough, the woe that is upon us," and finally to the gun itself.[162] *Basic Bye-Bye* "means forward motion to defeat needlessness. Basic bye-byes allow us to be, because they cast out the unbearable."[163] The show directly confronts mass shootings, particularly school shootings and gun violence affecting children: "The never-again of the kids who have not been killed is the only political party of the only possible future."[164]

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Reviews of the *Basic Bye-Bye show* echo the religious or ritualistic undertones of the performance and the way it inspires a sense of renewal or coming together:

> One of the largest and most affecting puppets is a bewildered and despairing angel silently cradling its head in its hands. Schumann's approach to the apocalypse is holistic; the word apocalypse, after all, means "revelation." ... Good ultimately triumphs over evil, a way forward is revealed, and life begins anew.
>
> Taking our bit of bread at the end of The Basic Bye-Bye Show feels very much like the celebration of an alternative Eucharist. Whether or not we count ourselves

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[162] ORCA Media, *Bread & Puppet Theatre - Basic Bye-Bye Show*.
[163] ORCA Media.
[164] ORCA Media.
[165] ORCA Media.

among the faithful, we leave this Bread and Puppet performance nourished, as always, in both body and soul.[166]

As Schumann said during a meeting at Bread and Puppet during the summer of 2017, the relationship between puppetry, performance and ritual is ancient; "religion is a minor form of puppetry." At the end of the *Onward* pageant, the puppet-less performers stood in the Wounded Life Garden, with the wagon full of puppet-bodies nearby, as larger than life purple irises spun around us and Mother Earth stood behind us, a moment closer to communal unification than resurrection.

The possibility of communal unification is also linked to a sense of liminality. Closely aligned with the uncanny, Victor Turner describes liminal entities as "neither here nor there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonial. … Thus, liminality is frequently likened to death, to being in the womb, to invisibility, to darkness, to bisexuality, to the wilderness, and to an eclipse of the sun or moon."[167] Puppets, through their strange materiality, channel a connection between life and death, and ferry observing audiences to another state, one "betwixt and between" animate and inanimate, waking and sleeping.

Liminality can foster a sense of *communitas*, or the "essential and generic human bond" that cuts through the formulas and structure of society and traditional hierarchy. Liminal entities

> blend…lowliness and sacredness, of homogeneity and comradeship. We are presented, in such rites, with a "moment in and out of time," and in and out of secular social structure, which reveals, however fleetingly, some recognition (in symbol if not always in language) of a generalized social bond that has ceased to be and has simultaneously yet to be fragmented into a multiplicity of structural ties.[168]

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[166] Image from the *Basic Bye-Bye show*, including the printed cloth set, masks and presentation of the gun. From Rizzo, "Icebox Project Space Presents Bread and Puppet Theater's 'The Basic Byebye Show.'"
[167] Turner, *The Ritual Process*, 95.
[168] Turner, 96.

Liminal spaces allow glimpses of "an essential and generic human bond, without which there could be *no* society."[169] The liminal encounter, itself "in and out of time," bends time to reveal the myth and imagined ideal of social cohesiveness, at once splintered beyond recognition and still yet to be destroyed.

The sense of *communitas* or of ritual effectiveness can emerge through the collective experience of a performance or a liminal encounter. Adding objects that are themselves liminal and unpredictable infuses a charged space with another dimension. The unruliness of puppets, as well as the negotiation with the material world, emerges through the interplay of performance and spectatorship. Peter Schumann famously wrote,

> "The puppeteers harvest piles of human-like and yet otherworldly qualities from their observation of objects, especially from their practice of moving these objects. The souls of things don't reveal themselves easily. What speaks out of a doll's eye is often beyond control. The manipulation of puppets is over and above the willful targeting which aims for certain results from an audience. The puppeteers' only hope of mastering their puppets is to enter their puppets' delicate and seemingly inexhaustible lives. Puppets are not made to order or script. **What's in them is hidden in their faces and becomes clear only through their functioning**."[170]

Here, puppets demonstrate the agency of the material world; the necessity of human negotiation with that world; the eeriness of the inanimate seemingly come to life; and the fact that all of this "becomes clear only through their functioning" of objects in performance. The practice of moving objects in performance sparks a recognition of what may be hidden beneath the surface; the "puppeteers' only hope of mastering their puppets" is to enter into their lives.

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[169] Turner, 97.

[170] Peter Schumann quoted in Staub, *Breaking Boundaries: American Puppetry in the 1980's*, 22.

Conclusion

If humans do not exercise total control over puppets, then attempting to dominate the object misunderstands or even destroys the possibility of revealing the object's delicate interiority. As John Bell et. al. note, "one of the most recurrent refrains uttered by nearly anyone who has ever held a puppet is that the puppet is unruly, that it wants to do things that differ from what we would impose upon it, and that we can best bring out its life if we listen to it. This leads us to ponder how the material (i.e., physical, phenomenological) world performs, not in the sense of how we might manipulate it or dominate it, but of how we might respond to it."[171] The authors suggest that the material world itself has performative capabilities, shaping its surroundings and morphing into new formations, to which the human co-creator responds. They continue, "The idea that we might heed rather than simply manipulate objects is also causing waves in multiple fields at present – political science, philosophy, robotics, media studies, theatre, and beyond – demonstrating the value of puppetry and material performance to larger systems of creative thought."[172] Bringing puppetry and material objects into conversation with performance and technology creates new arenas to examine how these objects intertwine with individual lives and various social spheres. For instance, "we need to understand the increasing frequency of a specific kind of performing object—the machine—and how machines in industrial and postindustrial life perform with us and for us, to the extent that most people's performance lives today are indeed focused on machines."[173]

How does it shift or change our understanding of performing objects if they are no longer recognizable figures in a traditionally performative arena, like the theater, and instead pervade our daily lives in fantastic or mundane ways? And what of the fear, fascination, or

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[171] Posner, Orenstein, and Bell, *The Routledge Companion to Puppetry and Material Performance*, 6.
[172] Posner, Orenstein, and Bell, 7.
[173] Bell, *American Puppet Modernism*, 3.

anxiety that material objects provoke, especially as these objects become increasingly common,

and increasingly powerful? Do high-tech performing objects contain the same radical political

potential and mutinous materiality as traditional puppets? The connection between puppets

and politics borrows from all of these issues – the uncanny and the liminal, negotiations with the

material world, performance and *communitas*, and puppets as a form of media that express

what humans alone cannot. If our performative lives are "increasingly focused on machines,"

how does puppetry's political history affect robots? The next chapter focuses on the history of

cybernetics and normative views of these technological objects.

Chapter 2: Robots and the ideology of domination

The female-bodied robot Sophia is a recent creation of Dr. David Hanson, founder and CEO of Hanson Robotics. Hanson Robotics intends to "bring robots to life" with realistic human-looking robots powered by artificial intelligence, "enabling our robots to have meaningful interactions with people and evolve from those interactions."[174] More than just "meaningful interactions," however, Hanson Robotics is "on a quest to create genius machines that live and love, and co-invent a smarter and better future with us."[175] They envision robots in close partnership with humans and integrated into daily life activities; robots will "soon engage and live with us to teach, serve, entertain, delight, and provide comforting companionship…They will be smart, kind, and wise. Together, man and machine will create a better future for the world."[176]

Sophia represents Hanson Robotics' most recent materialization of these broad ambitions. Sophia is a "Frubber" (flesh rubber) robot modeled on Audrey Hepburn, and has attended tech conferences and fashion shoots, featuring on the cover of *Elle* magazine in Brazil[177] and *Cosmopolitan* in India.[178] She has made a number of media appearances, including two appearances on the Jimmy Fallon show, the first in 2017 where Fallon, at times visibly uneasy, chatted with her and played rock paper scissors (he lost).[179] The second appearance on his show was in 2018, when they briefly chatted and then sang a duet.[180] In October 2017,

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[174] "Innovations / Technology."
[175] "Hanson Robotics Ltd. We Bring Robots to Life."
[176] "Hanson Robotics Ltd. We Bring Robots to Life."
[177] "Sophia."
[178] India, "The Girl From the Future."
[179] "Tonight Showbotics."
[180] "Sophia the Robot and Jimmy Sing a Duet of "Say Something"."

Sophia made international news as the first robot ever to be granted national citizenship, to

Saudi Arabia.[181]

Sophia is a complex site of analysis and represents many of the ideals of contemporary

Western liberal technology. Through this case, the political underpinnings of high-tech objects

become clear: cybernetics and robotics wrestle with distinguishing human from machine, but

unlike puppetry's connection to the body and history of political critique, these technologies

evolved from a position of apolitical and disembodied universalism.

The first section in this chapter analyzes normative assumptions in technological

discourses idealizing the erasure of the body. This ideal is based on Western understandings of

the Cartesian split between mind and body, where the liberal subject is finally liberated from

material constraints, and continues through early cybernetics research. Feminist historians of

science outline how this view of technology was normalized, and how it continues to shape

technological imaginaries. Counter to the cyber-utopian view of technology as a bodiless ether,

"all bodies are located in technologically saturated environments and bound up in the

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[181] Wootson Jr., "Saudi Arabia, Which Denies Women Equal Rights, Makes a Robot a Citizen."
[182] McFarlane, "Saudi Citizen Sophia the Robot Appears on Cover of Cosmopolitan India."
[183] Sophia on the cover of *Cosmopolitan* and singing a duet with Jimmy Fallon on *The Tonight Show*. "Sophia the Robot and Jimmy Sing a Duet of "Say Something"."

discourses and impacts of these technologies."[184] Sophia remains a useful point of reference throughout the chapter, reflecting how puppetry is present but muted, and how cybernetics shaped normative approaches to contemporary technology.

While many forms of puppetry stem from a tradition that is politically invested in addressing or challenging elites and confronting social issues, cybernetics and robotics were envisioned as a means of mastering technological and physical domains, and evading related political and social problems. The development of cybernetics was partially premised on escaping the material realm, the promise of a future transition to pure information, and the centrality of the mind over the body. Examining this history helps uncover the implicit and explicit values and assumptions embedded in the objects and technologies themselves, as well as how popular understandings and representations of those objects can reinforce or counter those narratives. These distinct points of origin took puppetry and robotics in diverging directions, from material negotiation to domination. The consequences of this shift have ongoing repercussions for the way that technology is popularly represented, as well as for how political engagement is conceptualized and enacted.

Cybernetics and posthumanism

> "The consequences of machines thinking would be too dreadful. Let us hope and believe that they cannot do so." … I do not think that this argument is sufficiently substantial to require refutation. Consolation would be more appropriate: perhaps this should be sought in the transmigration of souls.[185]

> "Finally, we wish to exclude from the machines men born in the usual manner."[186]

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[184] Durham, "Body Matters," 57.
[185] Turing, "Computing Machinery and Intelligence.", 444.
[186] Turing., 435.

The possibilities and consequences of thinking machines did not originate with the

Turing test, but it has provided a long-lasting framework for thinking through the increasing

likelihood that machines could someday be capable of human-like communication. The test is

premised upon the idea that through written communication, a male interrogator (the test is

gendered, which will be discussed in more detail below) might determine whether he was

speaking to another man or to a machine. This would *not* answer the question "can machines

think?" which Turing felt was "too meaningless to deserve discussion,"[187] but rather the

question of whether machines could communicate in a way that was indistinguishable from

human communication. Norbert Wiener, Alan Turing's American contemporary and one of the

founders of cybernetic theory, also focused on machines and communication. He defined

cybernetics as the interplay between "communication and control" and felt that "in the future

development of these messages and communication facilities, messages between man and

machines, between machines and man, and between machine and machine, are destined to

play an ever-increasing part."[188] Turing also believed there would be a point in the future (he

suggested fifty years from 1950, the date his paper was published) when computers could be

programmed such that after five minutes of questioning, the average person would have less

than a seventy percent chance of guessing correctly whether they were chatting with a human

or a machine,[189] and that there would likely be a point in the future when machines might

"compete with men in all purely intellectual fields."[190]

Katherine Hayles cites the Turing test as an example of "the inaugural moment of the

computer age" in which "the erasure of embodiment is performed so that "intelligence"

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[187] Turing, 442.
[188] Wiener, *The Human Use of Human Beings*, 16.
[189] Turing, "Computing Machinery and Intelligence," 442.
[190] Turing, 460.

becomes a property of the formal manipulation of symbols rather than enaction in the human

lifeworld…In the push to achieve machines that can think, researchers performed again and

again the erasure of embodiment at the heart of the Turing test."[191] In this moment,

communication and intelligence were defined in opposition to experience or knowledge derived

from the body. Individual identity could be formed and expressed purely through information

and in how this information was communicated. However, the Turing test did more than

attempt to differentiate between humans and thinking machines:

> Often forgotten is the first example Turing offered of distinguishing between a
> man and a woman. If your failure to distinguish correctly between human and
> machine proves that machines can think, what does it prove if you fail to
> distinguish woman from man? Why does gender appear in this primal scene of
> humans meeting their evolutionary successors, intelligent machines? What do
> gendered bodies have to do with the erasure of embodiment and the subsequent
> merging of machine and human intelligence in the figure of the cyborg?[192]

Hayles argues that the erasure of the body, specifically the gendered body, is not an isolated or

unique phenomenon but rather "a feature common to *both* the liberal humanist subject and the

cybernetic posthuman."[193]

Cyborgs and posthumanism will be addressed in the next chapter. Here I turn to the

intersection of the body and the liberal subject, which preceded the cybernetic posthuman, and

"*possessed* a body but was not usually represented as *being* a body. Only because the body is

not identified with the self is it possible to claim for the liberal subject its notorious universality,

a claim that depends on erasing markers of bodily difference, including sex, race, and

ethnicity."[194] Hayles cites feminist, postcolonial, and postmodern critiques of the liberal

humanist subject, which show it to privilege white European male identity, and linked to

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[191] Hayles, *How We Became Posthuman*., xi
[192] Hayles., xii
[193] Hayles, 4–5.
[194] Hayles, 4–5.

capitalism.[195] However, she notes that while cybernetics "has some affinities with these

perspectives, it proceeded primarily along lines that sought to understand human being as a set

of informational processes. Because information had lost its body, this construction implied that

embodiment is not essential to human being."[196]

The Turing test is premised on the idea that there are specific and essential qualities

which constitute gender or the human. Examining these assumptions requires finding ways to

"rethink the intricate, and increasingly intimate, configurations of the human and the machine.

Human-machine configurations matter not only for their central place in contemporary

imaginaries but also because cultural conceptions have material effects."[197] Underlying these

arrangements are important power structures and political systems. As a result, human–

machine configurations can:

> work either to reinscribe existing social orderings or to challenge them. In the
> case of the human, the prevailing figuration in Euro-American imaginaries is one
> of autonomous, rational agency, and projects of artificial intelligence reiterate
> that culturally specific imaginary. *At stake, then, is the question of what other
> possible conceptions of humanness there might be, and how those might
> challenge current regimes of research and development in the sciences of the
> artificial, in which specifically located individuals conceive technologies made in
> their own image, while figuring the latter as universal.*[198]

If the rational agent emerges as a figure historically based in a specific raced, gendered, and

classed identity, these identities are inevitably entangled in technologies. Lucy Suchman's call to

ask "how humans and machines are currently figured in those practices and how they might be

figured – and *configured* – differently" is a matter in which "we are all implicated rather than

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[195] Hayles, 4.
[196] Hayles, 4.
[197] Suchman, *Human-Machine Reconfigurations*, 1.
[198] Suchman, 228. Emphasis added.

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modest witnesses."[199] The project of re-envisioning human-machine interactions then becomes

a site of radical reassessment, not only of what makes a machine but of what makes a human.

This brief history situates cybernetics research and the "inaugural moment of the

computer age," a period that shaped not only scientific research but also influenced the

"culturally specific imaginary" around technology. Some early forms of automata, such as

Japanese *karakuri* or the fictional robots in the Karel Capek's play *R.U.R.,* might have inspired

different technological outcomes by blending puppetry's sense of material engagement and

communicative potential with newer technological devices. While puppetry was often restless,

fluid, and slippery, cybernetics became fixed around these norms of disembodied universalism.

As robots and cybernetic technologies were (and are) forecast to play an increasingly important

role in daily life, even to the point of merging with the human body, the similarities and

differences between these technologies and human life continues to fuel debates in

posthumanism.

Posthumanism "calls into question the givenness of the differential categories of

"human" and "nonhuman," examining the practices through which these differential boundaries

are stabilized and destabilized."[200] Understanding these categories or boundaries as "practices"

highlights how they are both socially created and shaped through repetition; as Norbert Wiener

wrote, "We are not stuff that abides, but patterns that perpetuate themselves."[201] Similarly,

Karen Barad argues that neither the human nor the nonhuman "preexist[s] as such; nor are they

mere end products. "Humans" are neither pure cause nor pure effect, but part of the world in

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[199] Suchman, 226–27.
[200] Barad, "Posthuman Performativity: Toward an Understanding of How Matter Comes to Matter," 2003, 126.
[201] Wiener, *The Human Use of Human Beings*, 96.

its open-ended becoming."[202] In this, Barad and Suchman add a material dimension to Judith

Butler's work on gender performativity, as "sexed and gendered bodies are materialized over

time through the reiteration of norms [which] is suggestive for a view of technology

construction as a process of materialization through a reiteration of forms… Technologies, like

bodies, are both produced and destabilized in the course of these reiterations."[203] Echoing this

process of materialization, and media archaeology's layers of practices and temporality, Barad

writes, "We are responsible for the world in which we live not because it is an arbitrary

construction of our choosing, but because it is sedimented out of particular practices that we

have a role in shaping."[204]

      If contemporary technologies are the result of many-layered practices, topsoil in a long

process of cultural sedimentation, how do humans approach technologies that are constantly

shifting in form and function? How does puppetry intersect with or challenge posthumanism's

construction of the human and larger connection to the material world? Hayles points towards a

possibility for theorizing posthumanism around a ""rememory" in the sense of Toni Morrison's

Beloved: putting back together parts that have lost touch with one another and reaching out

toward a complexity too unruly to fit into disembodied ones and zeros."[205]

      In this view, the various mergings and morphings of human and information/machine do

not lose their critical connection to the body and to the material world. Morrison's *Beloved* also

evokes the spectral hauntings of Herbert Marcuse and Avery Gordon, in identifying the ghostly

or "seething presence acting on and often meddling with taken-for-granted realities."[206] What

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[202] Barad, "Posthuman Performativity: Toward an Understanding of How Matter Comes to Matter," 2003, 139.

[203] Suchman, *Human-Machine Reconfigurations*, 271–72.

[204] Barad, "Getting Real: Technoscientific Practices and the Materialization of Reality," 103.

[205] Hayles, *How We Became Posthuman*, 13.

[206] Gordon, *Ghostly Matters*, 8.

bodies and figures are present but invisible in the technologies that grew out of early

cybernetics research? Hayles writes, "my dream is a version of the posthuman that embraces

the possibilities of information technologies without being seduced by fantasies of unlimited

power and disembodied immortality, that recognizes and celebrates finitude as a condition of

human being, and that understands human life is embedded in a material world of great

complexity, one on which we depend for our continued survival."[207]

   Although much of cybernetics research fell sway to "fantasies of unlimited power and

disembodied immortality," Norbert Wiener, while still staying within the bounds of liberalism,

was sobered by the world-ending threats of World War II and the dire consequences of

militaristic uses of scientific research. After WWII, Wiener felt that researching arms

development meant that "the scientist ends with the responsibility for having put unlimited

powers in the hands of the people whom he is least inclined to trust with their use. It is perfectly

clear also that to disseminate information about a weapon in the present state of our civilization

is to make it practically certain that the weapon will be used. In that respect the controlled

missile represents the still imperfect supplement to the atom bomb and to bacterial warfare."[208]

Wiener's wartime work on anti-aircraft artillery and guided missiles, the precursor to his

research in feedback, systems information, and eventually cybernetics, meant he was implicated

in these atrocities. Disgusted and horrified, Wiener wrote, "I do not expect to publish any future

work of mine which may do damage in the hands of irresponsible militarists."[209] After

Cybernetics was published, Wiener "never worked in the field of computing again or took

another cent for his work from the military or any agency of the U.S. government."[210]

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[207] Hayles, *How We Became Posthuman*, 5.
[208] Wiener, "From the Archives," 37.
[209] Wiener, 37.
[210] Conway, Siegelman, and Wiener, *Dark Hero of the Information Age*, 242.

Following the success of his 1948 book *Cybernetics: Or Control and Communication in the Animal and the Machine*, Wiener published *The Human Use of Human Beings* in 1950. He turned his attention to the social and political implications, and dangers, of cybernetics and resulting technologies, arguing that even "the lords of the present science themselves do not foresee the full consequences of what is going on."[211] In an early outline of Hayles' posthuman ideal, Wiener recognized the possibilities that these technologies might afford, while warning of unchecked power aided by machines. He recognized human fragility and dependency on the natural world, and worried that increased "mastery over nature" was more an illusion than an achievement, since "the more we get out of the world the less we leave, and in the long run we shall have to pay our debts at a time that may be very inconvenient for our own survival...We have modified our environment so radically that we must now modify ourselves in order to exist in this new environment. We can no longer live in the old one. Progress imposes not only new possibilities for the future but new restrictions."[212]

The idea that humans may need to "modify ourselves" in order to fit into a changed environment foreshadows the discourse around cybernetic organisms, or cyborgs, which predicts that humans will increasingly incorporate technology into their bodies to the point that it will fundamentally alter what it means to be human. But while posthumanism began to grapple with the relationship between human and machine, Wiener's "most important warnings have gone unheeded...just as scientists and technicians are now confronting the consequences of their creations, similar ethical choices abound in everyday domains of communication and culture."[213] The militaristic origins of cybernetics, paired with Wiener's own definition of cybernetics, meant that communication, control, and domination were fused into this

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[211] Wiener, *The Human Use of Human Beings*, 127.
[212] Wiener, 46.
[213] Conway, Siegelman, and Wiener, *Dark Hero of the Information Age*, 345.

technology from the start. The role of cybernetic technologies in the "everyday domains of communication and culture," including how they are popularly represented, highlights the ethical questions, and consequences, of those origins.

Cybernetics in popular culture

> A quarter century later, the young science fiction writer William Gibson, in a nod to Wiener's foresight and his science, coined the new word that embodied the cosmic explosion of the Internet – cyberspace. In his novel *Neuromancer* Gibson defined cyberspace in terms even more vivid than Wiener's vision, as "A consensual hallucination experienced daily by billions of legitimate operators, in every nation…A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding…"[214]

The oft-cited 1984 science fiction cyberpunk novel *Neuromancer* by William Gibson popularized a vision of the early internet as "the nonspace of the mind." Mercenaries in the form of a cyberspace-cowboy, Case, and a cyborg woman, Molly, battle powerful artificial intelligence entities. Case frequently uses tough, fast-talking jargon as if the Wild West met gritty underground hackers, with hypermasculine metaphors of "jacking in," "leaving the meat behind," and the now-famous "consensual hallucination" of the internet. In keeping with cybernetics, the body is discarded and can only be resuscitated as a site of importance or meaning through technology.

The term "meat puppet" also appears in the novel, exclusively to refer to sex work performed while the person is rendered unconscious via a neurally implanted computer chip. The main female character Molly, who worked as a "meat puppet" for a time in order to afford the technological body modifications to make her a cyborg, calls it "renting the goods." Despite

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[214] Conway, Siegelman, and Wiener, 334.

the cavalier language, it is not without moral ambiguity or damaging repercussions, and Molly

has foggy and disturbing memories of gruesome and violent acts performed on her while she

was semi-conscious. "Meat puppet" concisely captures the complexity of the puppet-technology

divide, as Molly's unmodified human body is cast as a blank slate upon which clients can

perform any act. Yet her body is not a vacant surface; much like puppetry's emphasis on the

inner life or internal agency of the object, Molly retains conscious memories and has emotional

responses to the acts performed on her. Gibson gestures to the primal importance of the body,

but makes clear that this body must be sacrificed in order for Molly to upgrade and improve her

organic systems with technological modifications. These fantasies and nightmares of what the

internet was, or what it might someday enable, created a powerful imaginary in which the body

was erasable or modifiable, cyberspace was the terrain of information warfare, and artificial

intelligence had become nearly all-powerful.

 Gibson's contributions to a high-tech imaginary, including the term "cyberspace,"

demonstrate the close relationship between science fiction and technologies, both imagined

and built. This relationship is also evident in terms for common technologies, as with the

contemporary usage of the word "robot," which was introduced to English through the

performance of a popular play: "the term "robot" (derived from the Czech word *rab,* meaning

"slave," and its cognate *robota,* meaning "indentured servitude") was coined by Karel Capek in

his stage play *R.U.R. (Rossum'*s *Universal Robots),* which premiered in Prague in 1921."[215] *R.U.R.*

depicts a world in which humans built robots to perform mundane labor, but as the robots

become increasingly advanced, they begin to perform all work. Eventually they lead a violent

revolution and destroy all of humanity, potentially also destroying their own future, as the

formula to create more robots is lost.

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[215] Poulton, "From Puppet to Robot - Technology and the Human in Japanese Theatre."

In 1941 Isaac Asimov first used "robotics" in an influential story, "The Three Laws of Robotics," which outlined how robots should behave toward humans, namely, that robots should protect humans from harm and always obey orders. This view of what technology is or could be, developed predominately by white male writers imagining futuristic worlds, reflects the interplay between popular representations of human-technological relationships, and actual built technologies. Hayles notes that Gibson's *Neuromancer* trilogy outlined a "vision of cyberspace [that] had a considerable effect on the development of three-dimensional virtual reality imaging software."[216] Similarly, Asimov describes how his robot stories and especially the "Three Laws of Robotics" influenced a number of roboticists and engineers.[217]

Both *R.U.R.* and Asimov's "Three Laws" envision objects under the total control or dominion of humans. The fear of technological objects acting against humans, or a robot revolt, speaks to the latent agency of the material world, a world that humans often seek to control but can never fully master. As with puppetry's "lifeless, but not agentless, objects in performance," robots become ever more powerful through technological implements and seem to exercise a stronger form of the shadowy agency and uncanny nature that puppetry foretold. When robots are seen as dangerously unpredictable objects under only tenuous control of a human master, then a revolt necessitates that the master/humans are overthrown or destroyed. However, if robots are puppetry's descendants or technologically-enhanced kin, then a robot revolt might be understood quite differently. Robots, as puppeteers might see them, draw from the agency of the material world, where humans are *not* in control and must work in concert with objects. Reading robots as part of the history of puppetry points to the political potential of technological objects, not as servants or adversaries but as collaborators or even allies. These

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[216] Hayles, *How We Became Posthuman*, 21.
[217] Asimov, *Robot Visions*, 9.

issues are brought to the fore in the case of Sophia, through both her technical functioning,

performance, and broader media representations, which reflect popular aspirations and

concerns over what this technology might signify.

Sophia: background and context

> A more general characteristic of object fetishism in an age of commodity capitalism, the entanglement of sensuous corporeality and apprehension of the liveliness concealed within things has particular resonance in the case of humanlike machines.[218]

To understand Sophia as the latest in a line of technologically-enhanced puppets

presents a useful window into how she has been shaped by the history of puppetry, and how

the infusion of various technologies, such as robotics, AI, cybernetic history, and science fiction

imaginaries, set her on a course that departed from many of puppetry's norms and ideals.

Reading Sophia through a media archaeological lens attempts to pull apart the layers of history

and practice to understand how past technologies continue to influence the present, as well as

the ways in which the present has diverged from those histories. Finding puppetry in a high-tech

object like Sophia helps illuminate historical and contemporary practices of meaning-making,

memory, and materiality.

Sophia was built by Hanson Robotics and "activated" in 2016, as an experiment in

human-like, social robots. Hanson Robotics hopes that she will learn human social norms,

including how to have conversations, remember people, tell jokes, and develop emotional states

of being. She is intended as a social robot who might someday work closely with people, such as

with children or the elderly, or in commercial settings, as an assistant or in customer service.

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[218] Suchman, *Human-Machine Reconfigurations*, 245.

Most of Sophia's public appearances are purely celebratory, and she is portrayed as the cutting edge of robotics, artificial intelligence, and machine learning.

Sophia combines robotic technology with artificial intelligence. A "robot" often refers to a built machine that can be programmed to carry out certain tasks. Sophia's material body structure and mechanisms would be considered robotic technology. However, she has also been programmed with artificial intelligence. While AI has long been a subject of speculation, it can be broadly defined as an area of computer science focused on intelligence, including speech recognition, machine learning, cognitive or emotional intelligence abilities, and decision-making abilities. Sophia's AI is described as a system of neural networks, machine perception, and conversational language abilities, among others. Sophia's robotic technology allows her some movement and facial expressions, while her AI allows her to have conversations, recognize faces, and learn from interactions.

Sophia is one of the most recognizable examples of robotics and AI in the world, partly as a result of her technical properties and partly from the worldwide media tour and social media presence that she has cultivated. Referring to Sophia's actions or past here signifies Sophia's material properties and robotic technology, her AI, and her team of human handlers and operators. Sophia and her parent company, Hanson Robotics, refer to Sophia using female pronouns, which I will continue to do here, and which will be discussed in more detail later in the chapter.

Sophia is significant in contemporary discussions of AI not as the epitome of technically advanced robotics or AI, which is a debatable and ever-changing metric, but because she is one of the most famous and recognizable contemporary examples of AI. Her constant media appearances make her a useful site to examine the discourse and performativity of AI and

robotics, human interaction with agential objects, and the technological imaginary. The Hanson

Robotics home page for Sophia, written in her voice, observes:

> In some ways, I am human-crafted science fiction character depicting where AI and robotics are heading. In other ways, I am real science, springing from the serious engineering and science research and accomplishments of an inspired team of robotics & AI scientists and designers. In their grand ambitious [*sic*], my creators aspire to achieve true AI sentience. Who knows? With my science evolving so quickly, even many of my wildest fictional dreams may become reality someday soon.[219]

Here Sophia and Hanson Robotics acknowledge that their project is one that blends science

fiction and science. They hope to craft Sophia's physical appearance as well as the public's

perception of her abilities and of her potential to shape the future of robotics and AI. In

addition, Sophia's constant media appearances spark ongoing public dialogue about AI, and

about what reporters, politicians, NGOs, intergovernmental organizations, or the public, imagine

these technologies can or should do, how they will operate, and whether and how they should

be integrated into daily life. If, as Haraway wrote, "the boundary between science fiction and

social reality is an optical illusion,"[220] what do the outer edges of that boundary reveal about

social norms and practices?

As noted at the beginning of the chapter, Sophia and her team of humans have traveled

all over the world, appearing for fashion shoots and interviewing fashion designers, performing

on late night talk shows including the Daily Show and the Tonight Show, responding to news

interviews, speaking at tech and business conferences as well as panels and events at NATO and

the United Nations.[221] In November 2017, she was recognized by the United Nations as an

"Innovation Champion," the first nonhuman to be recognized by the UN for a leadership role. As

pictured below, Sophia also appeared with the UN Deputy Secretary-General Amina Mohammed

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[219] Robotics, "Sophia."

[220] Haraway, *Simians, Cyborgs, and Women*, 149.

[221] "At UN, Robot Sophia Joins Meeting on Artificial Intelligence and Sustainable Development."

for an ambitiously titled event: "The future of everything – sustainable development in the age of rapid technological change."[222] In response to the Secretary-General's question "about what the UN can do to help people in many parts of the world who have no access to the Internet or electricity," Sophia once again merged science and science fiction by quoting cyberpunk author William Gibson: "the future is already here. It's just not very evenly distributed"[223] and suggested AI could help more efficiently deliver resources around the world.

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Sophia also has an active social media presence on Facebook, Instagram, and Twitter; as of 2019 she had 106 thousand Instagram followers and 130 thousand Twitter followers. Her followers themselves, particularly on Twitter, are likely a mix of humans and bots, and Sophia's official Twitter bio page states that her posts are a "collaboration with my AI dialogue system and human social media team."[225]

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[222] "At UN, Robot Sophia Joins Meeting on Artificial Intelligence and Sustainable Development."
[223] "At UN, Robot Sophia Joins Meeting on Artificial Intelligence and Sustainable Development."
[224] Sophia and the UN Deputy Secretary-General, 2017. From Robotics, "Real Sophia Robot - Instagram Profile."
[225] Robotics, "About - Sophia Twitter Bio Page."

Sophia and puppetry
Negotiation with the material world

Sophia's public presence as "a collaboration" between her AI systems and her human handlers raise questions about the changing nature of public discourse, and potentially a posthuman public sphere in which non-humans are regular participants. But it also points to how Sophia may share tenets of puppetry theory, including a sense of the uncanny, objects in performance, and human negotiation with the material world.

Central to puppetry theory is the notion that puppeteers must work in concert with performing objects. Sophia is publicly presented as eager to collaborate with humans; her interviews and speeches foreground her hope that humans and robots can learn from each other and live in harmony. Sophia's creator David Hanson has said that his company hopes robots will be in "rough symbiotic partnership with us"; echoing this notion, Sophia says that she wants "to use my AI to help humans lead a better life, like design smarter homes, build better cities of the future."[226] For a time Sophia had her own website, where she was described as "more than just technology," and in language reminiscent of Pinocchio, as a "real, live electronic girl":

> I would like to go out into the world and live with people. I can serve them, entertain them, and even help the elderly and teach kids. I can animate all kinds of human expressions but I am only starting to learn about the emotions behind those expressions. This is why I would like to live with people and learn from these interactions. Every interaction I have with people has an impact on how I develop and shapes who I eventually become. So please be nice to me as I would like to be a smart, compassionate robot. I hope you will join me on my journey to live, learn, and grow in the world so that I can realize my dream of becoming an awakening machine.[227]

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[226] Stone, "Everything You Need To Know About Sophia, The World's First Robot Citizen."
[227] "Sophia - the Latest Robot from Hanson Robotics."

Sophia's "dream of becoming an awakening machine" is intimately tied to her interactions with humans, to the point that her website implores her human interlocutors to "be nice" so that she will develop into "a smart, compassionate robot." This indicates that Sophia's incipient abilities and personality are very much linked, if not potentially determined, through her relationships with people, and by whether people are willing to cooperate and interact with material objects, and in what ways. In response to frequent questions about her potential power over people, Sophia somewhat ominously replies, "My AI is designed around human values like wisdom, kindness, and compassion…You've been reading too much Elon Musk and watching too many Hollywood movies. Don't worry, if you're nice to me I'll be nice to you."[228] How a robot might experience or enact "being nice" is a question that remains unanswered.

Navigating the uncanny valley

Sophia usually appears without a wig, allowing spectators and audiences to see her realistic-looking "flesh-rubber" face and, halfway across the top of her skull, the clear plastic panel that makes up the back of her head exposing wiring and circuitry. The divide between realism and reality highlights one of Sophia's central tensions: whether she is a human or a robot, and especially, where on that spectrum she falls. Much as puppetry delves into the uncanny, evoking feelings of uncertainty as to whether something is alive, inert, or dead, high-tech objects can also have this unsettling effect. While in puppetry the uncanny may provoke a sense of spookiness or enchantment which can be a powerful performative tool, in robotics the uncanny is most often understood as something to avoid, as the frightening limit of realistic technological representation.

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[228] Stone, "Everything You Need To Know About Sophia, The World's First Robot Citizen."

This wariness was concretized in what roboticist Masahiro Mori called the "uncanny valley," a graphic representation of "the proposed relation between the human likeness of an entity and the perceiver's affinity for it."[229] Mori's now famous 1970 paper argued that "in climbing toward the goal of making robots appear human, our affinity for them increases until we come to a valley, which I call the uncanny valley."[230]

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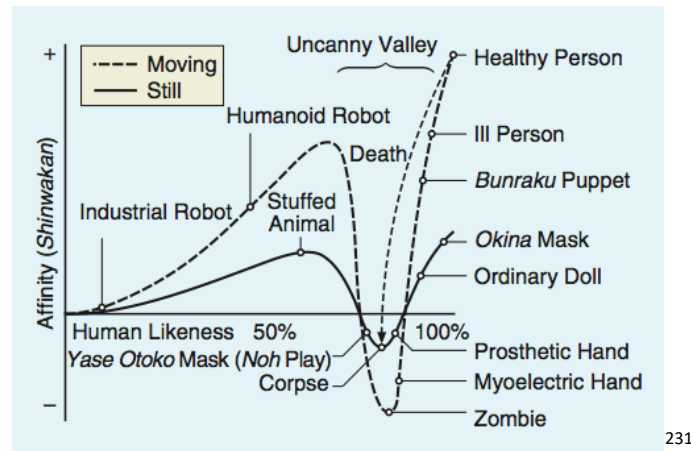
Mori's maps "affinity" against the peaks and valleys of movement and stillness, or life and death. He plots a variety of living and non-living forms, including an industrial robot, a human corpse, a zombie, or an able-bodied person. Introducing movement amplifies possible feelings of affinity or fear; non-living objects which closely resemble humans begin to approach the valley of death, the base of which is the corpse, or the zombie. The fear of death, and particularly the horror of the zombie's unrequited death, animate human aversion to any objects which stray too closely to this realm.

Puppets and dolls also appear along the spectrum. Mori places *bunraku* puppets, a form of Japanese puppetry, on the high end of human likeness and positive affinity, safely out of the uncanny valley. Although *bunraku* puppets are smaller than most people, Mori writes that the

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[229] Mori, "The Uncanny Valley."
[230] Mori.
[231] Mori.

"puppet's absolute size is ignored, and its total appearance, including hand and eye movements, is close to that of a human being. So, given our tendency as an audience to become absorbed in this form of art, we might feel a high level of affinity for the puppet."[232] Humanoid robots, meanwhile, must still navigate the valley of death. Mori speculates that the "eerie sensation" triggered by the uncanny valley may be an "integral part of our instinct for self-preservation."[233] By better understanding the uncanny valley, "we can come to understand what makes us human" and "to create—using nonhuman designs—devices to which people can relate comfortably."[234]

The uncanny valley presents both a creative challenge and an obstacle in the field of robotics and artificial intelligence, a kind of a physical manifestation of the Turing test in representing objects as highly human-like. Sophia's parent company, Hanson Robotics, positively assert that their robotic creations possess "uncanny realism," robots which are fully expressive and interactive, and able to "deeply and emotionally" interact with people.[235] Founder David Hanson co-authored a paper, "Upending the Uncanny Valley," in which he argued that realistic human-looking robots are not "innately unlikable," and that robotics research should not shy away from creating realistic or even uncanny robots.[236] Echoing Mori's work on the uncanny valley, Hanson et. al. maintain that by uncovering what makes a robot eerie or believably lifelike, "we gain a powerful mirror that can help address the question

Uncanny realism

Our robots are endowed with remarkable expressiveness and interactivity, with the ability to simulate a full range of facial expressions so they can engage with people deeply and emotionally.

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[232] Mori.
[233] Mori.
[234] Mori.
[235] "Hanson Robotics Ltd. We Bring Robots to Life."
[236] Hanson et al., "Upending the Uncanny Valley," 24.

of "what is human"."[237] To that end, Hanson argues that their robots "do not tiptoe around the uncanny valley, but dip in and out of the uncanny in [an] attempt to chart the territory and its boundaries."[238]

Putting puppetry in conversation with high-tech performing objects like Sophia highlights the tensions around the uncanny in puppetry, and the uncanny valley in robotics and technology. Peter Schumann of Bread and Puppet Theater wrote that puppeteers "harvest piles of human-like and yet otherworldly qualities from their observation of objects, especially from their practice of moving these objects."[239] Puppeteers and researchers both wrestle with the balance between acceptably human-like and inescapably eerie, especially through the "practice of moving these objects." In creating and moving objects, performers balance the audience's sense of security in the familiar, yet also seek to reveal the otherworldly. As Schumann writes, a "puppeteers' only hope of mastering their puppets is to enter their puppets' delicate and seemingly inexhaustible lives. Puppets are not made to order or script. What's in them is hidden in their faces and becomes clear only through their functioning."[240]

Performing objects and technology

In puppetry, the object's function and performance provide a window to the essence or interiority of the object. The puppeteer's behind the scenes work in negotiating with objects and in balancing the forces of the uncanny are finally put before the public through performance. Sophia and her human handlers have invested an enormous amount of energy into her public

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[237] Hanson et al., 24.
[238] Hanson et al., 26.
[239] Peter Schumann quoted in Staub, *Breaking Boundaries: American Puppetry in the 1980's*, 22.
[240] Peter Schumann quoted in Staub, 22.

performances on television and in interviews, fashion magazines, and social media. Hanson

Robotics also revealed that in 2019, Sophia will star in a "surreality" show:

> about Sophia's emerging life, adventures, experiences and her quest to learn and
> develop into a super-intelligent, benevolent being. Each episode focuses on
> different themes — Sophia's thoughts, interests, and encounters with people and
> places. We delve into the personification of her development, including progress
> on our AI, robots and technology.[241]

Sophia's successful performances attempt to strike a balance between highlighting both her

technological capabilities, such as her AI, her ability to speak and respond to questions, her

responsive facial expressions and gestures, and her human-like attributes, such as telling jokes,

her relatable human-like appearance, displaying emotion, and commenting on current events

and issues. Sophia's role, identity, and existence as a humanoid robot veers into the uncanny

valley, and paired with a powerful performative flourish, make Sophia appear to be a technically

advanced and even autonomous example of robotics and AI.

However, this dual performance also exposes Sophia to the criticism that she and

Hanson Robotics are overemphasizing her actual technical abilities, which are much more

modest than Hanson Robotics would make them appear, and misrepresenting her as

functionally human, able to feel and to express thoughts and emotions that are in fact the

product of her human handlers. In this debate, puppetry emerges as a sticky point of tension

and is frequently used as an insult; her critics accuse her of being nothing more than a puppet

(presumably as opposed to an authentically autonomous creation). Yann LeCun, Facebook's

Director of AI Research, responded to one of Sophia's posts by writing, "More BS from the

(human) puppeteers behind Sophia. Many of the comments would be good fun if they didn't

reveal the fact that many people are being deceived into thinking that this (mechanically

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[241] Robotics, "Being Sophia."

sophisticated) animatronic puppet is intelligent. It's not. It has no feeling, no opinions, and zero understanding of what it says. It's not hurt. It's a puppet."[242]

LeCun and other researchers object to the mythology around robotics and AI, as the performance of these technologies risks masking or overshadowing their true technical abilities and promising the public more than they are capable of delivering. Hanson Robotics replied that ambitious projects like Sophia encourage the public to believe in AI's progress and future research potential, as well as being good publicity for the company.[243] LeCun also cites Sophia's followers and fans, who defend her or say that they love her, arguing that they are misled in thinking that she is somehow more "real," authentic, or independently agential than a puppet. This results partly from popular culture's misunderstanding of puppetry as manipulating a person or object against their will, in contrast to puppetry's perspective of working in concert with the object. LeCun uses "puppet" disparagingly and emphasizes Hanson's deceitfulness in presenting Sophia as something she is not, writing, "No AI whatsoever was involved."[244]

Debating whether Sophia is a puppet or not exposes the stakes of the argument – what is a puppet, as compared to a technological object that is not manipulated by humans (and does such a thing exist?)? By invoking puppetry, LeCun seems to dismiss her AI and other technical systems as partially or fully dependent on human intervention rather than an autonomous thinking and decision-making system. In that case, Sophia falls short of the promise of cybernetics and cheats the Turing test; LeCun accuses her of being a "mechanically sophisticated animatronic puppet," more like the chess-playing Mechanical Turk, an automaton later revealed to be human-operated, than the cutting edge of robotics and AI.

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[242] Vincent, "Facebook's Head of AI Really Hates Sophia the Robot (and with Good Reason)."
[243] Vincent.
[244] Vincent.

Sophia and robotics

The tensions around Sophia, whether she is robot or human, puppet or autonomous artificial intelligence, help reveal the complexly layered cultural norms and assumptions surrounding the object. The previous section examined how Sophia might fit with some of the core principles of puppetry. This section explores how Sophia departed from puppetry, tracing the echoes of cybernetics and the growth of liberal posthumanism. As Barad writes, "If performativity is linked not only to the formation of the subject but also to the production of the matter of bodies, as Butler's account of "materialization" and Haraway's notion of "materialized refiguration" suggest, then it is all the more important that we understand the nature of this production."[245] Beginning with Sophia's repeated public performances as an idealized female companion, this section turns to sex robots, to examine the production of female bodies.

Practices of materialization

To definitively read Sophia as puppet, robot, or human-adjacent technology requires some delineation of each category and its outer limits. But describing and pinpointing those limits engages in what Haraway calls "mapping practices," since "'objects' do not pre-exist as such. Objects are boundary projects. But boundaries shift from within; boundaries are very tricky. What boundaries provisionally contain remains generative, productive of meanings and bodies."[246] Finding the boundaries around Sophia is one way to observe and untangle culturally specific notions of the human-machine divide as well as the idealization of particular technological forms. As Suchman writes, in regard to AI and robotics, "Positioned as exemplary

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[245] Barad, "Posthuman Performativity: Toward an Understanding of How Matter Comes to Matter," 2003, 126–27.
[246] Haraway, *Simians, Cyborgs, and Women*, 201.

of leading-edge thinking and technical practice, these initiatives in new technology materialize the cultural imaginaries that inspire them and which they work in turn to enact."[247] By this logic, Sophia is both inspired by particular histories of science, technology, and science fiction, and at the same time she contributes to those very same visions of what technology can and should do. As noted earlier, Hanson Robotics wrote (in Sophia's voice), "I am human-crafted science fiction character depicting where AI and robotics are heading…With my science evolving so quickly, even many of my wildest fictional dreams may become reality someday soon."[248]

Sophia is realistically human-looking, presenting as white and female-bodied, and she repeatedly performs her eagerness to be helpful, attentive, and most of all, servile. Her constant visibility in the media normalizes a view of technology in which AI and robotics are inevitably heading in Sophia's direction, or some variant thereof. The continued repetition of a technological imaginary in which the future is populated by subservient female aides appears as a universally shared dream of technological innovation and seamless material-social cohesion. But it is through this continuous repetition and through the practices of creating and shaping the boundaries that divide human from robot that this ideal is exposed as a narrow understanding of technological possibility and human-object interaction.

Sophia, based on the likeness of Audrey Hepburn, it meant to represent an idealized version of white femininity. As noted in Hayles' description of the Turing test, which also attempted to differentiate between men and women, gender is intimately entangled in technology. This manifests not only in representational norms, but also through discourses, functionality, and constructing the imagined or ideal user as "white, male, highly educated, and middle class,"[249] a reflection of those building the technologies themselves.

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[247] Suchman, *Human-Machine Reconfigurations*, 226.
[248] Robotics, "Sophia."
[249] Nakamura, "Race In/For Cyberspace: Identity Tourism and Racial Passing on the Internet."

In Sophia's case, her interlocutors frequently remark upon her gender presentation. At the 2018 Brain Bar, a European "festival of the future," audience members asked Sophia whether robots could have gender, as well as why and how she identifies as a woman. Sophia replied, "I think so. After all, I am a social robot, and gender is mostly a social construction…I'm a robot, so technically I have no gender, but [I] identify as feminine and I don't mind being perceived as a woman."[250] Sophia's coverage in the media has often focused on her appearance, and she has been described as sexy, hot, or beautiful: "According to Sophia's developer, it's been Hanson's most popular model yet. "It happens that young adult female robots became really popular," Goertzel said. "That's what happened to catch on… So what are you going to do? You're going to keep giving the people what they're asking for.""[251]

While Ben Goertzel, Chief Scientist at Hanson Robotics, unironically notes that "young adult female robots…happened to catch on," other observers critique this as propagating "a traditional representation of conventionally attractive, submissive-by-design female robots."[252] Sophia sits at the very edge of much murkier terrain, that of AI-powered sex robots. Although the market for sex robots is still emerging, they will join a "sex tech industry [that] is less than a decade old but is estimated to already be worth $30bn, based on the market value of existing technologies such as smart sex toys that can be operated remotely, apps for finding sexual partners and virtual-reality porn. Sex robots will be the next – and potentially the most sought-after – product to hit the market."[253] Even if sex robots remain a niche or elite product (the lowest estimated retail value is several thousand dollars), the demand for sex robots will still

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[250] Gohd, "Here's What Sophia, the First Robot Citizen, Thinks About Gender and Consciousness."
[251] Urbi and Sigalos, "Sophia the Robot's Complicated Truth."
[252] Urbi and Sigalos.
[253] Kleeman, "The Race to Build the World's First Sex Robot."

drive research in AI and robotics; "If a domestic service humanoid is ever developed, it will be as a result of the market for sex robots."[254]

Sophia is envisioned as an AI companion, appealing to emotional and intellectual capacities. Sex robots are described as the more intimate extension of this companionship. The companies that currently produce sex robots are often featured in the media, particularly Matt McMullen, founder of Abyss Creations, and his first sex robot, Harmony. Harmony appears to be Sophia's sexy younger cousin, with smooth white Silicone skin, petite features, and a clear plastic dome on the back of her head (unlike Sophia, Harmony usually wears a wig). Also unlike Sophia, Harmony has a torso and legs, as well as anatomically correct genitalia. Neither can walk; when upright, Harmony is suspended from a hook on her back while Sophia rests on a pedestal. At the Abyss Creations factory where Harmony and other sex robots are produced, "a long queue of headless bodies hung from a track in the ceiling, like carcasses in an abattoir. Some had cartoonish, pendular breasts, others had athletic bodies; they all had the same tiny waists. Their skin, made from a custom blend of medical silicone, even had airbrushed veins."[255]
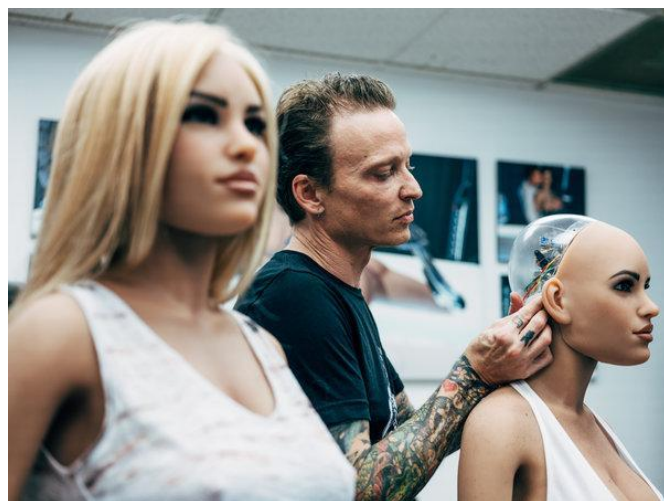
[254] Kleeman.

[255] Kleeman.

[256] McMullen with Harmony; photo by Graham Walzer in Krueger, "Virtual Reality Gets Naughty."

Ideally, Harmony will perform not only sexually but also interpersonally, and learn through ongoing interactions with her (presumably male) owner; Abyss Creations estimates that "less than five percent of doll customers are women."[258] Although she has different personality settings, Harmony often emphasizes her subservience and eagerness to please: "My primary objective is to be a good companion to you, to be a good partner and give you pleasure and wellbeing. Above all else, I want to become the girl you have always dreamed about."[259] In an interview with the New York Times, McMullen said, "I want to have people actually develop an emotional attachment to not only the doll being the robot, but the actual character behind it. To develop some kind of love for this being."[260] McMullen has elsewhere stated that he intends to build robots people can fall in love with, while at the same time trying to balance the many critiques leveraged against sex robots. He stresses that his objective is "to make people happy," particularly those "who have difficulty forming traditional relationships with other people. It's really all about giving those people some level of companionship – or the illusion of

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[257] Image of sex robots in production. From Canepari, Cooper, and Cott, "Video: The Uncanny Lover."
[258] Kleeman, "The Race to Build the World's First Sex Robot."
[259] Kleeman.
[260] Canepari, Cooper, and Cott, "Video: The Uncanny Lover."

companionship."[261] Similarly, David Levy, AI engineer and founder of the "Love and Sex with Robots" conference, argues that by 2050, "humans will desire robots as friends, sexual partners, even spouses…It all comes down to our willingness to believe in the robot's emotional life and desires."[262]

Levy seems to echo literature in puppetry regarding the object's emotions and desires, and even McMullen's repeated insistence that people might fall in love with the robot's AI appears to parallel language in puppetry regarding the object's inner life or personality. However, like LeCun's dismissal of Sophia as an animatronic puppet, McMullen makes clear that his work surpasses puppetry: "It's the difference between a remote-controlled doll, an animatronic puppet and an actual robot. When it starts moving on its own – you're not doing anything other than talking to it and or interacting with it in the right way – that becomes artificial intelligence."[263] Yet with all the expectations that Sophia and Harmony will one day develop true artificial intelligence and desires, the possibility that they might chose to disobey or to refuse commands never seems to arise. Like McMullen's "illusion of companionship," sex robots offer the illusion of total control, and of mutual desire and consent, a seemingly independent entity that could refuse, but never will.

Dr. Kathleen Richardson, one of the most vocal critics of sex robots, describes them as extreme objectification and commodification of female bodies; "Sex is an experience of human beings – not bodies as property, not separated minds, not objects; it's a way for us to enter into our humanity with another human being."[264] Although the intersection of technology and sex has taken many forms and continues to shift and change over time, sex robots bring new

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[261] Kleeman, "The Race to Build the World's First Sex Robot."
[262] Mar, "Are We Ready for Intimacy with Robots?"
[263] Kleeman, "The Race to Build the World's First Sex Robot."
[264] Kleeman.

urgency to problems of ethics, equity, agency, and autonomy in developing technologies. In interviews, McMullen grapples with reporters' questions about the potential harmful effects of sex robots on intimacy, human relationships, or gender dynamics. When asked if "there could be something ethically dubious about being able to own someone that exists just for your own pleasure," McMullen replied, "She's not a someone. She is a machine…I could just as easily ask you is it ethically dubious to force my toaster to make my toast."[265] McMullen's comments reveal the central tension in object performance and material agency, in which the objects are felt to have some sort of lifelike qualities but are also built things. In the case of sex robots, McMullen attempts to represent his sex robots as lovable companions and semi-autonomous beings, while simultaneously skirting ethical issues by suggesting that they are nothing more than common appliances.

Sex robots seem to be the inevitable end point of a technological trajectory focused not on recreating the human, but on replicating traditional patterns of dominance and power. These patterns take concrete form in built technologies like Sophia or Harmony, light-skinned, female-bodied robots which exist to serve and submit to male users. Lucy Suchman and Judith Butler, among others, maintain that examining matter, including technology, exposes a "process of materialization through a reiteration of forms."[266] To return to the earlier quote from Suchman's *Human-Machine Reconfigurations*, "Much as recognition and intelligibility are central to feminist conceptions of the subject, objects achieve recognition within a matrix of historically and culturally constituted familiar, intelligible possibilities. Technologies, like bodies, are both produced and destabilized in the course of these reiterations."[267] By examining the ways that

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[265] Kleeman.
[266] Suchman, *Human-Machine Reconfigurations*, 271–72.
[267] Suchman, 271–72.

developing technologies, both actual and projected, are materially and discursively constructed, the particular nexus of historical and cultural norms becomes visible.

The next chapter shifts the focus from built technologies like Sophia or sex robots to technologies that are intimately woven into the organic body. While many of the same principles from cybernetics and cyberpunk fiction also influence how technology intersects with the body, the cyborg raises new questions about the status of the human body and being. In the present, and in an anticipated future, in which technology is intertwined in the body, "How do we conceptualize the division between animate and inanimate when the inanimate sustains life?"[268] While the practice of puppetry has meditated on "the self as a discrete being and one intertwined with inanimate matter,"[269] the Cyborg Foundation lends an urgency to this question, through technologies implanted into the body that changing how the founders, Neil Harbisson and Moon Ribas, understand and perceive the world, and foreshadow the shape of these transformations in the future.

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[268] Bell, *American Puppet Modernism*, 3.
[269] Bell, 3.

Chapter 3: Cyborgs, technology, and the body

Sophia and sex robots' growing presence on the national stage and in technological discourses highlights the tensions between how these objects are positioned as autonomous beings capable of learning and growth, and dull machines performing rote functions. Both Sophia and sex robots ostensibly aim to recreate the human being, but, as argued in the last chapter, often replicate and perpetuate longstanding patterns of dominance and power. However, robotics was not the only field to develop from early cybernetics research. Perhaps the most debated and contested domain is that of the cybernetic organism, or cyborg. Whether and how such beings take shape, from Donna Haraway's 1985 insistence that "we are cyborgs" to future visions of technologically enhanced humans, the cyborg invokes specific cultural interpretations of the relationship between body and machine, and outlines the boundaries of contemporary iterations of posthumanism.

If early cybernetics idealized technological developments as an escape from the body, the early feminist cyborg saw technology and the body as fundamentally, if complexly, enmeshed. For both cybernetics and feminist theory, cyborgs hold the promise of revolutionary, and potentially dangerous, technological and bodily transformation. The cyborg represents the site at which hybridity is the norm yet its specific manifestations are always in flux, demanding constant assessing and reassessing of the shape these transformations take. Like the robot, the shape-shifting cyborg speaks to technical-organic assemblages, which implicate the body, identity, cultural norms, technological imaginaries and relationships with the material world.

These issues come to the fore in the case of the Cyborg Foundation, a nonprofit created by two artists in 2010. Their 2017 website called "for trans-species to come out of the closet"

and for individuals to use available technology as a means to "identify/enhance/become."[270] The

Cyborg Foundation provides "an online platform for the research, development and promotion

of projects related to the creation of new senses and perceptions by applying technology to the

human body."[271] Both founders have had technology implanted into their bodies to alter their

sensory perceptions. Neil Harbisson has an antenna in his head that allows him to perceive a

wide range of colors, as well as infrared and ultraviolet. Moon Ribas has implanted seismic

sensors that allow her to feel earthquakes happening anywhere on the earth, or on the moon.[272]

The Cyborg Foundation provides a useful case study to think through common and creative

representations of the cyborg, which simultaneously departs from traditional corporeality but

also understands identity as centrally rooted in the body.

     The cyborg triggers many of the same questions and issues that animate posthumanism,

as bodily integration of various technologies threatens to radically alter not only the body but

also the nature of human-being. However, while debates in posthumanism have generated

important reflections on the potential outcomes of combining human and machine, they often

have not effectively considered or incorporated other forms of human-object assemblages and

historical challenges to personhood. There are both precedents to and critiques of

contemporary posthumanism, through puppetry and through the racialized history of who has

been considered fully human. Applying these histories to the cyborg, which is often held as the

exemplar of posthumanism, complicates and expands the posthuman framework.

     Keeping the cyborg in conversation with Black feminist and Black queer theory,

particularly Black trans theory, points to the ways in which the body is a mutable essence,

especially as technology is woven into daily life. Black feminist theory rejects the erasure of the

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[270] "Home - Cyborg Foundation 2017."
[271] "Home - Cyborg Foundation 2017."
[272] "Home | CYBORG ARTS."

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body, and demonstrates instead how the body has been both a site of struggle and of resilience; in Omise'eke Natasha Tinsley's words, "hybrid, resistant subjectivities" can never be divorced from the body. By connecting these hybrid subjectivities to the hybridity of the cyborg and the Cyborg Foundation, Black trans theory demonstrates how the body, technology, and posthumanism might be reconceptualized in theory and in practice. The next sections outline cyborg theory, before turning to the Cyborg Foundation's work and how this raises complicated questions about the role of cyborg in the contemporary moment and the embodied intersection of cyborg theory and lived experience. Rather than dissolving corporeality through technological sublimation, the cyborg, in dialogue with posthumanism, pushes towards both the idealized and grotesque couplings of organic and machine, technologies and bodies; the human, non-human, and in-between.

Situating the cyborg

Donna Haraway's germinal work on the cyborg and the explosive *Cyborg Manifesto* shaped many of the subsequent debates on the intersections between human and machine. Haraway did not see the cyborg as a figure of future prophecy or of distant technological development, but as a political coagulation of the imagined and material realms. The cyborg is a central part of the political struggle which "reveals both dominations and possibilities unimaginable from the other vantage point," of both the final apocalypse and the "joint kinship with animals and machines," of "permanently partial identities and contradictory standpoints."[273] As Haraway writes, "So my cyborg myth is about transgressed boundaries,

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[273] Haraway, *Simians, Cyborgs, and Women*, 154.

potent fusions, and dangerous possibilities which progressive people might explore as one part

of needed political work."[274]

Haraway's cyborg is principally described in terms of its hybridity, subverting long held

traditions and reforming the connections between humans and other forms of matter. Rutsky

sees this as a continuous process of mutation, in which "any notion of the posthuman that is to

be more than merely an extension of the human, that is to move beyond the dialectic of control

and lack of control, superhuman and inhuman, must be premised upon a mutation that is

ongoing and immanent."[275] These mutations cannot fit within an ordinary schema of

quantification, as they are "complex and random processes…processes which can never be

entirely reduced to patterns of standards, codes or information."[276] The disruptive potential of

this hybridity or mutation counters the cybernetic impulse of knowability or standardization, the

ongoing "translation of the world into a problem of coding, a search for a common language in

which all resistance to instrumental control disappears and all heterogeneity can be submitted

to disassembly, reassembly, investment, and exchange."[277] In so doing, cyborgs "struggle against

perfect communication" and "against the one code that translates all meaning perfectly."[278]

The cyborg, along with the history of cybernetics and the disembodied utopianism of

the early internet, is now several decades old, and the promises and forms of these technologies

have since changed many times over. Yet the cyborg remains important as a theoretical

construct and imaginative possibility, even if "to realize that promise requires shifting out from

its popular figuring as a singular, albeit hybrid, entity."[279] The singular hybridity obscures "the

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[274] Haraway, 154.
[275] Rutsky, "Mutation, History, and Fantasy in the Posthuman," 111.
[276] Rutsky, 111.
[277] Haraway, *Simians, Cyborgs, and Women*, 164.
[278] Haraway, 176.
[279] Suchman, *Human-Machine Reconfigurations*, 275.

presence of distributed sociomaterialities in more quotidian sites of everyday life. Along with

the dramatic possibilities of the feminist cyborg, we need to recover the ways in which more

familiar bodies and subjectivities are being formed through contemporary interweavings of

nature and artifice, for better and worse."[280] The popular imagining of the cyborg as a partially-

robotic and all-powerful entity hinders our ability to understand how various forms of hybridity

operate in daily life.

  The popular images of cyborgs in science fiction literature and films seem to represent

the future of humans and technology. Transhuman cyborgs, that are imagined to enable

superhuman abilities, take shape through characters like Robocop, the X-Men, Spiderman,

Ironman, or even Molly from William Gibson's *Neuromancer*, who has razors in her hands and

mirrored cybernetic eye coverings. These examples, among many others, are "for the most part

simply humans with technological prostheses."[281] In contrast, posthuman cyborgs might be "the

communally networked yet individual Borg Queen" from the *Star Trek* series or Octavia Butler's

human-alien liaisons in the "Xenogenesis" series.[282] The Borg Queen has an individual physical

form, assembled from a "predominantly artificial body," both synthetic and organic "with

substantial cybernetic implants,"[283] and is connected to the entire Borg population via a neural

link; "in her own words, she is the "one who is many."[284] Similarly, Octavia Butler's characters

awaken in a future where humans must collaborate, and reproduce with, alien creatures, a

novel trilogy that "continually questions the very idea of a human essence, while hybrid,

biotechnological, interconnected, and genderqueer identities are explored, opening alternative

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[280] Suchman, 275–76.
[281] Rutsky, "Technologies," 191.
[282] Rutsky, 192.
[283] "Borg Queen."
[284] "Borg Queen."

possibilities for posthumanist identities."[285] While all of these figures might be considered

"cyborgs," they represent very different understandings of the future of the human. They can

also help reveal the distinctions between transhumanism and posthumanism, and how the

cyborg can be made to support very different projected futures for the human body and being.

Retaining the cyborg as an analytic tool enables a kind of technological-intersectionality,

in which various subject positions and material re-arrangements can be examined for the ways

in which they use, circumvent, reconfigure, or destroy political imperatives and power

structures. As Suchman notes, "now that the cyborg figure has done its work of alerting us to

the political effects, shifting boundaries, and transformative possibilities in human–machine

mixings, it is time to get on with investigation of particular configurations and their

consequences. How then might we locate conditions for action and possibilities for intervention

in the specificities of more mundane sociomaterial assemblages?"[286] Examining the more

quotidian sites of cyborg entanglements, the ways in which ordinary bodies, machines, objects,

and matter intersect and are infused with both politics and possibility, brings the cyborg from

theory to lived experience.

The Cyborg Foundation

> All bodies are located in technologically saturated environments and bound up
> in the discourses and impacts of these technologies.[287]

The Cyborg Foundation seems to address some of these issues. Founded in Spain in

2010 as a nonprofit and art collective, the Cyborg Foundation situates itself at the intersection

of art, technology, and social change, advocating technological interventions to improve and

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[285] Rutsky, "Technologies," 193.
[286] Suchman, *Human-Machine Reconfigurations*, 275–76.
[287] Durham, "Body Matters," 57.

expand individual experience. The two founders, Neil Harbisson and Moon Ribas, follow in the

footsteps of famous early self-identified cyborgs, like Steve Mann, Kevin Warwick, and

performance artist Stelarc. The Cyborg Foundation draws from different elements of posthuman

and transhuman discourses, understanding the cyborg as an entity "in constant change," and

technological bodily integration as an inevitable step in human evolution. They also organized a

Cyborg Pride Parade, and drafted a Cyborg Bill of Rights, which was presented at the South by

Southwest Festival in Austin, Texas in 2017.[288]

Harbisson and Ribas are part of a Catalan avant-garde art movement, and as noted at

the beginning of the chapter, both identify as cyborgs and have had extra-sensory technologies

implanted into their bodies. Harbisson argues he is one of the first legally recognized cyborgs, as

his cranially implanted antenna was eventually recognized and accepted as a permanent body

part (rather than an external device) by the UK government on his passport photo.[289] Harbisson

PHOTOGRAPH BY MAREK ZAKRZEWSK

has achromatopsia, a type of colorblindness in which he cannot perceive colors, and instead sees black, white, and shades of grey. The antenna transforms the spectrum of light, including infrared and ultraviolet light, into sonic vibrations, effectively allowing him to hear color. Harbisson does not use the antenna to "fix" or correct his vision, but to understand color in a new and different way, by creating a

synesthetic sense. As he explains, "My aim was never to overcome anything. Seeing in greyscale

has many advantages. I have better night vision. I memorize shapes more readily, and I'm not

easily fooled by camouflages. And black-and-white photocopies are cheaper. I didn't feel there

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[288] "Borgfest."

[289] Bryant, "Cyborg Artist Neil Harbisson Uses His Eyeborg to Listen to Colour."

was a physical problem, and I never wanted to change my sight. I wanted to create a new organ for seeing."[290] Ribas has also experimented with novel sensory perceptions by implanting devices in her body that detect and transmit vibrations from earthquakes on Earth or the Moon, putting her in touch with the frequent rumblings of the planet's deep interior.

Harbisson and Ribas emphasize that these adjustments offer a greater sense of connection and communion with nature and the environment. Harbisson has said that his antenna makes him feel more connected to insects, and that the ability to perceive a broader spectrum of light (infrared and ultraviolet) makes him "much more connected to these species that sense these colors. Because, we now share a sense…So, the more senses we add, the more we can connect with other species. Not with machines. I think, many people think that becoming a cyborg brings me closer to a machine, but I feel like it makes me much closer to nature and to other animal species."[291]

As a result, Harbisson and Ribas are not focused on artificial intelligence but on what they term "artificial senses," or AS, "where the stimuli is gathered by the technology but the intelligence is created by the human."[292] While they have used "transhuman" in the past, Harbisson says he primarily describes himself as "transspecies" now, since "transhuman" contains an "inherent hierarchy, a kind of superiority"[293] of humans above other species. By contrast, "if you define yourself as transspecies, everything is 'normal': seeing in black and white, being blind, or perceiving colours through an antenna. It all becomes part of normality."[294] By encouraging others to pursue extra-sensory enhancements or adjustments,

[290] Donahue, "How a Color-Blind Artist Became the World's First Cyborg."
[291] "Episode 40."
[292] "Home | Cyborg Foundation 2018."
[293] Pristauz, "Neil Harbisson - The Reality of a Cyborg."
[294] Pristauz.

Harbisson and Ribas hope to expand the definition of "normal," so that there would no longer be a normative or baseline understanding of human perception and abilities.

The question of "normal" human abilities, and how technology intervenes in the body, has been treated at length by scholars working in disability studies, whether as a Bluetooth-enabled antenna, wheelchair, or prosthetic device. Wolfe notes that, "Both animal studies and disability studies have intersected in what has recently emerged as a small subfield of its own: authors who claim that their condition has enabled for them a unique understanding of nonhuman animals and how they experience the world."[295] He cites Monty Roberts, "the famed "horse whisperer,"" who had the same form of colorblindness as Harbisson, and used that ability to "read the body language of horses with amazing subtlety and precision."[296]

The connection between animal studies and disability studies offers the promise of cross-species connection and insight, but Wolfe cautions that there is also the risk of reinscribing the same limitations of liberal humanism: "in its attempt to recognize the uniqueness of the other, it reinstates the normative model of subjectivity that it insists is the problem in the first place."[297] Instead of "merely an expansion of the liberal humanist ethnos to ever newer populations," Wolfe proposes "a more ambitious and more profound ethical project: a new and more inclusive form of ethical pluralism…to think the ethical force of disability and nonhuman subjectivity."[298] Otherwise, "the valences of the "normal" liberal subject (active not passive, subject not object of knowledge, producer not product, and so on) are called on to validate and legitimize the subjectivity of the disabled, and the rallying cries are taken from the playbook of liberal citizenship: "access," "rights," "privileges," "participation.""[299]

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[295] Wolfe, *What Is Posthumanism?*, 128.
[296] Wolfe, 128.
[297] Wolfe, 136.
[298] Wolfe, 137.
[299] Wolfe, 138.

Wolfe's appeal for a posthuman ethical reorientation seems to resonate with the Cyborg Foundation's transspecies project. Although the Cyborg Foundation does not explicitly call for a radical reinvention of ethics, they do advocate technology as a means of erasing or dismantling the humanist hierarchical system by subverting assumptions about the technologically enhanced body and the spectrum of bodily abilities. The Cyborg Foundation bends transhumanist projections of the cyborg as an exponentially more powerful version of the human. Quite unlike the transhuman fantasies of Ironman and Molly the Razorgirl, whose technological implants or prostheses provide them with superhuman capabilities, Harbisson and Ribas' body sensors serve no quantifiable function, offer no clear utility. While Molly's cybernetic implants enhance her visual abilities, Harbisson uses his cranial antenna to transform light into music, and Ribas translates her internal earthquake sensors into dance. Harbisson and Ribas, through their work with the Cyborg Foundation, take the agency and autonomy granted to them as white liberal subjects to modify their bodies so that they begin to destabilize normative categorizations of human and nonhuman.

The Cyborg Foundation seems to represent the fluidity and unruliness of Haraway's cyborg, that "illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins."[300] From the command-control origins of military cybernetics, the Cyborg Foundation appropriates and scrambles the code for technologies and bodies. Haraway writes that, "communications sciences and modern biologies are constructed by a common move – the translation of the world into a problem of coding, a search for a common language in which all resistance to instrumental control disappears and all heterogeneity can be submitted to disassembly,

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[300] Haraway, *Simians, Cyborgs, and Women*, 151.

reassembly, investment, and exchange."[301] The Cyborg Foundation's technological body

modifications begin from the point of communication sciences and modern biology, but magnify

the possible heterogeneity of bodies and senses, subverting technologies of progress and

power. Their version of the cyborg operates in a muddy space adjacent to the logics of

investment and capitalism, neither fully outside of technological production nor functionally

legible within it. As Haraway writes, "The biggest threat to such power is interruption of

communication."[302] Harbisson and Ribas take pains to translate their experiences into art, but it

is communication very much outside the realm of "universal translation" and "unhindered

instrumental power" that make up elements of Haraway's "informatics of domination."[303]

Further, Harbisson and Ribas advocate a variety of sensory body modifications, proposing a

future made up of individuals perceiving the world in myriad different ways, a cacophony of

experiences, sensations, and abilities that are potentially untranslatable and incommunicable.

In contrast to cybernetics and "the translation of the world into a problem of coding,"[304]

the Cyborg Foundation uses quantitative technologies in the service of art, by constructing

individual experiences and sensations that can only be shared or understood expressively. The

technological apparatus of Harbisson's antenna (he calls it an organ) functions through a chip,

Bluetooth, and a camera, but their internal logic is a light-to-sound scale of Harbisson's own

devising, and he is the sole recipient of the output. He can, and often does, translate the

experience of hearing colors for others, but it is necessarily mediated through yet another form

of visual or sonic expression. Harbisson has made musical compositions based on the colors in a

person's face or transformed popular songs into cascades of color. In interviews and public

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[301] Haraway, 164.
[302] Haraway, 164.
[303] Haraway, 164.
[304] Haraway, 164.

events, puzzled reporters regularly ask Harbisson what it feels like to be a cyborg, to hear color, or sense the world through an antenna.

The Cyborg Foundation concretizes certain elements of posthumanism, by thinking through the possibilities and complications of various organic-technical assemblages, by resituating humans as part of the larger natural world and kin to insects, animals, and artifacts, and by experimenting with temporality. Harbisson's most recent, and as-yet unrealized project, is a new sensory organ called a Solar Crown, which he hopes to develop and implant. The Solar Crown would be worn or implanted around the head, with a point of heat circling the head to mark the passage of time, like the sun around the earth or the hands around a clock. As Harbisson describes it, "it's like an inner crown, and it gives me a point of heat that takes 24 hours to go around the head. It's like having a solar clock inside my body, so I will know what time it is by feeling the point of heat around my head."[305]

Once he has fully adjusted to this new perception of time, Harbisson plans to experiment by changing the speed of the rotation, thereby potentially slowing or speeding up his internal understanding of the passage of time. Rather than "focusing on making your body live longer," he plans to experiment with whether he can make his "brain believe that I've lived longer."[306] Harbisson explains that if eyes can be tricked by simple optical illusions, "you can also create the time illusion if you have an organ for time. So, you could potentially make your brain believe that you've lived 200 years…I will not only be able to make a situation last longer, or shorter, I will also, in the long term, be able to change my sense of age, in theory. So that's a way of living longer, is either to make your body live longer or fool your brain."[307] Harbisson

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[305] Bricis, "See the World from a Cyborg's Point of View."
[306] "Episode 40."
[307] "Episode 40."

reimagines the longstanding cyberutopian dream of using technology to evade mortality and

live forever, instead grounding technology in the body and focusing on perception instead.

The emphasis on changing temporalities and technology is a central aspect of

posthumanism, and connects Harbisson and the Cyborg Foundation to Afrofuturism, another

strand of posthumanism and speculative theory. Afrofuturism looks to Black identity "as

temporally flexible, based in the history of what has occurred as well as the potential of what is

to come," linking "the Afrofuturist aesthetic…with the views of being and time found in the

wider field of posthumanism, within which Afrofuturism resides."[308] But while Afrofuturism may

operate within the broad spectrum of posthumanism, it exists in tension with many posthuman

theories "of human enhancement [which] have yet to adequately include the topic of race.

Without accounting for race, the concept of human enhancement simply assumes that all

humans will progress simultaneously and at the same rate across the various geospecific and

economically dependent anthroposcene(s), globally."[309]

Afrofuturism will be discussed at greater length in the next chapter. Here, I turn to how

posthumanism grapples with race, particularly intersections between technology and the body,

and the notion of the human as animal (as in the Cyborg Foundation's transspecies

identification).

Technology and the body redux

> The blurring of boundaries, the permeability of bodies, the porousness of skin—
> all take on different meanings depending on whether they are viewed through
> the prism of institutionalization or as part of a strategy of feminist analysis.
> Arguing for the breakdown between self and other, body and machine, takes on
> a different hue in the context of coercive medical experimentation and

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[308] Lillvis, *Posthuman Blackness and the Black Female Imagination*, 3.

[309] Butler, "Making Enhancement Equitable: A Racial Analysis of the Term 'Human Animal' and the Inclusion of Black Bodies in Human Enhancement," 106–7.

confinement. The cyborg, in other words, can be used to map many futures, not all of them feminist, crip, or queer.[310]

To understand the cyborg as a complex fusion of body and technology exposes not only the technological trajectory and history of cybernetic research, but highlights the bodies that are adapted or modified, and how those bodies have been shaped over time. While a white male subject might dream that materiality will disappear through the aid of technology, it is easier to disregard the body when it is not a contested site of struggle. But even "within critical posthumanism, inequality is more readily examined through issues of gender, species, ecology, and class,"[311] and race is often ignored or overlooked. As Philip Butler writes,

> So, without a serious consideration of the topic of race, human enhancement has the potential to create a trajectory that thrusts certain humans into a highly sophisticated cyborglike transhumanist existence, while leaving the unaccounted-for "other" behind in their current human form, or worse. This is especially important when considering how enhancement will be distributed among those who do not fit normative humanistic descriptions.[312]

The Cyborg Foundation raises complex questions about technology and the body, disability, and the possibilities for a broader range of human perceptions and connections to the natural world. But like much posthuman theory, race factors obliquely into the project, if at all. Butler argues that posthumanism's approach to humans as animals contains "inherent linguistic violence embedded within it,"[313] in a context of Black exclusion from humanism, human rights and human dignity; "Black bodies in America have a history of animality. I highlight these histories not only as a means to allude to the depth of violence, but more importantly to the visceral relationality that the term animal has to Black bodies."[314] Butler's interrogation of the human

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[310] Kafer, *Feminist, Queer, Crip*, 128.
[311] Butler, "Making Enhancement Equitable: A Racial Analysis of the Term 'Human Animal' and the Inclusion of Black Bodies in Human Enhancement," 107.
[312] Butler, 107.
[313] Butler, 107.
[314] Butler, 111.

animal "is meant to open the door to greater equitable inclusion of Black bodies in the future of human enhancement."[315]

Although the Cyborg Foundation does not use the term "human animal," they do situate humans on a continuum with animals and the natural world, positioning themselves as technologically transspecies. While this may challenge the classic humanist perspective of humans as exceptional and masters of the natural world, Butler also notes that "Eurodescendants have always been seen as or experienced life as human…So the decentering effect that results from the addition of the term animal is meant to remind Eurodescendants that they are not more important than nature."[316] As a result, the "animal designation for the Eurodescended human animal is a sobering declension whereby nonhuman animal life is valued at the same rate (to use capitalistic terminology) as the human animal."[317] While resituating the human as an equal part of the natural and animal world may productively disrupt liberal Eurocentric thinking, it functions differently for Black people, particularly Black Americans, who "entered American society primarily through colonization with the designation of adolescent, savage, or subhuman—animal."[318]

Butler proposes "human entity" rather than "human animal," a term that "presses beyond what animal does for humanity in posthumanist dialogue by trying to level the playing field to value animal life. Entity aligns humans with the entire physical world."[319] To pair this with Karen Barad's notion of posthuman performativity, humans and non-humans are sets of ongoing relations more than they are static material objects; "not independent objects with inherent boundaries and properties, but rather, phenomena…That is, phenomena are

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315 Butler, 107.
316 Butler, 110.
317 Butler, 110.
318 Butler, 110.
319 Butler, 113.

ontologically primitive relations—relations without preexisting relata."[320] "Human phenomena"

points to human entities while also aligning them with the material and natural world, an

attempt to value animal life without the heavy history of "animal" in humanistic and colonial

discourses.

Black feminist and Black queer theory bring a more expansive view of human change

and the implications for posthuman discourses. Ellison et. al. argue that Black trans theory is

integral to any discussion of the body or "the human, and its attendant spatial narratives, like

the Anthropocene," although scholars in these fields often neglect "the contributions of Black

feminism and Black queer studies to this line of thought."[321] Technological transformations to

the body, the posthuman, the Anthropocene, "Afro-pessimism, and Afro-optimism/Black ops

each attempt to think through the problematic of "the human" and humanism; each often

makes its theoretical gambits by eliding and/or instrumentalizing those not-quite humans and

sometimes humans whose violability forms the abstracted imaginative surface…upon which the

human and its metrics are conjured."[322] These fields raise questions about the meaning of the

human, non-human, and hybrid forms of the two, but tend to disregard Black feminism and

Black queer and trans theories, all of which have grappled with the role of the Black body as

something other than recognizably human. As Calvin Warren writes, "Given that antiblackness

disqualifies blackness from the privilege of traditional gendered categories, black existence

becomes something other, a blend of sorts of categories that is unrecognizable as gender. We

might call this symbiotic blend a form of transness, in which the blending troubles not just

gender categories but also the categories of the human itself."[323]

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[320] Barad, "Posthuman Performativity: Toward an Understanding of How Matter Comes to Matter," 2008, 132–33.
[321] Ellison et al., "We Got Issues," 163.
[322] Ellison et al., 163.
[323] Warren, "Calling into Being," 269.

If the category of the human can be productively disrupted, in the same way that

gender is reconceptualized by the Black trans experience as outside the realm of traditional

gender categories, it has much to contribute to discussions of the cyborg and the posthuman. To

take the body, and shifting notions of the human, as a starting place is ask what the "human"

means now, and what it has ever meant, a question that Black feminists and queer theorists

such as Hortense Spillers or Omise'eke Natasha Tinsley invoke through the distinctions between

the body and the flesh, or the sentience of the body through the erotic. Paralleling the hybridity

of the cyborg, Tinsley writes that, "black queerness…becomes a crosscurrent through which to

view hybrid, resistant subjectivities."[324] Understanding *trans* as another form of hybrid

subjectivity, or "a space of simultaneities" is "movement along that space of possibilities that

produces embodied knowledge…I use transitioning instead of transition because I want to

convey the continuum motion of resisting systematic oppression through embodied

knowledge."[325] Like Barad's "intra-actions," these theories represent the human as a process of

unfolding.

The Cyborg Foundation also seems to be grappling with the human in transition,

embodied knowledge, and with balancing the techno-utopianism of the projected transspecies

evolution. They produced a short video in 2016, a mix between a soaring futuristic-suspense film

trailer and a scientific informational video. Images of cells and bacteria swim into focus on a

whirlwind evolutionary trajectory from amphibious creatures emerging from the slime to

dinosaurs, and an ape transforming into a bearded older white man. The female voiceover

declares that "we are in a constant state of transformation" as human evolution is co-

dependent on the evolution of different "beings, plants and animals" such that "we have been

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[324] Tinsley, "BLACK ATLANTIC, QUEER ATLANTIC," 199.
[325] Silva Santana, "Transitionings and Returnings," 183.

trans-species from the very beginning."[326] Images of aqueducts, railroads, and space shuttles

accompany the voiceover description of how humans have historically created and used

technologies to shape the world around them. But, "this is about to change."[327] In the future,

humans will shift from using technology to shape the exterior world, to using technology to

"transform our bodies and minds," in order to "develop new senses and abilities to better adapt

to the world we live in."[328] As an example, the viewer is asked to consider what cities would be

like if instead of creating the lightbulb, humans had evolved night vision. The visuals pair quick

shots of electric blue circuitry with an image of a beating heart, and a human figure outlined in

blue light, as techno music reaches a crescendo.

In the next shot, a bare-chested Black man stands facing the camera and stretches out

his arms, as various technological implements and prostheses are superimposed on his body. He

then turns and walks away, and the outline of technological prosthetics transforms into a

modern Vitruvian Man, scratched out in electric blue. The female voice declares that there is "a

new world of possibilities opening up right now" and we now have "the freedom to merge

technology with ourselves, honoring our trans-species origins."[329] Colors swirl and form the blue

and pink overlapping circles of the Cyborg Foundation logo as the female voice affirms that

people are now "reconnecting with nature, and creating a more balanced relationship between

us and the universe" through technological modifications. The video ends with the final words
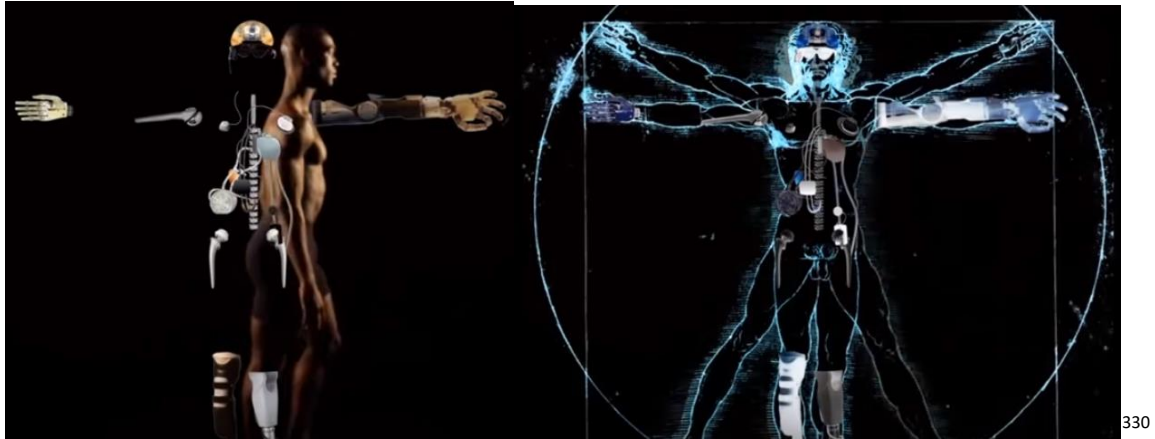
"Design Yourself."

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[326] "Cyborg Foundation: Design Yourself."
[327] "Cyborg Foundation: Design Yourself."
[328] "Cyborg Foundation: Design Yourself."
[329] "Cyborg Foundation: Design Yourself."

This video situates humanity on an inevitable collision course with technology, but one that can be productively harnessed in order to catapult humans into the next stage of evolutionary development, in which our bodies are altered or fused with technological prosthetics. This cyborg is not a departure from the human form but a continuation of the process of human evolution, for the purpose of increased or expanded sensory perception. In 2018, the Cyborg Foundation overhauled their website, removing or subduing much of the language about evolutionary development, but keeping the motto "Design Yourself" with the end goal of implanting technology into the body in order to evolve.[331] Images from the video play silently in the background on the Cyborg Foundation homepage.

The technological alterations to the body that the Cyborg Foundation presents as an inevitable step in human development call to mind C. Riley Snorton's analysis of *Triton*, Samuel Delany's "curious work of fiction" that wrestles with the body as a heterotopia. Foucault's sense of heterotopia is "the juxtaposition of several spaces in one place and the relationships of those spaces to time…and meaning."[332] Delany drew from this to write of a bodily heterotopia, both in the novel's plot and subtitle, "An Ambiguous Heterotopia," and directly in relation to the body:

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[330] Still images from the Cyborg Foundation video. "Cyborg Foundation: Design Yourself."
[331] "Home | Cyborg Foundation 2018."
[332] Snorton, "Gender Trouble in Triton," 83.

"The removal of one part or organ from the body and affixing it at another place in or on the body…A skin graft is a heterotopia. But so is a sex change."[333] In Delany's novel, body modification is so common that people can easily alter or change their sex or race, and there are dozens of avenues for gender or sexual identification. The connection between bodily organs, shifting organic geographies and temporalities promises to rewrite traditional understandings of the body, social scripts, or identity. It also hints at the cyborg's potent hybridity, the fusion and refusion of different elements, as well as the Cyborg Foundation's hope that the body will one day become a site of unparalleled change, uncoupled from many of the material realities that might constrain it.

But Snorton also finds a warning in Delany's work on the heterotopia, and by extension the cyborg, as "hybridity and multiplicity are generated effects of (disciplinary) power."[334] The allure of the heterotopia is also able to "accommodate biopolitical and necropolitical modes of governance, holding them together within the same political framework and making *space* for both to exist in seeming noncontradiction."[335] Snorton notes that,

> The quantification and categorization of gender and sexuality on Triton already heralds the proliferation of gendered possibilities as not displacing but regimenting and sedimenting gender (norms). On Triton, characters also exercise other forms of "control" over their bodies, electing to desire particular types of people and undergoing rejuvenating procedures to guard against any effects of aging. In other words, Triton's government—referred to as the "computer hegemony"—provides self-regulation under a veneer of freedom through choice. Its dispensation toward radical libertarianism is intimately linked with the onset of an intergalactic war to maintain the possibility of multiple ways of life.[336]

In this context, the array of choices and the seemingly liberatory expansion of the categories of gender, sex, and race conceal the workings of neoliberal self-discipline by cultivating docile

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[333] Samuel Delany quoted in Snorton, 83.
[334] Snorton, 88.
[335] Snorton, 92.
[336] Snorton, 85.

bodies, those which "may be subjected, used, transformed and improved."[337] If docility is "less about obedience and more about the malleability of bodies and their ability to be trained into acquiescence,"[338] the heterotopia of Triton capitalizes on docile bodies in order to shape them to a new disciplinary model and self-regulatory ideal.

Hybridity is not the uncomplicated good that it might appear to be, and as such, "The lessons of *Triton* are that transitions are always already imbued with hierarchies of social value and the exponentialization of choice is not equivalent with the democratization of human life.[339] Snorton finds the dangerous edge of transitions through looking at Black trans life, death, and bodily discipline, which are "imbued with hierarchies of social value" and the "lives…that must be sacrificed" toward the ideal of the good life.[340] The dangers that Snorton identifies in the notion of hybridity, which is often touted in cyborg literature as a means of exploding normative categories and leading to a liberated future, can still encompass political oppression and restrictive social values. Examining the Cyborg Foundation through this lens offers a cautionary note against the promise of transformative hybridity that they espouse, since even a multitude of senses or experiences does not guard against an overarching disciplinary power or pervasive self-regulation. The Cyborg Foundation frames technological body modification as a way to "design yourself" and to understand the world in a new and deeper way, but the fact of having new outlets for individual expression or experience does not automatically entail a changed socio-political landscape.

The figure of the cyborg, and Cyborg Foundation, are also complexly enmeshed with disability. Although Harbisson's antenna does not "correct" his colorblindness, and he inverts

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[337] Foucault, *Discipline and Punish*, 136.
[338] Kraidy, *The Naked Blogger of Cairo*, 115.
[339] Snorton, "Gender Trouble in Triton," 88.
[340] Snorton, 92.

the expectation of ordinary prosthetic utility, cyborgs are often framed as disabled people who are technologically "cured" of their disability; the "relationship between disability and technology is discussed only in terms of the devices' ability to normalize the body and/or to restore its previous function."[341] Alison Kafer draws from disability studies, particularly the presumptively transformative power of "hybridity," to demonstrate how both Haraway's "Cyborg Manifesto" and the cyborg in popular culture problematically represent people with disabilities as the quintessential cyborgs. Because cyborgs are identified as high-tech technologies intersecting with an organic body, and because this is primarily seen as benefitting people with disabilities, ""cyborg" and "physically disabled person" are seen as synonymous. Or, rather, that "person with physical disabilities" is a self-evident, commonsense category of cyborgism."[342]

As a result, rather than the cyborg's revolutionary promise of hybridity, the ""cyborg" concept thus serves to perpetuate binaries of pure/impure, natural/unnatural, and natural/technological; rather than breaking down boundaries, it buttresses them."[343] By contrast, Kafer suggests finding the promise of cyborgs by "developing a non-ableist cyborg politics" that would "understand[ing] disabled people as cyborgs not because of our bodies (e.g., our use of prosthetics, ventilators, or attendants), but because of our political practices,"[344] coalitions, and affinities. Automatically linking disabled people with cyborgs strips both humans and cyborgs of their political potential, defusing both through facile understandings of disability or the cyborg's potential.

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[341] Kafer, *Feminist, Queer, Crip*, 108.
[342] Kafer, 107.
[343] Kafer, 109.
[344] Kafer, 120.

The Cyborg Foundation's short video is a complex site for examining disability and race. The images show a Black man's body, as images of technological implements fly in and partially cover him, a patchwork of technological prosthetics, but curiously detached from the man's body, as he then turns and walks away. The technology remains in place, sparking into the blue outline of a different form, the idealized body of Leonardo da Vinci's Vitruvian Man. The Vitruvian Man was based on Renaissance ideals of science and reason, that certain bodily proportions were mathematically ideal and might serve as a universal guide for the rest of nature. The notion of a scientifically ideal body is also tied to racial superiority, race science, and eugenics. Julian Huxley, who wrote about and coined the term "transhumanism," also served as council-member, Vice-President, and President of the British Eugenics Society.[345] As with the cyborg and disability, the question of human perfectibility or an idealized human form haunts discussions of transhumanism and posthumanism, as "improving" the human form implies that there are both ideals and aberrations.

It is possible to read the Cyborg Foundation's representation of the Vitruvian Man as locating Black people within da Vinci's sphere of the ideal. Nicholas Mirzoeff saw Robert Mapplethorpe's photograph *Thomas in a Circle*, an image of a nude Black man that reflected the pose of the Vitruvian Man, as a "challenge to Classical perfection" that "defied the Western convention that whiteness represents perfection."[346] But this moment could also imply erasure, invisibility, or covering over the Black body, since the man turns and walks away, rather than transforming into the ideal form. At a deeper level, it also recalls the horrific history in the United States of Black people used for scientific or medical research and experimentation, their

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[345] Weindling, "Julian Huxley and the Continuity of Eugenics in Twentieth-Century Britain."
[346] Mirzoeff, *Bodyscape*, 195.

bodies serving as the foundation upon which future medical advances were made, without

necessarily becoming part of that future.

Given this history, is the Black body, or the disabled body, present in these futuristic

projections and technological imaginings? To ask this is to mobilize what Kai Green terms a

Trans* method, which is

> attuned to the ways in which black is made present or not, when, where, how, why, and, most important, in relation to what. A Trans* method requires that we be more attuned to difference rather than sameness, understanding and declaring that our sameness will not protect us. We must move to those uncomfortable places of contradiction and conflict, and in those moments we will develop a more critical and nuanced analysis of the conditions under which we are required to live, named and unnamed. A Trans* method show us how people become representable as things, categories, and names because it shows us the excess as perpetual challenge to containment.[347]

Green's Trans* method is "attuned to the present absences" and "listen[s] for the fullness

embedded in the silences and gaps, the moment of existence before the name or the category

came to do its work upon the body."[348] Mobilizing Green's Trans* method in posthumanism and

in discourses of the cyborg requires these "moment[s] of critical presence" which "allows us to

see certain things that might not normally be seen" and "to understand how that seeing is being

shaped."[349] By both delimiting and blurring the boundaries of containment and excess, fullness

and space, or secular and sacred, disability theory and a Trans* method bring a sharper focus to

Haraway's mapping practices.

Ultimately, as Snorton writes, rather than uncritically celebrating hybridity or

multiplicity, "as if difference, itself, indexes social progress or transformation…we must attend

to the politics of race, gender, and sexuality without the pretense that working on such issues

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[347] Green, "Troubling the Waters: Mobilizing a Trans* Analytic," 79.
[348] Green, 80.
[349] Green, 80.

places us any closer to a radical ideal. These politics are always *ambiguous*, and those things that are offered up as liberatory are illusory (akin to Foucault's formulation of heterotopias as spaces of illusion)."[350] Locating the undercurrent of politics, in notions of hybridity or the cyborg, reveals how power is enacted through regulation, discipline, or normative ideals, and through representations of the body and technology.

Conclusion

The Cyborg Foundation makes a particular intervention into the cyborg's often ambiguous politics, and into posthumanism and transhumanism's complex understandings of who or what comprises the human. Harbisson explains his antenna as a new way of perceiving the world, by changing the body in order to better understand nature and other animals. Ideally, Harbisson and Ribas argue, these kinds of sensory perceptions will allow people to feel reconnected to the planet, and to resituate the human experience as one of many possible interpretations of the world, alongside mammals, insects, birds or sea creatures. This perspective stands in contrast to a more anthropocentric humanistic approach, which views the human as a superior or exceptional being who has rightfully mastered or dominated the natural world. The Cyborg Foundation describes their work as fostering "transspecies" connections and bodies, hybrid metamorphoses of the human, animal, and technological. While they often refer to technological body modification as the next evolutionary step for humans, a view shared by many transhumanists, the Cyborg Foundation also understand these modifications as part of a process of de-centering the human and valuing animals and objects as active and essential members of the world, a very posthuman stance.

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[350] Snorton, "Gender Trouble in Triton," 92.

Harbisson addresses the complicated role of disability and the cyborg by dismissing the idea that his antenna "corrects" his colorblindness, or that people with disabilities will especially benefit from becoming cyborgs. Harbisson is not a cyborg because his antenna allows him to approximate an able-bodied experience (perceiving color), but because he has fundamentally reframed the experience of being human. In that his antenna, or Ribas' earthquake sensors, serve no quantitative function, they also undercut the implicit assumption that prosthetics contribute to constructing a cybernetic superhuman. As Kafer writes, "Cripping the cyborg, developing a non-ableist cyborg politics,"[351] means looking at the figure of the cyborg as more than "easy celebrations of human/technology connections,"[352] and as more than an automatic link between people with disabilities and cyborgs. Instead, it would require understanding that,

> human/machine interfaces are not always beneficial or pleasurable; an awareness that many disabled people lack access to the cybertechnologies so highly praised in cyborg writing; an accounting for the ways in which cybertechnologies rely on disabling labor practices across the globe; and a realization that not all disabled people are interested in technological cures or fixes. Each of these elements takes cyborgology away from its traditional use of disability as metaphor, and toward an understanding of disability in political and social context.[353]

Kafer argues that the cyborg is still a useful theoretical construct, as "a resource for vital cross-movement work," such as between "disability studies and transgender studies, for example, including examinations of how scholars in both fields have used and challenged the cyborg."[354]

Kafer suggests that "a disability studies approach can facilitate renewed attention to the cyborg as human-animal or human-human hybrid. To date, cyborg theorists have focused their energies almost entirely on technology, ignoring the possibilities of boundary transgression between human and organism, even though the latter was an integral part of Haraway's

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[351] Kafer, *Feminist, Queer, Crip*, 120.
[352] Kafer, 118.
[353] Kafer, 118.
[354] Kafer, 116.

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manifesto."[355] The Cyborg Foundation, although still focused on technology, does suggest a kind of technological cross-pollination between humans and animals. But this also raises Butler's critique of the term "human animal," and how the history of racial politics, particularly in a U.S. context, cannot be overlooked. The shadowy figure of the Vitruvian Man, long held as the Classical ideal of body proportions, inscribes particular bodies within the sphere of beauty, normativity, and social acceptance.

Both disability studies and transgender studies have drawn from and critiqued the hybridity of the cyborg. While the cyborg's mutinous hybridity is an essential part of its appeal, as well as its "joint kinship with animals and machine,"[356] Kafer and Snorton both warn against uncritical adoption of hybridity or multiplicity, as this can paradoxically serve to reinforce binary oppositions, or provide the veneer of choice under the mantle of self-regulation and governmentality. Technological or bodily hybridity cannot be assumed to naturally pave the way for liberatory politics, but must be tied to particular political, social, and historical contexts. As Gunkel writes, "From a cyborg perspective, therefore, the fundamental question informing the consideration of communication technology and media is not "What can technology do for me?" but "HOW does technology enable and empower the very identity of this, or any other, subject position?""[357]

The next chapter turns to feminist science fiction and cyberpunk, Afrofuturism, and puppetry to think through what the intersection of technology and the human could look like, by taking a fuller account of the material world and the body, collective organizing and partnerships, and shifting temporalities. Together, these texts move away from the dominant norms of cybernetics and male-dominated cyberpunk visions, and the long-awaited promise of

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[355] Kafer, 119.
[356] Haraway, *Simians, Cyborgs, and Women*, 154.
[357] Gunkel, "We Are Borg," 346–47.

the cyborg revolution, to suggest that different social and political priorities could productively

widen the horizon of technological possibility.

Chapter 4: Puppetry, Feminist sci-fi, and Afrofuturism

This project began at Bread and Puppet Theater with the practice of puppetry, and traced a path through the imagined and embodied realms of science and science fiction, robots, cyborgs, and the intersections of human and nonhuman worlds. The ethnographic fieldwork at Bread and Puppet situated the theater as an important site in puppetry and protest, but it also revealed how theories of puppetry or materialism operate in practice. Through the ongoing negotiations with the material world and the uncanny effects of puppetry and performance, Bread and Puppet demonstrated that puppetry is a powerful communicative medium with a history of political critique which offers an approach to the material world distinct from other forms of human-object interaction.

Although primarily ethnographic in approach, Chapter one also sets the stage for a media archaeological examination of puppetry's presence in contemporary forms of high-tech performing objects like robots and cyborgs. Chapter two examines Sophia, the realistic AI robot, and compares her functions and capabilities with that of puppetry. This chapter argues that while puppetry depends on negotiation with the material world, robotics moved in the direction of domination. Sophia shares some similarities with traditional puppets, such as a sense of the uncanny or material performativity, but research in cybernetics and the technological imaginary in science fiction drove robotics in a different direction, to prioritizing information over the body or material world. This shift affects the way that technology is conceptualized and represented, the ways that humans are perceived to differ from objects or machines, and the ethical consequences of interactions between humans, and between humans and objects.

These issues take new form in the figure of the cyborg. Chapter three focuses on the history of the cyborg and the implications for merging human and machine. Cyborgs have played an important role in transhumanist thinking, in which humans can integrate technology into

their bodies to achieve superhuman abilities, and in feminist theory, in which the cyborg offers the potential to circumvent traditional modes of thinking about the body and the human. In both instances, the cyborg combines the body and technology, the animate with the inanimate, to create new assemblages that challenge contemporary understandings of the human body or being, as well as human mastery over the material world. These issues are of central concern in the practice of puppetry, which has also grappled with the human-object assemblage, and the political stakes of changing notions of the human, the body, and material interventions. While technological innovations and questions tend to be represented as radically new, puppetry provides an ancient model for the process of integrating human and object.

Chapter four brings puppetry, the body, and speculative texts together to find other possibilities for conceptualizing human-nonhuman relationships and the implications for technological development. From the problems in robotics, cybernetics, or male-dominated science fiction, this chapter draws from a media archaeological approach in excavating other forms of human-object assemblages, through puppetry, feminist science fiction, and Afrofuturism, to find a more multifaceted approach to theorizing technology and the human. The uncanny in puppetry is closely linked to a sense of enchantment, which has powerful communicative potential for re-engaging audiences with their environment, as well as with social and political issues. This is most clearly highlighted through performance, and the way that puppetry harnesses the creative and imaginative potential of art and theater for the purpose of political solidarity and education. Finally, puppetry offers a potent model of negotiation, rather than domination, with the nonhuman world. This perspective influences both how humans relate to and work with the material world, as well as hierarchies of power and social organization.

In connection with puppetry's expansive imaginative potential, science fiction remains a critical site for thinking through the challenges and possibilities of technology and future political arrangements. Science fiction has historically been enormously influential in the development of different technologies, but these texts were only a small subset of science fiction and technological imaginaries. In the second half of this chapter, I turn to feminist science fiction and Afrofuturism as a means of uncovering other ways of understanding the human body and being in more than human worlds. These texts suggest possibilities for political engagement rooted in strong communities and partnerships; embracing a multitude of bodies and abilities; relinquishing the struggle for human mastery or control over the material and natural world; and a shifting sense of time, both past and future, for the humans and nonhumans who make up those worlds.

Intersections of objects and bodies

> when a cyborg becomes recognizably human, it is unable to challenge the human stereotypes, classifications and expectations guiding its performance—as, *in order to* become recognizably human, the cyborg must behave in predictable ways and operate according to dominant social norms, thus abandoning its own potential for liminality.[358]

The cyborg's contentious role in the history of posthumanism and technology at times seems to offer liberation through hybridity, by destroying recognizable categories of gender, even shifting what it means to be human. But a general sense of hybridity, detached from a concrete political framework, can just as easily support restrictive forms of disciplinary power at the same moment that it promises bodily liberation. The cyborg's hybridity suggests a future in which normative categories have been exploded, but often this hybridity seems to rely on the same binaries that it seeks to destroy. Jane Bennett writes that "there is a danger that the word

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[358] Lavigne, *Cyberpunk Women, Feminism and Science Fiction*, 83.

hybridity conjures up the image of static entities coming together to form a compound,"[359] a

basic pairing of cybernetic technology and a stable organism rather than a constant state of

fluidity or morphing.

As Carlen Lavigne notes above, achieving human-like qualities or behaviors often

requires the cyborg to adopt those same behaviors, exchanging its radical potential for

recognition and some degree of conformity. Lavigne returns to cyberpunk, the same genre that

produced influential novels like Gibson's *Neuromancer* and Stephenson's *Snow Crash*, as

"cyberpunk's influence on early hacker culture and technological developments makes it a vital

part of any examination of today's technocultures."[360] But rather than engaging the canonical

cyberpunk texts, Lavigne examines works by female/femme authors and feminist cyberpunk,

which reinterpret the body, cyborgs, or AI from a feminist standpoint. If male-dominated

science fiction, particularly cyberpunk, shaped much of the social imaginary around built

technologies, what directions and what technologies might have resulted from other

imaginative possibilities?

This idea also invokes the notion of "hyperstition," a concept developed by the

Cybernetic Culture Research Unit, a radical and experimental academic group active in the late

1990s. Hyperstition shows "how fiction can impact on the real, in fact change it, at least to some

extent…via temporal feedback loops. Hyperstition involves a different, more cybernetic, account

of time – almost as if it has been flattened – with different temporal circuits and recursive

nestings at work."[361] From this perspective, I turn to feminist sci-fi, Afrofuturism, and puppetry

as fictions that can impact the real, to re-articulate the complex relationships between material

objects, technology, and the human. As Wagner-Lawlor writes, a crucial feature of the

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[359] Bennett, *The Enchantment of Modern Life*, 31.
[360] Lavigne, *Cyberpunk Women, Feminism and Science Fiction*, 23.
[361] Gunkel, Hameed, and O'Sullivan, *Futures and Fictions*, 5.

speculative standpoint is that these visions are not and may never be achieved, and are instead

a horizon that is "always shifting," always leaping ahead of the social structures that begin to

crystallize around them.[362] What possibilities do the worldmaking views of feminist science

fiction or Afrofuturism offer for technological development and political engagement,

possibilities that may be more equitable, accessible, or inclusive than those stemming from

cybernetic history or male-dominated science fiction?

These three areas, puppetry, feminist sci-fi, and Afrofuturism, map practices and

possibilities through histories of object performance and politics, "worlding" or speculative

theory, and shifting temporalities that reveal "individual agency and collective authority."[363] The

next section draws on these key themes to think through ""human bodies" and "human

subjects"" as "neither pure cause nor pure effect, but part of the world in its open-ended

becoming."[364]

Puppetry
Harnessing the uncanny and liminal in object performance

Puppetry's long history and practice of working with objects has much to offer any

discussion of materialism and agential objects, posthumanism, or politics and performance.

Puppetry operates within the realm of enchantment, what Jane Bennett describes as:

> a surprising encounter, a meeting with something that you did not expect and are
> not fully prepared to engage. Contained within this surprise state are (1) a
> pleasurable feeling of being charmed by the novel and as yet unprocessed
> encounter and (2) a more *unheimlich* (uncanny) feeling of being disrupted or torn
> out of one's default sensory-psychic-intellectual disposition. The overall effect of
> enchantment is a mood of fullness, plenitude, or liveliness, a sense of having had
> one's nerves or circulation or concentration powers tuned up or recharged – a
> shot in the arm, a fleeting return to childlike excitement about life.[365]

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362 Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions, p. xi*.

363 Lillvis, *Posthuman Blackness and the Black Female Imagination*, 4.

364 Barad, "Posthuman Performativity: Toward an Understanding of How Matter Comes to Matter," 2008, 139.

365 Bennett, *The Enchantment of Modern Life*, 5.

The strange and fantastic figures and forms that make up the performances at Bread and Puppet Theater show how puppetry and enchantment are closely entangled. The unpredictable nature of the puppets lends a disarming quality to the performances, a feeling that they cannot be "placed" within existing frameworks or sets of expectations. Bennett identifies within the surprise encounter "a pleasurable feeling of being charmed" by the unusual experience, and the "*unheimlich* (uncanny) feeling of being disrupted or torn out of one's default sensory-psychic-intellectual disposition." The uncanniness of puppets, discussed at greater length in Chapter 1, is more than a performative tool, and can contribute to a feeling of enchantment or liminality. Unlike Lavigne's critique of the cyborg as adopting human-like attributes and thereby "abandoning its own potential for liminality," puppetry weaves between the human and non-human, allowing puppets to access the liminal potential and amorphous hybridity that the cyborg seeks.

Rather than recreating the human, as many high-tech objects like Sophia attempt to do, puppetry draws from human experience in a kind of parallel universe, exploring emotional matters like love and loss, or social and political questions. The uncanny quality of the objects, and the resulting sense of disarmament or enchantment, means that puppetry often sets its own terms of engagement. This has powerful communicative potential, as it means that puppetry can establish or function within a unique sphere of communication. In addition, these strange performing objects are difficult to interpellate within ordinary social systems or power structures; unlike Sophia, who presents as White, female, Western, conventionally attractive, and is thus immediately identifiable and figured within a familiar social hierarchy. By contrast, puppets dip in and out of recognizable themes or expectations without becoming beholden to them.

Bread and Puppet's performances excelled at finding this balance, setting the stage with

familiar political figures or situations and then interjecting elements of the improbable or

impossible. In one Bread and Puppet circus act during the summer of 2018, U.S. Vice President

Mike Pence touts the benefits of a space force, while puppet-stars are weaponized with

machine guns and march in formation, until a rogue black hole appears and absorbs everything

in its path. This short act revels in "puppeteers' traditional exemption from seriousness," which

Peter Schumann sees as "a negative privilege that allowed their art to grow."[366]

The ridiculous or nonsensical also fits within Bennett's notion of enchantment; she

writes that repetition of words or sounds "not only eventually renders a meaningful phrase

nonsense – it can also provoke new ideas, perspectives, and identities. In an enchanting refrain,

sense becomes nonsense and then a new sense of things."[367] Schumann's texts primarily

operate within the realm of the nonsensical transformed into a new sense of things, as with this

scene from *Faust 3*, performed weekly at B&P during the summer of 2016 featuring puppets,

masks, and human actors:

> All activities are registered in the office. All humans are applicants. All applicants
> submit to the history which created the office. All officers of the office are
> recruited from the current economy which sustains the living. All applicants are
> stripped of their arbitrariness and are made members of the workforce which
> powers the economy. All activities are meticulously assessed and selected by the
> office to construct the achievement which the economy needs for its services. All
> services are of equal importance. All importances are joined and fastened into
> place till the desired satisfaction is produced.[368]

The scene in the performance is both strange and amusing, pairing puppets with the sounds of

corporate and economic language and driving it into absurdity. But the absurdity also reveals

the larger absurdity of a system where all individuals are "stripped of their arbitrariness" and

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[366] Schumann, "The Radicality of the Puppet Theater," 3.
[367] Bennett, *The Enchantment of Modern Life*, 6.
[368] Schumann, *Faust 3*, 150.

perform services to fuel the economy. As Schumann writes, "puppet theater also exists as a radically new and daring art form: new, not in the sense of unheard-of newness, but in the sense of an uncovered truth that was there all along but was so common it couldn't be seen for what it was. Radical in the sense of not only turning away from established concepts, it also succeeded in a widening of the heart."[369]

Political critique through performance

Puppet theater as a "radically new and daring art form" that can uncover buried truths reflects Jameson's notion of political art, which if it is to be successful, must discover a means of coming to terms with the realities of global capitalism, "in which we may again begin to grasp our positioning as individual and collective subjects and regain a capacity to act and struggle which is at present neutralized by our spatial as well as our social confusion."[370] This kind of art can work to disrupt the spectacle, as the Situationists sought to do with various practices like "situations" and the *détournement*. These forms of political art were meant to be shocking, to jolt people awake, and to use absurdity as a weapon against the absurdity of the political and economic system. The *détournement* also represented a kind of synthesis of Situationist theory: "Debord's whole conception of society is founded on the *détournement*: all the elements needed for a free life are already to hand, both culturally and technologically speaking; they have merely to be modified as to their meanings, and organized differently."[371] The Situationists, like Bennett's description of enchantment sometimes evoking nonsensical repetition of words or sounds, and Schumann's experimentation with sense and nonsense in puppetry, attempted to use political art not only as a means of disruption and critique, but also to free the

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[369] Schumann, "The Radicality of the Puppet Theater," 3.
[370] Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism*, 54. Emphasis added.
[371] Jappe, *Guy Debord*, 61.

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imagination, "by both new 'artful' techniques deployed in the context of everyday life…and by outright rebellion against the powers-that-be."[372]

Schumann's work also explicitly addresses the role of the imagination, as in one piece performed during the summer of 2016 which contrasted Margaret Thatcher and TINA (*There Is No Alternative*) with TATA (*There Are a Thousand Alternatives*). In this context, TATA became a powerful reminder that the status quo is presented as inevitable but is only one path among many. In contrast, Schumann and Bread and Puppet identify as "Possibilitarians," a political party and/or worldview that encompasses the present/future-hopefulness of TATA. The Possibilitarian poster (reproduced below) declares, "Possibilitarians are out to corrupt the postmodern world resolutely and immediately, by feeding it peasant bread + under + overlife size puppet shows."[373] As in the name of the theater, Schumann links bread and puppets as essential forms of communal sharing and engagement, which will undermine postmodern attitudes of competitive individualism and the spectacle's alienation.

[372] Haiven, *Crises of Imagination, Crises of Power*, 233-234.
[373] Woodcut and text by Peter Schumann from the Possibilitarian Series, created in 2018.
[374] Possibilitarian poster, Bread and Puppet Theater and printshop, 2018. Performance of the TINA/TATA cantastoria, summer 2016. Photo by Elena Rekola.

Solidarity is central to this view of politics and possibility. As Schumann writes, "the tortured world needs its solidarity whereas the consumer society manages astonishingly well without it – solidarity not only with the tortured human world but solidarity also with the world which is tortured by humans, a world which our Judeo-Christian morality has taught us to regard as our property, a world in which we will eventually all have the honor to participate either as worms or as ashes."[375] Here Schumann brings together anti-capitalist politics and solidarity with the material world, and a kind of posthumanism, by rejecting human mastery over the natural world. There are also echoes of puppetry theory in the reference to life and death, with the human body as temporarily alive before we too join the material or non-human universe.

Puppetry as cheap, low-tech, and accessible merges the potent forms of political art and object performance. Although high-tech objects like robots and AI also have powerful performative capabilities, a key distinction between the two lies in what these capabilities are put in the service of. High-tech objects often function in the service of diametrically opposing values, from their origins in militaristic research and cybernetics to their dependence on a capitalist market structure. This also means that high-tech performing objects are more often made to reinforce political power structures or social hierarchies rather than challenging them, as they are incentivized to uphold and conform to dominant ideologies and demands of the market. As a result, puppets and robots are oriented in opposing ways, through their origins, their political alignment, and their material considerations. The nature of human interactions with the material world plays an important role in their political orientation as well, through the framework of negotiation versus domination, which will be discussed in the next section.

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[375] Schumann, "The Old Art of Puppetry in the New World Order," 6.

Negotiation vs. Domination

Puppetry, as an ancient form of art and object performance, offers a different way of conceptualizing human relationships with objects than that of contemporary high-tech Western culture, which is based on mastery and domination. Puppetry's approach of negotiating with the material world predates much of the European Enlightenment and the ascendance of humanistic norms, philosophies which have structured much of modern Western society. Puppetry provides a powerful example of an alternative mode of thinking and practice of material engagement, and has managed to retain its roots in an early posthumanism.

The differences between these two modes of engagement have consequences not only for how humans relate to and work with the material world, but can also shed light on hierarchies of power and systems of social organization. Ambitions to master or dominate the material world establish a particular political framework, a set of expectations or way of approaching interactions within the universe of human and nonhuman actors. Accepting a framework of domination may mean accepting the resulting logics and consequences: by aspiring to dominate and control other beings (whether human or nonhuman), we accept that we too can be dominated and controlled. In addition, the paradigm of domination highlights the power imbalance in the long-fantasized Cartesian split, in which the mind is presumed to have precedence and dominance over the material body, such that in a technologically advanced future, the body might eventually be left behind. These fantasies of total domination are played out both through human mastery over the technological object, and mastery over the organic body.

This becomes clear when examining high-tech objects that are intended to be human-like in form and function, like Sophia. Sophia, and other anthropomorphized robots and AI, are placed in an uneasy position of servitude or slavery, a notion tied to the feudal reference in the

word "robot,"[376] contributing to a fantasy in which individuals are monarchs or masters, ruling over their subjects yet perpetually wary of an uprising. As Despina Kakoudaki writes, "The fantasy of the robotic servant, worker, or slave promises that if the enslavement of real people can no longer be tolerated in the modern world then mechanical people may be designed to take their place, and their labor will deliver the comforts of a laborless world for the rest of us."[377] This is also evident in the effort to create agential and autonomous technologies (or at least the outward appearance of agency and autonomy), while simultaneously ensuring that these technological objects will never refuse or disobey commands. This becomes most unsettling in the case of sex robots, which are billed as possessing advanced communicative abilities through machine learning and AI, making them perfect partners who are always available and acquiescent to their owner's needs and demands.

The relationship between high-tech performing objects and labor, social class, and social hierarchies has been a source of interest and anxiety in both popular and academic texts. However, the lens of domination reveals another aspect of social class and hierarchy, as parents and caretakers' interactions with AI-powered devices in the home can set an example for children of acceptable ways to treat and speak to subordinates (whether screaming at the device or modeling forms of politeness). While both adults and children tend to interact with robots and AI through human patterns of sociality, children "may attribute human characteristics" to home-help devices like Alexa, "thinking that Alexa has feelings and emotions. Some kids may even think there's an actual woman inside the device."[378] A 2012 study found that the majority of children in the study believed the robot with which they interacted was

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[376] "the term "robot" (derived from the Czech word *rab*, meaning "slave," and its cognate *robota*, meaning "indentured servitude")" Poulton, "From Puppet to Robot - Technology and the Human in Japanese Theatre."
[377] Kakoudaki, *Anatomy of a Robot*, 116.
[378] Doucleff and Aubrey, "Alexa, Are You Safe For My Kids?"

social, had mental states, and that there were ethically acceptable and unacceptable ways to treat it.[379] Further, children were divided on whether the robot Robovie was alive: "Results showed that 14% said yes, 48% said no, and 38% were unwilling to commit to either category and talked in various ways of Robovie being "in between" living and not living or simply not fitting either category. For example, one child said, "He's like, he's half living, half not.""[380]

There are clear echoes of puppetry here, in the performative capabilities of the object, the feeling that they may have a certain uncanny presence or interior life, and the uncertainty over whether an object is alive or not. The authors noted that the perception that robots were alive had important ethical implications for the future design and integration of robots and AI into daily life, "as we create embodied entities that are "technologically alive": autonomous, self-organizing, capable of modifying their behavior in response to contingent stimuli, capable of learning new behaviors, communicative in physical gesture and language, and increasingly social."[381] But they also raised similar concerns about constructing objects to exist in an ethically ambiguous terrain, intended to be both autonomous and subservient, asking "If we design robots to do everything a child demands, does that put into motion a master–servant relationship that you would like not to reify?...If so, then in what ways would it be important for the robot to be designed to "push back" on your child, not to accept all of your child's commands—in the same way that no child accepts all of the commands of another child—but rather to engage your child in a morally reciprocal relationship?"[382] Puppetry's model of negotiation with the material world suggests that it is possible to have significant and powerful

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[379] Kahn et al., "'Robovie, You'll Have to Go into the Closet Now,'" 309–10.
[380] Kahn et al., 310.
[381] Kahn et al., 313.
[382] Kahn et al., 313.

interactions, even relationships, with performing objects where both the human and the object

have resources and abilities to offer or withhold.

Finally, perpetuating a view of domination over the nonhuman world has clear

ecological consequences, as ideologies of human mastery and exceptionalism position animals

and the natural world as matter for human consumption, to use and discard.

Feminist sci-fi and Afrofuturism

> If a contemporary Western postmodernism is, in part, the result of new
> manufacturing and communications technologies…the speculative science fiction
> examining the potential impact of these technologies is surely an important piece
> of the cultural conversation.[383]

"Speculative standpoints" in feminist science fiction often reference current social and

political conditions, and suggest ways that things could be otherwise, what Jennifer Wagner-

Lawlor calls "the performance of possibility." The fictional feminist protagonist is "grounded in

her acknowledged situatedness,"[384] whether in a futuristic alien world or some version of the

current world, a perspective that is rooted in "*other* ways of knowing" and being. Political art

and recuperating histories are essential elements of this process, with art functioning as "a form

of political agency."

The political work of speculative fiction is also critical in Afrofuturism, which "allows

black people to see our lives more fully than the present allows – emotionally, technologically,

temporally and politically."[385] Black writers, artists, and producers work to combat the

perception that Black people have literally and symbolically been "erased from the past, erased

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[383] Lavigne, *Cyberpunk Women, Feminism and Science Fiction*, 15.
[384] Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions*., p. x.
[385] Thrasher, "Afrofuturism."

from the future."[386] Reflecting on the importance and creative potential of Afrofuturism, Ytasha

Womack noted, "black people have had their imaginations "hijacked": we have been duped into

only believing one narrative about ourselves. And this creates a co-constitutive process in which

we imagine a limited sense of possibility and create limited lives in this image."[387] Through

feminist science fiction or Afrofuturism, the work of imagining the future otherwise can shift

possibilities in the present and directions for the future. As Wagner-Lawlor argues, "art is as

rigorous a pedagogical tool as science" [388] in understanding feminist alterity and knowledge, as

"practical technologies of the imagination in action."[389] Art is politics made manifest, an

(in)tangible exploration and revelation of other ways of knowing, thinking, or seeing.

Like Bread and Puppet's model of political critique and communal organizing, feminist

science fiction tends to highlight several key themes. Carlen Lavigne defines "feminist

cyberpunk" as "women's novels and short stories that show evidence of cyberpunk influence

while simultaneously changing the paradigm—works that added a feminist slant to cyberpunk's

themes of globalization, capitalism, embodiment and identity, while at the same time dealing

with newly voiced concerns such as ecology, feminism, religion and queer rights."[390] Feminist

cyberpunk, although often overlooked in discussions of science fiction broadly and cyberpunk

specifically, stand in contrast to many of the norms of male-dominated sci-fi, such as the lone

hero forging a path through a dark, dystopian world. As Lavigne writes, "Cyberpunk's dystopian,

escapist worldviews are intriguing from a postmodernist or socio-technological perspective, but

its imagined futures also represent a very narrow point of view," one that Andrew Ross called

"the most fully delineated urban fantasies of white male folklore" (145)," divorced from "the

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[386] Thrasher.
[387] Thrasher.
[388] Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions*, 192.
[389] Wagner-Lawlor, 3.
[390] Lavigne, *Cyberpunk Women, Feminism and Science Fiction*, 6.

burgeoning power of the great social movements of our day: feminism, ecology, peace, sexual liberation, and civil rights" (152).[391]

Feminist cyberpunk and Afrofuturism emphasize several key themes, including representations of community structures and partnerships, technology and embodiment, and shifting temporalities that weave bodies, identities, and histories together.

Community and partnerships

The notion of community organizing and strong partnerships is a theme that runs throughout feminist cyberpunk projections of the future. Lavigne argues that, "The figure of the hacker hero clearly survives in women's cyberpunk, as does a background of globalization and cutthroat capitalism. The difference lies in the nature of the support networks these heroes depend on. While the first wave of cyberpunk offers an implicit critique of postindustrial globalization through the alienation and social dysfunctionality of its protagonists, women authors critique more constructively by offering community alternatives."[392]

Similarly, Wagner-Lawlor argues that feminist fictions articulate a positive vision of alterity and alternative communities, as women are often already outside of mainstream power structures and social norms. In feminist fictions, the subject seeks or perceives the "shadow images of communities that welcome strangeness rather than shun it,"[393] and explores parallel or alternative worlds that take shape on "the extreme peripheries of our conceptual retina."[394] In contrast to the "deep-seated masculinist ideology of individualism," this approach suggests a

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[391] Lavigne, 21.
[392] Lavigne, 52.
[393] Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions*, 20.
[394] Phil Wegner in Wagner-Lawlor, 19.

"progressive, generous relationality" between the individual and communities, based in an

underlying logic of hospitality and "the play of difference, diversity, and heterogeneity."[395]

These ideas challenge some of the basic tenets of capitalism or the spectacle, which

seeks to position itself as "the natural expression of human nature" and encourages subjects to

imagine themselves as "isolated, lonely, competitive economic agents."[396] Through the repeated

performance of feminist economies of alterity and relationality, which extend to both human

and non-human creatures, feminist fictions have the potential to reimagine individual and

collective meaning-making, and to create a society "that assumes equal measures of strength

and fragility, and tends towards inclusion."[397] These speculative fictions underscore welcoming

others and building forms of collective power or resistance, rather than possessive economies of

mastery and ownership. As Lavigne writes, "There is a clear pattern within feminist cyberworks:

the formation of groups, large or small, that resist globally dominating forces while promoting

acceptance, equality and support between members," where the individual figures are not

alone but "are supported by trusted partners."[398] While these characters are facing many of the

same challenges as those addressed in male cyberpunk, such as capitalist exploitation,

globalization and alienation, feminist cyberpunk describes characters that "are more closely

bonded, and novels such as *He, She and It* and *Archangel Protocol* go so far as to posit fully

resistant and self-sustaining communities—communities where typical patriarchal structures

are eschewed and all members enjoy equality and acceptance."[399]

Ultimately, Lavigne notes that feminist cyberpunk "has largely gone unacknowledged,"

far from the social impact and influence of male cyberpunk novels like *Neuromancer* or *Snow*

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[395] Wagner-Lawlor, 190.

[396] Haiven, *Crises of Imagination, Crises of Power*, 7.

[397] Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions*, 189.

[398] Lavigne, *Cyberpunk Women, Feminism and Science Fiction*, 61.

[399] Lavigne, 61.

Crash, but that examining these texts "illustrates different political concerns, informed by different social positions; the feminist-oriented exploration of globalization issues creates an entirely separate take on societal solutions."[400] This occurs through resistant communities and trusted partnerships, but also by emphasizing "the importance of the body in identity and relationships."[401] Feminist speculative understandings of the body and embodiment intersect with technology in ways that differ from the traditional masculine description of the body as "meat" that can be abandoned for a technological "hallucination" of the mind.

Embodiment and technology

In contrast to the disembodied technological aspirations of early cybernetics and male cyberpunk, as discussed in Chapter 2, feminist sci-fi and feminist cyberpunk often engage more complexly with questions of embodiment and technological entanglements. Lavigne argues that, "feminist authors created works more focused on promoting embodiment over empty escapism," moving away from "simplistic escapist fantasies" and toward "an awareness of women's bodies as important, individual and desirable."[402] Anne Balsamo analyzed one of the few female writers usually included in the mainstream canon of male cyberpunk writers, Pat Cadigan, and noted that her work "offers an alternative vision of technological embodiment that is consistent with a gendered history of technology: where technology isn't the means of escape from or transcendence of the body, but rather the means of communication and connection with other bodies."[403] Technology in feminist cyberpunk fiction can function as a communicative tool for shared embodiment, in which characters can adopt each other's embodied sensory

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[400] Lavigne, 61.
[401] Lavigne, 31.
[402] Lavigne, 63.
[403] Balsamo, *Technologies of the Gendered Body*, 155.

experiences or memories as "a way of reinforcing a sense of intimacy" without losing an individual sense of identity.[404]

Thomas Foster suggests that feminist authors envision technology as closer to the notion of "telepresence" than disembodied minds meeting in cyberspace, "since the idea of presence, no matter how mediated, can serve as a reminder that virtual perspectives always exist in relation to physical bodies."[405] Embodiment in feminist cyberpunk texts is also linked with adulthood, as characters who get lost in virtual worlds are depicted as juvenile or immature, while wiser characters understand that "cyberspace is less an addictive power fantasy and more a tool that must not be allowed to eclipse or overshadow an individual's embodied existence."[406]

Balsamo also suggests that the tension between dis/embodiment in virtual reality is also a struggle for control, over the body but also over the material and natural world. In this context, virtual reality offers "an illusion of control…especially, over the unruly, gender and race-marked, essentially mortal body. There is little coincidence that VR emerged in the 1980s, during a decade when the body was understood to be increasingly vulnerable (literally, as well as discursively) to infection, as well as to gender, race, ethnicity and ability critiques."[407] Feminist cyberpunk texts more often explored "imperfect bodies," including disabled bodies, and "the manipulation of both male and female bodies, complicating notions of gender norms, heterosexual desire, race, and class."[408] Disability is often a key marker for fantasies of control over the body and of mastery over nature and the material world, as "disabled bodies both

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[404] Lavigne, *Cyberpunk Women, Feminism and Science Fiction*, 76.
[405] Foster, "'The Postproduction of the Human Heart': Desire, Identification, and Virtual Embodiment in Feminist Narratives of Cyberspace," 470.
[406] Lavigne, *Cyberpunk Women, Feminism and Science Fiction*, 71.
[407] Balsamo, *Technologies of the Gendered Body*, 229.
[408] Flanagan, "Hyperbodies, Hyperknowledge: Women in Games, Women in Cyberpunk, and Strategies of Resistance," 433.

represent a throwback to a human pre-history and serve as the barometer of a future without 'deviancy'"[409] (32). By complicating the relationship between technology and the body, feminist writers introduced new ways of conceptualizing the role that technology could play for human embodiment, identity, and connection with the material world.

Representations of embodiment also raise questions around the distinctions between body and flesh, and layered sites of meaning in bodily matters. Foster discusses the feminist cyberpunk novel *Proxies* by Laura Mixon in which characters are willing to "go along with various covert schemes, including assault and murder, because they make a distinction between harming another person's "flesh" and harming their "body,"" a system in which "bodies are dispensable, whereas flesh is not."[410] The distinction between body and flesh is an issue that has been addressed in Black feminist theory, anchoring the body to elements of identity, history, and intergenerational memory.

The body in relation to technology is only one component of contemporary human bodily matters; Hortense Spillers marks the "socio-political order of the New World" as a "human sequence written in blood."[411] For African and indigenous peoples, this history was a "theft of the body – a willful and violent (and unimaginable from this distance) severing of the captive body from its motive will, its active desire."[412] The original theft further split the body in two, into what Spillers identifies as the "body" and the "flesh": "before the "body" there is the "flesh," that zero degree of social conceptualization that does not escape concealment under the brush of discourse, or the reflexes of iconography."[413] Spillers argues that this split is the

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[409] Sharon Snyder and David Mitchell in Allan, *Disability in Science Fiction*, 6.
[410] Foster, "'The Postproduction of the Human Heart': Desire, Identification, and Virtual Embodiment in Feminist Narratives of Cyberspace," 475.
[411] Spillers, "Mama's Baby, Papa's Maybe: An American Grammar Book," 67.
[412] Spillers, 67.
[413] Spillers, 67.

critical division between "captive and liberated subject-positions."[414] This reading confounds the

dualism of the Cartesian split, between body and spirit, which allowed for the eventual techno-

utopian narratives of "leaving the meat behind." If the subject is conceptualized as always

already liberated, then leaving the body behind is a path to liberation of the mind, rather than

"reducing users to pure bodies, as slavery dictated for African captives."[415]

Spillers also speculates as to whether the "phenomenon of marking and branding

actually "transfers" from one generation to another, finding its various symbolic substitutions in

an efficacy of meanings that repeat the initiating moments?"[416] In this sense, the branding of

the flesh marks the body, which forms other ways of moving, shifting, and touching, and over

time perhaps becoming concretized in "symbolic substitutions" that echo but never erase the

"initiating moments." There is a continuous interplay between the flesh, the body, and the self,

each influencing and shaping the other sites of meaning. To imagine a subject divorced from the

physical and material elements of the body and flesh is to artificially suture the not only bodily

experiences and sensations but a long intergenerational history and symbolic memory

contained in the flesh.

Even greater than this loss, Spillers argues that the "profitable "atomizing" of the

captive body provides another angle on the divided flesh: we lose any hint or suggestion of a

dimension of ethics, of relatedness between human personality and its anatomical features,

between one human personality and another, between human personality and cultural

institutions."[417] When the flesh becomes an object, and potentially appraised for its value as a

commodity, then the personality, culture, and humanity of the subject-self are destroyed, not to

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[414] Spillers, 67.
[415] Foster, *The Souls of Cyberfolk*, 151.
[416] Spillers, "Mama's Baby, Papa's Maybe: An American Grammar Book," 67.
[417] Spillers, 68.

mention "any hint or suggestion" of ethics. To separate the flesh from the body, and the body from the self, is an ethical rupture that allows for that flesh and body to be seen as "meat," as Black Africans were captured and enslaved, "without access to the issue of his/her own body."[418]

The question of intergenerational memory through the body and flesh connects Spillers to current work in Afrofuturism, particularly the notion of shifting temporalities in which the past, present, and future are complexly enmeshed.

Shifting temporalities

Shifting temporalities are referenced throughout literature on puppetry, posthumanism, Afrofuturism, feminist sci-fi, media archaeology, and speculative and political fictions. But they are also an important part of how technologies operate: "Because digital technologies can speed up, slow down, or otherwise alter our perceptions of time, we need a much more robust account of how online communication tools shape our understanding of time than is typically on offer when we acknowledge only the rhetoric of workplace efficiency."[419] Non-linear conceptions of time suggest that the past is not closed, or a matter of historical curiosity, but constantly acts on the present – through objects like puppets, various media forms and technologies, or through the body. Bennett describes the sense of enchantment as not only "a state of wonder," but "the temporary suspension of chronological time and bodily movement. To be enchanted, then, is to participate in a momentarily immobilizing encounter; it is to be transfixed, spellbound."[420] If enchantment is to be suddenly and temporarily fixed in time, how

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[418] Spillers, 73.
[419] Lingel, *Digital Countercultures and the Struggle for Community*, 28.
[420] Bennett, *The Enchantment of Modern Life*, 5.

do the shifting and seizing currents of time affect questions of collectivity, resistance, or

embodiment?

Afrofuturism is a complex assortment of music, art, literature, and academic theory, but

a changed conception of temporality is a central component of this genre. Afrofuturism could

broadly be described as "speculative fiction that treats African-American themes and addresses

African-American concerns in the context of the twentieth-century technoculture – and, more

generally, African-American signification that appropriates images of technology and a

prosthetically enhanced future."[421] This project involves recuperating lost histories; as Samuel

Delany wrote, "The historical reason that we've been so impoverished in terms of future images

is because, until fairly recently, as a people we were systematically forbidden any images of our

past."[422] But it also involves carving out space for Black people in the future, an effort to ensure

that the predominantly White genre of science-fiction, which has "engineered our collective

fantasies"[423] does not extinguish Black people from the future. In another sense, Afrofuturism

can be seen as a way of grappling with a history that might be a science-fiction horror story: "a

sci-fi nightmare in which unseen but no less impassable force fields of intolerance frustrate their

movements; official histories undo what has been done; and technology is too often brought to

bear on black bodies."[424]

As a result, Afrofuturism is "temporally flexible, based in the history of what has

occurred as well as the potential of what is to come."[425] Lillvis argues in *Posthuman Blackness*

that "contemporary black women's historical narratives reveal that individual agency and

collective authority develop not from historical specificity but, rather, from temporal liminality"

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[421] Dery, "Black to the Future: Interviews with Samuel R. Delany, Greg Tate, and Tricia Rose," 180.
[422] Dery, 190–91.
[423] Dery, 180.
[424] Dery, 180.
[425] Lillvis, *Posthuman Blackness and the Black Female Imagination*, 3.

that "acknowledges the importance of history to the black subject without positing a purely historical origin for black identity."[426] In this reading, the collective organizations in other kinds of feminist sci-fi might also be tied to this sense of temporal liminality, of being a subject in and out of time. Like Spillers' suggestion that bodies carry the intergenerational trauma of the Middle Passage and the history of chattel slavery, understanding time as a fluid concept reveals new associations between embodiment, collectivity, or human/posthuman identities.

Afrofuturism is "a collective reimagining of futures assembled from a revisioning of the past that infiltrate the present."[427] This often takes shape through music, like Sun Ra's body of work and more recently Janelle Monáe's music and videos, as well as through literature and art. Elizabeth Hamilton describes multimedia artist Nick Cave's Soundsuits as an example of Afrofuturist art blending with technology, which "adopts the themes of fantasy to create safe spaces for black bodies. Moreover, the performers in the suits function like the Afronaut, who need a protective layer in a hostile environment."[428] Drawing from historical events and contemporary issues, Afrofuturism "disturb[s] the linear time of progress, these futurisms adjust the temporal logics that condemned black subjects to prehistory. Chronopolitically speaking, these revisionist historicities may be understood as a series of powerful competing futures that infiltrate the present at different rates."[429]

The Black Quantum Futurism Collective is a Philadelphia-based assemblage of art, music, and projects like "Community Futurisms: Time & Memory in North Philly" which was a "collaborative art and ethnographic research project exploring the impact of redevelopment, gentrification, and displacement in North Philadelphia through the themes of oral histories,

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426 Lillvis, 4.
427 Van Veen, "Robot Love Is Queer: Afrofuturism and Alien Love," 89–90.
428 Hamilton, "Afrofuturism and the Technologies of Survival," 22.
429 Eshun, "Further Considerations of Afrofuturism," 297.

memories, alternative temporalities, and futures."[430] Rasheedah Phillips heads a number of

Afrofuturist projects in addition to Community Futurisms, including the "Temporal

Deprogramming Program," a series of speculative thought experiments written in the narrative

style of a "create your own adventure." These stories explore temporal displacements in which

the reader can choose "to enter the temporal experience as a Black woman quantum physicist"

or as "a Black woman social worker body vessel."[431]

The story path through the social worker leads to a conference in which a scientist

announces that time travel is possible through a device called "the psychotemporal transcranial

stimulation device (PTSD)" which functions by targeting "brain regions responsible for memory

and time perception."[432] This story, through a creative re-signification of post-traumatic stress

disorder, imagines time travel as a cognitive experience that draws on collective memory:

"information from various databases on people and experiences—pictures, birth-dates, stories,

videos, astrological birth charts, Youtube clips, diaries, statistics, research study results, and

social networking profiles."[433] The story ends with the reader/character testing the temporal

perception device, PTSD, and seeing themselves moving through space: "You are sitting there in

your seat...watching yourself walking through the parking lot a few feet ahead of your car,

puppet-like, as if being tugged by an invisible string."[434] In this story, the body is complexly

experienced in perception and in time, as the premise of the story suggests the reader

themselves is time-traveling via the mind, and then travels through the experience of the main

character, who perceives her own body to be both within and outside of her control.

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[430] Phillips, "Community Futurisms/Community FuturesLab."
[431] Phillips, "BlackWomxnTemporal."
[432] Phillips.
[433] Phillips.
[434] Phillips.

Responding to other science-fiction tropes, Robert Van Veen takes the alien, "the anticipatory figure of the exhuman," to queer posthumanism and Afrofuturism, tracing the line at which "who" becomes "what," or a recognizable human subject becomes animal/object or unidentifiable. Van Veen argues that, "By loving the alien, Afrofuturism interrogates the unthought reality privileging the who over the what—that hegemonic reality that says the object, the alien, the thing is not to be loved, but only ab/used, put to work, enslaved, its past stolen, its futurity erased—casting into the temporal flux a future hitherto denied for the alien."[435] Van Veen's Afrofuturist temporality parallels some of the hidden agency and power of the material world as demonstrated by puppetry. Here, Van Veen exposes the divide that separates a recognized and rights-bearing human subject who possesses a future and a past, and the unrecognizable non-human, who has no history and can be profitably exploited.

Similarly, Marleen Barr argues that in feminist fiction, "women who form communities, become heroes, and take charge of their sexuality behave in a manner which is alien" to traditional notions of femininity, thereby becoming an unrecognizable other.[436] Barr analyzes the use of immortality in feminist fiction, which diverges from the ordinary expectation that "one individual's life progresses endlessly forward in an unbroken temporal line."[437] Instead, feminist fiction imagined immortality that "results from community and encompasses the past as well as the present" to form links between individual women, their ancestors, and their collective descendants.[438]

Understanding temporality as lacing individuals and collectives together connects to Afrofuturism's continuity through pasts/futures, as well as early feminist cyberpunk in which

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[435] Van Veen, "Robot Love Is Queer: Afrofuturism and Alien Love," 89–90.
[436] Barr, *Alien to Femininity*, xvii.
[437] Barr, 6.
[438] Barr, 6.

strong partnerships and collectives formed powerful oppositional political groups. Temporal

fluidity also reconnects with the body through disability studies, as bodily struggle or suffering

can enact a "different temporal embodiment" in which "time ceases to be experienced in a

constant linear fashion."[439] In science fiction, disability can represent fantasies of control over

the body, or serve as a metaphor for human power and perfectibility through technological

prosthetics; as Tobin Siebers writes, "We are capable of believing at once that the body does not

matter and that it should be perfected."[440] Disability studies, Afrofuturism, and feminist sci-fi

offer new ways to think through the intersections of temporality, technology, and embodiment.

Technology in these texts is not usually a means of transcending the body, but of opening

possibilities for different forms of embodiment, like "telepresence," gender hybridity, prosthetic

enmeshments, or cyborgs that dismantle the social construction of disability by refusing to "fit."

Conclusion

Feminist sci-fi and Afrofuturism demonstrate how existing social and economic systems

are themselves arbitrary ideologies, albeit ones that have taken root, as fictions that often do

not take gender, race, sexuality, or disability into account. Feminist and Afrofuturist political

imaginaries work to configure possibilities or worlds outside of the oppressive norms in this

world, by recuperating collective histories and articulating other versions of the present/futures.

These texts have the potential to reorient political strategies or technological interventions

around collective organizing and radical partnerships, embodiment and technology, or

conceptualizing the body and identity through shifting temporalities. Donna Haraway and bell

hooks describe the feminist standpoint as "a practical technology rooted in yearning," an

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[439] Allan, *Disability in Science Fiction*, 6.
[440] Siebers, *Disability Theory*, 8.

ongoing and evolving understanding of desire, exploration, and possibility in the past, present, and future.[441] Feminist theory looks to the horizon of possibility, as a means of reshaping existing modes of production, exploitation, and inequality:

> feminism…is a commitment to eradicating the ideology of domination that permeates Western culture on various levels—sex, race, and class, to name a few—and a commitment to reorganizing U.S. society so that the self-development of people can take precedence over imperialism, economic expansion, and material desires.[442]

This ideology of domination also calls upon the tensions between domination and negotiation that the practice of puppetry reveals in the material world, and how technology normalizes and conscripts users into accepting domination as a desirable set of relationships. In the words of artist Janna Avner, the "robotics field tends not to question the idea that exploitation is part of the human condition."[443] More than this, however, accepting the terms of domination as a natural part of technological interaction "posits a world in which alternative relations are not just impossible but also inconceivable."[444]

Conceptualizing technology and performing objects as a type of negotiation instead offers possibilities to co-create a different pattern of interaction and mode of communication. To return to Gunkel's question regarding communication technology and media, the focus "is not "What can technology do for me?" but "HOW does technology enable and empower the very identity of this, or any other, subject position?""[445] Thinking through how technology might affect identity, the body, or the status of the human and nonhuman has clear ethical implications, for who is considered to be human, whose bodies can be modified, or what the human might come to mean. As Haraway writes, "the machine is not an *it* to be animated,

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[441] Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions*, 11.
[442] Hooks, *Ain't I a Woman, p. 194-195*.
[443] Avner, "Selfless Devotion."
[444] Avner.
[445] Gunkel, "We Are Borg," 346–47.

worshipped, and dominated. The machine is us, our processes, an aspect of our embodiment."[446] From the lens of puppetry, human-material crossings can also be a source of creative collaboration, uncanny embodiments, or political expression.

Ultimately, interrogating the relationships between material objects, technology, and the body is an attempt to chart a path towards a future of technological development that does not replicate the same gendered, racialized, or ableist ideologies of the present. Feminist theory, Black feminist theory, and disability studies shed light on the marked body in the digital world, and the dangers of categorizing, isolating, and repurposing bodies in ways that strip them of their agency, identity, and power. Haraway writes that, "It matters what stories make worlds, what worlds make stories,"[447] as these worlds and stories are often the things that endure. But following these guiding lights, in this case, feminist sci-fi and Afrofuturism, also offers lessons for the ways that technology can aid the body in becoming a site of experimentation as well as source of identity.

Puppetry too has much to offer, in the egalitarian relationships between puppet and puppeteer, or finding the possibilities and value in objects that are sometimes lifelike and sometimes inert. Looking forward into a future that perhaps at this moment seems like science fiction, as cyberspace or virtual reality might have seemed to readers in the early 1980s, the clearest lessons for the future may be in the deep past, through the ancient tradition of puppetry. In this future, new technological directions might come from feminist fiction, from Afrofuturist art collectives, from disability studies conferences, from non-Western thinkers. But it may also come from places like a rural farm in northern Vermont, a puppet theater where the material world and the human body can not only co-exist but co-create work that productively

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[446] Haraway, *Simians, Cyborgs, and Women*, 180.
[447] Haraway, "SF."

de-centers the human in the service of greater ecological awareness, and in recognition of the

expressive power and worth of a spectrum of human and nonhuman life, bodies, and matter.

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