UNIVERSITY OF CALIFORNIA, SAN DIEGO

Organ Ensembles: Medicalization, Modernity, and Horror in 19th and 20th Century Narratives of the Body in its Parts

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy

in

Literature

by

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The Dissertation of Yeesheen Yang is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

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TABLE OF CONTENTS

LIST OF FIGURES

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ABSTRACT OF THE DISSERTATION

Organ Ensembles: Medicalization, Modernity and Horror in 19th and 20th Century Narratives of the Body in its Parts

by

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Doctor of Philosophy in Literature

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The cultural anxieties that imagine life-saving transplant technologies as a source of horror in the 21st century prompt my investigation in this project into the tensions between, roughly, the medical imagination of the body and the cultural imagination of the body of transplant medicine. Insofar as the notion of a body made up of interchangeable

parts that can be broken up, worked, put into circulation, sold, it is constructed as a figure of horror and pathos. This same body, however, can also be healed, made whole, and opened up to new social, political, and physical possibilities. The tensions between the notion of the transplant body as a whole or in parts, as an object of horror or redemption, as a biological object or a site of cultural meaning is a part of what this dissertation concerns itself with. In exploring these questions, this dissertation seeks to expand the discourse from the body seen as a medicalized, instrumentalized object that is alienated (the idea that an organ is simply an organ) to one that is the site of conflicting, evolving, and shifting meanings. This project performs a cultural history of the present, tracing cultural representations of the transplant body in key moments of its technological emergence, in order to assert that the body is a cultural object as well as a medical/technical one, and explore the ways in which these systems of meaning overlap and inform each other.

Introduction

At the dawn of the 21st century, our bodies are caught in a web of concerns about health. Environmental pollutants, genetic markers for disease, and the pursuit and commercialization of longevity into old age - we are surrounded by a maze of threats and hopes that opens our lives to a medicalizing gaze. With the flourishing of biotechnologies our bodies are represented in this age as plastic, subject to fine mechanisms of control (genetic, dietary, pharmaceutical, surgical), and imbued with a new sense of biological possibility. Furthermore, this medical discourse constructs our health in terms of what Nikolas Rose calls the "regime of the self." We are encouraged to do as one genetic screening company urges in its slogan and *know ourselves* (by purchasing one of their sequencing services, of course). The modern biocitizen from the late-20th century on is meant to understand herself as an active agent with a bioethical responsibility to attend to her physical health. And increasingly, funding within this new global "political economy of hope" is funneled towards technologies that promise to medically extend lives, to re-vitalize bodies that are ill, to reach an ever-expanding horizon at the edge of which glimmers the prize of perfect vitality.

Organ transfer is in many ways a perfect example of a technology that opens up this vista of biopolitical possibilities for the body. The technology has a long history that traces at into the 19th century, but has grown in the second half of the 20th century into an assemblage made up of national donor programs, banking systems, spreading knowledge about health risks, blood types, waiting lists, surgical teams working to produce ever more spectacular transplant miracles (several full face transplants have now been successfully performed), as well as more routine and reliable procedures. All of this is aimed at the goal of medically extending our lives. Organ transfer, however, is also shadowed by complicating narratives. In movies and in fiction, stories of invading organs, ghosts, monstrous post-surgical bodies enter the popular imagination alongside stories in real life of China's brutal practices in live organ harvesting and illegal organ trafficking that targets the non-vital body parts of the poor all over the world. This dissertation investigates the body as a site defined in different but sometimes overlapping ways by state power, fictional narratives, and medical authority through the theme of organ transplantation.

Chapter 1, "Sites of Haunting," explores the intersection in popular culture between the vision of organ transplantation as a cutting-edge, life-saving technology and as a gateway by which forbidden bodily intimacies are forged across national boundaries and global disparities in wealth, power, and access. In doing so, it investigates the way in which cultural anxieties regarding these national and bodily border-crossing organs emerges in the trope of haunting in fiction and film, including the Pang Brothers' *Jian Gui* (2002), Xavier Palud's *The Eye* (2008), Michael Bay's *The Island* (2005), Kazuo

Ishiguro's novel *Never Let Me Go*, Margaret Atwood's novel *Oryx and Crake*, and Stephen Frears' *Dirty Pretty Things* (2002).

The market-driven context in which scientific information, medical treatment and genetic testing make the responsible biocitizen the bearer and constant guardian of his/her own health and genetic future is also imagined by some scholars as a space of agency, in which biocitizens can collectivize by actively lobbying for funding, legal and political support, and sharing information in ways that challenge political and medical authority; the internet is an important space for this collective activity. For scholars like Nikolas Rose who articulate this new biopolitical vision, the active role that modern biocitizens play constitutes the very nature of their citizenship and diverges from earlier moments when state programs and national interests dictated the biological terms of belonging. The organ transplantation narratives discussed in this paper, however, offer dark and uncanny visions of worlds that are excluded from but underwrite this political economy where bodies are revived. These sites of haunting are spaces where national boundaries are re-cast as bodily borders, and both are crossed simultaneously by the intimate exchange of organs. Thus, haunting in these works of imagination demands that we take a closer look into precisely which individuals we can imagine being "made up" into bio-citizens, which individuals are excluded from this project, and the extent to which these distinctions can really be considered to be beyond nation.

I suggest in my reading of these cultural texts that the intimate and commodified trade in organs -- often carried out clandestinely in permissive countries – produce a kind of cultural anxiety that surfaces in the films and literary fiction. The illicit circulation of

intimacy through organs, which violate both somatic and national bodily integrity, is problematized in these texts through the interruption of heteronormative closures; romantic ruptures and familial breakdowns reveal the ways in which the discourse of nation, long tied to these tropes, is haunted by the "shadow nations" from which we extract a surplus of life. These literary and cinematic texts are a part of the mass of cultural concretions that create and animate discussions of biofutures. As such, the hauntings, romantic ruptures, and familial breakdowns envisioned by these texts are important, their presence nothing less than the return of anxieties and tensions where the logic of nation is being worked out and re-inserted into a world of globalizing economic and cultural forces.

This chapter also sets out some of the key themes and questions that the dissertation as a whole will explore. The cultural anxieties that imagine life-saving transplant technologies as a source of horror in the 21st century prompt my investigation in this project into the tensions between, roughly, the medical imagination of the body and the cultural imagination of the body of transplant medicine. Insofar as the notion of a body made up of interchangeable parts that can be broken up, worked, put into circulation, sold, it is constructed as a figure of horror and pathos. This same body, however, can also be healed, made whole, and opened up to new social, political, and physical possibilities. The tensions between the notion of the transplant body as a whole or in parts, as an object of horror or redemption, as a biological object or a site of cultural meaning is a part of what this dissertation concerns itself with. In exploring these questions, this dissertation seeks to expand the discourse from the body seen as a medicalized, instrumentalized object that is alienated (the idea that an organ is simply an

organ) to one that is the site of conflicting, evolving, and shifting meanings. This project asserts that the body is a cultural object as well as a medical/technical one, and explores the ways in which these systems of meaning overlap and inform each other. Thus, I perform a cultural history of the present that traces cultural representations of the transplant body in the key moments of its technological emergence: in 1890s London when the body is reconceived through the metaphor of a machine built of interchangeable parts; in 1960s America when the body was imagined as a vehicle for the brain; in the early 2000s when the transplant body, now fully articulated, became the site of an international discursive struggle over the ethics of biopolitical governance.

Following the questions posed by tensions at the intersection of the medical and cultural imaginations of the transplant body in Chapter 1, this dissertation asks how in the 21st century we have come to see and relate to ourselves as collections of interchangeable parts. What kinds of subjectivities are engendered by the historical, literary, technical, visual, and affective productions of this view? Where do constructions around our bodies as integrated, individual wholes (resonant with the values of Western liberalism) versus as open, flexible systems break down and where do they stabilize? What cultural forms do these struggles over what it means to open our bodies to a medicalizing, instrumentalizing gaze take and how seriously should they be considered? In Chapter 1, I investigated the ways in which the border-crossings and bodily transgressions of organ transplantation are imagined in 21st century movies as a kind of haunting that disrupts the space of nation. In Chapter 2, "The Blood is the Life," I explore late-19th century vampire stories by Mary. E. Braddon and Bram Stoker as sites where ideas about the modern body

and the liberal subject come into conflict with older social forms through the new technology of blood transfusion.

Chapter 2 focuses on how blood transfusion, and a new mechanical conception of blood, constructs the modern in two vampire stories. A mirrored analysis, constructed to face Van Helsing rather than the vampire Count as is usually the case, makes clear that Stoker's *Dracula* is a new kind of vampire story. It was written at the terminus of the 19th century, in the midst of the deep historical contradictions that characterize the period that Eric Hobsbawn calls the Age of Empire (1875-1914). Coming in on the heels of a period in which British industrialization and capitalism established the intensely productive basis for seemingly limitless economic growth into the far corners of the world, the era of imperialism was one in which bourgeois liberal society was held up as the greatest of progressive achievements even as it seemed on the brink of imminent failure. It was also the period in which utilitarian philosophy and classical political economy, which as Hobsbawn points out are linked, emerged as ethical systems with ideas about the natural and the good. This chapter explores the ways in which Bram Stoker's *Dracula* in 1897, and a sister story published by Stoker's friend Mary E. Braddon in the previous year, draw these new world formations into the classic vampire story. It investigates the ways each of these texts imagine blood, which once meant the noble birth and divine right of the vampiric aristocracy, now receives new meaning as the basis of a modern, liberal and biological that is shared across rank and social position. (This new vision of blood as a universal rather than socially specific fluid forms the basis by which, decades later, it will be freed into networks of anonymous donation that reinforce a national imagined

community: a literalization of the Enlightenment ideal of a nation made up of a fraternal brotherhood of citizens.)

The new mobility of goods, capital, and people (socially, geographically, and through media) – inspired by and also coupled with a general mechanization of society – is imagined in these texts as a transformative force. Significantly, blood works in two registers in these tales: it is both literal and symbolic. On one level, the medical transfusions featured in both these stories deal with blood as a substance that in itself has been recently re-imagined in mechanical terms. In order to investigate this key moment in the history of blood and the body, I discuss the work of Etienne-Jules Marey, who helped to pioneer this vision. On a second level, modern blood – now discrete, mobile, and alienated – embodies the values of the liberal subject that emerges in tension with the absolute and static definitions of "blood" (good blood, bad blood, noble birth, divine right) in aristocratic terms. At the intersection of these two registers, we see how the biological body and the socio-political body are co-produced in these stories.

Chapter 3, "The Future Perfect," I investigate a second key historical moment in the science fiction of late-1960s America when a vision of the body as a biological/mechanical vehicle emerged as an important aspect of Cold War technological optimism and a general utopian impulse. In this chapter I investigate *Ubik* alongside Anne McCaffrey's *The Ship Who Sang* (1969) and Robert Heinlein's *I Will Fear No Evil* (1970) as Cold War science fiction that explores the possibilities and limits of the technological optimism that rose to a high point in a period of deep social turmoil. Fredric Jameson contends that Utopian texts should not be read in a straightforward way:

either as programmatic blueprints for the future or as vague, unproductive wish-fulfillment which Marx and Engels criticized as lacking agency and strategies for revolutionary potential. Instead, they should be understood as historically and culturally specific responses that illuminate the conditions of their production and thus acquire a critical force. In this chapter, I loosely take up Jameson's mode of reading science fiction, which falls generally in Jameson's estimation into the category of utopian texts, as imaginings of the future that are directed at the present in which they are produced and with which they engage.

I argue that in *Ubik* a critical voice emerges that is oriented not towards the future of 1992 that it depicts, but towards the particular technological optimism of 1969 that culminated in a brain-centered view of life that transcends the body. This vision of life as rooted in the brain almost in exclusion of the rest of the body was not limited to fiction in this period. It is the logic that governs technologies including manned space flight (more specifically the technological assemblage that is the astronaut), cryonic preservation, and transplant medicine (in this period transplant technology becomes based on brain death for the first time), which all rose to high points – and were highly visible in American culture – in the late 1960s and early 1970s. To some extent, each of these visions imagines the body as a vehicle for the brain that can with the aid of technology be pushed beyond the horizon of the present. I argue that *Ubik* articulates a dystopian world that is implicitly critical of the promise of these technologies to leave the body behind, both literally and also figuratively as a way symbolically overcoming the social problems of the day. It does so in contrast to novels like McCaffrey's and Heinlein's, which embrace

the utopian potential of technologically mediated, brain-centered life, albeit in very different ways. My reading of *Ubik* differs from Jameson's own brief but enlightening analysis of the text not to disagree with it but to put up a different lens to the novel; instead of approaching the way in which the text is deeply critical of the transformations of late capitalism, I explore *Ubik* as dystopian fiction critical of the utopian impulse of technology to transform the social conditions of existence by re-imagining the fundamentals of life itself.

I position the brain-centered view of life in this chapter as an extension of, but also a departure from, the mechanized notion of the body that became symbolically and surgically important in the late 19th century. The turn-of-the-century notion of the body-as-machine (discussed in Chapter 2), made up of a discrete, interchangeable, mobile mass of working parts, helped to set the conditions of possibility under which the body could eventually be imagined as a brain housed within a machine-like body. The idea of the brain as the center of the consciousness was of course not new in Western civilization during the late 1960s; Rene Descartes famous statement "Cogito Ergo Sum" springs to mind. However, Descartes' philosophical pronouncement is limited to the ability of consciousness to recognize itself. The vision of the 1960s is of the brain as the seat of consciousness is a technologically-conditioned idea that is aimed at escaping the social confines of the present as tied to the body.

Chapter 4, "Liminal States," brings the tensions between medical and cultural imaginations of the transplant body as a figure of horror or a hopeful future more directly into conversation with theoretical debates over the shape of modern biopower in the

world. It investigates stories that circulate in the U.S. about China's alleged practice of harvesting organs from executed prisoners, and of carrying out "live harvestings" of Falun Gong religious practitioners who have been placed in concentration camps. In the U.S., these stories are often used as evidence in formal and informal circles of China's failure to become a modern nation-state.This chapter considers the ways in which the stories may tell us more about the biopolitical management of the boundary between life and death in the contemporary moment than it does about China as a modern or non-modern state. This final chapter of the dissertation project takes up a theme that winds through the previous three chapters in the form of fictional hauntings (Chapter 1), scientifically mechanized bodies (Chapter 2), and dreams of locating life in the mind (Chapter 3): the boundary between life and death.

The narratives of organ transfer discussed in this chapter highlight the way in which management of the boundary between life and death is a complex and sometimes contradictory negotiation. As such, they are particularly salient to the debate on the form of modern biopower between Paul Rabinow and Nikolas Rose on the one hand, and Giorgio Agamben on the other. Organ transfer as a technology is deployed in a heterogeneous mix of practices: from legal, sanctioned donor programs that funnel organs towards waiting patients based on pre-established hierarchies of medical need to black market exchanges that move kidneys from financially needy sellers to wealthy clients overseas. Insofar as organ transfer can be approached as a technology that can promote life and health among populations, it aligns with the vision of biopolitics outlined by Rabinow and Rose. Its dependence on a conception of man as a biological mass that can enter the global market in parts resonates with Agamben's construction of bare life as the

hidden core of modern power. In stories about China harvesting organs from its executed prisoners and putting them on a global market for sick patients whose can pay to restore their health, the question of biopower become somewhat more complicated.

I will demonstrate in this chapter that narratives that circulate in the West, like of harvesting programs that are rumored to target Falun Gong religious practitioners, express the way in which the proper handling of death is central to the construction of the modern state. In this exploration, I discuss the production of death-in-life as a gray area where individuals – whether legally, socially or civilly dead – are conceived by the state as beings without political rights to varying degrees, while still biologically alive (to varying degrees). This notion is not synonymous with Agamben's conception of bare life but is continuous with that extreme expression of sovereign power over life. The discussion of the production of death-in-life as a core feature of modern biopower in this chapter spans not only narratives of extreme violence that align easily with Agamben's concept of bare life, but also the logic of transplant medicine that otherwise would seem to function in the realm of biopolitics as "making live."

This dissertation project is also interested in the ways in which the transplant body and its parts seem to continually cross between zones of life (medically revitalized physical life, new horizons of social and political life) and death (brain death, traditional cardiac death, social death) and the gray zones between (reanimated life, haunted life, the undead). These alternative positions for the border between life and death, which representations of the transplant body proliferate, seek to transcend a medicalizing discourse that forwards a totalizing view of life. This diversified notion of death has also been explored in the work of Margaret Lock and Leslie Sharp, who each problematizes

the concept of death as a singular, fixed, and naturally determined event. Building off the work of Lock, Sharp, Susan Lederer and others such as Ruth Richardson and Stuart J. Youngner, this project seeks to expand the conversation about organ transplantation beyond utilitarian aims and to explore the ways in which narratives about the transfer of tissues and organs between humans in the twentieth-century challenges an instrumentalizing discourse about the body that otherwise often underwrites the project of transplantation.

Chapter 1. Sites of Haunting: Bodies, Borders, and Organ Transplantation

In the age of mechanical reproduction the concept of haunting bears special significance for the life of everyday objects. Destabilizing the distinction between original and copy, the production of doubles (triples, quadruples) appears uncanny, threatening in its dispersion into mirror-images and echoes the unique life of the object, and undermining the basic categories of sameness and difference. This surplus, the ability to extend the appearance of life beyond what seems natural and singular, was a subject of obsession for early cinema. In many of the fantastical short movies that heralded film as a new and magical medium at the turn of the century, filmmakers such as George Meliés toyed with the ability to animate the inanimate in the flickering frames that set still images in motion.[1]

[1] Meliés, magician and filmmaker, in particular, plays with this issue again and again in films like *The Mysterious Portrait* (1899), as did Thomas A. Edison in *The Thieving Hand* (1908), a short film about a mechanical limb that gains a life of its own. Years later, Dziga Vertov is still fascinated by the same idea when in a self-referential sequence in *Man with a Movie Camera* he shows the editing process that transforms a series of still photos into a film sequence of a woman laughing, toggling back and forth between the still and animated images several times.

Half a century later, the uncanny animating power displayed by film technology was also seen in life.[2] In 1954, the first successful kidney transplant revived the life prospects of a man on Joseph Murray's operating table at Brigham Hospital in Boston.[3] The procedure would be performed only between identical twins for many years due to the danger posed by the recipient's immune system rejecting an organ it identified as "non-self," but the operation's success marked a moment when biotechnology redefined the limits on life and the way we relate to our bodies.

Empowered by the modern molecular technologies of tissue-typing and drugs, organ transplantation has blossomed since the early moments when the requirement for closely matched donors and recipients seriously checked its growth as a widely effective medical tool. A far more robust kit of transplant technologies, including a powerful immuno-suppression drug, led in the 1980s to what Lawrence Cohen calls "the cyclosporine era," when the vistas of organ sharing opened before the transplant patient and the economic organization of procuring and brokering organs "beyond the supply" rose into place.[4]

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[2] Melinda Cooper, *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era* (Seattle, WA: U of Washington P, 2008), 106-11. Melinda Cooper traces both technologies back to French physiologist Etienne-Jules Marey.

[3] Nadey S. Hakim and Papalois Vassilios, *History of Organ and Cell Transplantation*, (London: Imperial College Press, 2002).The first successful transplantation procedure of a non-vital organ was performed in Prague in 1905 – a cornea transplant.

[4] Lawrence Cohen, "The Other Kidney: Biopolitics beyond Recognition," *Commodifying Bodies*, Ed. Nancy Scheper-Hughes and Lois Wacquant, (Thousand Oaks: SAGE, 2001),12.

News reports of events like Richard Norris's face transplant in 2012, "the world's most comprehensive" to date,[5] now share media space with stories of harvesting and trafficking rings that supply organs around the world, though the latter are sometimes difficult to verify, and the two kinds of narratives – medical successes and black market procurements – seem to cross paths in mainstream news outlets only rarely.[6] Despite increasing regulation of the industry, however, stories about organ theft and black market sales continue to circulate and proliferate, some of it tracked and documented by watch groups (such as Scheper-Hughes' *OrganWatch*) and some of it spilling back into the realm of fiction such that organ transplantation exists unstably on the margins of medicalizing discourse.

In this space where fact and fiction blur, Nicholas Rose describes the promise that organ transplantation and technologies like it make to medically extend lives, to re-vitalize bodies that are ill, as a driving force behind a new global "political economy of hope."[7] As an economy, this new global order attends to the needs and demands of communities organized around a shared biological identity. For individuals, this political economy represents a space where "biological citizens" gain access and agency in networks that transcend national boundaries.

Into this space of hope, I would like to re-insert the images of haunting that appeared in the early moments of the technologies of reanimation. The emergence of

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[5] James Meikle, "Face Transplant Man Richard Norris Has 'Life Restored'," *The Guardian*, March 28, 2012.
[6] Dan Bilefsky, "Black Market for Body Parts Spreads Among the Poor in Europe," *The New York Times*, June 28, 2012.
[7] Nikolas Rose and Carlos Novas, "Biological Citizenship," *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*, Eds Aihwa Ong and Stephen Collier (London: Wiley-Blackwell, 2005), 439-64.

haunting in this later context, at the intersection of organ transplantation and globalization in film, is useful in that it raises eerie visions of the technologies upon which the possibility of non-national bio-citizenship is based. In the narratives discussed here – fictional stories about illicit trade in organs – the relevance of national belonging is re-inscribed by the haunting presences of transplanted organs. In crossing national borders and bodily boundaries simultaneously, these organs figure the dark fears of globalization as horror.

The narratives of 20th century biotechnology reflect not only the scientific achievements of our time, but also the uneven distribution of wealth and power that extracts life-force from bodies and body-parts from the global South to vitalize centers of privilege in the North. Michael Davidson argues that organ transplant narratives function elegantly as allegories for globalization in which the body, broken up and circulated, "shipped around the world," itself traces these flows. [8] Haunting in these works of imagination thus demands that we take a closer look into precisely which individuals we can imagine being "made up" into bio-citizens, which individuals are excluded from this project, and whether these distinctions are really non-national. The notion of bio-citizenship is haunted by the echoes of voices left out of its sphere, which surface again as the nationalist fears and anxieties expressed in these stories.

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[8] Michael Davidson, "Organs without Bodies," in *Concerto for the Left Hand: Disability and the Defamiliar Body* (Ann Arbor: University of Michigan Press, 2008). Davidson has demonstrated the way in which transplant narratives trace the routes of globalization in their articulations of modernity. He suggests that organ transplant stories may be "*the* allegory for globalization in the way that in such works the body itself becomes a commodity [. . .] exchanged in a worldwide market." (198) His observations have inspired my work, here, which focuses more narrowly on the way these narratives rely on notions of heteronormativity to reinforce nationalisms.

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Biological Citizenship and the Work of Nation:

In his work on the concept he terms "biological citizenship," Nikolas Rose, along with Carlos Novas, suggests that new developments in the fields of biomedicine, biotechnology and genomics destabilize national forms of citizenship. In contrast to earlier nineteenth and twentieth century biologically-based notions of citizenship, which often rooted national belonging and allegiance in biological identification (race, blood lines, national stock) and sometimes led to state-sponsored racial policies advocating eugenics and racial hygiene, modern biological citizenship is far more individualized and flexible. Operating along the lines of identity politics, biological citizenship locates the citizen as active agent and participant in a self-identified, sometimes international biological community based on a range of claims from a specific genetic risk for disease or a demand for remuneration from the state for damage to one's health. Rose's conception of biological citizenship as a new social formation grown out of late-twentieth and early twenty-first century biological thinking has been useful for considering how global information networks (especially the internet), biomedical advancements, and the flexibility and futurity of modern-day capitalist ventures create a space in which new kinds of citizenship projects challenge the dominant nation-based understandings of biological being. However, the representations of social formations that structure the act of organ-sharing in this paper seem to imagine a different conclusion. Despite the intimate transnational bonds forged in the narratives discussed in this paper, which seem to suggest transgressive potential, the circulating organs and bodies in these narratives

follow very specific pathways that in the end divert from redemptive possibilities to attend to nationalist and normative interests.

In the nineteenth and twentieth century, Rose notes, efforts to define the rights of individuals as citizens, potential citizens and impossible citizens often imagined the coherence of the national body in biological terms. In Nazi Germany, certainly, leaders spoke of the purity of the Aryan race as they attempted to purge the nation of "parasitic races," but in the United States too eugenic campaigns in the 1930s encouraged citizens to think of their marriage unions and reproductive choices in terms of the health of the nation. Programs compelling eugenic values spanned the spectrum from "Fitter Families for Future Firesides" competitions that awarded prizes at state fairs for the best specimens of human pedigrees to state-enforced sterilizations for prisoners in California.[9] Even earlier, the Chinese Exclusion Act of 1882 prevented Chinese immigrants from obtaining U.S. citizenship, severely limiting the ability of Chinese male laborers to form families in the country, and in 1884 was further amended to apply to all ethnic Chinese, regardless of their country of origin; indeed, examples articulating the biological dimension of citizenship are many. Race and reproduction are tightly bound up with the ways these "citizenship projects" were imagining the makeup of the nation -- one sense in which projects of nation-building have long been articulated in terms of biological belonging.

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[9] Laura L. Lovett, "Fitter Families for Future Firesides: Florence Sherbon and Popular Eugenics," *The Public Historian*, vol. 29, no. 3, 2007: 69-85.

Present-day biocitizenship, by contrast, is less strictly ordered by "top-down" nationalist agendas and in Rose's conception is defined by the agency that genetic and molecular self-knowledge bestows upon the individual. Thus, Rose describes a trend towards a "regime of the self"[10] under which biological identity is deterritorialized by technologies that make the body visible and manipulable in new ways, as well as by a new "political economy of hope." Both an economy of ethics and a "traditional" market economy, Rose uses the concept of a "political economy of hope" to describe the way in which surplus value is extracted by companies from the raw resources of genetic information and biological material, as well as from the hopeful beliefs that biocitizens direct towards effective medical treatments and cures; Rose describes it as a "new space of hope and fear . . . being established around genetic and somatic individuality." Kaushik Sunder Rajan also refers to this economization of hope when he refers to the market of "biocapitalist futures" that have sprung up around companies that transform medical research and the weight concept of "life" into material for speculative capitalism, through which it can be packaged, marketed, manipulated, and made free from its material sources.[11]

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[10] Rose, "Biological Citizenship," 5.

[11] Kaushik Sunder-Rajan, *Biocapital: The Constitution of PostGenomic Life* (Durham, NC: Duke U P, 2006). The intensification of speculative capitalism with the development of the industry of genomics seems to be tied up with increased focus on the upstream component of the upstream/downstream model of drug development; this leads to greater emphasis on diagnostic tools that again suggest a fragile futurity through the possibilities for disease, and intensified "hype" around the dream of personalized medicine. It might be suggested that for Rajan, this seems to be the true dark specter of biocapital: a promise of medical intervention and an understanding of our bodies that might (and might even carry some expectation to) never be fulfilled. Indeed, Rajan's discussion of biocapital futures forms a compelling argument for the new phenomenon of the biotech industry as both an intensification and transformation of both existing political-economic and social realms.

The market-driven context in which scientific information, medical treatment and genetic testing make the responsible biocitizen the bearer and constant guardian of his/her own health and genetic future is also, for Rose, a space of agency, in which biocitizens can collectivize by actively lobbying for funding, legal and political support, and sharing information in ways that challenge political and medical authority; the internet is an important space for this collective activity. For Rose, the active role that modern biocitizens play constitutes the very nature of their citizenship and diverges from earlier moments when state programs and national interests dictated the biological terms of belonging. The organ transplantation narratives discussed in this paper, however, offer dark and uncanny visions of worlds that are excluded from but underwrite this political economy where bodies are revived. These sites of haunting are spaces where national boundaries are re-cast as bodily borders, and both are crossed simultaneously by the intimate exchange of organs.

Seeing Ghosts:

> *If haunting describes how that which appears to be not there is often a seething presence, acting on and often meddling with taken-for-granted realities, the ghost is just the sign, or the empirical evidence if you like, that tells you haunting is taking place. The ghost is not simply a dead or missing person, but a social figure, and investigating it can lead to that dense site where history and subjectivity make social life. The way of the ghost is haunting, and haunting in a very particular way of knowing what has happened or is happening. 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.*[12]
>
> \- Avery Gordon, *Ghostly Matters*

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Resurfacing at the intersection of organ transplantation and globalization, the haunting spaces that appear in these films – which are engrossed with visions of illicit organ exchanges – emerge as second sites, shadow worlds that double and penetrate the familiar as a kind of cultural return, while dreaming the implications of a global market in organ procurement. These spaces where the intimate but commodified exchanges of transplantation are envisioned problematize and complicate the coherence of the space of nation, even as they attempt to reconstitute national identity. The introductory sequences of Michael Bay's *The Island*¸ for instance, highlights the treacherous doubling of space and place as it sets the viewer up for the polarized contrast that will emerge between its two faces – a hyper-technologized, cutting-edge setting that is deeply attentive to characters' bodily states and the brutal organ-harvesting factory it is later revealed to be; the film's interest in the contradictory, non-singular nature of this space is later deepened when the organ factory is visualized against and mapped onto the United States, revealing in it a double, a second site of production that bears the life of the first. The instability of this vision of nation is represented and tamed through the disciplining of sexualities in the fiction discussed here: Michael Bay's *The Island* (2004), the Pang Brothers' *Jian Gui*

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[12] Avery Gordon, *Ghostly Matters: Haunting and the Sociological Imagination* (Minneapolis, MN: U of Minnesota P, 2008), 8.

(2002), and David Moreau and Xavier Palud's *The Eye* (2008).[13] In these films, the cultural logic of biological identity is deeply invested in the ways that normative sexualities and national boundaries intersect.

In the Pang Brothers' version of *The Eye*, which takes place mostly in Hong Kong, and the Moreau/Palud later version, set in the United States, the narratives of wealthy cornea transplant patients being haunted/possessed by their third world donors (in Thailand and Mexico, respectively) serves allegorically to express concerns about the uneven relations of power between first world nations and the shadow nations which in the films are producers of the organs consumed in the first world. Both versions resolve with the threat of foreign haunting and forbidden intimacy contained, and the national body returned to a naturalized state in heterosexual romance. Michael Bay's *The Island* also turns on heternormative expectations of childhood and family life, heterosexual romance, and national narratives in order to express concerns about the commodification of bodies.

The Pang Brothers' film, *Jian Gui*, and the Moreau/Palud remake, *The Eye*, are both popular culture productions drawing on the horror film genre to depict a fantastical, eerie side of organ transplants. Whereas the Hong Kong film's Mandarin title, *Jian Gui*, can be literally (but inadequately) translated to mean "seeing ghosts" or "meeting ghosts,"[14] emphasizing a concern with the haunting of another world, the Hollywood

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[13] Larissa Heinrich, "Cultural Studies / Technoscience," (graduate course, University of California, San Diego, November 2009). I first came across the film *Jian Gui* in Larissa Heinrich's class on Chinese Biotech. My analysis here has benefitted from discussions among the students and Professor Heinrich's lectures.

[14] Heinrich, "Organ Economics," 43. Larissa Heinrich emphasizes that the title literally means "to see ghosts," but colloquially can mean, "go to hell." The construction also suggests an active kind of looking.

remake's English title instead focuses on the organ-object itself. This signaling of difference is suggestive of the translational process the narrative undergoes in its shift in attention to different a cultural imagination and national audience.[15] It also evokes the differences in articulations of the anxieties with which these two films engage. Adam Knee observes in his reading that *Jian Gui* as a trans-national film articulates some of the close ties and discontinuities in Hong Kong and Southeast Asia (particularly Thailand) in its own narrative and its production.[16] As a horror film it also brings together, through the trope of haunting, the old and the new: Western empirically derived medical science and Asian spiritual beliefs, modern knowledge and authority versus traditional calligraphy, etc. In this sense, the Pang Brothers' film plays out in a specifically pan-Asian context, according to Knee. Both films, however, hinge on the safe deliverance of the national body through the fulfillment of heteronormative desire and the removal of forbidden intimacies with the third world woman.

In *Jian Gui*, the privileged seer in the film, Mun (Angelica Lee), receives her gift/curse of unnatural vision when she undergoes corneal transplant surgery that restores the sight she lost when she was two years old. Upon opening her eyes, she is reintroduced to the blurry metropolitan space of Hong Kong, but also to a world of ghosts who haunt the cityspace. (Significantly, the ghosts and those who escort them from death evoke only confusion and grief in Mun; it is the small boy, the woman and child in the

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[15] Although cultural imaginations and national audiences coincide in clear and easy ways, here I take the two films' productions as popular culture through major movie industries (Hong Kong and Hollywood) alongside my readings of the films to suggest that they reflect much the dominant cultures from which they stem, even as they present some critical concerns about organ transplantation.

[16] Adam Knee, "The Pan-Asian Outlook of *The Eye*," in *Horror to the Extreme: Changing Boundaries in Asian Cinema*, Ed. Jinhee Choi and Mitsuyo Wada-Marciano (Hong Kong: Hong Kong U P, 2009).

noodle shop, and other specters who linger on, haunting the spaces they used to occupy even as they change, who terrify her.) After much pleading, Mun eventually convinces her psychologist and love interest, Dr. Lo (Edumund Chen), to help her find her organ donor. The pair track Mun's donor down, who turns out to be an ethnically Chinese woman in Thailand, named Ling (Chutcha Rujinanon).

As the two travel to Thailand to find Ling's family, they enter a radically different space; in sharp contrast to the busy metropolitan space of Hong Kong they left behind, Thailand is a lush, rural, and exoticized landscape. It is as if they have left an organized chaos in the wealthy colonial metropole and entered someone's vision of a backwards third world colony. Here, Mun and Dr. Lo uncover Ling's history of prophetic visions of death and her isolation from the local community. Her vision has circulated beyond the colonial borders to haunt the metropole through Mun, but her experience of isolation is cushioned in Hong Kong by the extended medical and professional networks unavailable to Ling. In the end, Mun resolves Ling's tragic suicide by embodying her ghost, effectively sharing the burden that was unspeakable and that went unheard in Ling's life, and repairing the familial bond between Ling and her mother. As Mun and Dr. Lo attempt to cross back into Hong Kong, a massive explosion on the road, which Mun foresees, tragically incinerates a crowd of people and destroys Mun's sight(s). The film ends with Mun's profession that she no longer needs sight because she has seen "the most beautiful things in the world" and a final scene that reassures the viewer that her romance with Dr. Lo has finally blossomed.

As a horror film, Ling's haunting of Mun's body is the central feature through which anxiety is generated through the narrative. Her unbidden entrance into Mun's world through the unpredictable, new technology of organ transplantation deploys one of the tamer aspects of biofutures (the therapeutic restoration of lost sight) into a far more threatening and complicated nexus of meaning. Beyond simple surgical procedure, Mun's corneal transplant produces an intimacy between the two women who end up sharing not only organs but also the senses that shape their realities in a way that dangerously transgresses national boundaries and the structures and relations of power into which they enter. I suggest that Ling, the dispossessed donor woman across the border who is unable to speak or unable to make herself heard, can be considered on terms with the female subaltern, that embodiment of extreme oppression and exclusion articulated by Gayatri Spivak.[17] Ling's unarticulable experience and her haunting, the threatening circulation of her organs to rejuvenate bodies in a privileged nation (a formula indicating her death for their life-styles?), make Thailand the shadow world of Hong Kong. Mun, a wealthy first world woman from Hong Kong, is finally able to speak for her through her "belief" in Ling's stories, but the circuit of forbidden communion must be broken, and Ling's haunting presence in the metropole exorcised. Mun's prophetic and ordinary visions are intercepted at the border crossing; both the tragedy that ultimately eliminates what is figured as unproductive bodily intimacy between the two women (they never succeed at circumventing death) and the haunting experience that stands in the way of the romantic relationship between Mun and Dr. Lo are contained

[17] Gayatri Spivak, "Can the Subaltern Speak?," *Marxism and the Interpretation of Culture*, ed. C. Nelson and L. Grossberg (Basingstoke: Macmillan Education, 1988), 271-313.

within exoticized Thailand. With the return of heteronormativity as the organizing force of the narrative, the integrity of the national body is restored.

Like *Jian Gui*, Moreau and Palud's *The Eye* imagines the circulation of organs from a country dominated by relations of empire (in this case Mexico) into the national body of the dominating power (the United States) as a horrifying vision that is eventually dissipated with the revival of nationalist discourse. One significant difference between the two films is the role of the eye. Where in *Jian Gui*, the organ transplant seems to open up a world of haunting vision, in *The Eye*, the physical object is given greater weight and its existence as a product of stem cell research and newly developing biotechnologies is brought to the fore.

The physicality of Sydney Wells's (Jessica Alba) experience of organ transplantation highlights her exposure to her donor's visions as one of possession rather than haunting; if *Jian Gui* is a film that operates through tropes of intimacy and desire, *The Eye* is a film concerned with invasion and rejection (tellingly, Sydney's body rejected her first cornea transplant, but stem cell research "changed the game"). Indeed, Sydney repeatedly asserts that she does not want the transplant at all and undergoes surgery only at her sister's urging. Following the restoration of her sight, eye-object is a portal through which Sydney's donor, Ana Christina Martinez (Fernanda Romero), can reach out to place Sydney in physically threatening situations (in an abandoned burnt out building or physically assaulting herself before a mirror, for example). The endowment of the eye-object with the ability to affect the physical world allows Sydney, unlike Mun, to save the crowd of commuters stalled at the Mexico/U.S. border. She is able to

convince them of the danger by reconfiguring the scenario as a terrorist attack, and yelling that "there's a bomb on the bus," two acts that have particular resonance after the 9/11 attacks, especially as the majority of the movie is set in New York.

The Eye is the product of a translational process that engages more than language and location settings. The film draws on and responds to specific cultural and national contexts in which Mexico is imagined as a different kind of shadow nation of the United States. The ability to see the dead is not a product of the organ transplantation process, but the transportation of unnatural sight into another body and another nation certainly is. The film's depiction of this border-crossing speaks to specific concerns about uneven distribution of labor and profit between the United States and Mexico, including immigrant labor and the maquiladoras that manufacture products for American companies across the border (indeed, the fire that Ana Christina foresees in Mexico takes place in just such a factory, the flames reaching across time and a national border to temporarily burn Sydney in her New York apartment).

The shadow world that Ana Christina sees threatens invasion rather than haunting, and thus the closure of the circuit through the destruction of the eye leads to Sydney's relief, and her confirmation that the presence of the eye was dangerous and unnecessary ("people say seeing is believing, but for me that's not entirely true"). In keeping with the film's drive towards U.S. nationalism, *The Eye* leaves Ana Christina's story unresolved in Mexico, as her mother dies in a distant hospital before any resolution can be achieved between her and her daughter. The film therefore ends in the refusal of the circulation of (organ) products from Mexico with the destruction of the eye and sight that are produced

there; with its exclusion from the territorial space of the United States, the heterosexual romance between Sydney and her doctor (Dr. Paul Faulkner, played by Alessandro Nivola) is allowed to finally blossom. The link between the heteronormative nuclear family and the integrity of the nation is re-forged in this film, an unsurprising conclusion when one considers the importance of the nuclear family in representing a pastoral American nation.[18] The conception of the haunting intimacy of border-crossing organs as continually interrupting the formation of the nuclear family, however, is specific to this intersection where organ transplantation and globalization meet in film.

> *Everyone wants to live forever. It's the new American Dream. And there are people out there rich enough to pay for it*.
>
> - Michael Bay's *The Island*

To return to the cutting-edge dreamscape of the clone facility in Michael Bay's *The Island*, the disjuncture between the facility's function as a factory for human organs (the skin of Jordan Two Delta, who played by Scarlett Johansson, and the liver of Lincoln Six Echo, who is played by Ewan McGregor) and the complete, thought-control environment suggests that the design of the facility is attentive to spaces of imagination beyond its own hermetically (only metaphorically, it turns out) sealed walls. Indeed,

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[18] The infamous Moynihan Report seizes on this ideal of bourgeois ideology – the nuclear family – when it casts the African American experience of racial inequalities in the U.S. in terms of a failure to maintain the normative American family structure. Concern over the perceived dissolution of African American families into female-headed households is linked, in Moynihan's report, to the breakdown of urban centers and the failure of many African American families to rise into the middle class. Thomas Jefferson makes a similar argument with regard to Native Americans in *Notes on the State of Virginia*, commenting on how a lack of "love for their wives" results in an absence of a Native American Commonwealth. "The Negro Family: The Case for National Action," Office of Policy Planning and Research, United States Department of Labor (March 1965).

crucial to the facility's maintenance of its whole-body clones, byproducts of the organ generation process, is gender segregation and the obstruction of the clones' sexual maturation. To this end, technologically mediated spaces of the facility carefully regulate and monitor the flow of male and female clones in their series of prescribed daily interactions; the clones are even outfitted with proximity detection devices that are designed to alarm security workers if males and females come into close contact. The facility's careful attention to the interaction between its male and female clones is predicated upon heteronormative assumptions about desire (Lincoln is put under close scrutiny when he forms a close friendship with Jordan Two Delta, but his close friendship with male clone "coworkers" goes unremarked), which the production of organ-bearing clones continually interrupts.

The formation of the heteronormative nuclear family is also disrupted by the facility's biofuturist dream of significantly extending the lives of clients who can pay. As stand-ins for the dysfunction that genetic manipulation creates, the clones are infantilized by the closed, designed environment of the facility. The clones (Lincoln Six Echo is three years old, Jordan Two Delta is four) are endowed with the maturity level of fifteen-year-olds and are frequently represented as childlike in the film, despite their varying phenotypical ages, which seem to range from the twenties into the seventies. Only upon their escape from the facility are Lincoln Six Echo and Jordan Two Delta able to achieve adult levels of interaction, eventually culminating in sexual maturity and romantic love. The movie's condemnation of a biofuture that imagines genetic engineering as the basis for commodifying life also turns on the role that Lincoln Six Echo's real-world

counterpart, Tom Lincoln, plays in violating the fragile bond between Lincoln Six and Jordan Two. His character is vilified both through the portrayal of his inappropriate sexual interest in Jordan Two, who is innocently unable to interpret his advances, as well as his violation of the pair's trust. Tom Lincoln is eventually killed by his clone; an end neatly tied up.

The film's resolution results in the elimination the facility's biofuturistic technology and the shadow world it creates in order to allow a return to traditional American heteronormative family. The facility and its technologies are destroyed by Jordan Two Delta (with the help of black mercenary soldier Albert Laurent, played by Djimon Hounsou) and Lincoln Two Echo, who brings down the holographic dreamscape. Albert Laurent, who was hired by the facility to hunt down the fugitive "property," decides to help the clones in the end as he objects to the sacrifice of the clones' lives for the lives of their "sponsors" who may not recover. In addition, the connections drawn between the clones' situation to slavery and racial violence are made particularly clear when the clones are branded and sent to be destroyed by incineration (a reference to the racial violence of the holocaust). Whether this representation of black slavery is historically specific to the United States or not, it seems that the film itself imagines the biofuturistic narrative of *The Island* to be a particularly American one ("Everyone wants to live forever. It's the new American Dream"); the dream-world of the facility itself is the shadow nation here. In the film's last scenes, the trio end up at the top of a rise in the desert landscape, Jordan Two and Lincoln Six locked in a kiss with Albert Laurent moving to his team's helicopter, satisfied with his work. The other clones, who are the

embodiment of the richest and most famous citizens of the United States (even the President has a clone), are also seen to survey their newfound freedom from that high spot in the desert. At the conclusion of *The Island*, heterosexual romantic closure signals safe return to traditional American values and the expectation of a heteronormative nuclear family that overlays the territorial space (think of the sponsor map, divided into regions of the U.S.) of the nation.

The Island is extremely critical of the biofuture it envisions, and the many seams in the film's fabric allow us to see how and why. The film imagines the genetic interventions that rearticulate the boundaries of life to simultaneously rearticulate the American family. If scientific intervention allows us to extend lives, displace sexual reproduction, and eliminate the need for traditional family roles, what does it do to the heteronormative nuclear family that is imagined as the foundation of small-town American life? These questions seem to be at the heart of many current debates surrounding biofuture technologies such as stem cell research, genetic screening, and "cloning." In imagining the answers to these questions and rejecting the shadow world it envisions, *The Island* lands precisely at the place where nationalist discourse and political conservatism coincide.

Intimacies With Strangers:

In these films, it is possible to see how the technologies of biofutures, in particular the circulation of organs and their role in extending life beyond the life of the body that

produces them, are imagined to interrupt the heteronormative closures through which nation is often figured. The intimacy of bodies being brought together across gender, age, national boundaries sometimes with -- but in these cautionary tales often without -- explicit knowledge of their histories, seems to destabilize the security of traditional ways of knowing. Perhaps this is why concerns about "trust" recur in all of these narratives. In *Jian Gui* and *The Eye*, romantic closure cannot be achieved until the male lover finally declares that he believes that his lover is able to see what cannot be seen. In *The Island*, the romantic connection between Jordan Two Delta and Lincoln Six Echo is repeatedly represented by her ability to tell if he (or his real-world doppelganger) is lying. Their victimization at the hands of the biotech industry is likewise illustrated by the repeated violation of their trust (and this sense of violation intensified by the infantilization of the clones). Other fictional and factual narratives also construct the movement of biological circulation as disruptive to the formation of intimate relationships. Kazuo Ishiguro's novel, *Never Let Me Go* (2005) imagines the troubling demands of organ transplantation in fictionalized modern Britain as antithetical to family life; unlike in *Jian Gui* or *The Eye*, the disruption is figured not as embodied penetration or transgression, but as deep alienation from mainstream society and isolation. Likewise, the AIDS controversy that beset national blood banks in the 1980s also revealed fissures that manifested in the exclusion of socially vulnerable populations.

Kazuo Ishiguro's novel, *Never Let Me Go* (2005) builds a scenario with some likeness to that of *The Island*. It imagines a comforting environment, in this case a posh boarding school called Hailsham that is, unbeknownst to its students,

designed specifically for the purpose of cultivating ideal organ "donating" individuals.[19] Although the school's staff structure and curriculum suggest a replacement for the closeness, warmth and guidance of family, Hailsham in fact prepares students, who are clones, not for a future of joining mainstream society but for a fate that commits their organs to strangers in a series of live donations; its program, which focuses on art-making, is meant to reinforce the clone/donation by reassuring the public that the clones are treated humanely. Thus, the novel portrays the illusion of Hailsham as a betrayal, a violation of the sacred trust of the children who made it their home. In an important scene that Michael Davidson identifies as key to the novel's narrative logic and sensibility,[20] young Kathy is caught by her teacher, "Madame," dancing with a pillow singing along to an old song, "Never Let Me Go." Her teacher is heartbroken by her interpretation of the scene, which she misinterprets, thinking that Kathy is singing about a older, kinder world that is being swept away by a "harsh, cruel world." (Ishiguro 101) In fact Kathy was lost in a melodramatic pre-adolescent fantasy about a woman who is told she can't have babies; when she miraculously becomes a mother, Kathy imagines herself in the mother's place, walking around singing, "Baby, never let me go." Although she does not know it yet, Kathy herself does not have parents and will never have children. The pathos of the scene highlights Kathy and the clones' naivete, and cruelty of the clone-donation is figured as a violation of the childlike innocence that Kathy demonstrates. Margaret Atwood comments on the careful tone that Ishiguro crafts for the

[19] Despite rhetoric of humane treatment that surrounds Hailsham and schools like it, it is made quite clear that organ donation is never really a choice that Hailsham students can refuse.
[20] Davidson, *Concerto for the Left Hand*, 214.

tale, which is told from Kathy's point of view, retrospectively: "It's all hideously familiar and gruesomely compelling to anyone who ever kept a teenage diary."[21]

True to form, Kathy's tale obsesses over the minutiae of the melodramas that occupy children growing up together. Her reflections are dominated by a thwarted romance between her and a marginalized boy at school, Tommy, for whom she later acts as "carer" when both grow up and Tommy begins his "donations." When Kathy and Tommy finally share their feelings with each other as adults, they look desperately for a reprieve that is rumored among the clones to be granted in special circumstances, only to be told that the rumor is just that. The tragic moment resonates with the one Kathy presciently fantasized about years ago; the brutal system that demands these clones' organs is indeed designed to exclude them from "normal" (an important word in this novel, as Atwood points out) family life. The orphan-clone/boarding-school scenario, along with the system that the clones graduate into which requires that "carers" be drawn from the stock of future donors, serves to isolate the cruel reality of the donor system from the sensibilities of mainstream society. Being a carer is as close as Kathy will ever get to experiencing, or even seeing much of, motherhood. Thus, Ishiguro's novel carefully portrays the demands that the relentless pursuit of bodily health place on these clones as not only marginalizing, but also necessarily destructive to romantic and familial ties that were earlier discussed as deeply important to the logic of nation. This narrative of exclusion likewise surfaces in real life, when the interests of the health industry clash with those of groups proscribed on the basis of sexuality.

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[21] Margaret Atwood, "Brave New World: Ishiguro's Novel Really is Chilling," *Slate*, April 1, 2005, http://www.slate.com/articles/arts/books/2005/04/brave_new_world.html.

In the 1980s, the rise of the HIV/AIDS epidemic introduced a deep tension in the project of blood banking. In the U.K., blood banking was conceptualized as a "gift economy." Richard Titmuss argued at its inception that the logic of gift, as theorized by Marcel Mauss, would help to establish in the case of blood donation a shared sense of nation among donors and recipients;[22] the sharing of blood between anonymous and unremunerated citizens would create a sense of obligation and implied indebtedness, forming the conditions for what Catherine Waldby and Robert Mitchell call an "imagined community."[23] The HIV/AIDS epidemic, however, produced a great fear of contamination of the blood supply, particularly as neither the methods of transmission nor the symptoms of the disease itself were well understood at the time. The disease was observed, however, to be strongly present in the population described in medical literature as "men who have sex with men." In the interest of protecting the blood supply, it was suggested that these men be excluded from "the right to donate." Western European national blood services resisted this solution, however, as they conceived of the "donor's sacrifice" as vital not only in contributing whole blood for therapeutic purposes but also "civil value in creating social surplus."[24] Thus, when Waldby and Mitchell describe this conflict only in terms of a tension between "the values of public health and civil generosity,"[25] they overlook the deep significance of the conflict for the creation of a national imagined community. If indeed the act of giving and receiving blood creates an imagined community, as Waldby and Mitchell suggest, then limiting of the right to

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[22] Catherine Waldby and Robert Mitchell, *Tissue Economies: Blood, Organs, and Cell Lines in Late Capitalism* (Durham, NC: Duke U P, 2006), 15.
[23] Ibid., 27.
[24] Ibid., 50.
[25] Ibid.

donate is less a matter of "generosity" than an exclusion of homosexual men from participation a biological-based project of national citizenship. And if the formation of a nuclear family is important to ideas of "normal" as well as nation, as Ishiguro's novel and our other texts suggest, then the exclusion of homosexual men from another form of community is doubly suggestive.

In the Shadows of Bio-citizenship:

The "regime of the self" that Nicholas Rose describes as the basis of a political economy of hope generated around personal health is deeply tied to changing conceptions of the body. With the flourishing of biotechnologies such as pre-implantation genetic diagnosis, targeted gene therapy and tissue engineering, which focus our attention at the molecular level, bodies are represented as genetically plastic, subject to fine mechanisms of control (genetic, dietary, pharmaceutical), and imbued with a sense of new biological possibility. Fantasies of intensely individualized healthcare appear not only in popular science fiction movies such as Michael Bay's *The Island* (2005), in which characters are individually tracked and prescribed up-to-the-minute health routines by digital readout, but also on the websites of real-life companies such as Knome, Inc.,[26] which encourages online visitors to "Know Thyself" by purchasing their private genetic sequencing

[26] Dorothy Roberts, "Race and the New Biocitizen," (lecture, University of California, San Diego, La Jolla, CA, October 28, 2009). Roberts links the neoliberalist drive to privatize women's health care, specifically genetic-screening for pregnant women, to a shift in the burden of responsibility for medical health: from a social, public problem to the individual woman's problem, as characterized by "choice." See also Dorothy Roberts, "Race, Gender, and Genetic Technologies: A New Reproductive Dystopia?" *SIGNS* Summer 2009, 783-804.

services. The deep technological intervention of modern-day biomedicine is powerful, and powerfully compelling, but it does not always match the reality of care.

As Dorothy Roberts points out, companies like Knome advertise on a platform of values, including "personalization, privacy, completeness," promising that new biotechnological research (that appears at the rate of "nearly every week") coupled with genomic self-awareness can solve the problems of "heart disease, neurological disorders, cancer and even longevity."[27] Roberts argues that Knome represents a broader trend in which the privatization of health-related services -- and their division into offerings of choice -- in effect re-imagines the relationship between service provider and cared-for individual as involving not a patient, but a consumer. Roberts notes how this effect distributes itself unevenly across different racial groups in the Unites States, treating the reproductive rights of women reliant on public resources punitively.

The attempt described by Roberts to redefine the medical patient as a consumer points to just one of the many ways in which our relationships to our bodies and "health" are affected by global economic trends. As I will discuss in this paper, under the regime of globalization – which has economic, but also cultural, biological and technological effects – human bodies are opened up to the relations of capital in uneven ways such that Nancy Scheper-Hughes writes, "to those living on the edges and fringes of the new global dis-order the scramble for fresh organs for transplant surgery increases their already profound sense of ontological insecurity in a world that values their bodies more

[27] http://www.knome.com/

dead than alive."[28] Unlike other resources, the flow of body parts (which participate in what Melinda Cooper calls "abstract organ-time,"[29]) represents not only an extreme form of alienated labor, but is also further suggestive of the ways in which biology is coupled with notions of citizenship.

In this paper, I have suggested that the intimate and commodified trade in organs -- often carried out clandestinely in permissive countries – produce a kind of cultural anxiety that surfaces in the films and literary fiction. The illicit circulation of through organs, which violate both somatic and national bodily integrity, is problematized in these texts through the interruption of heteronormative closures; romantic ruptures and familial breakdowns reveal the ways in which the discourse of nation, long tied to these tropes, is haunted by the "shadow nations" from which we extract a surplus of life. These literary and cinematic texts are a part of the mass of cultural concretions that create and animate discussions of biofutures. As such, the hauntings, romantic ruptures, and familial breakdowns envisioned by these texts are important, their presence nothing less than the return of anxieties and tensions where the logic of nation is being worked out and re-inserted into a world of globalizing economic and cultural forces – as we see in returning again to the issue of bio-citizenship in *Jian Gui* and *The Eye*.

In *Jian Gui* and *The Eye*, both Sydney and Mun are bio-citizens fully equipped with resources to facilitate their active engagement with local and international medical communities. Both women are surrounded by comfortable first-world support networks

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[28] Nancy Scheper-Hughes, "Commodity Fetishism in Organs Trafficking," *Commodifying Bodies*, eds Nancy Scheper Hughes and Lois Wacquant (Thousand Oaks: SAGE, 2002), 32.
[29] Cooper, *Life as Surplus*, 127.

(as briefly discussed earlier in this paper), live in spacious apartments and Sydney in particular appears to be well-educated and confident;[30] the film highlights her proficiency with internet research and familiarity with cutting edge medical studies when she challenges her doctor to take her haunting visions seriously by suggesting medical explanations (small changes in taste and personality that have been reported with transplant patients, that correspond to the donor) she has researched. The narrative of American version of *The Eye* also highlights the existence of a broader medical community and context in which Sydney's cornea transplant takes place. Sydney is a beneficiary of state-of-the-art stem cell research that might also "change the game" for others -- in much the way that Rose's analysis specifies that contemporary bio-value produced from tissue samples holds out hope and promise for patient communities beyond those targeted by a particular disease;[31] the film alludes to this community of potential patients in the orchestra of blind musicians, who are brought together by their shared medical(ized) condition. The musicians celebrate, as they do in *Jian Gui*, when Sydney's operation turns out to be successful, but the loss of the defining characteristic that bound her to them also forces the musicians to exclude her from the orchestra. The conductor of Mun's orchestra, similarly, tells her that she can no longer perform with the group because: "after all, we're an organization for the blind … you're always welcome

[30] Knee, "Pan-Asian Outlook," 76. Adam Knee also observes in his reading of *Jian Gui* that Mun and Ling are linked by their ethnic Chinese identity, their similar family structures, and their similar appearance. These similarities highlight the economic disparity between the two women, a relationship which can be extended to the context of Hong Kong as employing a large body of Southeast Asian female laborers who are otherwise largely marginalized in Hong Kong life. This relationship also resonates with the context of the film's own production, which utilized Thai creative and production labor to help create a product backed by non-Thai financers.

[31] Rose, "Biological Citizenship," 33. Rose discusses this specifically using the example of a treatment for a disease called pseudoxanthoma elasticum (PXE), the development of which gave hope to those suffering from seemingly unrelated illnesses such as macular degeneration and hypertension because they are all tied to the same genetic pathway on chromosome 16.

to come to practice." In reaction to their deterritorialization from the context of blind identity, which both women experience as a moment of deep personal crisis, unsuccessfully, Sydney and Mun attempt to re-make themselves as members of the community they have lost. They barricade themselves in their apartments and play the violin blindfolded, but are eventually forced to face the reality of the changes their bodies have undergone and confront both the natural and supernatural visions of their organ transplants.

The transplanted organs, however, are figured in these films as intimate biological connections that cross borders and forge new, deep, and ultimately illicit bonds between the women whose sight(s) they enable. Embedded in the modern context of biotechnology, globalization and the mission of personal health that Rose terms the political economy of hope, our bodies are parted out and quantified so that these organs can be manipulated, equated and deterritorialized into transnational networks articulated by the needs of proper biocitizens. The narratives discussed here, however, suggest that behind this new, emerging version of the biologically organized community, an older national form lives on in who exactly we can imagine participating in the project of bio-citizenship and who is excluded from this space of hope.

If Sydney and Mun are able to comfortably navigate modern biocitizenship and utilize international networks and the latest biomedical advancements to cure their blindness, Ling and Ana Christina are excluded from this possibility. The medical, personal and community support networks that cushion Sydney and Mun's respective experiences first as blind women and later as successful organ transplant recipients are

clearly unavailable to Ling and Ana Christina. When Sydney first experiences the "unnatural" side of her vision, she is able to persuade her doctor (and romantic interest) to take her seriously enough to investigate, illegally, the confidential organ donor records and later to accompany her on the trip to Mexico to find her donor; her and Mun's disturbing haunting visions are kept relatively private, and knowledge of their condition is kept mostly to the doctors. Sydney's double Ana Christina, by contrast, is branded a witch -- neighborhood boys emblazon her house with graffiti reading "la bruja" -- and cast out of society to haunt the margins; Ling's experiences of isolation and vilification are similarly so extreme that they leads to her suicide. The love, affirmation, trust, and "normality" that are restored to Sydney and Mun at the end of the films are brokered at the expense of Ling and Ana Christina's traumatically isolated, inarticulable, and ultimately uncredited (in Ana Christina's case) attempts to assert their agency. The clear disparities between the women's experiences highlights not only the uneven relations between organ donor and recipient, but also the way in which biology continues to be underwritten by the project of nation, even in an age of biotechnology.

By violently rupturing the intimate bonds that Sydney and Ana Christina, and Mun and Ling share, the narratives refuse not only the corneal transplants but also the embodied, nationalized contexts in which they originate. The shared cornea produces an unconventional intimacy between the two women and brings the national contexts in which they are respectively sited into contact: one shadow world of ghostly vision mapping onto another, a geographically "real" cosmopolitan center in another country. The figuring in these films of foreign organ transplants as uneasy presences that haunt the

national spaces that they enter suggests that the terrible and pivotal sequences in which the women are blinded, and their monstrous double vision destroyed, portray the rejection of an organ that continues to be defined through its nation of origin. More importantly, when viewed alongside the importance of the border in these scenes, as well as the language barriers and exoticized landscapes, the impossibility of imagining the inclusion of Ana Christina and Ling into the identificatory relations of biocitizenship -- *because of the way in which they are constructed as specifically "national"* -- becomes clear. In addition, the way in which the film precisely identifies Ling as ethnic Chinese though she is located in Thailand, evokes not only the specific cultural resonances of longing and nostalgia for a Chinese past that operate in the Hong Kong version of the film, but also suggests that race continues to play an important role in who we think can be proper biological citizens (perhaps the dark, half-submerged figure of eugenic biological identity rising again).[32] Larissa Heinrich has observed that the anxieties that emerge through the vehicle of the disruptive eye-organ in *Jian Gui* not only bring questions of Chinese and Hong Kong identity within the broader context of Southeast Asia into play, but also introduce the viewer into a set of active viewing relations. This transformation of the cinematic audience into what she calls the "*agents* rather than *subjects* of vision"[33] asserts an experience, enabled by cutting-edge technology, in which truly seeing the Other is a traumatic event that reflects the varied and interconnected histories of this geographical region, as Andrew Knee argues, but also contemporary life itself. In my reading, I

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[32] Larissa Heinrich, "Organ Economics: The New Cinema of Transplant and Desire from *Blood Work* to *The Eye*," (unpublished manuscript, shared by author November 2009). Heinrich also observes that organ transplant in *Jian Gui* functions as an allegory for global inequality as well as an expression of anxieties about Hong Kong identity within the context of mainland China's governance.
[33] Ibid 39.

highlight the way in which the film emphasizes that in spite of what medical science leads us to think, an organ is not just an organ, and -- at least in these films – biological identity is still deeply invested in ideas of nation. While it is important to keep in mind that representations like *Jian Gui* and *The Eye* are vehicles for popular entertainment, and horror films to boot, they are nevertheless suggestive of the ways in which access to the agency that Rose sees in modern biocitizenship is not evenly distributed for all.

Nowhere is the confluence of unequal access to citizenship and the right to one's body more clearly demonstrated than in Stephen Frear's dark cinematic drama, *Dirty Pretty Things* (2002). The film takes place in London and visualizes the normally invisible population of illegal immigrants, refugees, and otherwise disenfranchised people who do the rough jobs that run the city. The plot follows Senay (Audrey Tautou), a Turkish refugee who works illegally (because of her asylum status) at a sweat shop and as a maid in a hotel, and Okwe (Chiwetel Ejiofor) a former doctor in Nigeria who works days as a cabdriver and nights as a hotel nightman. Senay left Turkey to find work and eventually meet her cousin in New York City, while Okwe flees the political violence that killed his family in Nigeria. These shadows in the city, the film suggests, are the most vulnerable populations: subjected to indignities and bodily dangers that range from rape (Senay is forced to perform oral sex on the sweatshop owner and is later raped by the hotel manager) to becoming unwilling accessories to and victims of a black market organ harvesting ring run at the hotel. Senay and Okwe clearly have very limited agency and restricted access to global networks.

Frears' film is well-discussed, but what I want to emphasize is the way in which disenfranchisement and bodily vulnerability intersect in this narrative. Senay and Okwe do not have access to the rights and privileges of biological citizenship, but one can imagine that the moneyed buyers of the black market kidneys sourced from them do. Their illegal employment puts them at risk of deportation, but as non-citizens, Senay and Okwe have little recourse. For this reason, Senay agrees in the end of the film to trade a kidney for an American passport, a potential alternative that sadly will likely separate her and Okwe forever. The final scene, in which Senay walks away form Okwe in the airport is silent as to whether her attempt to alter her fortunes by relocating will be successful, but the tone of the film is not optimistic. Though they retain their dignity throughout the film, Senay and Okwe are obviously placed in deeply abject situations at least as far as their bodily vulnerabilities. In contrast to the visions of a pathway to health represented by Knome.com or figured in the wealthy Americans in *The Island*, Senay and Okwe have little power to view their bodies as sacred, individualized vessels subject to endless potential for improvement. In their state of disenfranchisement, they are unable to summon even the legal recourse afforded to national citizens in order to protect themselves. The philosophy that drives Rose's political economy of hope is in this sense envisioned in the film as built upon a condition of fear. In this film, then, organ transplantation operates at the heart of the political-economic logic that ties the rights of biocitizenship to national citizenship.

Imagining the Future of Biofutures

> *Bioethical standards have been thoroughly disciplined and brought into alignment with the needs and desires of consumer-oriented globalization.* -
> - Nancy Scheper-Hughes[34]

> *When did the body first set out on its own adventures?*
> - Margaret Atwood[35]

When Nikolas Rose describes biological citizenship in terms of a "political economy of hope" he speaks of the emotional, financial and physical investment that biocitizens make in an imagined future. Thus it is interesting that in the narrative of biotechnologies, organ transplantation is actually a rather old concept. In literary history, it can be traced at least as far back as Mary Shelley's *Frankenstein, or The Modern Prometheus* (1818), which famously paints the perspective of a man made up of parts, and the concept can even be seen in early cinema cinema in Vitagraph's *The Thieving Hand* (dir. J. Stuart Blackton, 1908), a silent film in which a mischevious prosthetic arm makes trouble for its owner. While these examples clearly point to the way in which organ transplantation resonates as a marker of the modern (and has long done so), and although new technical advancements are still being made, there are some aspects of organ transplantation that are no longer quite on the cutting edge. Melinda Cooper demonstrates convincingly that organ transplantation is a first generation biotechnology, one that has been conceptually surpassed by the far more individualized and adaptive science of tissue engineering. The long history of imagining organ transplantation suggests that it may serve to ask, then, what specific meaning – beyond its significance

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[34] Scheper Hughes, "Commodity Fetishism," 31.
[35] Margaret Atwood, "Brave New World: Kazuo Ishiguro's Novel Really Is Chilling," *Slate*, April 1, 2005.

with regard to nationalist anxieties and heteronormative projects – organ transplantation holds for thinking forward into the future, from our era.

When Melinda Cooper argues that organ transplantation is a first-generation biotechnology, she makes a distinction that has not yet been applied in this paper: between traditional organ transplantation and the newer technology tissue engineering. Tissue engineering is focused on molecular and genetic understandings of the body, and uses stem cell research to "grow" tissues ("organogenesis,"[36]) that are susceptible to morphological manipulation. The science of organ transplantation, by contrast, is far less flexible. Whole organ transplantation and prosthesis operate through the logic of a seamless translation of a whole organ across space and time while suppressing any other kind of change; this is what Cooper refers to as the "rigid, metric transformations of kinematics"[37] and is facilitated by immuno-suppression and tissue-typing. The organ transplantation depicted in *Dirty Pretty Things*, for example, belongs to this older (and currently technologically possible) category, while the transplant process represented in *The Island* imagines using tissue engineering to "grow" a whole-body clone, from which the target organ will be harvested. Likewise, the Hong Kong version of *The Eye* envisions traditional organ transplantation of the cornea, but the American film speaks of "stem cell research," indicating more advanced technologies without exploring how they are used (and seems to suggest the importance of a sense of "futurity" to the film's narrative logic, perhaps in the way it prioritizes the primacy of American science). Tissue engineering is defined under the parameters of continuity, cohesion and infinite

[36] Cooper, *Life as Surplus*, 111.
[37] Ibid., 105.

morphability, while organ transplantation functions essentially through the translation of a rigid set of points.

For Cooper, the difference between organ transplantation to tissue engineering represents a paradigm shift from Fordist modes of mass, standardized reproduction (whole organ transplantation and prosthesis) to a post-Fordist economy of flexibility, non-standardized production (dynamic tissue growth).[38] Both technologies, however, operate under a kind of mechanistic view of life. Indeed, Cooper describes the concept of organ transplantation as the production of "abstract organ-time," in which the labor of the organ is made equivalent to the labor of a machine. [39] If organ transplantation works through an abstraction of the live organ from the "worker's" body into the life-time of an organ that can be removed, made mobile, transferable, interchangeable, into a product, then "abstract organ-time" is the unit of exchangeability; this is what Cooper observes to be the point of commonality between mass commodity production and mid-twentieth century biotechnology. Tissue engineering, by contrast, is characterized by transformability and plasticity that is "always in surplus of itself" in reproducing the virtue of its own mutability. Cooper demonstrates, in making this distinction, the ways in which both ways of manipulating the body are deeply tied to the circulation of life and capital. While organ transplantation seems to operate more directly through the logic of extracting the labor of the organ, tissue engineering, though it engages more radically with the discourse of health, also imagines the body in terms of labor. Indeed, Michael Bay's *The Island* demonstrates the logical continuity that in spite of the ontological shift

[38] Ibid., 112.
[39] Ibid, 127.

that Cooper describes ties these two technologies together, by deploying both simultaneously. Both procedures instrumentalize the body but progression towards tissue engineering, which Cooper suggests is the future of biotechnologies, indicates a growing trend towards the biologization of life – of attempting to talk about all kinds of arenas of life in biological (molecular and genetic) terms.

In her 2003 novel, *Oryx and Crake*, Margaret Atwood pushes the idea of the biologization of life to an extreme. Conducting a kind of literary experiment, Atwood imagines a fictional future extrapolated from biopolitical realities of the present-day: uneven distribution of wealth around the world, the commodification of bodies in poorer territories, anxieties about "national security" and the widespread pursuit of biological explanations and solutions. In *Oryx and Crake*, Jimmy inhabits a post-apocalyptic world that has been destroyed by a fast-acting, lethal, genetically engineered virus that wiped out the human population in a matter of days; the virus was designed and released by his childhood friend, Crake, who epitomizes twenty-first century biological thinking. In an attempt to design out the inefficiencies left by human evolution, Crake genetically engineers humans, "called Crakers," with an eye towards practical features such as UV-resistant and insect-repellent skin, scheduled mating rituals, scent-marked urine and an inability to grasp abstractions such as art and religion; one senses that he wants to remove the characteristics which normally define humanity from his race of humans. After the devastation of "natural" human life, the Crakers are led by Jimmy into the wild, a kind of paradise where they live on Crake's genetically hardwired terms. Designed to thrive in these conditions, the Crakers quickly take to their new lives. Jimmy, however, has been

made obsolete. A "normal" human (even among the hyper-intelligent human children of the Compounds he was known as ploddingly normal) with human needs and abilities, Jimmy finds it much more difficult to survive in the wild than the Crakers do. He is a ghost in this new world, a repository of knowledge of things from before the fall, a "creature of dimness, of the dusk" though one senses that he may have inhabited the world defined by bioscience just as liminally, clinging to defunct words and archaic moral codes.[40] He calls himself (the Abominable) "Snowman," "existing and not existing, flickering at the edges of blizzards, apelike man or manlike ape, stealthy, elusive, known only through rumours and through its backward-pointing footprints".[41] Jimmy/Snowman's presence bridges the old world and the new, but it is his past that gives us clues into how biologically-informed discourse operates within the narrative.

The "past" in *Oryx and Crake* is Atwood's representation of our future, a future that has been transformed and heavily colonized by the biological. As in the present, the pursuit of sex, other bodily pleasures, and medical health and enhancement deeply drive the world that Jimmy grows up in, but non-physical, non-biological possibilities have all but disappeared. As a child, Jimmy lives in a company Compound, a privileged community where the families of elite bioscientists are protected from the brutality of the world outside, a world in which humans are treated as mere bodies made into commodity or consumer. Major pharmaceutical companies such as Helthwyzer produce cures to devastating illnesses as well as the diseases that create a demand for them. The entertainment channels of television and internet are flooded with sites that show either

[40] Margaret Atwood, *Oryx and Crake* (Harpwell, ME: Anchor, 2004), 8.
[41] Ibid.

pornography or executions (or both): "if you switched back and forth fast, it all came to look like the same event."[42] Sex can be readily purchased in lower-income urban areas called "pleebands," or sourced from "countries where life was cheap and kids were plentiful, and where you could buy anything you wanted";[43] indeed, this is how Oryx enters the story, as a young girl who is repeatedly sold for sex, moving each time from an un-mappable (Jimmy spends years trying) location in a rural area in Asia, to a major Asian city, to San Francisco, and finally to the Compounds. Even in the privileged Compounds, interest in the humanities and culture have disappeared; Jimmy earns an "arts" degree only to write copy that markets pharmaceuticals. In Jimmy's world, where bioscientists are the elite and are protected by of the CorpSeCorp (an amusing name, given their orders to shoot first and ask questions later when confronted with suspected bioterrorists), life is reduced to capitalizing on the biological.

As the author intends, many aspects of Jimmy's world resonate deeply with present-day realities, but Atwood's narrative illustrates the disturbing nature of the trend towards biologization by linking it to the transgression of sexual mores (Oryx and forced child prostitution), the disruption of heteronormative values (the breakup of both Jimmy and Crake's families by the security agendas of the Compounds, and organ transplantation and tissue engineering; it is this last point that I will discuss here. Indeed, the bioengineered animals designed by the Compound labs are central to the way Jimmy relates to the world he lives in. Many re-designed animals such as ChickieNobs (plant-like chicken structures designed to maximize edible flesh) and the Crakers embody the

[42] Ibid., 86.
[43] Ibid., 89.

instrumentalization of life for human ends, but it is the Pigoons that best illustrate the narrative's challenge to biological extremism. The Pigoons, pigs engineered to grow eight extra genetically customizable, regenerating human kidneys in their bodies at OrganInc, or fresh, youthful human skin at Nooskin, are the prized biotech developments that the tight CorpSeCorps security that defines life in the compounds is intended to protect (against rival companies and bioterrorists). Unlike the humans around him, Jimmy strongly identifies with the Pigoons that mass-produce harvestable organs: as a child, "he didn't want to eat a Pigoon, because he thought of the pigoons as creatures much like himself. Neither he nor they had a lot of say in what was going on."[44]

But Crake has a different plan. He applies the ideas of genetic pliability that drive Pigoon development to humans, thereby creating in the Crakers oxymoronic beings whose "perfected" human nature manifestly eliminates the distinction between man and animal. With jellyfish genes that make their eyes glow in the dark and baboon genes that turn their bodies blue when they are ready to mate, the Crakers are a hardier, healthier version of humanity that inverts and explodes the discourse of genetic health and therapy that drives economic development for the Compounds. Crake's idea is to people the earth with his new, biologically revised creations, but he does not account for the resilience and resurgence of human traits he has characterized as counterproductive, such as art and religion. The Pigoons, too, survive the end of the world and grimly walk the new earth with a monstrous surplus of human kidneys, now living on their own terms. The salience of organ transplantation in this narrative is clear; beyond simple commodification of the body, organ transplantation is placed along a spectrum with full-

[44] Ibid., 24.

bore genetic plasticity, of which Crake's worldview sits at one extreme. By focusing on the molecular level of DNA, Crake frames the wrongs in life as biological problems that can be resolved, but he also misses the larger distinctions that problematize the transformation of bodies (such as Oryx's) into pure biological life itself under the sign of biomedical science.

In the narratives in this paper, the frequent representation of organ transplantation as transgression is not surprising given the way in which organs are circulated from one body into the next regardless of differences in class, race, nationality or sexuality. This promiscuity is enabled by molecular-level therapies like immune suppression and tissue-typing, as well as the global circulation of capital that drives the flow of organs around the world. At the molecular level, biomedical discourse only appears to remove these differences from the frame, however; as these narratives show, anxieties about the cultural meanings of these organs continue to circulate whether or not they are written into the DNA itself. If tissue engineering is indeed the way of the future and encouraging us to look for biological solutions in an increasingly molecular and plastic way, then the narratives of organ transplantation suggest that we need to continue to pay attention to the way that this "engineering approach to life" actually deploys itself in the world.

Chapter 2. The Blood is the Life

One dark September night, a grim-looking man, discernibly foreign, plunges single-mindedly toward a door in the heart of London with the speed of one summoned. On arrival the stranger swiftly enters the house and ascends into a young woman's bedroom, where he can be seen bending over her ghastly pale form. Her breathing labored, her lips chalky and bloodless, the young woman lies mute and motionless; she is at his mercy. With a narcotic, he induces her to enter into a deep, dreamless sleep and swiftly opens her veins. As the blood he replaces puts color back into her cheeks and warms her skin, Dr. Van Helsing murmurs, "It is enough," satisfied that his patient, Lucy Westenra, has returned to the world of the living.

In 1897, Bram Stoker's wildly popular novel *Dracula* introduced a figure who would haunt popular imagination for over a century. The king of vampires - the first of his kind - is a monster whose talent is to multiply and proliferate, to re-mix and re-make himself in so many different languages, cultures and countries that in short there are now *many* Draculas where first there had been one. Dracula criticism has likewise been extraordinarily prolific, its productions thorough and inventive in coaxing from the

original text still more expressions of the image of the Count. This multiplying focus returns most often to examine the figure of the vampire; he is after all a supremely flexible and adaptable creature. Dracula's carnal and alimentary appetites, his inhuman speed and strength, and the many ways in which he hovers between images of the foreign and familiar, have proven to be fertile launching grounds for fascinating literary and critical work on the novel. This chapter, however, breaks with the critical tradition of beginning with the monster. It proposes instead, in considering *Dracula* as a rich text about blood transfer, to shift some attention to the image of the doctor.

The Dutch Abraham van Helsing is a powerful figure in Stoker's vampire novel. He is, like the Count, a superhuman force. "One of the most advanced scientists of his day," Van Helsing is also a philosopher, a lawyer, a professor, and – in earlier drafts of the novel – a historian and detective.[45] [46] His mastery spans the breadth of knowledge of Western civilization, for he is the vampire king's foil and his match. He leverages his modern familiarity with newfangled blood transfusions against the ancient curse of vampire attacks. Indeed, his blood work seems to mirror the Count's, with the bite of surgical tools rather than sharp incisors. Between them they struggle with the lives of their victims. Van Helsing is a complex and significant character, but is often overlooked.

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[45] Bram Stoker, *Dracula*, ed. Nina Auerbach and David J. Skal, (London: Norton, 1997), 148.

[46] Christopher Frayling, "Bram Stoker's Working Papers for Dracula," *Dracula*, ed. Nina Auerbach and David J. Skal, (London: Norton, 1997), 340. Notably, the occupation of detective or investigator would also have been somewhat modern in England in 1897. Sir Arthur Conan Doyles' famous Sherlock Holmes, for instance, first appeared in print in 1887. Fingerprinting, which relies on a concept that the body can be inscribed, traced, its movements thus resurrected/reproduced, is intimately related to Marey's view of life in this chapter. It is also tied to the growth of cities with anonymity and the need for urban crime detection. In 1897 fingerprinting was deployed as a method for administering the British Empire with the establishment of a Fingerprint Bureau in Calcutta, India. There, Indian fingerprint experts developed the modern classification system that was then re-imported back to the colonial center in Scotland Yard. This brand of detection, then, is a product of England during Hobsbawn's the Age of Empire.

By turning towards him as a mirror image of the Count, this chapter aims to explore what the entry of the modern and medical mean for the monstrous.

In this chapter, I focus on how blood transfusion, and a new mechanical conception of blood, constructs the modern in two vampire stories. A mirrored analysis, constructed to face Van Helsing rather than the Count, makes clear that Stoker's *Dracula* is a new kind of vampire story. It was written at the terminus of the 19th century, in the midst of the deep historical contradictions that characterize the period that Eric Hobsbawn calls the Age of Empire (1875-1914). Coming in on the heels of a period in which British industrialization and capitalism established the intensely productive basis for seemingly limitless economic growth into the far corners of the world, the era of imperialism was one in which bourgeois liberal society was held up as the greatest of progressive achievements even as it seemed on the brink of imminent failure. It was also the period in which utilitarian philosophy and classical political economy, which as Hobsbawn points out are linked, emerged as ethical systems with ideas about the natural and the good.[47] This chapter explores the ways in which Bram Stoker's *Dracula* in 1897, and a sister story published by Stoker's friend Mary E. Braddon in the previous year,[48] draw these new world formations into the classic vampire story. It investigates the ways each of these texts imagine blood, which once meant the noble birth and divine right of the vampiric aristocracy, now receives new meaning as the basis of a modern, liberal and biological equivalence that is shared across rank and social position. (This new vision of blood as a universal rather than socially specific fluid forms the basis by which, decades

[47] Eric Hobsbawn, *The Age of Empire: 1875 – 1914*, (London: Weidenfield and Nicolson, 1987), 9.
[48] Carolyn Senf, "Rethinking the New Woman in Stoker's Fiction: Looking at *Lady Athylene*," *Journal of Dracula Studies*, no. 9, 2007. Senf names Braddon in a short list of Stoker's "New Woman" friends who may have inspired or aided his thought about the changing role of women.

later, it will be freed into networks of anonymous donation that reinforce a national imagined community: a literalization of the Enlightenment ideal of a nation made up of a fraternal brotherhood of citizens.[49])

From John Polidori's Lord Ruthven in 1819 to Sheridan Le Fanu's Countess Mircalla in 1872, and even the mythology based on the historical 17th century Countess Bathory, vampires have long sprung from ancient, forest-bound castles that their aristocratic blood lines have occupied for centuries. The appearance of the vampire – usually a cold, formal beauty that occasionally flashes into hectic, forceful charm – always evokes the preciousness of centuries of careful breeding and a contrived manner (these being doubly duplicitous with regard to the monstrosity they shield). The drive behind these creeping horrors often traces back to the rotten core of a house dishonored by some ancestor who may in fact be the present vampire him/herself. Count Dracula, who Jonathan Harker visits in his ancestral seat in the Carpathian mountains, is no exception to the rule of vampiric nobility. He traces his lineage back to a race of Szekely conquerors whose history is even more gloried and ancient than that of the Romanoffs and the Hapsburgs. In 1897 he issues forth from Castle Dracula to the West where he meets something quite new: British modernity and Van Helsing's surgical blade.

Blood transfusions in the 1890s were still quite new, experimental and dangerous (and performed with a surgical blade).[50] Karl Landsteiner's discovery of the blood groups

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[49] See Catherine Waldby and Robert, *Tissue Economies: Blood, Organs, Cell Lines in Late Capitalism*, (Durham, NC: Duke U P), 2006. Blood donor networks begin to develop in the late 1960s, a period which I discuss in my next chapter.

[50] N. S. R. Maluf, "Histories of Blood Transfusion," *Journal of History of Medicine and Allied Science* 1954, Vol. 9: 59-107. Turn-of-the-century Europe was a period of transformative mechanical innovation, in which the technology of blood transfusion was an exemplary case. Although histories of blood transfusion

in 1900 would soon open the way for the safe development of transfusion medicine through the 20th century, but when *Dracula* was published, transfusion was still likely to result in death. Though still in a fledgling stage, the practice had already been transformed by recent developments in science. Transfusions at the turn-of-the-century worked on the basis of a new understanding of the body as machine. This mechanistic view imagined the human form as a system of interchangeable parts: discrete, mobile, and (partially) alienated,[51] blood took on many of the qualities that define the industrial age. As I explore below, Eric Hobsbawn shows that the mid to late 19th century occasioned the rise of a new liberal bourgeois subject defined as equal under God and the law. The new logic of the equivalence and flow of blood mimics the political equivalence of the new subject in opposition to the vertical hierarchy of aristocratic order; this mechanistic view, which was pioneered in the work of physiologist Etienne-Jules Marey, was at the same time a complete departure from the earlier vitalist emphasis on a static and unique "spark of life."[52] The new modern medical circulation of blood between bodies, then, is a particularly good counter to the logic of aristocratic genealogy, in which

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trace attempts back to the 17th century at least, it was not until the beginning of the 20th century that the notion of transfusion between human subjects, rather than from animal to human, truly began to take hold. Andreas Libavius, a physician in Saxony, wrote a detailed description of an attempt in 1615, in which he assumes that the blood of a youth will flow into the veins of an older man to "impart to him the fountain of life."

[51] Blood was of course not always alienated, as this discussion will demonstrate.

[52] . See David A. Hounshell, *From the American System to Mass Production*, *1800-1932: The Development of Manufacturing Technology in the United States,* (Baltimore, MA: Johns Hopkins U P, 1984). Also Merrit Roe Smith, *Harpers Ferry Armory and the New Technology*, (Ithaca, NY: Cornell U P, 1977). This mechanistic view imagined the human form as made up of interchangeable part -- the same vision that became a central part of the industrial revolution in the 'American system of manufacture' and was soon imported back into England as the center of the industrial revolution there

the qualities of "blood" may be passed down by birth but are never horizontally transferrable.

In Mary E. Braddon's short story, "The Good Lady Ducayne," (1896) blood is imagined as decontextualized and alienated through the mechanistic work of transfusion.[53] It is freed from differences of rank, genealogy, nationality – distinctions that in a previous time would have been fundamental to personal value and to a person's sphere of movement in society. Transfusions in the service of aristocratic vampirism ironically democratize in this story, by mobilizing blood between the classes and rendering us all essentially biological beings under a new set of social relations. Braddon's story is playful as well as sensational, narrated in an ironic tone that aims to delight the reader by cleverly weaving horror into the heart of marital romance. Stoker's *Dracula* takes up similar themes, one year later, with much darker purpose.

In Bram Stoker's novel, Dracula's vampirism mirrors and troubles British technological modernity imagined as a mechanical vision of life. The aristocratic vampire presents a foreign threat that reproduces, in a supernatural reverse-image much like a photographic negative, the speed, mobility, and power of the British empire. The blood that circulates between Dracula's hungry activity and Van Helsing's experimental transfusions moves through the heart of this struggle: mobile, continuous, interchangeable, and partially alienated, it is conceived in mechanistic terms as modern in its flow. It also asserts the rise of the modern British subject against the ancient order. *Dracula*'s revamping of the classic vampire story with Van Helsing's transfusions brings

[53] Thanks to Ana Grinberg for recommending this text.

to life the ways in which new notions about the body, society, and the liberal subject were worked in this transformative moment through a narrative of blood.

Vampire stories are horror stories, fictional expressions that manage boundary zones and border encounters. In Chapter 1, I investigated the ways in which the border-crossings and bodily transgressions of organ transplantation are imagined in 21st century movies as a kind of haunting that disrupts the space of nation. In this chapter, I explore late-19th century vampire stories by Braddon and Stoker as sites where ideas about the modern body and the liberal subject come into conflict with older social forms. The new mobility of goods, capital, and people (socially, geographically, and through media)[54] – inspired by and also coupled with a general mechanization of society – is imagined in these texts as a transformative force. Significantly, blood works in two registers in these tales: it is both literal and symbolic. On one level, the medical transfusions featured in both these stories deal with blood as a substance that in itself has been recently re-imagined in mechanical terms. In order to show how this new imagination of blood as mechanical and interchangeable went along with a new view of humans, I discuss the work of Etienne-Jules Marey, who helped to pioneer this vision. On a second level, modern blood – now discrete, mobile, and alienated – embodies the values of the liberal subject that emerges in tension with the absolute and static definitions of "blood" (good blood, bad blood, noble birth, divine right) in aristocratic terms. At the intersection of

[54] Kristen Whissel, *Picturing American Modernity: Traffic, Technology, and the Silent Cinema* (Durham, NC: Duke U P, 2008). Kristin Whissel discusses this movement as "traffic" in her work in the American context, particularly where it regards the circulations implied in the development of cinema, which allowed audiences to see on screen the pleasures and perils of this traffic: in war films and the Pan-American Exposition, for example.

these two registers, we see how the biological body and the socio-political body are co-produced in these stories.

"What a Vampire!":[55]

"The Good Lady Ducayne," Mary E. Braddon's largely forgotten short story, is a turn-of-the-century re-telling of the Countess Bathory legend.[56] The familiar tale of an aging aristocratic woman who feeds off (or bathes in) the blood of young girls in order to ward off the disastrous effects of time is, in Braddon's version, rejuvenated by the introduction of a new mode of vampirism: blood transfusion. The ancient and wealthy Lady Ducayne is kept in health by her doctor, Parravicini, who secretly transfuses her with her young paid companion's blood. The fresh Bella Rolleston, who is hired for this purpose, suspects nothing but experiences an anxious and waning feeling that increases during her time spent with the Lady. The secret is finally discovered by Bella's friend (and eventual fiancée) who recognizes, due to his medical experience with the dissecting table, the tell-tale marks of direct transfusion. Herbert Stafford exposes the vampire and marries the girl.

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[55] The word "vampire" actually occurs in the story only once. As modern vampires, Lady Ducayne and her carer Dr. Parravicini secretly transfuse blood rather than drink it. On seeing the effects of his own lancet's work on his victim's scarred arms, Parravicini exclaims facetiously, "What a vampire!" The sparse mention of the word "vampire" or "vampyr" in vampire stories is not unusual however, as it is often tied to the moment of the monstrous "reveal" that caps the story.

[56] As a travel narrative, Braddon's story is compelling and familiar. The imagined view of exotic Italy and the Riviera, where Bella lives idly in the lap of luxury, sits in vivid contrast to the humble, industrious life she leads at home with her mother in Beresford Street. Her tour of this balmy paradise abruptly shifts into a nightmarish scenario in which her blood is extracted without her consent by an unethical doctor and a malevolent host. A century later, comparable tales would reappear not only about blood transfusion, but organ extraction and kidney theft in myths and urban legends, and major motion pictures like *Turistas* (dir. John Stockwell, 2006) as well. Though the cultural and historical settings differ, the notion of tissue and organ extraction representing an anxiety about the dangers of foreign places resonates still. Furthermore, the depiction of transfusion as exotic, dangerous, and powerful is highlighted in Braddon's story as blood transfusion is imagined as capable of rearranging the very boundaries of life.

In many ways, "The Good Lady Ducayne" follows the well worn traces of vampire stories which focus on the mystery of the victim's deteriorating health, strange dreams, and nervous energy. Le Fanu's *Carmilla* thrives on precisely this slow reveal, which details the weeks the young female narrator spends with her charming – but occasionally odd – new friend, who is never suspected as the cause of the narrator's disturbances. In these texts, the unmasking of the vampire is the end of the story; Carmilla flees the scene and the novel quickly closes. Stoker's *Dracula* deviates significantly from this structure for reasons I will later discuss, but Braddon's story adheres closely to this classic narrative. Inside the traditional form, Braddon introduces a cleverly novel approach: a mechanistic vision of blood in which transfusion becomes a new vampiric method. Lauren M. E. Goodland suggests that vampiric activity of Lady Ducayne represents capitalist relations between the aristocratic classes and the laborer in which Herbert Stafford's gentlemanly, masculine, authority intervenes to rescue Bella and return her to England. For Goodland, the story (which is often looked over in favor of Braddon's far more famous *Lady Audley's* Secret) is shakily built on a tension between Victorian medical authority as infantilizing women, thereby turning them into consumers of care (which Goodland likens to a kind of vampirism), and the Victorian gentleman-professional as inhabiting a natural relationship in which his wife's economic dependence upon him is "useful" in that she becomes a "help-mate."[57] I read blood not in terms

[57] Lauren M. E. Goodland, "Go and Marry Your Doctor," in *Beyond Sensation: Mary Elizabeth Braddon in Context*, Ed. Marlene Tromp, Pamela K. Gilbert, Aeron Hayie (Albany, NY: State U of New York P, 2000), 221. Notably, Mina Harker is her husband's (another professional, though a lawyer and not a doctor) helpmate in Stoker's *Dracula*. Her role in her marriage differs markedly from Bella's, who submits passively to Herbert Stafford's authority and, as Goodland points out in her analysis of capitalist-vampirism, never fully realizes the conditions of her vamping. Mina is far more active and seems to some extent, in her capabilities as a typist, strategist, etc. to be Jonathan Harker's equal.

capitalist relations in this chapter but as the circulation of a mechanical view of life that becomes a battleground between the old order and the new, just as Braddon's story brings together a traditional form with a new world view. Bella's common blood, which is socially distinct from Lady Ducayne's aristocratic blood, is transfused between the two women and imagined as interchangeable. This interchangeability is reinforced by the medical authority of Herbert Stafford, who links the equivalence of blood between the two women to their social equivalence, in tension with the values of the dying aristocratic order. Blood and modern medicine, in this revamped vampire story, dissolve the monolithic categories of rank, birth and personal quality to reveal the body of the new liberal subject. Thus Braddon's story connects ideas about modernity, science, and the universal subject through blood.

The story begins with Bella entering a situation that will become the staging ground for a battle between the old aristocratic order and the newly mobilizing classes. Bella is a sympathetic 18-year-old girl from an impoverished background who seeks a situation as a wealthy woman's companion. Having few "accomplishments," as her years have been spent sewing with her mother to make ends meet, she is placed in the service of Lady Ducayne. Thus from the grey world of Harbeck Street she is lifted into a luxurious and indulgent lifestyle where her duties are few but fatal. The story places great emphasis on the differences in rank, wealth, and social position that make up this arrangement. The young girl is characterized as earnest, candid, full of "girlish freshness and vivacity."[58] The poverty in which Bella and her mother live have joined them in a

[58] Mary E. Braddon, "The Good Lady Ducayne," in *Nineteenth Century Stories by Women: An Anthology*, Ed. Glennis Stephenson (Peterborough, ON: Broadview P, 1993), 72.

close and tender bond that springs from true affection rather than personal interest. Their honest and modest lifestyle, which consists of "making mantles," window-shopping, and gossiping with their landlady, is drawn in complete contrast to the oppressive, self-interested world of Lady Ducayne. By the end of the story, Bella's blood is reconceived by Herbert's modern medical gaze as universal rather than embodying a particular class in the older sense; thus its penetration into Lady Ducayne's aristocratic veins dissolves these boundaries to reveal the new liberal subject.

Braddon's story depicts the aristocracy as dysfunctional by portraying Lady Ducayne and her circle as petrified and parasitic, symbolic of a waning social order. The Lady and her associates are characterized as operating through dysfunctional relationships based on resentment, self-interest and greed. The Lady's great wealth and privilege translate ironically into a predatory relationship that victimizes those with far less than she has. At the employment agency she – with the help of the agency head – spirits poor but healthy young girls into her service by providing an enormous salary; neither she nor the agency head reveals the true nature of this service. Like a vampire, she lives off their blood until their health fails and they die at their posts. Dr. Parravicini, a close confidante who the Lady has employed for decades, despises her personally but continues to work for enormous compensation. Lady Ducayne casts this fact to his face, telling him, "Oh you needn't complain [. . .] Every year of my life has swollen your hoards; you know there is nothing to come to you when I am gone."[59] Their long and close relationship is one defined by mutual self interest: a lust for money on the one hand and a lust for life on the other. Together, Parravicini, the agency head, and Lady Ducayne

[59] Ibid., 95.

conspire to draw new unsuspecting victims from the population of English girls without money or situation. Though horrifying, this cruel ruse is undercut in the story by the light hand of Braddon's ironic humor. The absurdity of the snobbish agency head, who defines herself in terms of her relationship to the aristocracy ("My connection lies chiefly among the aristocracy"[60] she tells Bella crushingly), is emphasized in her title: Braddon calls her "the Superior Person." Bella too, is a little bit silly in her girlish naivete and enthusiasms. The line drawn between the lively, productive common class and a parasitic aristocracy is clear in the story, however. It is further emphasized by the characterization of those associated with the aristocratic class as grotesque, aged, and dying.

In contrast to Bella's youthful health (and healthy temper) and that of the girls vamped before her, the unnatural aging of the aristocrat and aristocratically-connected highlights the conception in the story that their time is limited. Lady Ducayne into a terrifying specter: her gleaming eyes, a sign of her fervid hunger for life, are set in a masklike face characterized by the "indescribable horror of death outlived, a face that should have been hidden under a coffin-lid years and years ago."[61] Her vampiric feeding, though metaphorical (by blood transfusion), sustains her in a horrifying indeterminate zone between healthy life and natural death. The dysfunction of her unnatural life is discussed with fascination in the story by a chorus of unnamed observers, who describe as a "withered old Croesus" barely kept alive by her doctor. Other English hotel guests residing abroad in Italy whisper about Lady Ducayne, speculating about her having been in Parisian society "when the First Empire was at its best."[62] By the Lady's own account

[60] Ibid., 72.
[61] Ibid., 94.
[62] Ibid., 83.

she is over 100 years old, having been born the day Louis XVI was guillotined in 1793. These dates are important because, although the character of Lady Ducayne was born on the eve of the French Revolution, she is explicitly associated in the text with the monarchy through Louis XVI and the Napoleonic Empire. Thus she embodies not only the qualities of a waning social order but also a foreign (French) nobility that from an English perspective was out of step with British modernity. It is not difficult to see, in her character, the ghost of the aristocracy clinging to the last remnants of legitimacy and influence.

Parravicini and the Superior Person are likewise, in their connection to French nobility, depicted as frighteningly unnatural in appearance. In the case of Dr. Parravicini, this emphasis on age also translates in the text to an inability to enter the modern world through science. Science, according to Hobsbawn, was fundamental to the way in which advanced nations defined themselves against "backwards" parts of the world, particularly where it was highly visible in production machines, railways, telegraph lines, etc.[63] Both Parravicini and the Superior Person are described as of "uncertain age." Parravicini, like the Lady, is a specter of death with "a face more like a waxen mask than any human countenance that Bella had ever seen."[64] The Superior Person also looks more like death than life. She wears a tight silk gown in the color of mourning, and has "a powdery complexion and a handsome clump of somebody else's hair on the top of her head."[65] In contrast to the healthy natural life of the common (wo)man, the aristocracy is depicted as sinister, parasitic, and fading in power despite these last desperate gasps. The aging

[63] Hobsbawn, *The Age of Empire*, 28.
[64] Braddon, "The Good Lady Ducayne," 83.
[65] Ibid., 72.

Parravicini, despite his best attempts, is unable to keep up with the newest advances in medical science. In her desperate quest, the Lady attempts to throw him aside for young Herbert Stafford, who is also a medical man: "[Parravicini] studies all the new theories of all the scientists – but he is old; he gets older every day – his brain-power is going – he is bigoted – prejudiced – can't receive new ideas – can't grapple with new systems. He will let me die if I am not on my guard against him."[66] This failed plea is the death knell of the old aristocratic order. Herbert Stafford is a new kind of man whose conceptions of the natural body – brought about by his study of medicine – asserts instead the modern liberal subject.

Herbert is the forecasted hero who rescues Bella and unmasks the vampire. He is, however, also something more: as a modern medical man, Herbert Stafford is the herald of the liberal subject that Hobsbawn tells us began to truly come into its own at the end of the 19th century. The institutions of bourgeois liberalism had, before the 1870s, remained firmly in the hands of the aristocracy and the bourgeoisie despite their liberal principles. The majority of males and all females were kept out of the political enclosure by qualifications of education, property, and institutionalized aristocratic privilege. But the world defined by expanding industrialization and capitalism was increasingly densely populated, smaller, and more global, and the advances of bourgeois liberalism pushed the democratization of state politics to a head in the Age of Empire.[67] In Britain reforms in 1867 and 1883 quadrupled the electorate, ringing in (for a time) a somewhat more generalized view of citizens as equal under God and the vote.

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[66] Ibid., 95.
[67] Hosbawm, *The Age of Empire*, 85.

Through the character of Young Herbert Stafford, a "medical man," the story asserts a vision of blood as modern, mobile, and fundamentally democratic. Herbert Stafford's medical perspective is fundamental to the undoing of the aristocratic order through blood in Braddon's story.[68] Not only does it allow him to recognize vampiric parasitism by way of blood transfusion when he sees it, his experience with medical dissection gives him a view of the natural body that is equal across rank, station and social position. When his sister warns him against Bella's low prospects, citing that the girl has secretly confided that her mother sews mantles for a living, Herbert casts this logic aside: "In his two years' hospital practice he had seen too much of the grim realities of life to retain any prejudices about rank. Cancer, pthisis, gangrene, leave a man with little respect for the outward differences with vary the husk of humanity. The kernel is always the same."[69] On the dissecting table, Herbert states, every man (and woman) is an equal: biology makes it so.

Furthermore, Herbert voices the logic by which transfusion itself is democratizing in this story. The interchangeability of blood between Bella and Lady Ducayne is radical despite its asymmetry. Its intimate circulation across the formerly rigid distinctions of rank and position – from the veins of a girl in lowly Harbeck Street into those of a woman associated with French nobility – asserts an essential, biological equivalence that resonates with Herbert's dissection story. Literally, the same blood that colors Bella's poor ruddy cheeks keeps Lady Ducayne's noble heart pumping with fresh supply. For

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[68] It is also perfectly appropriate that Herbert is a "medical man," a professional doctor. In the last decades of the 19th century and the early decades of the 20th century, the professions assume their contemporary meaning. It is also at this time that graduate schools emerge to train professionals in their careers (also new in the modern sense). The growth of the professional class is accompanied by an increase in mobility in society.

[69] Braddon, "The Good Lady Ducayne," 88.

Herbert, who Braddon positions as the voice of reason in this story, this literal truth about blood – its biological equivalence in transfusion – reveals the symbolic and sociopolitical truths about blood as equal across rank in a way that exists in stark contrast with the older genealogical conceptions of "good blood" and "aristocratic blood" as static and fundamental definitions of quality. Thus, Herbert, the herald of this modern vision of blood and the body, refuses to treat the Lady with new science. He tells her that her parasitic ways, associated here with aristocratic identity, have seen their day in the sun, and that she should spend her remaining days repenting as she fades from the earth. The emergence of this new meaning of blood signals the death of the old. Blood in this modern medical understanding is alienated, without qualities, and mobile in much the way the liberal subject (and labor, goods, and capital) have come to be in the 1890s; it is thus antithetical to the static, vertical hierarchies of nobility associated with Lady Ducayne.

Lest we forget that this tale is also a light-hearted romantic drama, Herbert Stafford's marriage to Bella on the basis of his liberal principles reinforces the "truth" asserted in the story about the new, natural body. His belief in a biological body is equal across stations and therefore essentially democratic in nature is driven home by his decision to marry Bella despite her modest background. Thus he rejects social convention (as his sister warns him, it would be unwise to marry a woman whose mother makes mantles for a living) for this deeper truth which is medical training has revealed to him and, through him, to the reader. Blood, specifically blood that can be transfused, is fundamental to the emergence of this new set of social values of equality, liberalism, and independence.

Mary E. Braddon's "The Good Lady Ducayne" draws the classic form of the vampire story into contact with body of the liberal subject in the 1890s. It asserts the rise of a new social order. The absolute qualities of nobility, birth, and divine right give way, in this tale, to an ethics that emphasizes equality, representation, and social and geographical mobility. Furthermore, this social transformation is tied to a mechanical imagination that translates the lessons of industrialization to the human body.

The Biological Machine:

Bella remembers little about her midnight transfusion procedures because Parravicini chloroforms her before performing them, but the few impressions she does retain are of a soundscape of industrial machinery: "a whirring of wheels went round in her brain, a great noise like a whirlwind, but rhythmical like the ticking of a gigantic clock [. . .] and then again the whirr of wheels, louder and louder."[70] The transfusions that assert a modern conception of the mechanistic body of the natural citizen are themselves precisely mechanical. In Braddon's tale we encounter a modern vampire story in which the new liberal subject is imagined as biological machine.

Nowhere is the imagination of the biological machine so clearly delineated as in the work of physiologist Etienne-Jules Marey. By the 1890s, the industrial revolution and capitalist development had led to a spreading gap between the imperialist European powers and the parts of the world they viewed as resources for their growing trade and consumption, among other things. The mechanical body, animated like a "human motor"

[70] Ibid., 85. The clock imagery of the story also links blood transfusion to a history of death symbolism and further adds an ominous edge to the vision of medical transfusion as vampiric activity.

rather than by a vitalist spark, entered this industrializing world of systems, resources, and economies as a vision of man as working unit that could be manipulated and managed under these new logics.[71] From the 1870s to the 1890s, Etienne-Jules Marey was at the forefront of this wave of development. His unique chronophotographic method uniquely captures the analogy of body-as-machine in which interchangeability, mobility, and a horizontal logic of circulation are clearly traced.

Though Marey's work is not limited to blood, it helped to definitively establish through its successful vision of the mechanical body the interchangeability of blood between different bodies that shows up as a transformative force in "The Good Lady Ducayne." By envisioning the body as a system of basic units constrained by a tight set of metrical relationships of space (position), time (intervals, flows), and scale, but infinitely convertible within those relations, Marey anticipated the logic by which these units – whether tissue or solid organs – could also be transferred *between* bodies when these relations were maintained. In this section, I contrast Marey's vision of a mechanical body in his chronophotography with the work his famous contemporary, Eadweard Muybridge (with whom Marey is almost always compared), in order to demonstrate the way in which a mechanical notion of life is based on this system of constrained relationships. I also tie this mechanistic body back to the new notion of blood at the heart of Braddon's depiction of transfusion as modernizing in its flow and establish a basis for the next section on mechanistic transfusion – and British technological modernity in general – in *Dracula*.

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[71] Francois Dagognet, *Etienne-Jules Marey: A Passion for the Trace,* (Boston, MA: Zone Books, 1992). Francois Dagognet, Marey's biographer, in fact describes Taylorism as extension of Marey's work.

In the debates between mechanism and vitalism that raged through most of the 19th century, Marey's belief that living models can be modeled on the workings of complex machines separated him from the tradition of French scientists of his day, who as vitalists held fast to the notion that living beings have a special property that distinguishes them fundamentally and exclusively from non-living entities. In 1873, Marey declared in a scientific treatise that "the animal organism is no different from our machines, except for their greater efficiency." Historian Marta Braun describes his perspective well: "Like the Germans, Marey believed in an intelligible causality underlying all life processes; he believed that these processes could be measured because they were reducible to physics and chemistry."

As a mechanist, Marey frequently likened the body to an "animated motor" that runs analogous to a machine constructed of pumps and levers. This idea seems plain to us now because the dominant view of life in the biological sciences today is mechanistic, but this was not necessarily the case in the 19th century. It is in part due to the vast influence of Etienne-Jules Marey's research, along with the work of like-minded thinkers, that a mechanistic model of life and a notion of the body as a rational instrument is so familiar to us today. In his pursuit of mechanical explanations, Marey was consumed with a desire to investigate the body in motion, to lay bare the functions of its life as detailed measureable truths of speed, interval, and power. He was inspired by work such as James Watts' diagrams of the stages of a steam engine's production of power, and aimed to forward a science of the same for the human body. His photographs of men running, walk, and leaping are, literally, dramatic graphs that render human locomotion into a metrical space where the body is abstracted as an assemblage of moving parts.

These chronophotographs, which isolate the body's movements and bind them to known scales of distance and time, constitute a unique imagery of the human form that visually reconceived of the body not simply as a dead automaton, but as a moving form which could be frozen, reanimated, transferred, enlarged, reduced, and taken apart in life. As I will demonstrate, the notion of a live mechanical body, visualized in Marey's exacting photographic process, is fundamental to the modern notion of blood transfusion and the logic of organ transplantation.

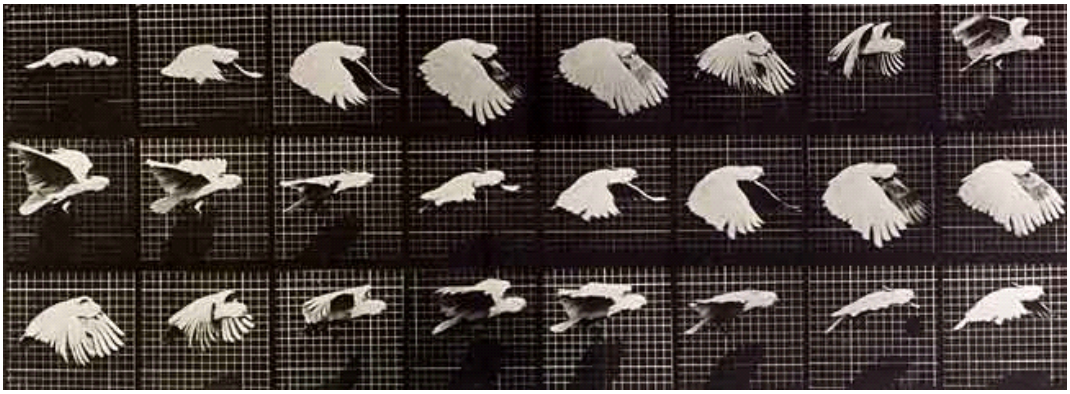

Figure 1: Eadweard Muybridge, "Cockatoo, Bird in Flight," 1883-6

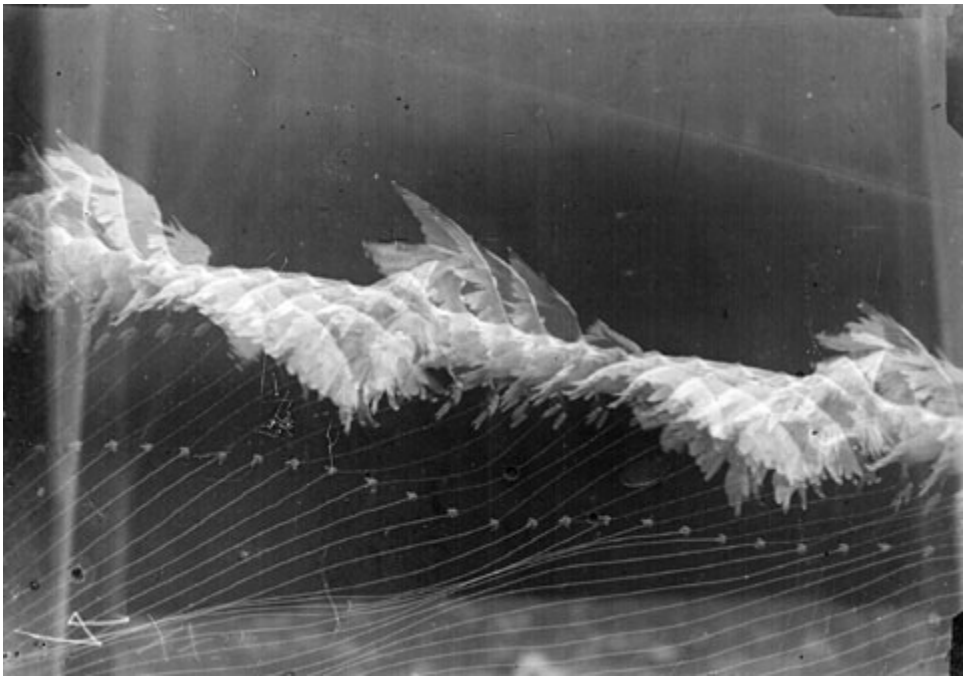

Figure 2: Etienne-Jules Marey, "The Flight of Birds," October 1969

Comparisons between Etienne-Jules Marey and Eadweard Muybridge are almost *de rigueur*: the two men are usually mentioned together due to the visual similarities in their work. In my discussion, I take up this comparison in order to show how Marey's work represents the mechanical view of life we saw in the work of Young Herbert Stafford and Van Helsing. The images of both photographers each capture an essential quality of the end of the 19th century. Muybridge's photographs look similar to Marey's at first glance, but Muybridge's method of serial photography anticipates the playfulness and wonder of cinematic story-telling rather than the mechanical relationships that Marey's cinematographic process brings to light. This section compares two photographs in order to highlight the way in which Marey's image-making is mechanical in its adherence to metrical relationships of time, scale and position, in a way that anticipates

the logic of equivalence, interchangeability, and mobility that can be seen in Stoker and Braddon's modern vampire stories.

Several insightful studies that closely examine the development of their respective photographic apparatuses, as well as the images they produced, establish a fascinating exchange of ideas between the Frenchman and the American. It is commonly noted, for example, that Muybridge's serial photography of a horse in gallop, which appeared in *La Nature* in 1878, inspired Marey to explore photography as a new medium for his graphical studies of motion and led eventually to the French scientist's development of a "photographic gun" (*fusil photographique*) and other recording instruments. Likewise, Marey's use of the zoetrope in *Animal Mechanism* (1873) to synthesize and animate Emile Duhousset's illustrations of the gait of a horse is recognized as shaping Muybridge's work, specifically his shift from taking single photographs of a horse in motion to serial images that could be similarly animated (and which later caught Marey's attention in *La Nature*). Perhaps in the milieu of rapid scientific and technological development in the last quarter of the 19th century, similarly productive exchanges in ideas could be identified between throughout communities of engineers, artists, financiers and intellectuals. In this case, the confluence between Marey and Muybridge's work, which is often pointed out, also helps to highlight striking and significant differences in their respective approaches.

The strong family resemblance between Marey and Muybridge's studies of motion is apparent at first glance. As their respective series on birds in flight show, both men use grids to convey the movement of an object over time. This marking of metrical space suggests continuity in these images, and the expectation that the subjects are being

tracked based on their shifts in position at regular intervals. Both Marey and Muybridge's most famous images feature similar animal subjects such as horses running, men jumping, striding, birds in flight, etc. The styles of presentation also bear a distinct likeness: white subjects against black backgrounds, dominant use of lateral views, repeating patterns suggesting the capture of movement over time, and often clearly marked spatial increments. But the differences in the details between their photographic compositions is instructive.

Despite its use of grids, Eadweard Muybridge's image-making is primarily concerned with continuity for its ability to articulate a story, rather than adherence to concerns of time, scale, or position. Thus, Muybridge often manipulated images within these sequences to achieve this narrative of movement. In order to construct a dramatic visual, Muybridge's plates are constructed from free-floating individual images arranged into a narrative grid that gives the impression of a sequence and the progression of time. Photographic proofs such as the ones Muybridge created for "Jumping, Running, Broad Jump" (*Animal Locomotion*, plate 60) leave traces of the free hand Muybridge took in image manipulation. The sheet of proofs is marked throughout with numbers arranged out of order; in an informal hand, Muybridge's tentative decisions about the sequence in which to arrange his images -- the progression of the sequence -- are tentatively written in. Etienne-Jules Marey would have objected, deeply, to this practice of breaking the photographic relationships between time and space to achieve an effect. As we will see, Marey's use of successive exposures on the same plate established the temporal relations and progression of images decisively; this was his interest, after all, in developing a graphic method that attempted to achieve automatic writing by the moving parts

themselves. Muybridge's photographs compose a visual story – in this case of what a man looks like in the process of running or jumping – but do not articulate a mechanical vision of the body as governed by a set of physical relationships. Muybridge's series, "Two models, child N70, bringing bouquet to 12. Plate 465" (*Animal Locomotion*, Plate 465) is also constructed on the basis of constructing a narrative. The short sequence of photographs features a toddler bringing a bare-breasted woman a bouquet of flowers. The child hugs the woman and then kisses her. This progression is difficult to construe as one of scientific interest or mechanical method. The sequence is, however, lively, narrative, and colored with emotional overtones. In this sense, it anticipates modern movie-making.

Marey's chronophotography as can be seen in "Joinville soldier walking, 1883," abstracts the human body into a mechanical study that breaks down movement into factors of time, space and scale; in this case the study is external but Marey has also performed visual studies of the human pulse (the rate and volume of blood circulation). In the image, an evenly spaced, close-set array of sharply defined near-vertical white lines gradually tilt in succession across a long, black, horizontal frame. Without the caption, it is difficult to discern that the image is a representation of a man walking. The information inscribed in the visual print dominates: the length of the lines, the distance between the repetitions, the angles and fluctuations, these are the data points that represent space and (because this is a single plate successively exposed in one direction at even intervals) *time*. The ciphers invite further scientific investigation, but the details of the exposure perform their own calculation by breaking down and abstracting the complex movement of the human body into a single action (walking), mechanically

represented. Eventually, the man inscribed in the visual print surfaces: the line segments consolidate into jointed arms and legs and the successive tilting shifts into someone taking four steps forward. The temporal lapses of black between the white help the modern viewer resolve the image into the idea of a man striding forward, but the mechanical perspective of motion is insistently present.

"Joinville soldier walking" clearly asserts a vision in which the body is broken into a system of moving parts. This mechanical model of human movement, along with the important increments that mark time at the bottom of the photograph, insists on an idea that the most fundamental aspects of life can be measured, and known through quantitative data. This body-as-data lifts basic functions out of their contexts and renders them as a series of abstractions that can be studied, manipulated, even transferred into different frames of scale and position. Thus his studies of the rules that govern specific movements within the mechanical system, such as the many stages in a walk, attempt to generalize in such a way that these rules can be used *beyond* the specific system. His chronophotography developed into a science – physiology – that is obsessed with making human movement more efficient.

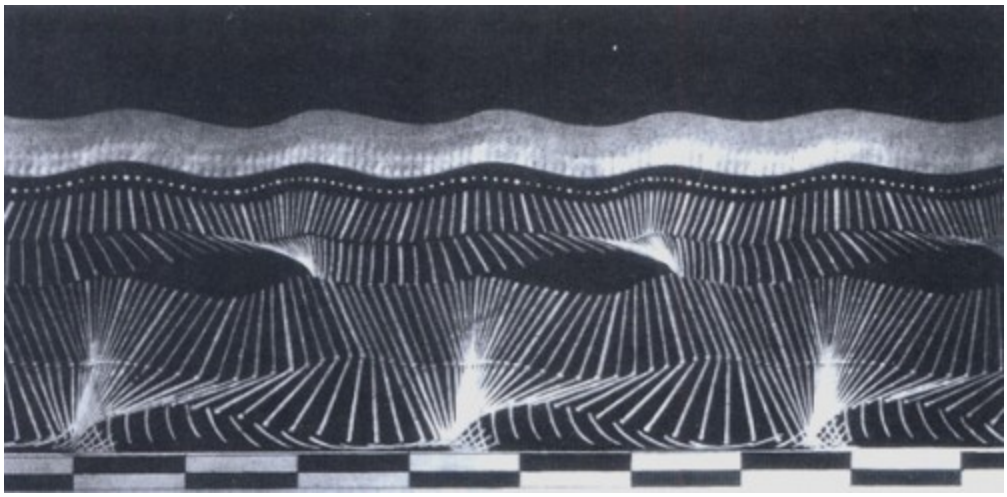

Figure 3. Etienne-Jules Marey, "Joinville soldier walking, 1883"

Etienne-Jules Marey and Eadweard Muybridge's respective legacies are entangled at the roots, but they branch off significantly into two aspects of modern life. Eadweard Muybridge's motion photography can (and has been) interpreted as a failure in scientific research due to their "inaccurate" representations of physiological time, his studies capture, I argue, a different vision of modern temporality from Etienne-Jules Marey's. In addition to his well-cited work for *Animal Locomotion*, Muybridge was also a travel and landscape photographer. His subjects include the grand vistas of Yosemite (El Capitan, the Merced River, Half Dome, Glacier Point, etc.), San Francisco at the turn of the century (in panoramic images that stunningly capture the entire burgeoning city), the Modoc War (tableaus feature Native Americans and U.S. soldiers both), and the Tlingit people of the Alaska region (which had been newly purchased by the United States in 1867 and organized as a district in 1884). In one photograph of the Merced River in California, Muybridge features an axe prominently in the foreground. The juxtaposition of a handtool against the breathtaking view of monumental peaks and valleys suggests a

moment of anticipation in which the eventual encroachment of civilizational progress will transform the natural landscape. Cultural critic Rebecca Solnit has demonstrated how Muybridge's work is thoroughly tied to a period of rapid development in California, from Muybridge's work on recording the taming of the West to his development of new photographic methods.[72] I suggest, along with Solnit, that the theme of progress can be loosely applied to Muybridge's other photographic subjects as well; the images evoke westward expansion, disappearing cultures and new settlements, railroads (Muybridge had an ongoing business relationship with railroad developer Leland Stanford) and the frontier.

Muybridge's work is cinematic in its scale and vision, meant to spark the imagination. Instead of breaking time and motion down into the smallest and purest of increments, Muybridge synthesizes it, manipulates it, and brings it into the context of daily life as experienced at the end of the nineteenth century. A single still photograph, composed of an axe set deliberately in the wilderness, encompasses the progress not of seconds, but of years. The contrast in scale and representational mode, in Muybridge's work, brings Marey's investment in a mechanical view of life into sharp relief.

The temporality of Muybridge's photographic encompasses historical, and sometimes even geological time (in the case of the stratification of rock in Yosemite, CA); His series, "Progress of Construction, U.S. Branch Mint," returns to the same building, the imposing U.S. Mint, in a young San Francisco three times -- in 1870, 1871, and 1871 again to capture stages and then the eventual completion of its construction.

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[72] Rebecca Solnit, *River of Shadows: Eadweard Muybridge and the Technological Wild West* (New York: Penguin Books, 2004).

Though they are displayed as individual photographs and not arranged in a narrative grid like the plates in his *Animal Locomotion* studies, both the progression and the story it tells are clear. Perhaps it is not surprising then, that Eadweard Muybridge soon found himself enjoying a position at the forefront of proto-cinematic image-making in a building named after his device, the zoopraxiscope, at the World's Columbian Exposition in Chicago (1893).

Marey's chronophotography on the other hand, traces his devotion to a mechanical world view and a close adherence to the minute movements of the body. Muybridge's photographs appear more naturalistic, but by method, Marey's engage in a different kind of truth-telling that abandons more familiar images of the body to produce ones that try to fix it precisely in space and time. This suspension of human form into instantaneous moments in chronophotographs like "Joinville soldier walking, 1883" weds form and movement to precise locations in a continuous and uniform temporal flow. At the same time, it breaks up a man's walk into distinct motions of the individual limbs and appendages, and further fragments these movements into instantaneous moments. This representation of "physiological time" of the "animated motor" dislocates animal life into discrete units of life-properties that can be isolated, transposed, and circulated - metaphorically as a conception of the body as well as literally, with the devices that record and replicate the movements of life in a separate trace. The conception of the body underlying Marey's mechanical view of life fragmented the body into fractions and fed into an understanding that would eventually ground the overlapping logics of the science of labor and organ transplantation. In conceptualizing the human body as a machine, Marey's scientific efforts entered the human form into the mechanical imagination of the

turn-of-the-century. His production of a proliferating array of images that trace this proposition open the body up as a frame in which parts such as tissues and organs could be conceptually isolated and manipulated.

A mechanistic view of life and blood grounds the transfusion of blood as a thoroughly modern practice at the turn-of-the-century. Extolled as the "miracle of resurrection" in the 20th century, blood transfusion is a powerful site for symbolic and metaphorical intervention. The world of Victorian science engaged in precisely this kind of transformative re-imagining when conceptions of blood circulation shifted around the turn of the century. Although the practice of blood transfusion has an older history, it was not common medical practice in the late 1800s.[73] Susan Lederer suggests that the relative restraint with which blood transfusion was approached at the time can be attributed to a shift in the conception of life-blood, that she uses to mark off the retrograde 19th century from the forward-looking 20th. Before 1900, physicians were often more concerned about too much blood, rather than too little, and bloodletting was a commonly applied therapy for various illnesses and injuries. Transfusions that *were* performed used blood merely to provide a "spark of vitality" to the circulatory system; thus animal blood, which was easier to procure, was used. Lamb's blood was reputedly the fluid of choice in England, France and Germany due to the animal's reputation for possessing a mild nature capable of "cooling" the blood of those whose temperaments were feverish, as well as for the powerful Christian symbolism. The practice became

[73] "Grafting" procedures, now more commonly referred to as "transplantation," were at the time far more common. They had already been the subject of rampant and often gruesome animal experimentation for years; sensationalizing stories of human skin grafting were appearing regularly in the popular press by the 1890s.

embroiled in controversy when it appeared to result in a patient's death in France, and its application quickly tapered off. In the 1830s, a physician in England, James Blundell, departed radically from historical practice and turned instead to using human blood, but transfusion continued to be controversial in Britain. Americans too were hesitant to perform the procedure due, according to Lederer, to the tension in which it seemed to sit with the "vital spark" notion of blood circulation.

After 1900, a different conception of the function of the circulatory system began to take hold, and the animating properties of life-blood were increasingly seen as a matter of *volume* rather than qualities inherent in the donor. Thus blood acquired new meaning as a fluid through which life could be quantified. Rather than a re-animating "spark," blood became a circulatory fluid that drove the functions of the body: a mechanical view of life. Marey championed this mechanistic view and made clever models of the arterial tree out of rubber and glass in order to demonstrate that blood flow relied upon the elasticity of arterial walls. Furthermore, he described the system as a motor and worked with different versions of his models in an effort to "[make] the motor's work more economical."[74] Mary Braddon's "The Good Lady Ducayne" took up this modern vision of blood in 1896. Transfusion, portrayed in terms of a "whirring of wheels" and the ticking of a clock (the incremental passage of time), is deeply mechanical in the story. This mechanical blood can be fractioned and transposed to function in the Lady's bodily

[74] His work on the sphygmomanometer, adapted from Karl von Vierordt's device which measured blood pressure, was one such device. He imported the German technology into France and created a more sensitive device by incorporating what he knew of physics, including James Watt's diagrams on the work and cycles of the steam engine and Thomas Young's cylinder axis, which with its spiral movement allowed Marey to take longer recordings. Not alone in his endeavors, Marey introduced each of his bio-mechanical devices into a field populated with dozens of other attempts, for example Jean-Baptiste Chauveau's haemodromometer, which measured the speed of blood flow through the insertion of a needle into a live horse's heart.

system in the same way it did in Bella's. Thus mechanical blood transfusion itself is envisioned as the mode by which the liberal subject – associated with individualism, egalitarianism, and freedom of movement within society – is asserted at the end of the 19th century in Braddon's tale.

The mechanistic view that Marey forwarded with his chronophotographic and other models imagined the body as a site of moving parts and circulating flows. This description of life resonates deeply with the development of capitalism and industrialization, transformations that wrought dramatic changes in Europe during this time. Technology, which in the second half of the 19th century chiefly meant a science of machines, divided the world in half according to Hosbawm: the technologically advanced and imperialist nations leaped forward into the 20th century with the power of engines, electricity, and new military weapons, while parts of the world not wielding science in this way became vulnerable to the imperialist uses of these machines. This mechanical view of life and blood is at the heart of Mary Braddon's depiction of transfusion as modernizing in its flow. It also grounds the vision of the modern that encounters the ancient vampire in *Dracula,* as later discussion will show, and became the basis of a host of media technologies – from the phonograph to the moving picture – that would define British technological modernity through the turn of the century.[75]

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[75] Georges Demeny, "Talking Photographs," *La Nature* Sept 1, 1982. Marey's assistant Georges Demeny was inspired by the potential of Marey's mechanical vision and pursued it by developing a "photophone" in 1892. Based on the phenakistoscope, the photophone performed a double synthesis: bringing together both moving images and projected sound. Demeny explicitly viewed the draw of the photophone as its ability to re-animate the dead through its synthetic vision of life. His enthusiastic discussion in *La Nature* is worth quoting at length: "How many people would be happy if they could for a moment see again the living features of someone who had passed away! The future will replace the still photograph, locked in its frame, with the moving portrait, which can be given life at the turn of a wheel! The expression of the physiognomy will be preserved as the voice is by the phonograph. The latter could even be added to the

The Forest and the City:

Like Mary Braddon's "The Good Lady Ducayne," *Dracula* is a modern vampire story that draws the rise of British modernity into a classic narrative. The story opens with a visit that English lawyer Jonathan Harker makes to a Transylvanian castle. There he meets Count Dracula, a charming and elderly aristocratic who wishes to buy a house in London. Harker helps his host gain familiarity with English law and customs, but soon finds himself imprisoned in the castle and realizes that his host is not what he appears. He eventually escapes and returns to his wife, Mina Harker who has been accompanying her friend, Lucy Westenra, on the British coast. Lucy begins to sleepwalk and eventually falls seriously ill; the Count has been feeding off her. Her friends, Dr. John Seward and Dr. Van Helsing administer to her care with blood transfusions but the girl dies and becomes a vampire. Meanwhile, Seward, Van Helsing, the Harkers, and an American friend Quincey Morris form a vampire-hunting team in order to root out and vanquish the Count (the men also kill Lucy). The situation worsens when Mina, who has been the heart of the team, also begins to undergo a vampiric transformation. The gang of vampire hunters intensifies its activities and chases Dracula back east to Transylvania. There, they finally vanquish the Count as well as his vampire brides/sisters, but Quincey Morris dies in the process. Mina and Jonathan Harker name their first-born son after each of the members of the gang, but call him Quincey in honor of their fallen friend.

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phonoscope to complete the illusion ... We shall do more than analyze [the face]; *we shall bring it to life again*."

One striking aspect of Stoker's novel is the way in which it deviates from the structure governing other 19th century vampire stories like Polidori's "The Vampyre," Le Fanu's *Carmilla*, and even Braddon's "The Good Lady Ducayne." In the other, earlier texts, the vampire is a threat but the plot turns on the notion of discovery of an enemy in our midst rather than a battle between forces of good and evil. The story's finale generally comes with exposure of the vampire hidden behind the smooth demeanor of the aristocrat; for instance, Polidori's tale closes with an ultimate flourish when the monster, after a dramatic chase through fashionable society rooms, is finally named ("Lord Ruthven had disappeared, and Aubrey's sister had glutted the thirst of a VAMPYRE!"). Le Fanu and Braddon's vampires back away suddenly as well, like bats disturbed in their caves by bright light. In *Dracula*, however, the monster is encountered in his true, unnatural form repeatedly: Jonathan Harker witnesses the Count climbing face-down along the walls of his castle; he recognizes him again, somehow grown younger, in a London thoroughfare; the Count is even named by Van Helsing and Quincey Morris as a vampire outright; the Count is rooted out of his strongfasts step by step over hundreds of pages. *Dracula* is unique among these texts for staging a prolonged battle between the vampire and the vampire hunters; blood transfusion is a key weapon in this contest.

This section attempts to investigate the new conception of blood that Stoker's *Dracula* draws into the classic vampire story. The blood that circulates in Van Helsing's transfusions is mobile, continuous, interchangeable, partially alienated, and conceived in mechanistic terms as modern in its flow. It also asserts the rise of the modern British subject against an antiquated tradition. Blood transfusion is imagined in Stoker's story as

one in a gallery of industrial and mechanical innovations that transformed life at the turn-of-the-century. As such, it is envisioned in the text as a part of the science that visibly extended lines of colonial power from a handful of Western, industrial nations and is set in this context against the noble, aristocratic vampire.[76] The figure of Dracula, the king of vampires, is a seductive text; scholarship on Stoker's novel has generated productive readings of blood in terms of sexuality, capitalism, and the working out of ethnic and racial tensions, through explorations attentive to the figure of the vampire and his entry into British society.[77] This discussion deviates from (but also complements) these perspectives by focusing instead on the transfusion side of the battle of blood between Dracula and Van Helsing as both literal and symbolic, and a part of the emergence of British modernity in this transformative moment. This section asserts that transfusion in *Dracula* imagines a mechanistic view of the body and British society, and that this body is associated in the text with the erosion of aristocratic order.

The novel's depictions of Van Helsing's transfusions forward a mechanistic notion of blood and the body that echoes that in Braddon's "The Good Lady Ducayne" and in Marey's work. The blood of these experimental transfusions functions through concepts of volume, flow, interchangeability rather than notions of a vital essence, which is cast in the text as archaic and out of step with modern philosophies. In transfusing

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[76] Hosbawm, *The Age of Empire*, 57. Hobsbawm names Great Britain, France, Germany, Italy, the Netherlands, Belgium, the U.S., and Japan to the group of nations that began to translate their economic and military supremacy into a system of formal conquest, annexation and administration between 1880-1914. Like Wolfgang Schivelbusch, Hobsbawm cites the railways as a particularly visible, and powerful, engine of 19th century modernity along with the stringing of telegraph lines on wooden poles across the land.

[77] Phyllis A. Roth, "Suddenly Sexual Women in *Dracula*"; Franco Moretti, "A Capital Dracula"; Judith Halberstam, ""Technologies of Monstrosity," Christopher Craft "Kiss Me with Those Red Lips"; among others.

blood to Lucy Westenra's veins after she has suffered blood less at the hands of the vampire count, Van Helsing adheres to a volumetric concept of blood flow. Before he performs the procedure to revive her, the doctor carefully explains its work for the benefit of her fiancée and donor Lord Arthur Godalming, and for contemporary readers who may be unfamiliar with its specifics. He thus highlights the novelty of this procedure at the turn-of-the-century): "we are about to perform what we call transfusion of blood – to transfer from full veins of one to the empty veins which pine for him." Van Helsing announces his decision to transfuse blood without this explanation when he consults with Dr. John Seward, the omission tacitly signaling their membership in a circle of expertise as medical professionals. But the German doctor assumes that Godalming, an aristocratic outsider whose membership in exclusive social groups is of a very different kind, may not be familiar with the medical term. Though the procedure fails in the end to fully resolve the problem of vampirism, the text represents transfusion as a powerful science; when color returns dramatically to Lucy's depleted and wan frame during the transfer even as it drains from her fiancee's face, a vision of the extraordinary ability of blood transfusion to revive the dead is powerfully asserted.

Although blood transfusion was not a common practice in 1897, it seems likely that Stoker was aware of at least some of the directions experimenters of the technology were considering. When Van Helsing suggests that Arthur's blood is "so pure" that they need not "defibrinate" it before transfusing it to Lucy, he seems to refer to a process pioneered by German physician Theodor Bischoff which moved the fibrin from blood in

order to address the problem of clotting when blood is exposed to air.[78] The techniques used to transfuse blood were not at the time concretized into a standardized set of practices, so in the last three decades some physicians used eggbeaters, whisks, or bunches of broom to defibrinate blood (that was likely transferred by removing blood from the body and re-inserting it using a cannula) while others disparaged the process for robbing the blood of its vitality.[79] Van Helsing's reasons for not de-fibrinating Arthur's "pure" blood are not entirely clear, but his attitude seems to take into account "forward-looking" perspectives on the circulatory system when he explains that Lucy may die "for sheer want of blood to keep the heart's action as it should be."[80] This mechanistic description of blood circulation places a 20th century declaration in the mouth of a doctor in 1897.

Lederer's description of the difference between 19th and 20th century practices in blood transfusion, which I suggest can be notated as vitalistic versus mechanistic, does not set down a clear historical border but rather pinpoints a means (mechanism) by which a moment separates itself from history and declares itself modern. Dr. Seward's psychiatric patient R. M. Renfield is characterized as inexplicably out of touch, even insane, through his vitalistic views on the properties of blood. With allusions to John the Baptist in Renfield's proclamations of the coming of the Master (Dracula), the novel tars the psychiatric patient and the vampire king with the same brush. Renfield eagerly awaits the Count's return, desperate for the eternal life that Dracula has promised him. In independent pursuit of this eternal life, Renfield hoards the vital forces by eating ever-

[78] Stoker, *Dracula*, 114.
[79] Susan Lederer, *Flesh and Blood*, 39.
[80] Stoker, *Dracula*, 114.

larger creatures (flies, spiders, then birds and cats) in a disturbing parallel of Dracula's feeding. This strange behavior places him in Seward's psychiatric ward. In a moment of apparent lucidity, Renfield astonishes Seward by "talking elemental philosophy, and with the manner of a polished gentleman." In this mode – which the novel emphasizes as rational – Renfield denounces his previous behavior as "a strange belief":

> I used to fancy that life was a positive and perpetual entity, and that by consuming a multitude of live things [. . .] one might indefinitely prolong life. The doctor here will bear me out that on one occasion I tried to kill him for the purpose of strengthening my vital powers by the assimilation of my own body of his life through the medium of his blood – relying of course, upon the Scriptural phrase, "For the Blood is the Life."[81]

Renfield's beliefs not only reflect Catholic transubstantiation, but also a vitalist notion of blood as containing a special vital essence beyond its physical properties. Eventually the mental patient returns to these views and is brutally and mysteriously killed in the ward. Stoker's novel, with its portrayals of blood transfusions and other technologies, as I have discussed above, is also obsessed with bringing Britain's modernity into contact with a transgressive other.Transfusion, as a direct weapon against Dracula's vamping,[82] is a key part of this modern which reflects Etienne-Jules Marey's mechanistic approach, and is thus deeply tied to the logic by which various turn-of-the-century technologies seem to fragment, manipulate and proliferate the scale of space and time.

In *Dracula*, Stoker's depiction of English cities in this period seems obsessed with the machinery of modern life. The clatter of Mina Harker's typewriter keys, the scratching whir of John Seward's phonograph cylinders, the sharp and rhythmic taps of

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[81] Ibid., 206.
[82] The question of weapons against vamping is itself something of a rarity in the 19th century vampire stories already mentioned.

Morse Code telegrams frantically speeding across the counties between Van Helsing's gang of vampire hunters, the snap of Jonathan Harker's Kodak camera (invented in 1888) - the soundscape of Stoker's London is practically alive with a jumble of newfangled gadgetry that sets it firmly apart from the Transylvanian forest. The phonograph cylinders that John Seward uses to record his diary are an exciting and wonderful sight to Mina Harker, who is the very image of Victorian helpmate. Incredibly adept with and interested in the technical side of things, Mina carefully observes the gendered division of spheres and frames her fluency with modern technologies in terms of her desire to help her husband. When she hears two voices in a room together, modern Mina is surprised and excited to find that Dr. Seward owns a phonograph, a device even more current than her own: "Why, this beats even shorthand! May I hear it say something?" Mina exclaims when she discovers him. In order to aid Van Helsing in his work, Mina volunteers to transcribe and copy Dr. Seward's recordings with her typewriter, and provide the doctor with a more accessible text. In reaction to the centrality of different communications media in the text, *Dracula* has been called "the first great *modern* novel in British Literature." Van Helsing, the leader of this small band, wields blood transfusion as an instrument of modern progress. His medical technique sits alongside other technologies that stand out in the novel as Victorian modern. In technologies likes the phonograph, we can see Etienne-Jules Marey's concept of the "trace" and and the intensifying mobility with which the body (or its parts and functions) can be sent out into the world through mechanical means. Stoker's vision of British technological modernity in this text resonates with Eric Hobsbawm's observation that in this period, with the merging of

industrial modernity, capitalism and colonial conquest, the world is now genuinely global.[83]

In constructing London as a modern industrial city, Stoker also contrasts it against the deep, silent forest and lonely Carpathian mountains that surround Dracula's ancestral seat – a trope of the classic vampire story. Upon finding himself imprisoned within Castle Dracula, Jonathan Harker explores the crumbling halls, pausing in one of the empty rooms. Looking over an expansive view that in its description only highlights the complete isolation of the ancient castle from the "teeming masses of humanity" that occupy London, Harker writes in his diary:

> Here I am, sitting at a little oak table where in old times possibly some fair lady sat to pen, with much thought and many blushes, her ill-spelt love-letter, and writing in my diary in shorthand all that has happened since I closed it last. It is nineteenth-century up-to-date with a vengeance. And yet, unless my senses deceive me, the old centuries had, and have, powers of their own which mere 'modernity' cannot kill.

The contrast between Jonathan's "up-to-date with a vengeance" shorthand technique - which the vampire hunters later employ alongside the phonograph, typewriter and telegraph to great effect - and the carefully penned letters of "old times" that modernity nevertheless "cannot kill" highlights the break drawn between non-modern and modern in the novel. The communications technologies that Harker uses to define British modernity are powerful and a world apart from his depictions of an almost feudalistic Transylvanian lifestyle.

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[83] Hobsbawm, *The Age of Empire*, 13.

Furthermore, Harker notes that the trains - an icon of the industrial age - run with less and less frequency, and increasingly less punctuality, the closer he gets to Castle Dracula, until Harker completes the final stages of his journey by horse-drawn carriage. The temporal rhythm of the train across the landscape is a stand-in for the level of industrial progress. Deep in Transylvania, Harker seems hardly to be in the same century anymore; he seems to have traveled back in time rather than across space. Mina Harker, whose close relationship with Victorian technology marks her as a modern woman, describes herself as a train fiend and commits the train timetables to memory in her role as her husband's helpmeet. Count Dracula, in preparation for his incursion into England, likewise appears to have been studying a book of timetables of the British rail system. The closer the characters are to the heart of the empire, the more they enter into modern spatial-temporal relations where the slow natural rhythms of pastoral life are dislocated into a speed and simultaneity that is symbolized in the train.

It is far from surprising that the train is a powerful symbol of modernity in Stoker's novel. In 1887, the Victoria Terminus railway station was opened for the first time in Mumbai to commemorate the Queen's Golden Jubilee. The grandiose high Victorian Gothic design of Victoria Terminus repeated in India's capital a space familiar to British travelers. Symbolically, the railway station reinforced the relationship between England and India. In an extreme version of the spatial contractions that the railroad had wrought on the European continent, the British metropole and its colony half a world away were bonded through this display that advanced the notion that the Indian colony was simply another stop in the British rail system. Wolfgang Schivelbusch argues that the development of the railway annihilated geographical space with its smooth speed as

familiar landscapes were experienced in an entirely new way from the train car. Reduced travel times contracted space at the same time as the addition of new areas to the railway system expanded it, and a new geography was articulated. Furthermore, the infrastructural and technological development of the railway system pushed England to develop a general standardardized time that previously had not existed. As denser railway networks connected up more and more parts of the country, regional time and the time enforced by the individual English rail companies eventually gave way to the national standard of Greenwich Time in 1880. The design of Victoria Terminus had homologous effects. In stepping into the terminus in Mumbai, travelers in India would experience England long before the train itself (and a sea journey) could take them there. The train and the station together formed a doubly modern experience.

The duality of this temporal dynamic jolts the human body into the modern moment. Its two sides anticipate the patterns of fragmentation and mobile circulations that characterize the technologies of the period. Stoker's *Dracula* crystallizes the author's distillation of the Victorian technological milieu. Mina Harker's use of stenography and the typewriter, for instance, breaks down, abstracts, and re-encodes into highly mobile texts the inscriptions she (re)produces in her capacity as Jonathan Harker's "helpmate." In a similar manner, Dr. Seward's phonograph captures his voice in the machine's metal drum and replaces it with a mechanical reproduction. These recordings make his voice available to listeners in other times and other spaces; they also allow, with the aid of Mina Harker's stenography and typewriter, the potential to release infinite copies into circulation.

The cables and telegrams that speed back and forth allow the band of vampire hunters to be in more than one place at a time (and make the theme of time dilation especially interesting when they arrive in person, as they occasionally do, before their communications). These apparatuses, like Etienne-Jules Marey's chronophotographs, dislocate the identifying qualities of an individual (voice, handwriting) from his or her body, and its place in time and space, and turns them into autonomous traces. This mechanization of human gestures also facilitates their reproduction and circulation, and links up with the flows of blood that strengthen the bonds between Seward, Van Helsing, Quincey Morris, the Harkers, and even the noble Lord Arthur Godalming.[84]

The association that Stoker creates between the supernatural and the Victorian technological is only strengthened in the case of Van Helsing's blood transfusions. Transfusions are Van Helsing's weapon of last resort against the vampire's feedings, but the blood work on both sides shares many of the same qualities. The tissue transfer procedures that Van Helsing performs break the flow of vital fluid out of the individual circulatory system and transfers it to another body, effecting a shift of life from one person to another. It fragments and circulates life beyond the boundaries of the human

[84] It is also worth noting the ways in which Dracula mirrors these modern qualities which themselves appear somewhat eerie in Stoker's text. The communications technologies in Bram Stoker's *Dracula* link textual production with monstrous reproduction. With his move into London, Dracula returns qualities of the modern experience as supernatural rather than technological. His ability to communicate telepathically, to reproduce versions of himself endlessly, and to project and move himself across geographical space at inhuman speeds, makes Dracula appear - like the train - to "vitiate space." Indeed, many of his supernatural powers mimic or invert the apparatuses that Van Helsing's gang uses against him, and which also define Victorian modernity. Dracula's astonishing mobility in circulation, frightening (re)productivity, and his voracious consumption (blood, property) and offerings to be consumed, also extend life beyond the human frame. This extension of life in film envisions a fluidity of motion and forecasts a vast circulatory networks through which these narratives would eventually be consumed. The mechanical imagination that dominates Stoker's novel anticipates the principles of organ transplant, as well.

form much like Dr. Seward's phonograph and Mina Harker's typewriter. As the leader of the gang of vampire hunters and the figure around whom the defenders of the integrity of the British national body gather their various technological defenses, Van Helsing is in his own way a pinnacle of the modern brought into contact with the ancient vampire. And like the vampire's feedings, Van Helsing's furtive transfusions of Lucy also disturb and transgress many social boundaries. The series of blood transfusions that Van Helsing performs to save Lucy Westenra function like a shorthand for the height of British modernity.

Blood is a vehicle for the emergence of the modern subject in Stoker's *Dracula* as it is in Braddon's "The Good Lady Ducayne," though the fluid is not depicted as fully alienated from its source as it is in the earlier tale. The transfusions that sustain Lucy Westenra and Mina Harker are deeply intimate. Blood, though mobile and interchangeable, seems to carry with it a trace of the identity of its source in the novel. When Lucy Westenra's fiancee Lord Arthur Godalming speaks at her funeral of the operation where "his blood had been transfused to his Lucy's veins" in the days before her death, he likens it to a holy union, saying that "he felt since then as if they two had been really married, and that she was his wife in the sight of God." In light of the likely intimacy of operations of this type in the Victorian period, when two bodies truly were joined in order to move blood from one to the other, the significance with which Arthur bestows the act is apt. Van Helsing uses the same analogy moments later when he refers to the secret transfusions that he, Dr. Seward, and Quincey Morris have done that have made Lucy an unwitting "polyandrist." The infusion of blood that she has received from these men crosses the lines of Victorian propriety. Indeed, perhaps the intimacy common

with such operations can account in part for the trends in transfusion. Men, according to Lederer's research, were far more likely to receive blood from an unrelated donor than women, who were most likely to get it from a male relative. [85] The text's portrayal of Victorian transfusion highlights the procedure as intimate and somewhat sexually transgressive.

The depiction of transfusion in Stoker's novel is also tied to the emergence of a subjectivity that embodies the mechanistic sciences that define British modernity in the text and also the colonial project which in this period seemed to divide the world in two. In the final frenzy of the novel, the unnatural and aristocratic vampire is vanquished – literally – with the weapons of colonial domination. Jonathan Harker, an English solicitor and member of the new professional class, and Quincey Morris, a Texan adventurer who prospects in South America, simultaneously stab the vampire king to death. Harker uses a Kukri knife which is presumably a souvenir of British colonial encounters in South Asia. Morris uses a Bowie knife, a weapon strongly associated with the American frontier. Morris is killed in the fight. Out of this bloody scene, a new baby is born. Mina Harker names her son after "all our little band of men together," reinforcing with a long string of names the bond of blood that the intimate, even sexual, but still mechanical transfusions first forged. The baby, who is called Quincey in honor of the American, is the culmination of the work of the gang and a symbol of the modern (technological) progress to come.

[85] The sexual implications of Victorian transfusion are reflected in Christopher Craft and Nina Auerbach readings of the novel. Both astutely suggest that the significance of the unions formed by Van Helsing's surgeries is sexual in nature, with blood as a substitute for semen.

Engines of Change:

Bram Stoker's *Dracula* brings the world of Victorian modernity into contact with the classic vampire story. It stages the emergence of a new world order against an older social form which is depicted as unnatural but threatening in the novel. Although Stoker's depiction of blood, technological modernity, and even the aristocracy differs significantly from Braddon's (in which there is no hint of colonial interests), both stories employ a new conception of blood as mechanical, interchangeable, and discrete to narrate the transformation of a world which would become increasingly global, socially mobile, and subject to industrial mechanization and capitalist interests over the coming century.

The last quarter of the 19th century was a time of rapid mechanical innovation and immense social change. Between 1870 and 1914, the acceleration of technological development permeated many dimensions of city life and became a visibly displayed aspect of modern society. In the spring of 1897, when the first copies of *Dracula* were emerging from the presses into the hands of its British readership, London was also preparing for Queen Victoria's Diamond Jubilee. A spectacle of grand proportions, the jubilee celebrated the 60 years of rapid industrial expansion and British empire-building that characterized the queen's rule. A major feature of the jubilee was the impressive parade of British military power in the form of precision-marching troops from all over the empire. This display of technological control and mastery seemed to link the spectacle of British imperialism to a discourse of bodily discipline and the fruits of civilizational projects.

Mark Twain attended Queen Victoria's Diamond Jubilee and reported on the splendor of the imperial spectacle for American readers. He was particularly impressed

by the number and bearing of the Indian princes and the Indian cavalry that formed the Queen's escort. Following India's First War of Independence in 1857, which led to the demise of the East India Company and a restructuring of systems of colonial administration, ruling powers over India were consolidated under the British Crown.[86] In his description, Twain's amazement at the spectacle of an empire at its zenith is shadowed by a vision of its dissolution - the rise and fall of the British people captured in a moment.[87]

In France, Paris still bore in its recent memory and on its famous cityscape the lofty traces of its own celebration of industrial and colonial power at the 1889 World's Fair. Like the Queen's jubilee, the fair was a world event and a consciously constructed exhibit of Western technological advances; as carefully designed events, both present fascinating narratives of the place of science in modern society. For visitors from all over Europe and beyond, the exposition paired dramatic displays of modern technology through feats of engineering such as the newly erected Eiffel Tower and the highly acclaimed Galerie des Machines. The gallery was a wonder of structural engineering, the

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[86] Mark Twain, "The Queen's Jubilee," in *The Complete Essays of Mark Twain*, Ed. Charles Neider, (Cambridge, MA: Da Capo P, 1963), 197. "I was not dreaming of so stunning a show. All the nations seemed to be filing by. They all seemed to be represented. It was a sort of allegorical suggestion of the Last Day, and some who live to see that day will probably recall this one if they are not too much disturbed in the mind at the time [...] It was realisable that she was the procession herself: that all the rest of it was mere embroidery; that in her the public saw the British Empire itself."

[87] Stephen Arata, "The Occidental Tourist: *Dracula* and the Anxiety of the Reverse," *Victorian Studies*, vol 33, no. 4, 1990. The notion of the Jubilee as a procession at the end of time supports the claim that Stephen Arata forwards with regard to Bram Stoker's use of Transylvania as an important location in novel. Arata suggests that *Dracula* is a text about the end of empire, where British anxieties about racial degeneration are expressed in the figure of a monstrously productive Other coming into the center of society. The concern that Arata highlights regarding the longevity of British supremacy is perhaps echoed in the hyperbolic display of the Jubilee as well as the technological perfusion in Stoker's text. Arata does not speak of Van Helsing, but the Dutch doctor's role as leader of the gang of men who defend the empire against foreign attack also locates him (alongside Mina Harker) as the banner man of technological mastery.

largest wide-spanned iron-framed structure in the world at the time. A technological triumph in itself, the gallery also housed massive engines, transformers, dynamos -- the kind of machinery that made the structure itself possible -- for display, as well as human "exhibits" including the famous "*village nègre*" in which 400 indigenous people performed the routines of rural life behind bars for spectators.

The message that was composed in the juxtaposition of lofty monuments to engineering alongside humble displays of the primitive life of colonial subjects was not lost on visitors to the fair. The British journal *Engineering*, which kept readers updated on the exposition in Paris for many months, reported that the displays "for the first time bring vividly to the appreciation of the Frenchmen that they are masters of lands beyond the sea," a sentiment that many readers in England could no doubt appreciate as well. We can see in this instance how not only scientific research that studied "primitive peoples" under the province of fields such as physical anthropology, but also the very idea of science itself could be used as a disciplinary tool of colonial power. In either case, the notion that life in industrializing Europe was setting itself apart through technologies of mastery and mechanical science was filtering into the discursive domains of modernity and nation. A new understanding of blood as divorced from the older, static notion of social worth is imagined in Stoker's and Braddon's stories as a legible text on which narratives of national identity, global community, and progress could be written.

In the opening of this chapter I mentioned the twinned emergence in this period of utilitarian philosophy and classical political economy. These worldviews rose as ethical systems with ideas about the natural and the good. The utilitarian philosophy championed by 19th century thinkers like John Stuart Mill naturalized an ethics of "pleasure," in other

words, an emphasis of ends rather than means that can sometimes exclude considerations of justice. Alongside this morality of ends or utility, the ethics of classical political economy emerged with its logic of supply and demand, and free market values. At the intersection of these two ethical systems, an instrumentalized view of needs, supply, traffic, and global flows formed the conditions of possibility under which organ trade (illegal and sanctioned) would flourish in the coming decades.

Chapter 3. The Future Perfect

> *For some time now, a great many scientific endeavors have been directed toward making life also 'artificial,' toward cutting the last tie through which even man belongs among the children of nature. It is the same desire to escape from imprisonment to the earth that is manifest in the attempt to create life in the test tube, in the desire to mix 'frozen germ plasm from people of demonstrated ability under the microscope to produce superior human beings' and 'to alter [their] size, shape, and function'; and the wish to escape the human condition, I suspect, also underlies the hope to extend man's life-span far beyond the hundred-year limit.*
>
> Hannah Arendt on the launch of Sputnik, *The Human Condition*, 1958[88]

Sprawled across carpeted living room floors and perched on the hard edge of barstools, millions of Americans peered deep into their television sets on a late summer evening in 1969 and witnessed a moment of human triumph. On the screen in miniature, the Apollo lunar module touched down on the surface of the moon and released two humanoid figures. Their hazy images could be seen bouncing slowly and deliberately back and forth across the sand. Despite the fuzzy, ghostly quality of the picture, the glory

[88] Hannah Arendt, *The Human Condition*, (Chicago, IL: U of Chicago P, 1998), 4.

of the moment was apparent in every floating step, as it was in Walter Cronkite's breathless report ("oh boy ... oh boy ...") on the landing. Viewers ensconced comfortably before their sets at home could follow the progress in spirit and thrill at this bright symbol of American technological mastery over the conditions of human existence. Man walked off the earth and into a science fiction future on live television that night.

In Philip K. Dick's *Ubik,* this triumphant image of an American future turns into a dark vision of ontological failure. Published in 1969, at the apex of the United States' decade-long effort in the "Space Race" against the U.S.S.R., *Ubik* imagines the moon landing as a confused disaster. In the novel, Joe Chip leads a project to the moon, but a fiery explosion on arrival scatters his team and sends events spiraling. Reality begins to fall apart and time starts to melt as Joe attempts to investigate who, or what, is behind the moon disaster and its fallout. *Ubik* returns in its final pages to that earlier scene with few answers but a sense that the moon is where all was lost. In *Ubik*, Philip K. Dick clearly forwards a challenge to the moment that inspired millions.[89] By re-interpreting a history-making moment, *Ubik* offers an important critical lens into a period that obsessively imagined expanding the limits of human life.

Although it presents a dramatic counter-narrative to a key moment in U.S. history, the moon landing rarely appears in critical scholarship on *Ubik*. From the work of Stanislaw Lem to that of Fredric Jameson, literary discussion of the novel is narrow, typically focusing on its final two pages. In these final pages, Joe Chip's voice, which otherwise dominates the story-telling, is unexpectedly upended by a second,

[89] Over 600 million viewers worldwide watched the Apollo 11 land on the moon, setting a record that was not broken until the wedding of Princess Diana and Prince Charles in 1981.

contradictory narrative by his boss. The penultimate chapter ends with Joe Chip accepting that he is dead and that his consciousness is preserved in his cryonically frozen brain. Mysterious messages and strange manifestations of his boss Glen Runciter, like money that appears with Runciter's face on it instead of the official figureheads, are attempts by the living to communicate with him. The story seems to be over, but in the final brief chapter Glen Runciter's voice suddenly takes over. Having successfully made contact with Joe in "cold-pac," Runciter suddenly sees a coin with *Joe Chip*'s face on it instead of the official figureheads. The novel's final sentence announces that for Runciter, "this was just the beginning," asserting paradoxically that *Runciter* is in cold-pac and Joe Chip is alive; but the reader knows from Joe's account that, of course, he isn't.[90] The sudden emergence of this antithetical reality radically destabilizes the story, leaving the reader foundering before an ending that defies resolution. The subversiveness of this conclusion has appropriately come to represent the novel, but academic devotion to this perspective leaves analysis of the futurological imagination of the work somewhat anemic.

In this chapter, I examine the novel that Dick considered one of his most important, in the broader context of the futurological imaginations with which it engages.[91] From technologies that were practiced in real life such as manned space flight and cryonic suspension, to those that appear only in fiction like whole body transplant, the Sixties saw numerous efforts to imagine a future that sets the body apart. Hannah

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[90] Philip K. Dick, *Ubik*, (New York: Vintage, 1991), 216.
[91] Philip K. Dick, "Letter to Malcolm Edwards," in *The Selected Letters of Philip K. Dick, 1975-1976*, ed. Don Herron, (Nevada City, UT: Underwood Books, 1993), 245. "It is my current opinion that in *Ubik* I somehow by chance hit upon some important truth about the real nature of the universe, and I've had French people tell me this, but what specifically this insight is, I don't know."

Arendt, writing soon after the launch of Sputnik, the vehicle that inaugurated the Space Race, argued that space travel is an extreme attempt to define the human away from the animal by technological means.[92] According to Arendt, this new human, exchanging his natural "imprisonment to the earth" for an artificial freedom, releases himself from the earthly body that holds him to the political conditions of human existence; he enters a bare, scientistic world where "speech has lost its power," where the language of political meaning has given way to a "language" of mathematical symbols.[93] *Ubik*, as science fiction, engages the spectrum where futurological technologies, both successful and unrealized, promise this new human. It does so alongside a large body of texts produced in this period, a high season of American SF.[94]

In this chapter I investigate *Ubik* alongside Anne McCaffrey's *The Ship Who Sang* (1969) and Robert Heinlein's *I Will Fear No Evil* (1970) as Cold War science fiction that explores the possibilities and limits of the technological optimism that rose to a high point in a period of deep social turmoil. Fredric Jameson contends that Utopian texts should not be read in a straightforward way: either as programmatic blueprints for the future or as vague, unproductive wish-fulfillment which Marx and Engels criticized as lacking agency and strategies for revolutionary potential. Instead, they should be understood as historically and culturally specific responses that illuminate the conditions

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[92] Arendt, *The Human Condition,* 2. "The human artifice of the world separates human existence from all mere animal environment, but life itself is outside this artificial world, and through life man remains related to all other living organisms [. . .] This future man, whom the scientists tell us they will produce in no more than a hundred years, seems to be possessed by a rebellion against human existence as it has been given, a free gift from nowhere (secularly speaking), which he wishes to exchange, as it were, for something he has made himself."

[93] Ibid 4.

[94] Classic SF authors who wrote actively in this period include (but are by no means limited to) Ray Bradbury, Isaac Asimov, Philip K. Dick, Ursula Le Guin (a classmate of Dick's at Berkeley High School), Jack Vance, Robert A. Heinlein, Robert Silverberg, Poul Anderson, and Samuel R. Delany.

of their production and thus acquire a critical force.[95] In this chapter, I loosely take up Jameson's mode of reading science fiction, which falls generally in Jameson's estimation into the category of utopian texts, as imaginings of the future that are directed at the present in which they are produced and with which they engage.

I argue that in *Ubik* a critical voice emerges that is oriented not towards the future of 1992 that it depicts, but towards the particular technological optimism of 1969 that culminated in a brain-centered view of life that transcends the body.[96] This vision of life as rooted in the brain almost in exclusion of the rest of the body was not limited to fiction in this period. It is the logic that governs technologies including manned space flight (more specifically the technological assemblage that is the astronaut), cryonic preservation, and transplant medicine (in this period transplant technology becomes based on brain death for the first time), which all rose to high points – and were highly visible in American culture – in the late 1960s and early 1970s. To some extent, each of these visions imagines the body as a vehicle for the brain that can with the aid of technology be pushed beyond the horizon of the present. I argue that *Ubik* articulates a dystopian world that is implicitly critical of the promise of these technologies to leave the body behind, both literally and also figuratively as a way symbolically overcoming the social problems of the day. It does so in contrast to novels like McCaffrey's and Heinlein's, which embrace the utopian potential of technologically mediated, brain-centered life, albeit in very different ways. My reading of *Ubik* differs from Jameson's

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[95] Fredric Jameson, *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions* (New York: Verso, 2005).

[96] The organization of this dissertation roughly by different transplantable parts the body – the eye, the blood, the brain - is inspired by Natalia Molina's advice on thematizing the form of this project.

own brief but enlightening analysis of the text not to disagree with it but to put up a different lens to the novel; instead of approaching the way in which the text is deeply critical of the transformations of late capitalism, I explore *Ubik* as dystopian fiction critical of the utopian impulse of technology to transform the social conditions of existence by re-imagining the fundamentals of life itself.[97]

I position the brain-centered view of life in this chapter as an extension of, but also a departure from, the mechanized notion of the body that became symbolically and surgically important in the late 19th century. The turn-of-the-century notion of the body-as-machine (discussed in Chapter 2), made up of a discrete, interchangeable, mobile mass of working parts, helped to set the conditions of possibility under which the body could eventually be imagined as a brain housed within a machine-like body. The idea of the brain as the center of the consciousness was of course not new in Western civilization during the late 1960s; Rene Descartes' famous statement "Cogito Ergo Sum" represents a clear precursor in which the subjectivity of consciousness is opposed to the body. However, the vision of the 1960s of the brain as the seat of consciousness is a technologically-conditioned idea that is aimed at escaping the social confines of the present as tied to the body. Manned space flight is a good example of the way in which

[97] These readings are clearly not mutually exclusive, but given the constraints of this dissertation I will not fully explore them here. I would resist the anticipated argument that the critique of a utopian technological impulse can be easily subordinated as a part of the critique of Cold War capitalism in *Ubik* based on the way in which cold-pac and its effects seem almost to emerge as a character in the novel and acquire a life of its own. Perhaps this life would be condensed in the contrary figure of Jory, who is annoyingly meddlesome, but also intrusive and dangerous. As I will later discuss, Joe's cold-pac world is structured by Jory's mind.

the technological optimism of the Cold War period is linked to this notion of the brain-centered self as a vehicle of escape.[98]

The technological optimism of 1969 was deeply linked to the idea that human life was defined by the brain. This brain-centric view of life was imagined in this period, in the examples I discuss in this chapter, as a way of transcending the social problems that plagued the world by leaving the body behind. Lewis Mumford was very critical of the technological vision of the space program. He describes the astronaut as a technological assemblage in which the body is suspended inert within a life-preserving mass of wires, circuitry, tubes, and the metal of his suit and his ship: all of this becomes a vehicle by which his brain can be sent to the moon.[99] Even in 1969, these moon missions were seen by some as a way in which the wonders of technology could help mankind transcend the social problems that are entrenched on Earth. An article published in the *New York Times* on the morning after the Apollo 11 landing celebrated the achievement but criticized the effort as misguided in its failure to address the real problems at home: "Transfixed by the glowing vision of the stars, he too easily turns from his ugly failures on this earth."[100] I will return to this critique at the end of the chapter. Hannah Arendt also reacted to the success of Sputnik as a technological success that ultimately curbed and narrowed the definition of man: this she draws out in her figure of the "new human" as an artificial man who is no longer animal but a body of mathematical symbols and machines, which I briefly discussed earlier. *Ubik*, in contrast to *The Ship Who Sang* and *I Will Fear No Evil*,

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[98] A brain-centered self is of course not a completely new idea
[99] Lewis Mumford, *The Myth of the Machine: The Pentagon of Power*, (Boston, MA: Harcourt P, 1964), 306.
[100] Editorial, "Ad Astra," *The New York Times*. Jul 21, 1969.

takes up this utopian impulse by which technology redefines life in a critical way. *The Ship Who Sang* and *I will Fear No Evil* both embrace the promise of brain-centric life as opening up new possibilities for the body in very different ways.

Ubik:

Philip K. Dick's 1969 novel *Ubik* follows a scout of anti-psionic talent named Joe Chip through a shifting dystopian world in which his life has spun out of control. At the beginning of the novel, he is introduced to a seductive *femme fatale*, Pat Conley, who possesses the unique talent to change history. Joe brings his find to his boss, Glen Runciter, who soon thereafter takes both Joe and Pat as part of a team of anti-psionic talent to the moon where they are hired to nullify psionic disturbances. The moon turns a trap and an explosion stuns the team and kills Glen Runciter. Joe and the others rush Runciter back to Earth to be cryonically preserved, so that his consciousness can be maintained inside his frozen brain, but when they arrive at the moratorium they have trouble reviving his consciousness. Meanwhile, Pat's inability or refusal to change the path of history has made her the center of suspicion.

Mysteriously, Runciter suddenly seems to be everywhere despite his death. Impossibly, his face is on money, in television ads, his handwriting is found on the wall and inside of cigarette packs. Time has also begun to shift in strange ways, and to accelerate backwards so that the New York cityscape begins to take on the appearance of an earlier time. Joe gets separated from the group while trying to figure out these oddities, and eventually finds them in 1939 Des Moines, Iowa at Runciter's funeral. He and the other characters begin to die and he finally accuses Pat in a climactic scene in

which she confesses to being behind it all. Runciter suddenly appears and supplies Joe with an aerosol can of Ubik, which revives him. He learns from Runciter that Joe and the other members of the team died on the moon, and that brains are frozen together in "cold-pac." The strange world that they have been experiencing is half-life, a halfway point between death and true (brain) death. Joe accepts this explanation and resigns himself to spend the remainder of his time in this half-world fighting Jory, a nefarious half-life character in whose fantasy world Joe and the others live. In the final pages, however, this resolution is overturned. Runciter, in the moratorium, suddenly notices that one of the coins in his pocket has Joe Chip's face on it, implying that he is dead and that Joe Chip is alive. The novel ends with by stating that for Runciter this moment is only the beginning.

What follows is a lengthy discussion of *Ubik* in which I attempt to argue that the novel provides a critical vision of the technological optimism which in 1969 culminated in a brain-centric view of life. I first discuss *Ubik* as neo-noir in order to explore the way in which its structure adheres to familiar conventions that articulate anxieties about the role of women, a changing world, and in this novel, the looming threat of Soviet power. I then turn to examining the world of cold-pac that constitutes the second half of the novel as a dystopian vision of technological modernity. In doing so, I argue that the two halves are functionally linked in the narrative: roughly, I suggest that in the revelation that Joe's detective "chase" was centered on the wrong target – Pat and all that she symbolized in terms of Cold War anxieties rather than the menace of the cold-pac world itself as technological solution – we can glimpse a critical vision of the specific, brain-centered utopian impulse that rose into the public imagination in 1969.

Critical literary work on *Ubik* primarily grapples with the generic impurity of the text. For Stanislaw Lem, Peter Fitting, and Pamela Jackson, Dick's novel awkwardly straddles the divide between "trash" and high art in a way that challenges the methods and boundaries of literary criticism.[101] Indeed, Dick himself took this view of the novel over the years.[102] The uneven pacing, overall confusion of the plot, and brute characterization (where it is there at all) in *Ubik* suggest that the novel is careless writing: an inattentive thrust at mass entertainment. The employment of the generic props of science fiction – spaceships, telepaths, a crisis that threatens to end civilization – seems to render *Ubik* of a kind with the body of SF writing that Lem feels panders to its audience with unoriginal work disguised as probing inquiry. Peter Fitting likewise finds the "overabundance of traditional SF details" a discomfiting feature that places the novel outside the bounds of "good writing" with which literary scholarship concerns itself. Yet for all this, these critics vehemently defend the novel and raise it up as a brilliant work, uniquely deserving of attention for precisely the reasons it is ignored.

Stanislaw Lem forwards that *Ubik* makes the case for why Philip K. Dick is "a visionary among charlatans"; in his discussion of the novel, Fredric Jameson dubs Dick the "Shakespeare of science fiction"; Carl Freedman takes *Ubik* to be Dick's finest work. For all of these critics, the seeming failures of the novel, the qualities that might make it "trash," are the same features that elevate it above the standards of popular literature and mass entertainment of which it falls short. It is a book that is full of "meaningless

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[101] Peter Fitting, "*Ubik*: The Deconstruction of Bourgeois SF," *Science Fiction Studies*, Vol. 2, No. 1 (Mar. 1975), p. 47.

[102] See Pamela Jackson, "Sing Out Ubik," *Histories of the Future*, (Durham, NC: Duke U P, 2005), 171-184. Dick sometimes characterized *Ubik* as trashy and also at the same time as one of his greatest achievements.

contradictions" that cannot be made consistent in a manner that adheres to logical sense. There is no line through the narrative that the reader can follow that sorts out the twisting, sometimes directly oppositional, perspectives. This irreconcilability has become the sense of *Ubik* itself, according to these critics. Stanislaw Lem's approach is characteristic: "the impossibility of imposing consistency on the text compels us to seek its global meanings – not in the realm of events themselves, but in that of their constructive principle, the very thing that is responsible for lack of focus."[103] *Ubik* as science fiction demands a different method of reading.

Ubik in its method breaks down the generic conventions that structure the traditional readerly approach. It violates the conventions of SF, as its alternative world is unmoored through a lack of internal coherence or allegorical adherence to our own. It fails as a detective story, which requires a sorting out of the criminal and an explanation for the crime. In its "failure" to construct these consistent realities *Ubik* breaks through the reality construct of the bourgeois novel and reveals, according to Peter Fitting, the limits of literary interpretation. The reader cannot enter the world of this text to divine the signified below the signifier. *Ubik* reveals, according to this critical perspective, only itself as both cultural product and mode of production for the reader. Thus for Marxian critics, *Ubik* is deeply subversive; even more so for the popular form it takes.[104] It is an almost Brechtian presentation of jarring metaphysical questions in the guise of

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[103] Stanislaw Lem, "Philip K. Dick: A Visionary among the Charlatans," *Science Fiction Studies*, vol. 2, no. 1 (Mar., 1975), 60.

[104] Jameson, *Archaeologies of the Future*, 348. "It may be the very conventionality, the inauthenticity, the formal stereotyping of Science Fiction that gives it one signal advantage over modernist high literature. The latter can show us everything about the individual psyche and its subjective experience and alienation, save the essential – the logic of stereotypes, reproductions and depersonalization in which the individual is held in our own time [. . .] and can stand as a critique of representation itself." See also Peter Fitting.

entertainment. Because they locate the critical edge of the novel in a formal uncertainty that releases it from adherence to a coherent interpretive framework, these critics primarily focus on the final two pages of the novel in which one narrative viewpoint (Glen Runciter's) enters to contradict the dominant perspective (Joe Chip's) in a conclusion that actively resists resolution; there is no way to reconcile these two perspectives in the ultimate moment.

The formal critical reading of *Ubik* as a challenging novel that engages issues of ontological being, literary interpretation, and even commodity fetishism thus takes a very broad approach to the text. It raises up a few aspects (the final Runciter turn in the last two pages, Ubik-as-commodity, the quality of incoherence itself) that might otherwise be considered "trash" while jettisoning others as bad writing in earnest. Stanislaw Lem describes *Ubik* as *partially* redeemed: "the charms of Dick's books are not unalloyed, so that it is with them somewhat as it is with the beauty of certain actresses, whom one had better not inspect too carefully at close range, on pain of being sadly disillusioned. There is no point in estimating the futurological that is peculiar to an era."[105] Lem states that in contrast to the libratory potential suggested by the book's form, the particulars of *Ubik* are not worth considering. In this chapter, however, I propose to do precisely what Lem regards as pointless by exploring the futurological vision of *Ubik*. I pursue the qualities of the novel that these critics reject because, although they are impossible to discipline into a single coherent interpretive framework (which Fitting praises as *Ubik's* undoing of the bourgeois novel and its readerly habits), decades later they can be seen to express an

[105] Lem, "Philip K. Dick," 65.

enduring vision of a family of speculative technologies at a time when these technologies captured the public imagination with promises of new life.

In reading *Ubik* for the final pages in which reality is deconstructed and the variously selected elements that critique the basis of capitalist society, critics like Lem, Fitting, Jackson and Jameson are not interested in the novel as either a detective story or as science fiction. *Ubik* is of course both. Larry Niven, who wrote another example of this rare blend of genres in his Gil Hamilton series, describes "'tec/stf" as a difficult endeavor because there are two sets of contradictory rules to be followed. The detective mystery must be a tight logical puzzle but the science fiction story stretches the bounds of imagination and the known universe; how can the reader anticipate the answer of the detective story if, per science fiction, "all the rules are strange?"[106] The uneasy marriage meets on the common ground of sociological fiction, where the elements of the story speculate about our own society through the development of alternative utopian and dystopian versions of it. *Ubik* belongs to this category. Specifically it is a blend of *noir* and science fiction where the two paradigms are deeply interlinked to express an alternative, critical vision of the futurological impulse of the 1960s.

Shadows on the Wall:

The strong *neo*-noir elements in *Ubik* are fundamental to the narrative structure of the novel. In this section I devote some length to my discussion of *Ubik* as *noir* not only because it is unique to my analysis, but also because it is directly imbricated with the

[106] Larry Niven, "The Last Word about SF Detectives," in *The Long Arm of Gil Hamilton* (New York: Ballantine Books, 1976), 178.

articulation of disillusionment with prominent sixties visions of a technologized future in the text. Dick's work is no stranger to the *noir* treatment with cinematic adaptations like *Minority Report* (Dir. Steven Spielberg, 2002), *Total Recall* (Dir. Paul Verhoeven, 1990), and especially Ridley Scott's neo-*noir* masterpiece *Blade Runner* (1984) which was adapted from *Do Androids Dream of Electric Sheep*? (1968), a novel Dick published one year before *Ubik* (1969). *Ubik*, however, has never been successfully adapted to the big screen (though it has been optioned and linked to such weighty names as Jean-Pierre Gorin, Tommy Palotta, and Michel Gondry). Furthermore, attention to the neo-*noir* elements of *Ubik* forms a lacuna in scholarship on the novel for reasons previously discussed.

Although *noir* is a label that is usually associated with film, its sensibility and style extend beyond the silver screen. As a cinematic term, *film noir* is unstable to begin with. The characteristics that are typically attributed to *noir* – the hard-boiled crime drama, the private-eye, the *femme fatale,* a dystopian cityscape, low-key lighting and high black-and-white contrast, first person narration, cigarette smoke, blunt violence, and a fragmented storyline, etc. – are at once distinctive enough that *noir* is easy to recognize and even parody, but so idiosyncratic and unevenly collected as to resist definitive generic boundary-making. Individual *noir* texts constantly slip outside the borders assembled around the collected features, while remaining firmly *noir* nonetheless.

James Naremore, recognizing the slipperiness of the category, suggests that *noir* is elusive because it describes as well as produces. He states that it "belongs to the history

of ideas as much as to the history of cinema."[107] The category of *noir* emerged after the fact, to some extent a dialectical product of French critical reception of a handful of American movies (*The Maltese Falcon*, *Double Indemnity*, *Laura*, *Murder, My Sweet,* and *The Lost Weekend*) in the 1940s that would then be re-applied, re-worked, and eventually taken up self-consciously in neo-*noir*. Naremore takes *noir* as a discursive approach, "a loose, evolving system of arguments and readings that helps to shape commercial strategies and aesthetic ideologies"[108] that extends beyond the cinematic. Indeed, for him the representative artist of *noir* sensibility is not a filmmaker, but writer Boris Vian (Vian wrote an infamous series of racially charged, brutally violent murder mysteries under an American pseudonym in the 1940s).

Mike Davis, like Naremore, understands *noir* as a broad cultural category that extends beyond film. In *City of Quartz* Davis offers a compelling vision of *film noir* as fundamentally tied to the city of Los Angeles. L.A. is the site of *noir* production (a Hollywood inhabited at the time by leftist intellectual writers and European émigrés), its subject (a wealthy dystopia built on myth, an industry of myth*making*, legislated racism, rampant real estate speculation, and a strange breed of political conservatism mixed with religiosity), and the environment that produces *noir*'s critical edge as "anti-myth."[109] Davis considers *noir* to be a significant class of texts that leaps off the screen and into a heated war of representation over the socio-political, economic, and literal urban space that hosts the culture industry of America. At its best, *noir* darkened the bright vision of

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[107] James Naremore, *More Than Night: Film Noir in its Contexts,* (Berkeley, CA: U of California P, 1998), 11.
[108] Ibid.
[109] Mike Davis, *City of Quartz: Excavating the Future in Los Angeles* (New York: Verso, 1990), pp. 37.

L.A. as a promised land and prompted both consternation and real financial investment from the deep pockets of regional boosters in a thin scene of L.A. as cultural center.[110] His discussion of *noir* is far more local than Naremore's but Davis, like the film historian, recognizes that *noir* is – more than a set of stylistic conventions or an enumeration of titles – a process that wraps the political in a particular brand of narrative and form that has the potential to convey subtle and sometimes explosive critique.

Ubik was published in 1969, nearly two decades after the films of the classic *noir* cycle began to grace American theaters. The constellation of cues that signaled *noir* had by the end of the sixties become familiar tropes, long since retrofitted into the neo-*noir* category that deploys this established lexicon self-reflexively.[111] *Ubik* is a textual hybrid of neo-*noir* narrative elaborating a science fiction world. The anti-hero detective, *femme fatale*, fragmented cityscape and endless cigarettes that populate the text are as at home in *noir* as commercial space travel and psychic communication are in science fiction. Furthermore, the dystopian sensibility, alienation, retreat into materialism, and social fragmentation of the novel rests at the intersection between these two genres. In *Ubik* the *noir* cues, and especially the *femme fatale*, set up readerly expectations for a crime plot to be unraveled and a perpetrator identified, but no such resolution occurs. Instead, the pursuit is abandoned at the conclusion for a plunge into the dark reality of the present, thus recasting the past (pursuit) and leveling a critique at the whole process. This critique,

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[110] Ibid, 22.

[111] Movies like *Double Indemnity* (Dir. Billy Wilder, 1944), *Laura* (Dir. Otto Preminger, 1944), *In a Lonely Place* (Dir. Nicholas Ray, 1950) and *A Touch of Evil* (Dir. Orson Welles, 1958 and often considered to be the last film of the classic *noir* cycle) established the cinematic language that collected around the *noir* phenomenon. Notable neo-*noir* movies from the sixties to the present turned the features that had become *noir* convention back on themselves: *Chinatown* (Dir. Roman Polanski, 1974) and *L.A. Confidential* (Dir. Curtis Hansen, 1997) are stellar examples of the category.

I suggest, is aimed at the speculative technologies of the 1960s that imagined, through a technologically mediated, brain-centered vision of self a way into a new future that sheds the problems of the past with the body that it can overcome.

The *femme fatale* in *Ubik*, and expectations this character trope raises, is central to the narrative progression of the novel.[112] Like many *fatales* before her, Pat Conley represents the "bad" half the *noir* feminine dyad and thus is a focus-point of the *noir* detective's, and the *noir* audience's, attention. *Noir*, which E. Anne Kaplan describes as a "male quest" in which the intrigue centers around women and their sexuality, frequently operates on one level as a project of sorting women into categories of good and evil. In this patriarchal space, the *femme fatale* presents a quandary; her role as an object of the desiring male gaze outside of traditional feminine roles and spaces troubles the hero and the audience, who must decide whether she can be trusted. Thus her sexuality is both the lure and the obstacle to the male quest, often with broader implications for the trouble the *noir* hero faces in the fragmenting city-space.[113] In *Ubik*, Pat Conley enters as a *femme fatale* with the signs of her troubling nature clearly marked. The novel positions the reader to identify with Joe Chip (with two notable exceptions that I will later discuss) in his investigations into the moon disaster and Pat's potential involvement in the matter; the third-person-limited voice that Dick uses to present the narrative reinforces this mode of identification. Thus much as the city is formally presented to the *film noir* viewing

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[112] Stanislaw Lem also refers to the character of Pat Conley as a *femme fatale* in passing, in describing the plot of *Ubik*. In general she receives little critical attention.

[113] See Jacques Tourneur's *noir* classic *Out of the Past* (1947) for an excellent example of the gender troubling presented by the *femme fatale*.

audience as fragmented and alienating in the way the *noir* hero would see it,[114] the reader of *Ubik* is formally aligned with Joe Chip's perspective: his suspicions, his desires, his blind spots.

Pat's introduction to the novel demonstrates the way she is positioned as *femme fatale* to be a troubling object of male desire. Early in the narrative, Pat arrives at Joe's apartment to be tested for anti-psi powers, which she possesses in spades. She demonstrates her unique ability to alter the path of time by changing a past in which Joe failed her test out of displeasure because she refused to strip naked for him. Joe is confused when she begins to strip in this version of the present, and incredulous when she explains her demonstration, until she shows him a note of refusal written in his own hand as indisputable proof. His handwriting scrawls out the words, "inadequate [. . .] no value against precog ratings now in existence."[115] Her legibility to him and his reception of her – both as powerful anti-psi talent and as a woman – *literally* depend on her ability to fulfill a male fantasy of female sexuality. This strange introduction sets the tone for the narrative construction of Pat through Joe's perspective for the rest of the novel. He continues to see her always as a sexual object first and foremost, even pausing to notice the curve of her exposed breasts moments after the explosion kills his boss on the moon.[116] This distraction obviously clouds Joe's judgment as in the next moment he refuses Al Hammond's reasonable suggestion that her inaction (she doesn't turn back time to save Runciter) makes her an untrustworthy team member.

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[114] Through the use of various formal film techniques: low key lighting for deep, disruptive shadows that cut through the frame; disorienting misalignments in diegetic sound; odd camera angles for a stylized cityscape that is not presented for geographic coherence.
[115] Dick, *Ubik* 31.
[116] Philip K. Dick, *Ubik,* 72.

Runciter, too, constructs Pat as the object of masculine desire. In the rare moments when narrative presents his perspective, he adds to Joe's catalog of Pat's features in an erotic textual inventory for the reader. She is "copper-skinned," "long-legged," "her breasts: hard and high," with "tumbling black hair and eyes," a "bare, dark forearm," "and a "sensual mouth." Pat's character exudes sexuality even when she does not intend to: "it was [. . .] as if the girl resisted being attractive, disliked the smoothless of her skin and the sensual, swollen, dark quality of her lips." Compare this thorough, almost tactile description of Pat, the *femme fatale*, to her foil: the "good woman," Runciter's wife. Ella Runciter makes significant appearances in the novel (in the opening chapter, Runciter visits her in a cryonic preservation facility where her body and still-conscious mind are housed) but is described only in brief as "a pretty girl" or "a beautiful woman." The modesty of this description is in direct contrast to the expressive sexuality with which Pat is textually constructed as the object of a desiring male gaze in the style of a *femme fatale*.

Yet if this sexualizing male gaze is a form of control, Pat as a *femme fatale* also troubles these men's ability to "know" her. Joe Chip is aware that Pat's anti-psi power is dangerous from his first encounter with her. After her astonishing psionic and sexual manipulations, he marks her test forms with a secret code for Runciter: a double cross of treachery (which he deceivingly tells Pat is shorthand for her desirability as an employee). She manipulates time at her first meeting with Runciter and retroactively establishes herself as Joe's wife and mistress (in different timelines, respectively). Another anti-psi talent, Francesca Spanish, perspicaciously describes Pat's tremendous

abilities: "Someone [. . .] just now moved us, all of us, into another world. We inhabited it, lived in it, as citizens of it, and then a vast, all-encompassing spiritual agency restored us to this, our rightful universe."[117] Joe Chip, despite his foreknowledge, can muster only a vague suspicion against Pat: "*She's been doing something* [. . .] *Something is wrong*."[118] Through a combination of sexual and psionic manipulation, Pat handily eludes Joe's attempt to sort her away; she ends up with the Runciter team on the mission to the moon. Through the rest of the novel, Joe suspects Pat of treachery, but quickly becomes too enmeshed in the mystery of a deteriorating world to pin her down. The narrative of *Ubik* as structured by the viewpoint of the detective anti-hero and his relationship to the *femme fatale* situates Pat as the perpetrator of a vast and conspiratorial crime who must be brought to justice. Thus the tropes of the *noir* narrative keep Pat a center of focus for the reader, as Joe attempts to "solve" the crime; without them the novel would collapse with the weight of obvious conclusions, as I will discuss. The end of the novel, however, is a devastating demonstration that the *noir* paradigm no longer applies.

For literary scholars, the ending of *Ubik* redeems Dick's novel despite its failures as a story. These interpretations of the novel as a commentary on one's ability to know truth, reality, and even oneself are insightful and productive but are based on a reading method that jettisons the rest of the novel – the detective story, the *femme fatale*, even the "cold-pac" version of Des Moines, Iowa - as something akin to superficial setup. However, I suggest that it is integral to the story. The mystery of the backwards acceleration of time, which Joe pursues from 1992 to 1939 and logically attributes to the

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[117] Ibid, 57.
[118] Ibid, 49.

femme fatale due to its resonance with her talent, in the end seems to explode the *noir* narrative with the revelation that nearly all of the characters have been dead since before the mystery began. Runciter appears, impossibly, before Joe in 1939 to tell him that *he* is alive and Joe and the anti-psi team are in cold-pac; since the moon disaster, this has all been the dream of a dead man.

This resolution of inexplicable events is short-lived, however, when the reader remembers that this solution is eerily familiar: Al Hammond (who also accused Pat of betraying the team) proposed exactly this explanation, with evidence, soon after the explosion ("we're in half-life [. . .] we're probably on our way back to Earth from Luna, after the explosion that killed us – killed *us*, not Runciter."[119]) Al disappears and Joe inexplicably ignores this answer when he sees a news broadcast by the rival psionic organization leader, Ray Hollis, announcing that Runciter is dead. He continues to suspect Ray Hollis and the *femme fatale,* spending his energy in a vague pursuit of Pat, until the truth is finally revealed again by Runciter himself. The reader follows along with Joe's theories, because the *noir* structure of the first half of the novel builds expectations towards an end that centers on the *femme fatale*. Of course, this reality too is cast aside when the novel in its final moments returns to Runciter's perspective. There he is just beginning to experience the same effects that signaled that Joe is in half-life; if Runciter, Joe, and all the others are dead, then which of these mutually exclusive perspectives is real, and how does the reader decide? *Ubik* is a mobius strip of a text that appears to leave the reader with nothing from the story but its own sudden deconstruction. Thus critics like Lem view the conclusion as one that "sweeps [the rest of

[119] Dick, *Ubik*, 121.

the novel] under the rug" without warning or explanation.[120] In order to read meaning into the detective story and the *femme fatale* that the conclusion ultimately sets aside, however, it is useful to consider the ways in which it reflects the shape of the Cold War in the 1960s.

The *femme fatale*'s troubling nature is grounded in more than just her sexuality. Working off films from the classic *noir* cycle, Kelly Oliver and Benigno Trigo suggest that the *femme fatale* is an unruly woman, her geographic mobility and association with border towns, ports, and thresholds destabilize the *noir* hero's sense of Descartian rational being. She is often racially ambiguous, embodying a "white darkness," or ethnic otherness that works beyond the bounds of the *noir* detective's more narrowly American experience.[121] Elsa Bannister in Orson Welles' *The Lady from Shanghai* (1947) and Carlotta in Hitchcock's *Vertigo* (1958) exemplify these aspects of the *fatale*. Pat Conley, too, is consistently coded as dark in coloring, particularly in contrast to Ella, who is "pretty and light-skinned; her eyes [. . .] bright and luminous blue."[122] Moreover, like the Cantonese-speaking, white Russian Elsa (Rita Hayworth) in *The Lady from Shanghai*, Pat demonstrates a thorough knowledge of and identification with cultural spaces beyond the mainstream white, American experience of "Joe Chip." When she first meets Joe, Pat explains that she has been living in a kibbutz – a commune in Topeka, Kansas that deliberately sets itself against American capitalism. This racial and political difference is entirely foreign to Joe's experience. He is thoroughly embedded in (though failing

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[120] Lem, 'Philip K. Dick," 62.
[121] Kelly Oliver and Benigno Trigo, *Noir Anxiety*, (Minneapolis: U of Minnesota P, 2002), 4. Mike Davis also comments on the racial dynamic of *noir*, calling the L.A. of the *noir* imagination a "deracinated hell."
[122] Dick, *Ubik*, 12. This description, although it enumerates Ella's qualities, is a far cry from the sexualized depictions that consistently follow Pat throughout the novel.

miserably at) life in a hyper-capitalist society: he is the man who, despite his professional success, is famously unable to keep enough change around feed the front door of his automated apartment so that he can enter and exit. Joe notices the signs of Pat's political past but fails to comprehend them: spying the consumer warning "CAVEAT EMPTOR" tattooed on her ("dark") forearm, Joe innocently asks, "Is it Hebrew?" "Latin," she briefly corrects, sizing up her mark in an instant.[123]

Pat's racial darkness and identification with values in tension with capitalism should not be overlooked in the Cold War context of this novel. Furthermore, Pat is doubly other, as she has a deep personal history with the anti-pode to Joe/Runciter's anti-psionic body of talent. Both of her parents worked for their nemesis, Ray Hollis, and she developed her anti-psi talent in their psi environment. Joe Chip explains the monolithic psi/anti-psi antagonism, which for the "talented" is *more* than just identification but rather a fundamental aspect of their beings:

> One insect learns to fly, so another learns to build a web to trap him. Is that the same as no flight? [. . .] In a sense, [anti-psi talent] is a life form preying on the Psis, and the Psis are life forms that prey on the Norms. That makes you a friend of the Norm class. Balance, the full circle, predator and prey. It appears to be an eternal system.[124]

This evolutionary contest, in which one talent develops a new technology only to be neutralized by a corresponding counter-technology advanced on the other side, could

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[123] Dick, *Ubik*, 26. Again, compare Pat's mobility to Ella's confinement to a traditionally feminine role. In a world where cryonic preservation has become routine practice, Ella's body is suspended in a transparent, upright coffin. Her brain is preserved at low temperatures and her personality accessed by Runciter every decade or so, when he wants to confide about his problems at work. In her frozen state, Ella is truly contained in the role of good, receptive wife. Runciter calls her his "half-lifer wife." She is literally frozen out of space and time, at his disposal physically (he peremptorily moves her body into solitary despite the moratorium director's warning that she will be lonely), aware of only what he tells her when he wakes her.
[124] Ibid., 26.

easily describe the Cold War itself. The Space Race that Americans obsessed over through the 1960s sprang directly from this constantly escalating stalemate between the U.S. and the U.S.S.R. and generated fervor for powerful technologies that seemed to promise national supremacy and a future for the American way of life. Pat is cast by her associations with Hollis, her anti-capitalist and non-white past in the shadow of the Soviet menace. If *noir* anxiety is figured through the *femme fatale*, then the anxiety imagined by the detective story in *Ubik* is a latent fear of a socialist threat and the detective's inability to comprehend this danger. *Ubik*, however, is a text of a transitional moment in the Cold War and the *noir* mystery conclusion is cast aside. Pat - threatening or not – has little to do with the resolution that captures readers and critics' attention at the end of the novel. In order to explore the significance of this elaborate *noir* snare, I return to the scene of the moon disaster that echoes the real-life mission that was America's success in the Space Race.

The scene on the moon is brief, but Luna in 1992 stands in stark contrast to the luminous and hazy picture that was beamed back to televisions in 1969. Unlike the soft, fine sand that gave under the light tread of the first astronauts, the heavy industrial clutter that covers the lunar surface in the novel paints the moon as a harsh, uncompromising environment for humans. Fictional Luna consists of Techprise's manufacturing and research facilities, an unmanned sub-surface hotel with self-regulated heat, water and air, coin-operated dispensaries for medication and tranquilizers, and numerous change machines. The text gives no sense that the lunar settlement extends beyond the research buildings and tightly controlled and monetized living quarters of the company's

"Mickville" (named after the fictional industrialist, Stanton Mick). The moon, in this science fiction world, holds no soft, bright promise; it is only a hard and desolate company town.

If the inhuman quality given to the moon in *Ubik* is in a way untimely in 1969, its placement at the climax of *Ubik*'s narrative arc presses the comparison between fictive account and historical moment. Instead of an event of national triumph, the fictional moon landing in *Ubik* is depicted as a serious and irrevocable mistake that results in a process of complete societal deterioration. As the moon disaster shows, the technological solution – the Space Program – and even the war itself are doomed efforts. They bring us only to the false fantasy of cold-pac, "halfway between the world and death."[125] Joe Chip is suspended in the fantasy, only just sustaining himself with the reviving aerosol sprays of Ubik that keep his energies from dissipating. This half-life is a far cry from the utopian future that many cryonauts, who in late sixties entered "cold-pac" in real life, hope to wake up to. Pervaded with a sense of loss ("regression," "reversion," "devolution"), the technological future in this novel leads only to a replay of a past that is patched from the "recreated remnants of another millennium, lacking any connection to the familiar, real world."[126]

In the text, half-life in Des Moines, Iowa in 1939 is represented as a fantasy of pre-war, small-town America. The sudden regressions from 1992 eventually land on what Joe describes as the ideal version of America – but here it is turned into depthless simulacra. The half-life town is populated with shiny Pierce-Arrow automobiles, old-

[125] Ibid., 87.
[126] Ibid., 148.

timey drug stores with suited pharmacists behind marble counters, steak restaurants with names like The Matador, and unfailingly polite hotel attendants and taxi-drivers. Fictional half life, in fact, is much like Disneyland in real life. There are of course no prostitutes in this fantasy town (Joe checks), just a "good clean family hotel."[127] Perhaps the semblance between this airless, frozen fantasy in *Ubik* and the Southern California theme park should come as no surprise. Philip K. Dick was living less than fifteen minutes away from Disney's famous simulation of Main Street, USA when he wrote *Ubik* in 1969. The Berkeley transplant (and reputed drug enthusiast) must have found the deep conservative heart of Southern California an incongruous setting; it is the very illusion of the L.A. "sunshine" development that *film noir* worked to dispel, according to Mike Davis. In *Ubik*, Joe Chip marvels at the completeness of the illusion, the diversity of cars, the many details. He does not wonder, however, at the iconic symbols that Dick flashes at the reader in the heart of his text: in *Ubik*'s 1992, Walt Disney's head is on the fifty-cent piece (or Fidel Castro's on older coinage, a sly textual hint that the currency of Cold War rivalries is past, a point which my analysis will argue is important).[128] One might almost imagine that somewhere in this fictional cryonic fantasy, Walt Disney's frozen brain (rumored in real life to be stored under Disneyland) floats next to Joe Chip's, dreaming this synthetic life.

The clarity of half-life in *Ubik* implies that the murky Cold War anxieties engendered by the *noir* story are but figments of the past. Pat's associations with Ray Hollis are real, perhaps, but ultimately immaterial. She may have sent the team to its

[127] Ibid., 202.
[128] Ibid., 105

death but the extent of her involvement ended early in the novel. The text's *noir*-ish structure "snares" the reader, leading him to follow the woman, into her mysterious past, her personal attachments, the secrecy of the Cold War, and her political treachery, along with the hapless *noir* hero. But as the flat-falling resolution that in the end reveals nothing reminds us, the problem of the novel in fact lies elsewhere. Cold-pac is where the action is; half-life is what matters. From the climax of the moon landing until the last page, the speculative technologies of the 1960s imagine a future in which the "body separate[s] from soul"[129] and that future is dead.

Thus far, I have explored the ways in which Philip K. Dick's *Ubik* deliberately deploys a *noir* narrative to structure a critique of Cold War technological optimism as it stood at the end of the 1960s. Lem and other critics are correct in their observation that the 1969 novel is not a polished piece of writing (the insertion and then abandonment of the detective mystery is particularly brusque), but the *noir* form resonates deeply with the themes *Ubik* investigates. *Noir* has long been associated in film scholarship with Cold War anxieties from nuclear weapons to women in the workplace. In *Ubik* this worldview is brushed aside to highlight a more urgent reality: the American futurological vision in which technology could take us from a deeply flawed human condition into a perfect future.

Cryonic Fantasy:

The end of the 1960s was a period when in many ways the future seemed to wax brighter and nearer than ever it had before. Amidst the deep social turmoil that erupted throughout the nation with urgent questions about the Vietnam War, the threat of

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[129] Dick, *Ubik*, 132

ecological collapse (synthetic pesticides and nuclear war), and the oppression of racial minorities and women, scientific endeavor promised hope. It backed that promise with concrete advances. Scientific ideas that once worked only in the realm of fiction brought space travel, cryonic preservation, and organ transplant to life. Today these seemingly discrete technologies have met with varying levels of success in the passage of time, but in 1969 they all stood on the cusp of realizing a shared dream in which the human brain could make the leap from the present into the future.

"Cold-pac" in *Ubik* is a fictionalized version of cryonic preservation, a science that at the end of the 1960s was practiced in life. Walt Disney was widely rumored to have been cryonically preserved and his body hidden under a popular Disneyland ride, but University of California professor James Bedford was in fact the first human to undergo cryonic preservation upon his death in 1967. Bedford's body is still submerged in liquid nitrogen today at the facilities of Alcor Life Extension Foundation. Alcor, the "world leader in cryonics," germinated as an idea in 1970 and solidified as an organization in 1972. It was part of a small "freezing movement" that sprang up in the mid-sixties during the Space Race (Alcor is named after a famous star in the constellation Ursa Major) with special concentration in the high-tech dreamland of Southern California and the suburbs of Phoenix, AZ. Cryonics corporations (Alcor Life Extension Foundation, Cryo-Care Corporation), support societies (Cooper Life Extension Society, Cryonics Society of California, Cryonics Society of New York) and a special publishing organ (periodical *Freeze-Wait-Reanimate*) worked hard to realize a technology that was

also featured in multiple science fiction stories.[130] Though practiced, this technology has not yet garnered the spectacular success of the Apollo moon landing or transplant medicine; yet cryonic preservation, like space travel and transplants, envisions a utopian technological possibility based on brain death.[131] In this section, I explore the futurological visions in this period that imagined transforming the human condition by setting the body outside of what it means to be human.

Cryonic preservation promises to help humans live longer. Instead of replacing faulty parts like organ transplantation, companies like Alcor aim to "transport just the brain to the future." The technology is based off the brain death definition, a medical concept forwarded in 1968 in the *Journal of the American Medical Association* (*JAMA*). The article on the state of "irreversible coma" redefined the cessation of life (legal death) from the traditiona marker – cardiac death – to include brain death.[132] This move established a clear terminal moment for patients who might otherwise be maintained on advanced resuscitative and life support technologies. It not only brought the concept of death into line with modern medical practices, it also freed (as it aimed to do) whole vital organs for the newly viable technology of organ transplantation. Transplant medicine had been making steady progress in the post-war period. Landmark surgeries include the first successful kidney transplant in 1954 (Boston, MA), the first successful lung transplant in 1963 (Oxford, MS), the first successful pancreas transplant in 1966 (Minneapolis, MN),

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[130] Cryonics stories of the immediate post-war period include Robert Ettinger's "The Penultimate Trump," cold-pac in Dick's *Ubik*, corpsicles in Larry Niven's *The Defenseless Dead*, cryo-preservation in Robert Heinlein's *The Age of the Pussyfoot*, among others.

[131] Notable Quotes, Alcor website. Sir Athur C. Clarke: "Although no one can quantify the probability of cryonics working, I estimamte it is at least 90% -- and certainly no one can say it is zero."

[132] Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death, "A Definition of Irreversible Coma," *Journal of American Medical Association*, Vol. 205, No. 6, August 5, 1968.

and the first successful transplants of the liver and the heart in 1967 (Denver, CO and Capetown, South Africa respectively). In 1968, a 20-year old brain dead patient in Texas became the first multiple-organ donor. In the same year, the first organ donor programs were established in Los Angeles and Boston. The successful technology that opened new vistas for seriously ill patients grounded a futurological imagination in which the human life-span could be radically extended. Conceptually cryonics took the 1968 brain death definition, intended to facilitate the growth of transplant medicine into a viable technology, to a more ambitious level.

Cryonic preservation is in many ways a natural extension of transplant medicine. In this schema where true death is only brain death, technology can ameliorate an ailing body and where there is brain activity there is hope. In the novel *Ubik*, Glen Runciter lives an augmented life with a dozen "artiforgs," artificial organs grafted in place where each original had failed. The artiforgs help him maintain a vigorous middle-age at over 80 years old, matching the longevity of his cryonically preserved "half-lifer wife" Ella. In suburban Scottsdale, AZ, Alcor banks transplantable organs at low temperatures and applies this cryo-science to "the much more difficult project of preserving whole people."[133] Alcor customers freeze their failed bodies at very low temperatures immediately after cardiac death, hoping to suspend the still-viable structural and chemical integrity of the brain, staving off true brain death. It is in this state that fictional Ella Runciter is maintained, her body dead but her brain still alive and communicating. The "cryonauts," as many Alcor customers call themselves, await an age when "future medicine" can revive them. Thus cryonic preservation anticipates the equivalent of a

[133] Alcor website. http://alcor.org./

whole-body transplant in which the act of suspending the brain from death takes place on a vastly dilated temporal scale.[134] This brain-centered view of life is shared not only between transplant medicine – which officially understands the brain as "self" and rejects post-transplant narratives that embrace multiple or fragmented identities – and cryonic preservation; it is, as Hannah Arendt suggests, fundamental to the vision of space travel in this period as well.

Alcor customers dub themselves "cryonauts," playing off the idea of "astronaut" or "cosmonaut." They position themselves at the frontier of not only medicine but space travel.[135] The company's website highlights the link, consistently comparing the breathtaking achievement of landing a man on the moon to the challenge of bringing a frozen corpse back to life. Alongside a familiar photograph of Buzz Aldrin standing on lunar soil, Alcor literature quotes a "famous engineer" in 1957: "To place a man in a multi-stage rocket and project him Alcor materials quote the opinion into the controlling gravitational field of the moon … I am bold enough to say that such a man-made voyage will never occur regardless of all future advances."[136] Thus the success of Apollo 11 is projected onto the potential that cryonic preservation has to transform the limits of human life. Astronauts and cryonauts share more than the incredulity of skeptics, however; they also hold in common a vision of the future in which isolating the brain as the essence of man opens the way to space and time travel.

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[134] Richard Doyle, *Wetwares: Experiments in Post-Vital Living (Theory Out of Bounds)* (Minneapolis, MN: U of Minnesota P, 2003). For this reason, it is also more speculative along the lines of organ banking.
[135] Index, Alcor website. "Although cryonics is not reversible today, the eventual perfection of cryonics will be of great value to fields such as medicine and space travel."
[136] Notable Quotes, Alcor website.

Alcor refers to cryonic preservation as “medical time travel.” The cryonaut lives a life of anticipation, in which he projects himself into the future by way of his brain. Although whole-body freezing might suggest a holistic view of life, Alcor actually believes that specifically the retention of memory and personal identity is "the true boundary between life and death."[137] Cryonic freezing attempts to preserve these qualities of the mind, *despite* deterioration or death of bodily flesh. Thus, the cryonaut is truly in a state that Philip K. Dick calls “half-life,” “halfway between the world and death” (or perhaps halfway between two historical definitions of death – cardiac death and brain death). Physically the cryonaut’s body is placed in an enormous cylindrical metal canister called a Bigfoot Dewar, which Alcor describes as a “giant stainless steel Thermos.” The entire apparatus is cooled so that the cellular structures and neural pathways can be carefully preserved; the body is of course already dead. The cryonaut hopes that when he “wakes up” with the aid of technologies on the other side of the “future,” he will emerge from this metal time-capsule/ship as himself. “Future medicine” along the lines of the transplant technologies that cryotechnology branches off from may provide a body. In any case, the cryonaut is already a kind of cyborg whose brain is networked to various cryonic apparatuses: the life-preserving metal cylinder, cryoprotectant perfusions, even the various supplementary apparatuses that archive the cryonaut’s biological and cerebral selves before the cryonaut himself is archived.

The astronaut, like the cryonaut, is in a suspended state that sets his body aside. His gleaming metal ship traverses space rather than time. In 1964, Lewis Mumford

[137] In addition to whole-body preservation, Alcor also preserves isolated brains. The company’s literature reports that a single 10-foot Bigfoot Dewar actually holds between 9 and 45 individuals, depending on whether patients preserve their whole bodies or just their brains.

compared the manned space capsule to a tomb. The gleaming instrument-filled chamber that encases the astronaut's body "corresponds exactly" to the inner chamber of the Pyramid, where powerful artifacts are placed around the mummified body of the Pharoah for his "magical travel to heaven." For Mumford, like for Arendt, the technical apparatus of space travel isolates the concept of "man" from "life":

> At the bottom of this whole effort [of the space program] lies a purpose that animates the entire megamachine, indeed figures as its only viable consummation: to reduce the human organism itself, its habit, its mode of existence, and its life-purpose to just those minimal dimensions that will bring it under *total external control* [. . .] while actually alive, he is forced under strict training to divest himself of every hampering attribute of life, so that what is left of human existence are just those bodily and mental functions that will enable to survive under hardships and deprivations.[138]

The astronaut, like the cryonaut, is half alive. Furthermore, the reduction of the idea of life to this minimum seems to reach, in Mumford's estimate, towards a fantasy of escape. His use of metaphors of sorcery and heaven – the fantastical – in reference to modern science connotes a deep skepticism not of its workability as a technology, but of the vision of the future that it encodes; like Philip K. Dick, Mumford perceives the futurological imagination of sixties-era Cold War America to be a dead end. Unlike cryonic preservation and organ transplantation, space travel transports man across space rather than time, but in this case the distinction is not necessarily a large one. The significance of the moon landing was not the distance the rocket traveled, but rather the way in which it brought the future within reach with "one giant leap for mankind." Perhaps it follows, given these futurological visions, that leading NASA scientist Robert Jastrow was one of the first to predict the advent of a disembodied intelligence. Jastrow

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[138] Mumford, *Pentagon of Power*, 306.

anticipated a future when a "race of immortals" will transport the contents of their minds into the framework of a computer: "because mind is the essence of being [. . .] at last the human brain, ensconced in a computer has been liberated from the weakness of the mortal flesh."[139] Cryonauts, of course, do not agree with Mumford. Like the scientist in Jastrow's vision of the future, they entomb their bodies in a technical apparatus in anticipation of realizing a utopian dream.

In this section, I have analyzed the futurological imagination of the 1960s, and the way in which several important technologies of the day articulate a shared vision in which the future could be reached by separating body from mind. This vision, though disembodying, is ironically also deeply biological. The brain-oriented notion of life especially as articulated by cryonic preservation frees the notion of the individual subject from the social and cultural as context and construction. Rather, the "self" is understood as information, neural pathways, and cellular structures that can be transplanted into a new social context with the right technology.[140] Thus Ella in *Ubik* can be relied upon to always be the version of herself that Runciter remembers, though she passed out of full-life over 60 years ago. Cryonauts often imagine this new context of the future to be a better, kinder place, improved by the advancements that made their revival possible. They enter themselves into the speculative technology of cryonic science for a new lease

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[139] Robert Jastrow, *The Enchanted Loom: Mind in the Universe* (New York: Simon and Schuster, 1984), 167.

[140] As Richard Doyle notes, cryonic preservation is "a production of anticipation [. . .] oriented around an invisible, unverifiable point of comparison a space and time of impossible evaluation, a moment of sheer difference, the difference of revival." For this is the meaning of cryo-technology: to project oneself into absolute difference from which one can still emerge as oneself. Thus they exhaustively catalogue their lives, archive their personal information, medical histories, and memories, before archiving themselves so they can step into the future much as astronauts stepped onto the moon.

on life but also the hope that either society will be reformed, or they will.[141] Science fiction also explores these themes.

Ghost in the Shell:

Anne McCaffrey's *The Ship Who Sang* (1969) explores the libratory potential of the brain-centered self with a female lead character, Helva, who overcomes severe physical limitations through an apparatus that combines notions of whole body transplant, suspended animation, and space travel. Robert Heinlein's *I Will Fear No Evil* (1970), which I will discuss more briefly, envisions in its text the way the technology of brain transplant can open up social horizons and our understanding of the body simultaneously. I argue that, in contrast to *Ubik*, McCaffrey and Heinlein's respective novels embrace the utopian impulse in with these lofty visions of a body transformed by the speculative technology of the late 1960s. These science fiction utopias are, in their celebration of a technologically-mediated, brain-centered vision of life that opens new social horizons, also critical of the physical and social constraints regarding disability, femininity, sociality across age, gender, class, that are problems in their contemporary moment. However, where McCaffrey's vision of brain-centered life suggests more cautiously that this new notion of the body can address disability and allow a disabled woman to function as a strong individual in society, but falls back on heteronormative ideals to forward this idea, Heinlein's text explodes the idea of the body. De-facto brain transplant in *The Ship Who Sang* reinforces the utopian promise of the brain as the seat of human

[141] Comments in "Heaven for Atheists" by Valerie Barbaro, *The Humanist: A Magazine of Critical Inquiry and Social Concern*, July/August 2011. "Revived cryonauts by contrast probably won't face such a worst-case scenario [as that first faced by immigrants to the U.S.] because the people in the receiving society could conceivably display better emotional health and empathy than we do today, and they would set aside resources to help cryonauts reintegrate into their society."

life. Through brain transplant, Heinlein's characters participate in an orgy of embodiment in which multiple personalities of different backgrounds, ages, sexes are housed in the same body and that body is opened up to a new frenzy of erotic experiences that transcend those same barriers. In Heinlein's hands, the consequence of a brain transplant is the affirmation that human life and human experience are lived through the whole body.

McCaffrey's narrative forwards a futurological imagination in which the "problem" of the disabled body can be overcome through a cyborg identity. In the novel, Helva is "born a thing" with twisted limbs, vague hearing and dim eyesight. An electro-encephalogram shows her to have an active mind, however. Through a decision of her parents between euthanasia and life, she undergoes a "delicate transformation." Helva's infant body is housed in a protective metal shell and her body deliberately stunted by pituitary therapy while her mind is encouraged to develop and grow. Her education is formidable, spanning advanced mathematics, history, "basic alien psychology," physics, and her favorite: music. Meanwhile her brain also learns to manipulate the delicate and powerful circuit-controlled machinery that has become her body. Eventually she becomes a kind of sixties cyborg: physically suspended inside a giant polished steel cylinder very like Alcor's Bigfoot Dewar, Helva becomes the Brain of a spaceship that spans galaxies. Remarkably, the technological assemblage that encases Helva's brain (which is co-constructed with this machinery for this end) is a mélange of the futurological technologies in practice at the end of Space Race. Her cyborg self is the result of a whole-body transplant, which houses her chemically minimized body in stasis "out of biological time." Indeed, her (disabled) body is brought under the total control of external systems

in precisely the way Lewis Mumford suggests the astronaut's body is to "animate the entire megamachine" of space travel.[142] Helva is indeed an astronaut; and the novel goes to great lengths to prove that she is the *best* of astronauts. The disabled body is imagined as minimized, nearly discarded, and the brain transplanted into a networked machine-body that does and goes further than any ordinary human can. Freed from the frailties of the physical human body, Helva the Ship Brain lives hundreds of years longer than her fully human counterparts. For the remainder of the novel she struggles to prove both her ability as an elite spacecraft and her humanity as well. With each mission she demonstrates that she *more* than just an organic computer. She has empathy, imagination, is capable of love and art.

The utopian vision of a female cyborg in this novel imagines the emergence of a powerful mechanized body that sets the limitations of the biological body aside. However, the hetero-romantic resolution that confirms the humanity of the cyborg also ties Helva back into conventional gender binaries if not traditional roles. The galaxy-spanning adventures that prove her ability as cyborg are also a century-long search for precisely the right "Brawn" to partner with. Although this romance cannot precisely be termed heteronormative because Helva is a cyborg and McCaffrey is clearly working to expand the definition of the human, it does fall deliberately and neatly into a traditional gender binary. All Brains in the novel are female, most Brawns tend to be male. Helva spends decades testing (dating) brawns in shorter contracts to find the right one. Man after man underestimates her ability, treats her as just XH-834 (her machine name) instead of Helva, and attempts to assert male dominance over her. Finally Helva meets a

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[142] Mumford, *Pentagon of Power*, 306

man, Niall Parollan, who sees her as a romantic subject, a woman despite her mechanical body. In a classic resolution to a romantic drama, the two lovers come to realize their mutual regard at the last, desperate moment. In lust, Parollan casts himself against Helva's metal shell and threatens to open her "coffin" to access her.[143] He resists as this exposure would be fatal for Helva, throws himself a raucous bachelor party, and meets her halfway, willing to work with her in an equal partnership for life. She takes his name, changing her call sing from XH-834 to NH-834. The novel ends happily ever after, with Taps blowing in the sunset.

The narrative attempts to resolve the question of Helva's humanity by asserting her legibility as the subject of a bourgeois, hetero-romantic drama. Furthermore, the gendered binary is clearly one still deeply tied to traditional embodied notions of the self that are in serious conflict with any reading of the cyborg construct as truly libratory. If McCaffrey's novel attempts to imagine new possibilities for the human body with a technological solution, it only falls back on these same constructs by returning to notions of lust and sexual love to confirm the project's success. The question of disability in the text too, presents a persistent challenge to the project of expanding what it means to be human.

In the last years of the Cold War, Donna Haraway's legendary "Cyborg Manifesto" raised the sounding cry for feminists to break away from identity-based politics that naturalize traditional boundaries and origin stories in an attempt to redeem

[143] Anne McCaffrey, *The Ship Who Sang*, (Los Angeles, CA: Del Rey Books, 1985), 229.

essentialized notions of woman (or human, or blackness, etc.).[144] Socialist-feminists interested in breaking free from the production of categories, which according to Haraway always returns to a hierarchical, dualistic paradigm, should instead embrace a cyborg politics. The cyborg, Haraway argues, is always a hybrid, always partial, and has no origin. It confounds the border-war that rages at the divides between man/machine, man/woman, human/animal and other Western master narratives. The cyborg plays amongst these breakdowns and gathers from them freely, offering liberatory moments from totalizing theory.

In "Cyborg Manifesto," Haraway suggests that McCaffrey's *The Ship Who Sang* offers a vision of a cyborg that is a complex hybrid confounding gender, sexuality, embodiment, and skill into a new, potent consciousness. She also calls the novel "pre-feminist," perhaps also acknowledging the way in which it falls into the familiar patterns of the bourgeois novel. Helva is indeed a product of an early "high tech culture," which Haraway argues fundamentally challenges what it means to be human. In a very real way it is meaningless to try to distinguish, in the creation of the HX-834, "who makes and who is made in the relation between human and machine." In the case of HX-834, there was hardly "Helva" before the cyborg. Her process of becoming thoroughly integrates from her infancy the hard tools of circuitry and a mechanical body with the soft tools of an ambitious education and a chemically shaped fleshly body for this role.

However, the incorporation of disability at the heart of this cyborg method reasserts a reliance on origins and a conception of the natural (able) body. The first

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[144] Donna Haraway, "The Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth-Century," *Simians, Cyborgs and Women: The Reinvention of Nature*, (New York: Routledge, 1991), 149-181.

sentence of the novel informs us that Helva was born severely disabled. But because she possesses a "lively brain" her parents were given a choice between cyborgism and death. Thus cyborgism is, in this narrative, a fate reserved only for those whose natural bodies are beyond repair; it is literally an end of last resort. Helva's disabled body also never fully leaves the text, but is constantly encoded within – and in tension with – her machine-networked body. In its metal core, Helva's cyborg body literally hides her stunted disabled body in suspension. At the heteroromantic resolution to the novel, Helva is declared by the redemptive love of her partner to be "beautiful," a lust-inducing vision, which the cover image of her with stunning but delicate features and a flowing blonde mane reinforces. She is insulted in the next moment by the same frustrated man as a "wire-haired retard of a tin-assed martyr." Helva worries that Parollan will open the metal core and expose her stunted body not only because this will kill her, but also because she fears that she will not live up to his expectations of feminine beauty. This tension is never fully resolved in the novel, which ends with their romantic union secured by Parollan's declaration of celibacy.[145]

Thus Helva's disabled body remains a troubling presence to the end. It is never fully integrated into cyborg identity, but always remains external to the network. Furthermore, it represents a failure in the context of hetero-romantic closure. Parollan's lust is focused on Helva's "real" body, the one that he can never access; neither can her networked body resolve this need. In this way, the disabled body is always found lacking,

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[145] The cultural representation of disability and non-normative bodies as incompatible with romantic union has long been a trope, as seen in fiction from Victor Hugo's *The Hunchback of Notre Dame* (1831) to Lori Lansens' *The Girls: A Novel* (2007). Eunjung Kim has explored a subset of this phenomenon in the context of eugenic desire in Korea ("Mothering Disability in the Midst of Compulsion, Prohibition, and Exploitation of Production." Lecture delivered at University of California, San Diego, May 10, 2012).

and the cyborg body is ultimately supplemental and therapeutic. HX-834 is more accurately a "ship-brain," a precocious brain transplanted into a powerful metal body. Rather than a true cyborg, Helva embodies the "ghost in the shell" concept that Haraway attributes to pre-cybernetic technology, which plays with but maintains the animal/machine dualism;[146] indeed Helva's ilk are also referred to as "shell people" in the Brain and Brawn universe.

Sarah Einstein sharply critiques McCaffrey's "Brain and Brawn" series as stories of "enslavement of extremely promising children who have had the bad luck to be born – or in this one case alone, become – disabled."[147] In her 2010 article in *Redstone Science Fiction*, Einstein also asserts that the future technologies in McCaffrey's novels are not sufficiently imaginative compared to twenty-first century realities (she cites the ubiquity of far more advanced communications devices today). Her point about disability is well taken but I suggest that perhaps she is also somewhat ahistorical in her critique. Einstein underestimates McCaffrey's attempt to develop a utopian imagination in which the human condition could be transformed through an assemblage of radically future-oriented technologies of the day. *The Ship Who Sang* attempts, in contrast to *Ubik*, to create a vision in which technologies that stood on the cusp in 1969, and still endure in various forms today, offer *more* life chances for Helva as both a woman and a disabled

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[146] Haraway, "Ch. 4: The Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late-20th Century." In *International Handbook of Virtual Learning Environments*, eds. Joel Weiss, Jason Nolan, Jeremy Iunsinger. Dordrecht, The Netherlands: Springer P, 2006. pp. 120. Haraway uses the phrase "spectre of the ghost in the machine." She argues that these earlier forms operate something like automatons, which "could not achieve man's dream, only mock it." Interestingly, these lesser animated machines are in kind with mechanized organisms, "reduced to body understood as resource for the mind" in a move that deeply resonates with Mumford's vision of the astronaut. "Ghost in the Shell" also names a series of Japanese comics and movies which explore a world in which spirits appear to inhabit robotic bodies.

[147] Sarah Einstein, "The Future Imperfect," *Redstone Science Fiction*, 2010.

individual. She is smarter, faster, stronger and more sensitive than any man or "normal" human with these enhancements. Incidentally, this is what Donna Haraway posits as the heightened connection to technological tools that disabled people may experience; and indeed all people, as (to paraphrase) our machines become increasingly lively and we ourselves become more inert. In *The Ship Who Sang*, Helva manages to flip the hierarchical dualisms of disability, gender, and nature, but not disassemble them due to its adherence to the Cartesian mind/body divide. In contrast, Robert Heinlein's novel *I Will Fear No Evil* attempts to explode these dualisms.

Heinlein's novel takes a brain-centric technology – brain transplant – and transforms it into a door that opens to the body rather than one that leaves the body behind. In the novel, a wealthy tycoon named Johann Smith has been very ill for years, and is kept alive with minimal health by an army of doctors. In order to escape this horrible existence, he proposes to his lawyer Jack Salomon that they find a way to transplant his brain into a younger, livelier body. Salomon agrees and by coincidence Johann finds a perfect donor body a few months later when his young, buxom secretary Eunice Branca is killed in a bad neighborhood. His brain is transplanted into her body, and when he wakes he begins to hear her voice as an independent part of himself. Her consciousness seems to come from the body while his controls the brain.

He renames their body Joan Eunice and after a brief legal battle they are legally recognized as the new Johann Smith. However, they keep Eunice's presence in Johann's head a secret, as they fear that they will be committed to a mental ward. As Joan Eunice, the two explore their sexuality in the body they now share: the novel is thoroughly invested in descriptions of their sexual encounters with male bodyguards, female nurses,

other couples consisting of men and women. Joan Eunice also impregnates herself with Johann's frozen seed and marries Jack Salomon (to whom Eunice had been a secret lover before she died). They plan to move to the moon, as Earth has become overcrowded, polluted, and violent. At the end of the novel, Jack dies of a heart attack and his consciousness also takes up residence in Eunice Branca's former body with Eunice and Johann. Together, they plan to start a new life on the moon.

Brain transplant in Heinlein's novel serves as a way of symbolically opening up the body to many different, multiple, and simultaneous modes of being. This is in stark contrast to the far narrower vision in *The Ship Who Sang*, which pictures Helva as a brain almost in itself. Eunice's body, by contrast, is opened up through brain transplant into a new embodied experience of life that includes desire that does not adhere to strictures of age, gender, number of partners, or distinctions of romantic love and friendly affection. She also becomes a mother who has, in some sense, a baby conceived only by herself (parthenogenesis). At one point, Eunice's body houses four personalities: her own, Jack Salomon's, Johann Smith's, and her baby's. I suggest that in this novel, the brain-centered view of life that figures so prominently in utopian imaginings in this period is envisioned as a vehicle by which we can leap into a better future that is more open to different kinds of sex and love, and in this, humanity is finally unified. Characteristically this leap made on the moon: "Seven billion people makes Earth is a terribly lonely place . . . but there are only a few thousand on Luna and, if we try we can get to know all of them and love most of them."[148] The moon in this novel is envisioned as a new start, a utopian leap where the systemic, entrenched problems of Earth (in this case,

[148] Heinlein, Robert. *I Will Fear No Evil*, (New York: Ace, 1970), 505.

overpopulation, poverty, endemic violence, and environmental pollution) can be left behind. Eunice's body is a kind of orgy of embodiment as well as a symbol of the coming together of humanity in religious terms: in her she combines yogic tradition, Jewish and Christian faiths (the novel's title alludes to the Lord's Prayer). In her new body, the spiritual, intellectual, and carnal spheres of life are brought together and distinctions at each level are dissolved. Thus, for Heinlein, the horizon of utopia can be reached in technological promise of brain transplant: "an old world vanished and then there was none." [149]

In contrast to Dick's dystopian novel which articulates a critical voice through fiction of the technological optimism that culminated in a brain-centered vision of life, McCaffrey and Heinlein's novels embrace the possibilities that these technologies seemed to open. Insofar as they articulate in literary form the utopian imagination that followed the Apollo missions and cryonic preservation, McCaffrey and Heinlein's texts are themselves utopian productions that are critical of the limitations placed on the individual body as well as the structural problems that divide into deep and sometimes explosive tensions in the social body.

Ad Astra:

> *Now it is time for a preview of the World of Tomorrow. We step into the future and find fantastic atomic-powered machines working for us. The world is unified and peaceful...outer space is the New Frontier. We walk for a time among the strange mechanical wonders of tomorrow, and then blast off on a Rocket To The Moon."*

[149] Ibid., 512.

- 1958 Audio Tour of Disneyland by Walt Disney[150]

In 1955, Walt Disney gave a speech on live television about a place where Americans could come to experience the new frontiers opened by science and human ingenuity. This window onto the world constructed by man's achievements would allow visitors to "step into the future." There, Americans could see for themselves a world redefined by atomic science, the "challenge of outer space," and a spirit of adventure. This utopian vista was aptly named Tomorrowland at Disneyland and treated the park visitor to space stations, houses of the future, trips to the moon, a streamlined highway system (Autopia – an automobile utopia), and various science-education themed attractions.[151] It was the culmination of a fantasy projection of U.S. history in which the country's imagined mandate of Manifest Destiny (Frontierland) led into a quaint vision of pre-war small town life (Main Street, USA). In contrast to the tense Cold War atmosphere that gripped America in 1955, Tomorrowland promised a future in which technology could create a "peaceful and unified world." The science fiction playland allowed visitors to take a small "step into the future" with a rocket ship ride that, over a decade later, would be echoed in the Apollo 11's "giant leap" to the moon.

The soft, reassuring fantasies of the televised moon landing and Disney's world of tomorrow provide an escape from the oppressive, paranoid realities of Cold War life.

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[150] "Tomorrowland." Disneyland: Lands of Disneyland. Accessed June 10, 2012. http://www.jansworld.net/DL_pages/lands_of_disneyland.htm

[151] The National Interstate and Defense Highways Act that transformed America's landscape with a vast network of public roadways, resulting in modern car culture and large-scale development of suburbs, would soon be enacted in 1956. Utopian visions of an America landscaped by a highway system and personal car ownership have existed since at least the 1939 World's Fair GM-sponsored Futurama exhibit, which promised that "the world of tomorrow" would feature 14-lane highways that funnel free-flowing traffic through clover-leaf ramps. Walt Disney attended this World's Fair exhibit, and was inspired to create Disneyland, which carried over many of the naming conventions from their source at the Fair.

American newspapers including the front page of the *New York Times* anxiously reported rumors that a secretly launched Soviet spacecraft might edge out the American effort and that the U.S.S.R. establish itself as the world leader. The American public was deeply troubled by not only the nationalist agendas that filtered down to the individual citizen, but also environmental catastrophe, the human cost of the Vietnam War, and civil rights struggles all over the country. The utopian science futures seemed to imagine a way out of these anxieties. A well-written call for men to look back from these future-fantasies appeared in the *New York Times* on the morning after Apollo 11 touched down on the moon, and is worth quoting at length:

> Transfixed by the glowing vision of the stars, he too easily turns from his ugly failures on this earth. [. . .] For all his resplendent glory as he steps forth on another planet, man is still a pathetic creature, able to master outer space and yet unable to control his inner self; able to create miracles of science yet unable properly to house and clothe and feed all his fellow men; able eventually to colonize an alien and hostile environment and yet increasingly unable to come to terms with the nurturing environment that is his home.[152]

This appeal draws attention to the critical difference between radical utopia and everyday productions of utopian fantasy.

Fredric Jameson argues that in contemplating utopia there is a space for fear. Perhaps this is why he reads *Ubik* as at its most promising where it presents a future defined by "death of the subject," the loss of individualism, and an implosion of the politics of representation.[153] He suggests that the most successful utopia is one that cannot be imagined, as it exists on the other side of an enormous un-crossable chasm where the deep structural of political institutions that now condition even our fantasies

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[152] Editorial, "Ad Astra," *The New York Times*. Jul 21, 1969.
[153] Jameson, *Archaeologies,* 348.

will have been forcibly expelled long ago. Thus utopia is negative, an empty sign despite the production of utopian fantasies that work towards its end. The only vague picture of this perfect future is obtained, Jameson posits, from the fear with which we inevitably confront true utopia. Utopia is a space in which our basest impulses – of addiction, sexual pleasure, even self-preservation – have been dissolved by a complete and radical systemic satisfaction. However, not now being in utopia, we naturally consider this utter vulnerability, coupled with the alarming loss of the desires by which we know ourselves, with fear. [154] Like Dick's wild abandonment of representation and self in *Ubik*, true utopia requires a leap of faith.

For making this leap, we might count cryonicists as brave souls. The original figure of Jameson's utopia-fear is imagined as a "science fictional figure" who is rescued from the troubled present and ushered into a utopia of absolute difference. The steep price of this entry is his personality. His memories, his history, his drives, all are gone. What remains his consciousness, but as Jameson wrly puts, "by what effort of reason or imagination can it still be called "the same consciousness?" This dilemma describes the cryonaut's position precisely. He seems to project himself into a space/time of absolute difference, though there is no guarantee what dream he may wake up in. This is also, perhaps, where the biological notion of consciousness (discussed above) steps in to rescue the time-traveler from the abyss. As previously discussed, the cryonic preservationist transforms himself into an informational being. His consciousness, conceived primarily as biology, is suspended strangely beyond the social and cultural. To enter the future he has little fear, and perhaps also little to gain. Certainly the cryonic

[154] Fredric Jameson, "The Politics of Utopia," *New Left Review*, vol. 25, January-February, 2004.

fantasies of the second half of Dick's *Ubik* and the entirety of McCaffrey's *The Ship Who Sang* are no true leaps; they are extensions of the present, a step into a Tomorrowland of reassuring false (future) history.

Ubik is critical of this false "future"-oriented vision and versions like it. It seems to desire a kind of escapism (what Jameson calls wish-fulfillment or "the root of all evil" utopias[155]) from the oppressive conditions of modern life without breaking from the social conditions that create them. The Apollo moon landing was remarkable step towards this new time/place in which, unlike Earth, it possible to imagine, as the *New York Times* put it "not continuing or widening today's dangerous fissures." And yet, that article, published on the morning after the landing, went on to describe with zest, a moon (a bit like *Ubik*'s) developed with hotels and factories, governed by private industry, national administrations, or most ideally, the United Nations.[156] Given this desire to leap out of the present, the Apollo moon landing was remarkable indeed. The moon mission of thousands of man hours and millions of dollars – a truly herculean effort to hurtle ourselves into space – culminated in a moment that 600 million viewers worldwide could watch on their televisions: a man stepping from his closed, vacuum-sealed environment into that longed-for future. It was as if we sent a man to the moon for the moment when he could turn back to view the Earth he had left behind. These future projections are, in contrast to Jameson's negative utopia, obsessed with envisioning what *will have been* in a future perfect.

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[155] Ibid.
[156] Harry Schwartz, "Capitalist Moon or Socialist Moon?" *The New York Times*; Jul 21, 1969.

These spectacular moments of space-oriented progress that inspired the Sixties are summarily dismissed in Dick's *Ubik*: the Apollo missions are "creaky" and the Gemini spacewalks, "not interesting."[157] For the future, these Cold War visions are a dead end. And as Joe's Main Street-like cold-pac purgatory shows, attempts to return the social structures and formations of an idealized past are also deeply misguided. What is needed is a radical break from both of these synthetic fantasies, though that real future and our subjectivities in it may be blank to us now, as it is in *Ubik*.

The final, lasting image of protagonist Joe Chip is the man seated on a bench in small-town cold-pac, armed with Ubik in hand. Jameson reminds us (speaking on another topic) that Ernst Bloch revealed long ago how patent medicines draw on a deep desire for "eternal life and the body transfigured."[158] In cold-pac Joe has finally obtained a regular supply of the modern aerosolized version of that patent medicine. With every passing threat of dissolution, he sprays himself, restoring his consciousness to this fantasy.

Conclusion:

The science fiction of the 1960s imagined a future in which humans would be liberated from the limits of the physical body. Although the notion that new scientific understanding would transform the boundaries of life is not unique to this period – indeed, the mid-century speculative technologies that I explore in this discussion owe a direct debt to turn-of-the-century mechanical views of life considered in a previous chapter – it took on a particular form in this moment that was specific to the historical

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[157] Dick, *Ubik*, 150.
[158] Jameson, "The Politics of Utopia." Note: *Redstone Science Fiction* magazine aptly states, "We want to live forever. Get us off this rock," accompanied by a photo of a rocket blasting off. Redstone Science Fiction website.

and cultural conditions of its production. Nineteenth-century science conceived of the body as an automaton, an organizational puzzle built of interwoven circulatory, muscular, and electrical systems. The mechanical perspective opened the human form to view as a conceptually and surgically modern body to be transformed through principles of extension, interchangeability and efficiency. Decades later, this metrical view of life telescoped into a futurological imagination that in the late 1960s envisioned - through cryonic preservation, artificially grown organs for transplantation, whole body replacement, human-machine merges, psychic travel, and even space travel - a version of human life that could be finally freed from the frailty of the physical human form.

Chapter 4. Liminal States

> *Nothing we can call our own but death / And that small model of the barren earth / Which serves as paste and cover to our bones.*
> - *Richard III*, Act III, Scene 2, line 152

> *Determination of Death: An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead. A determination of death must be made in accordance with the accepted medical standards.*
> - Uniform Determination of Death Act, 1980

In the spring of 2000, a shocking story began circulating in the Western media. A man named Xiangming Qiu, who had been convicted of and imprisoned for tax evasion in China, was executed and his body returned to his family under suspicious circumstances. The close-range gunshot to the head that terminated his life was immediately evident to his brother, who retrieved the body. But the brother was shocked to discover that under the bloodied shirt that the corpse was wearing, a gory foot-long gash had torn the abdomen open. Mr. Qiu's internal organs had been removed.

The brother immediately accused the drivers who had delivered the body of tampering with the corpse. Noticing that the delivery van bore a distinctive government

license plate, the brother drove to the military hospital to demand an explanation for the mutilation. He was told that Mr. Qiu had given his verbal consent at the last minute, but the brother remained deeply skeptical. Reportedly, Mr. Qiu had been overheard just that morning questioning his guard as to why he was being subjected to a blood test before his execution; he was either not aware at the time, or was challenging the fact, that his organs would be redistributed after his death. The execution and organ removal for transplant took place only hours later. Mr. Qiu became, according to the *New York Times*, "one of hundreds, or even thousands, of condemned people in China whose organs have been 'harvested' minutes after their death by gunshot to the back of the head."[159] When this same narrative entered the formal discursive arena of the U.S. legislature months later, Mr. Qiu's corpse became evidence of the way in which Chinese organ practices uniquely constitute a world of "Frankenstein medicine where body parts are snatched to fill empty body spaces."

The story of Mr. Qiu is striking for a number of reasons. It is on its face a clear and dramatic representation of China's trespasses on the lives and bodies of its own citizens. The graphic and violent nature of the man's death, and the very strong suggestion that its execution is if not illegal then at least deeply unethical, is jarring compared to the familiar narrative of organ donation and transplant medicine in the U.S. as clean, safe, technical, and motivated by the altruism of thoughtful strangers. The inexorability of Mr. Qiu's fate, highlighted by his brother's concerted but ultimately fruitless attempts to mitigate the situation (by bribing guards for better treatment and information), underscores the vulnerability of individuals in that vast, impersonal

[159] Craig S. Smith, "Execution in China, Through a Brother's Eyes," *The New York Times*, March 11, 2001.

network of prisons in which state power and global capital intertwine. Finally, the narrative places a brutal representation of China's disregard for human rights before an American audience already familiar with this vision of the country (labor conditions, the one-child rule, child trafficking and illegal adoptions, and political crackdowns among them). These features are a key part of what makes the story of Mr. Qiu compelling for circulation in high visibility forums in the early 2000's; the shock value, especially, reinforces the story as emblematic of China's failure to properly govern the lives of its citizens. However, even clear-cut stories like the execution of Mr. Qiu quickly become more complex when their paths of production, circulation, and reception are wound into their telling. This chapter considers the ways in which the story of Mr. Qiu may tell us more about the biopolitical management of the boundary between life and death in the contemporary moment than it does about China as a modern or non-modern state. This final chapter of the dissertation project takes up a theme that winds through the previous three chapters in the form of fictional hauntings (Chapter 1), scientifically mechanized bodies (Chapter 2), and dreams of locating life in the mind (Chapter 3): the boundary between life and death.

This chapter explores the way in which organ transfer and organ trade can sit uneasily on this boundary by focusing on cases like the story of Mr. Qiu, where the proper management of the border between life and death as a medical concern is troubled by the violent eruptions of state power and global capital through the body. After Foucault's studies of biopower – famously, the introduction of life as an object of governance in the modern era – the theoretical field developed in dialogue with his work has fractured around debates that investigate the nature of the relationship between the

biological and political in the contemporary moment. One key issue that roughly splits this field is the place of death in the politics of life. This debate can be characterized by the position that Foucaultians like Paul Rabinow and Nikolas Rose take against Giorgio Agamben. In building on Foucault's later emphasis on ethics, Rabinow and Rose maintain that biopower involves the maintenance of the health of populations. In dialogue with Foucault's emphasis on the maintenance of life, Agamben asserts in contrast to Rabinow and Rose that the modern state conceals at its heart a thanatopolitics, a politics of death that is rooted in the ancient sovereign right to kill. The difference between fostering life and threatening death in these approaches to biopower constitutes a major philosophical rift. In this chapter, I explore how the discourse in the West about China's practice of harvesting organs from executed prisoners connects to logic of brain death as legitimating transplant medicine, in order to argue that the production of death in life is a core feature in the construction of the modern state.

For Rabinow and Rose, biopower in its contemporary form entails the maintenance of health and life. Their different approach to the question of eugenics is instructive in defining their position from Agamben's. Following Foucault's later work, Rose and Rabinow see in emerging genomic technologies the potential by which new collectivities can strategize their way towards a new future. They take up Foucault's focus on the technologies of the self by which the individual is through processes of subjectification brought to work on himself in relation to general, external power formations. This space is one in which the bio-ethical subject can take charge of his genetic fate. Thus Rabinow and Rose take a principally optimistic approach to genomic medicine and distinguish it sharply from eugenics, which they limit narrowly to the case

of the Holocaust. Acknowledging that dangerous possibilities seem to arise with the genomic management of the population, Rose and Rabinow nevertheless assert that population-level reproductive and genetic control is currently technically impossible. Where it is practiced in a limited context, genetic screening today is different in kind from eugenic programs of the past. The act of genetically diagnosing and selecting against embryos genetically fated to Down Syndrome is distinctly different, in their view, from historical attempts to "eliminate the 'feeble minded.'" For Rabinow and Rose, campaigns promoting genetic screening and manipulation are focused on developing targets for pharmaceutical markets and health care interventions rather than on wholesale population management. They are aimed at disease awareness, and are the products of "liberalism and capitalism, not eugenics [. . .] at least insofar as eugenics has acquired an inescapably negative meaning in our contemporary culture."[160] For Rose and Rabinow, the Holocaust is an exceptional case that remains an enduring possibility in modern civilization but is ultimately tangential to its logic. They state, "contemporary biopolitics operates according to logics of vitality, not mortality: [. . .] *letting die* is not *making die*."[161]

Agamben, in contrast to Rabinow and Rose, sees the Holocaust and the sovereign right to kill as the basis of modern state power. He takes as his subject the "zone of indistinction" between Foucault's description of large-scale deployments of state power and techniques by which it integrates the care of individuals in its center, and the

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[160] Paul Rabinow and Nikolas Rose, "Biopower Today," *BioSocieties* (2006), vol. 1, 211. Rose and Rabinow also de-couple race from biology, arguing that race is a socio-economic category, as well as a mark of discrimination and identification, but is seldom based on a notion of biological being. Critical race scholars like Dorothy Roberts would, of course, disagree. pp. 206.
[161] Ibid.

technologies of the self by which individuals come to understand themselves as simultaneously the subject and object of that power. Agamben states that Foucault leaves the contact point where these two types of power converge under-theorized, and inserts in that space his notion of "bare life." Bare life, or the life of the *homo sacer*, the ancient Roman juridical figure who by definition "may be killed but not sacrificed," is the foundation of Western politics.[162] The ancient man who has been defined by the sovereign as outside of the realm of political life – as mere biological life itself (*zoe*) and thus an exception to the point of death – is at once the limit and the foundation of sovereign power as the ability to define the space of law. Thus the *homo sacer* is the mirror image of the sovereign. Modern politics for Agamben is the transformation whereby the realm of bare life and the realm of politics begin to coincide and become indistinguishable: where the exception becomes the rule. The concentration camp as the "absolute space of exception"[163] is the ultimate expression of the modern state: "this is why the camp is the very paradigm of political space at the point at which politics becomes biopolitics and *homo sacer* is virtually confused with the citizen."[164] The threat of exposure as bare life (or threat of death without consequences) is what binds and frames individual subjectivity in the biopolitical. Thus Agamben's approach to biopower in this debate contrasts with that of Rabinow and Rose, who view with great optimism the horizons of possibility which open under the work of new biopolitical strategies.

The narratives of organ transfer discussed in this chapter highlight the way in which management of the boundary between life and death is a complex and sometimes

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[162] Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life*, (Stanford: Stanford U P, 1998), 8.
[163] Ibid. 20.
[164] Ibid. 171. Also cited by Rabinow and Rose in "Biopower Today."

contradictory negotiation. As such, they are particularly salient to the debate on the form of modern biopower between Rabinow and Rose on the one hand, and Agamben on the other. Organ transfer as a technology is deployed in a heterogeneous mix of practices: from legal, sanctioned donor programs that funnel organs towards waiting patients based on pre-established hierarchies of medical need to black market exchanges that move kidneys from financially needy sellers to wealthy clients overseas. Insofar as organ transfer can be approached as a technology that can promote life and health among populations, it aligns with the vision of biopolitics outlined by Rabinow and Rose. However, its dependence on a conception of man as a biological mass that can enter the global market in parts resonates with Agamben's construction of bare life as the hidden core of modern power. In stories about China harvesting organs from its executed prisoners and putting them on a global market for sick patients whose can pay to restore their health, the question of biopower become somewhat more complicated. I argue that narratives that circulate in the West, like that of Mr. Qiu and stories of harvesting programs that are rumored to target Falun Gong religious practitioners, express the way in which the proper handling of death is central to the construction of the modern state. By extending discussion from the Falun Gong to the less extreme cases of Lawrence Cohen's articulation of a concept of bioavailability in India and brain death in the United States, I will show how the logic of transplant medicine is based on the method of making dead. In this exploration, I discuss the production of death-in-life as a gray area where individuals – whether legally, socially or civilly dead – are conceived by the state as beings without political rights to varying degrees, while still biologically alive (to varying degrees). This notion is not synonymous with Agamben's conception of bare life

but is continuous with that extreme expression of sovereign power over life. The discussion of the production of death-in-life as a core feature of modern biopower in this chapter spans not only narratives of extreme violence that align easily with Agamben's concept of bare life, but also the logic of transplant medicine that otherwise would seem to function in the realm of biopolitics as "making live."

Stories about China's practice of harvesting organs from prisoners who have been executed circulate formally, in the news through reputable organs like the *New York Times*[165] and in congressional hearings as testimony to China's human rights abuses, as well as informally in fiction like Dean Koontz's 2008 suspense thriller novel, *Your Heart Belongs to Me*.[166] As the *New York Times* story on Mr. Qiu demonstrates, these narratives represent China's violation of human rights as emblematic of its failure to truly emerge as a modern state despite its recent strength in the world economy. Larissa Heinrich has astutely analyzes the way in which the story of Mr. Qiu, emblematic as part of an on-going discourse in the West about China's violations of human rights, positions the

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[165] The *New York Times* has covered China's practices regarding organ harvesting with fair regularity, particularly since the introduction of Craig S. Smith, who covered the Falun Gong in China for *The Wall Street Journal*, to the paper. In 2001, he wrote five articles on the topic.

[166] Dean Koontz, *Your Heart Belongs to Me*, (New York: Bantam, 2008). Koontz's thriller bears some key similarities to *The Eye* movies discussed in Chapter 1. A wealthy young man named Ryan Perry with a congenital heart condition receives a transplant from a doctor who specializes in wealthy clients. After his surgery, Perry's health is restored but he begins to experience a kind of haunting: mysterious and seeming impossible intrusions in his high-security Newport Beach, CA mansion, messages and packages left in his bedroom and his personal safe with no sign of a break-in, an Asian woman who inexplicably disappears and reappears on his video surveillance footage. After some investigation into his organ donor, he finds that his donor looks identical to the woman who has been stalking him. In a final standoff, he learns that she has been "haunting" him in the place of her twin sister, whose heart he has transplanted in his body. Lily's sister was a member of the Falun Gong in China and was executed for her political/religious activities, and her organs harvested for the highest bidder – in this case, Perry. Perry was unaware of the history of his heart but his girlfriend, Samantha, was not. She makes clear that she will never be able to live with his decision to skip the national heart transplant waiting list and purchase an organ from the international black market. In his remorse, Perry moves to the Midwest and sets up a large charity farm, where he resigns himself to living as a bachelor until the end of his days. Unlike in *The Eye* movies, Perry cannot destroy or give back his transgressive heart, and hetero-normative romantic closure is forever deferred in the story.

Western reader as a witness to the graphic violence that Mr. Qiu is subjected to. [167] Furthermore, not only do such narratives assert that China fails to treat the body in proper accordance to the standards of moderns statehood through its treatment of death, as I discuss in this chapter, this failure is doubled in its construction, as Heinrich discusses, as a transgression of Chinese "tradition" here understood in terms of a Confucian treatment of the body which must be buried whole. Reliable information about China's actual practices regarding its supply of organs for transplant, and the status and treatment of its prisoners in its penal system, is notoriously difficult to obtain or verify. Indeed, this governmental opacity sometimes serves to intensify and further support claims in the West that China is guilty of the full extent of human rights violations that it is accused of, as can be seen in the influential Kilgour-Matas report.[168] Likewise, the political entanglements of the Falun Gong, who in more recent years has come to figure more centrally in this general narrative, are thorny and difficult to unravel (for instance, there are widespread but unverified theories that the Falun Gong may have ties to the CIA in the United States).

For these reasons, the unstable object of the truth of what is happening in China is bracketed in this chapter, which instead follows the lead of scholars like Larissa Heinrich who in her work has analyzed Western narratives about Chinese . In this discussion, my goal is never to minimize the seriousness of accusations against China. Rather, I wish to

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[167] Larissa Heinrich, "Souvenirs of the Organ Trade: The Diasporic Body in Contemporary Chinese Literature and Art" (unpublished revised draft, shared by author, April 14, 2012). Analysis and discussions of Western media narratives about China's transplant practices and the Falun Gong in this chapter were also deeply enriched by discussions with the author, particularly with regard to questions about the extent to which these narratives might or might not reflect actual practices; Heinrich's work also analyzes the structure in similar reports, including the congressional hearings discussed in this chapter, of truth-telling.
[168] David Kilgour and David Matas, "Bloody Harvest: Revised Report into Allegations of Organ Harvesting of Falun Gong Practitioners in China," (Woodstock, Ontario: Seraphim Editions, 2009).

consider the way in which the management of the production of death-in-life in these narratives is tightly bound up with conceptions of the modern state.

The stories about organ harvesting from executed prisoners in China focus on the mishandling of the production of death by Western standards. This misapplication of the production of death-in-life takes a number of different forms in these narratives: most notably the blurring of the line between legal punishment in execution and life-saving medical procedure in harvesting organs and the inappropriate sentencing of the death penalty in ways that violate values central to political life in the United States. The failure to properly manage these aspects of the production of death-in-life constitutes a fundamental lack, in these narratives, in China's ethical obligation as a state, particularly where the promotion of health of its population is concerned. This mismanagement might constitute an extreme exception to the rule of biopower as "making live" for Rabinow and Rose, much like the concentration camp is an exception in their framing. However, the fact that the proper management of the boundary between life and death is based on the construction and maintenance of concept of brain death asserts that "making die" is not an exception but is a core feature of modern state-building. Rather, it is *how* the gray space of death-in-life is produced, maintained, and integrated into the everyday that is in question.

In the narratives of China's mismanagement of the boundary between life and death, the practice of harvesting organs from executed prisoners constitutes failure in its blurring of the line between execution and harvesting. This thin line stands between capital punishment of condemned criminals and life-saving acts of physical generosity. It also separates the realm in which individuals are stripped of legal and political status and

entered into pure physical being (zoe) and the fragile space in which nation is built in the collective social of its citizens as imagined community. In the story of Mr. Qiu, for instance, the *New York Times* is critical of the way in which the execution was carried out by the Chinese government. Although the United States also has the death penalty (it shares with China the distinction of being among the five countries that execute the most prisoners in the world),[169] the article strongly suggests that the way in the execution was paired with organ removal was problematic. It states that although there was no conclusive evidence of foul play in Mr. Qiu's execution procedures, it is also "not clear if Mr. Qiu (pronounced Chyo) was a willing donor," cautiously implying that the organs may have been taken against his will.[170] Because the family was not allowed access to the prisoner and the dead do not speak, it is difficult to know whether consent was given after the fact. The article also emphasizes that China, which was in the "throes of a campaign" against tax crimes in this period, executes more criminals than the rest of the world combined. The abuse of force implied in the large-scale violence perpetrated by the state is deepened by the suggestion that Mr. Qiu's surgical harvesting was itself performed with alarming haste, again blurring disturbingly the distinction between capital punishment (execution) and altruistic medical procedure (organ donation). According to the article, China performs thousands of these organ extractions "minutes after [prisoners'] death by gunshot to the back of the head."[171] The emphasis placed on this timeline in the story conveys that the practice is both an exception to harvesting

[169] Also Iran, Saudi Arabia, and Iraq. "Top Five Executioners in 2011." *Amnesty International.*
[170] Smith, "Execution in China."
[171] Ibid.

procedures and deplorable, running counter to Western sensibilities regarding grief, respect for the corpse and, I argue, the proper production of death-in-life.[172]

China's trespass across the careful line drawn between these two kinds of death is drawn in even starker relief in later narratives about the execution and harvesting of Falun Gong prisoners, which in more recent years has come to figure more prominently in the general picture of organ harvesting in China. In order to discuss this more recent narrative, I first briefly contextualize the discursive space into which these stories emerge. A starting point for the concern regarding the P.R.C.'s practice of harvesting organs stems, as is mentioned in the 2001 subcommittee hearing, from a piece of legislation in China that was implemented in 1984 on China's provisional regulations on the use of executed prisoners' corpses. Since this time, the U.S. State Department has inquired repeatedly of the Chinese government as to the extent of harvesting and trafficking of human organs in the country, with little more return than information drawn from official state policies. At the same time, the State Department has also received unconfirmed reports that Americans have gone abroad to China to purchase organs.

The personal experiences of two doctors who testified before Congress support the State Department's suspicions. A Chinese surgeon named Wang Guoqi testified before the subcommittee in 2006 that he himself had performed over one hundred tissue removal surgeries (skin and corneas) on executed prisoners. American doctor Thomas

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[172] Leslie Sharp, "Commodified Kin: Death, Mourning, and Competing Claims," *American Anthropologist*, Vol. 103 112-33. Indeed, the article's use of the term "harvest" runs counter to Leslie Sharp's perceptive analysis of the "greening" of terminology of organ transplantation with words like "transplant," "graft," and other ecological metaphors, both visual and linguistic. Rather than reassuring potential donors with terminology that depicts the transplant procedure as natural and rejuvenating, the word "harvest" in this article links the image of Chinese prisoners' bodies with cultivated crops and connotes a violent reaping of life by the hand of the state.

Diflo stated that he provided care to patients in the U.S. who returned from China with transplanted kidneys. When asked, some patients stated that the organs had come from relatives. Others responded that the kidney had come from an executed prisoner. These accounts credit the question of an existing practice in China of harvesting organs from prisoners in order to supply an internatonal market. Later reports of similar practices involving the execution of Falun Gong Dafa religious practitioners, however, significantly expand the scope and breadth of these claims.

Since 1999, the Falun Gong movement in China has sparked considerable attention globally as adherents to the group's spiritual practices have been detained by the P.R.C., which attempted to dissuade Chinese citizens from joining the growing movement. Although estimates vary wildly from nearly 3 million to nearly 70 million practitioners worldwide, the community led by Master Li Honzhi (who now lives in the United States) became the subject of a government crackdown and efforts were made at various levels to prohibit Falun Gong activities. Public demonstrations against this government restriction increased the visibility of the Falun Gong worldwide.

Today, the most extreme stories that emerge in the West regarding the persecution of the Falun Gong, both directly from the group's publications and mainstream news media, highlight the obliteration of the line between medical death and execution in the alleged practice of "live harvesting" of organs from Falun Gong prisoners. In 2006, Falun Gong representatives in the United States claimed that practitioners in China were being executed and their organs harvested at 36 sites often referred to as concentration camps. The camp featured centrally in these allegations is one located near a major hospital in Sujiatun, China. The English language newspaper, *The Epoch Times*, reported that

thousands of Falun Gong practitioners were being executed by "live organ harvesting." Live harvesting refers to the alleged practice of keeping Falun Gong prisoners alive in camps until the demand for organs rises in the international market. Prisoners are then executed and their organs harvested for a profit that goes to the military-run hospital, i.e. the Chinese government. An influential report on the issue assembled by Canadian activists David Matas and David Kilgour titled "Bloody Harvest" described the imprisonment of Falun Gong as worse than the camps set up by Nazi Germany and Stalinist Russia.[173]

These accounts of live harvesting must be compared to Agamben's notion of the exposure of bare life at the limit of sovereign power. The prisoner is stripped of rights, political status, and is transformed into biological life itself by a totalitarian regime. The comparison of camps would be on point for Agamben, who argues that the camp is the governing logic of modern society. Live harvesting implies a mass of organs and tissues that awaits only global financial demand to be deployed into the world in parts. Whether the prisoner is physically dead or alive seems to fade into the horizon with this concept. As one fated to be executed, the prisoner is in some sense dead already, or in a state that Orlando Patterson in a different but related context calls a mere "conditional commutation" of death.[174] In the narratives of China's practice of live harvesting organs from Falun Gong prisoners, the concept of bare life seems appropriate despite the distinctly different historical and cultural contexts in which they are found. Yet as an

[173] Kilgour and Matas, "Bloody Harvest."
[174] Orlando Patterson, *Slavery and Social Death: A Comparative Study*, (Cambridge, MA: Harvard U P, 1982), 5.

example of the camp, they fit into Rose and Rabinow's exception to "making live": below I will show how this is not the case.

An important part of the horror of the Falun Gong narrative is the way in which medical need bleeds completely into violent execution. Kilgour and Matas suggest that "China is awash in organs for transplant; people the authorities have ready on hand to be killed for their organs." The practice destroys the careful border that is held between technologies of life like organ harvesting from brain dead donors and technologies of death, like state executions. Live harvesting is murder, and transplant surgery in this story crosses from "making live" to "making die." In addition, from the perspective of organ procurement this method of execution is vital to the way in which China is conceived as mismanaging the production of death-in-life, notably in failing to adhere to the brain death medical standard. Live harvesting taints the cleanly technical space of medical procedures which is fundamental to the perception of scientific neutrality in the definition of brain death. I will later return to this idea of brain death to investigate the way in which the production of death-in-life is central to modern biopower, and not an exception like the concentration camp is for Rose and Rabinow.

In addition, the blurring the lines of distinction between execution and harvesting, stories about China's organ transplant practices highlight the government's capital punishment as distinct from capital punishment in the U.S. in that it selects the wrong individuals and acts to discipline. Thus, China is constructed through the trope of its production of death as a state that fails to grasp the values of Western liberalism and modern statehood. In the story of Mr. Qiu, the man was convicted of tax evasion for approximately $2 million, a crime which the *New York Times* American readership would

be familiar with as a so-called "white collar" offense, and for which a death sentence would be wildly disproportionate. The stories of the Falun Gong emphasize the closeness of the ostracized religious practitioners' values with fundamental American values like freedom of religion, which is central to U.S. mythology, but also as a relatable people who might otherwise be Americans. When describing China's persecution of the Falun Gong, which is often characterized perhaps somewhat disingenuously as mysterious or incomprehensible (disingenuous considering the political threat they likely would be perceived to pose to the P.R.C. even in sheer numbers), Congressman William Delahunt of Massachusetts generalizes that they are a "warm" and "compassionate" people who "make extraordinary contributions to [Mr. Delahunt's] city."[175] The characterization may be accurate of Falun Gong practitioners that Delahunt knows but is hardly relevant in the face of accusations of mass confinement to concentration camps, torture, and execution. The qualities that Delahunt attributes to the Falun Gong as a group victimized by China work to construct a binary which serves to suggest that the Falun Gong adherents are "like us" as Americans while making China an incomprehensible Other; this binary generalizes across the registers of relatability, morality, and modernity.

When congresswoman Cynthia A. McKinney asks, "How can human beings do that to other human beings?" the implication is of course that China has crossed beyond the boundary of human acts and universal human values.[176] Strong statements reinforce

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[175] *Falun Gong: Organ Harvesting and China's Ongoing War on Human Rights: Hearings Before Sub-Comm. on Oversight and Investigations*, 109th Cong. (2006) (statement of William D. Delahunt, Representative of Massachusetts).

[176] *Organs for Sale: China's Growing Trade and Ultimate Violation of Prisoners' Rights: Hearing Before Sub-Comm. on International Operations and Human Rights*, 107th Cong. (2001) (statement of Cynthia A. McKinney, Representative of Georgia).

the idea in these narratives that because China fails proper management of the lives and health of its citizens, it fails to join the international circle of modern states despite its recent economic advances:

> If China really desires to be a world leader, the kind of human rights abuses that the government engages in obviously undermine that effort. It reveals the kind of contempt for the rule that leads to corruption and waste, and corruption undercuts all the economic gains China has made in the last several years. Unless China couples its transition to capitalism with moves to democracy and free expression and genuine commitment to human rights, it will never be able to reach its full potential, and the tragedy is it will be the Chinese people that will pay the price.[177]

China's failure as a modern state is couched here in terms of its violation of human rights. The statement's calls for democratic governance and free expression highlight central tenets of Western liberal conceptions of modern statehood as well as American political touchstones. For the purposes of this chapter, furthermore, China's failure is represented as a violation of the fundamental tenets of managing the boundaries between life and death, execution and murder, discipline and health. This confusion of categories constructs China as an incomprehensible Other for the American audience consuming these narratives; the production of death-in-life is clearly at the core of this construction. Delahunt's statement also hints at another underlying tension between the U.S. and China: the recent emergence of China as an economic competitor. The undercutting of the ethical character of the Chinese government is further reinforced by descriptions in these narratives of the P.R.C. as the "gangsters that run the government in Beijing" and

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[177] *Falun Gong: Organ Harvesting and China's Ongoing War on Human Rights: Hearings Before Sub-Comm. on Oversight and Investigations*, 109th Cong. (2006) (statement of William D. Delahunt, Representative of Massachusetts).

the "hoodlums that take their orders," as well as a "basically evil system of tyranny and injustice."[178] China is represented, through rather rich and complex discursive strategies that shift from pleas for the global good to the subtle re-construction of U.S. supremacy, as a bad state through its production of bare life.[179]

In this lengthy discussion of narratives which construct China as an abusive state through its issue of violent, wrongful deaths, it is worth revisiting the fact that such stories are pervasive in the U.S. but difficult to corroborate. In general, the narration and discussion from the Western perspective seems routinely inattentive to the presentation of evidence and to the citation of questionable sources. The influential Kilgour and Matas report bases some of its claims on the Chinese government's refusal to respond to their investigation. They state that the lack of forthcoming feedback on the specificities in their report aside, other than corrections to their geography (the report located two cities in the wrong provinces), reinforces the conclusion that the government is indeed committing these atrocities. Furthermore, the researchers state that this logic by which the lack of responsive constitutes positive proof is central to their findings:

> We have had to look at a number of factors, to determine whether they present a picture, all together, which make the allegations either true or

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[178] *Organs for Sale: China's Growing Trade and Ultimate Violation of Prisoners' Rights: Hearing Before Sub-Comm. on International Operations and Human Rights*, 107th Cong. (2001) (statement of Dana Rohrabacher, Representative of California).

[179] Furthermore, strong statements taking these stories as truth, despite the difficulty of ascertaining their veracity, code these acts in the formal language of a universal ethics that excludes China. Terms like "human rights abuse," "war crimes," and "crimes against humanity" abound alongside this strong statement in the 2001 subcommittee hearing: "What is going on in China today is the ultimate human rights abuse. It is a well-oiled machine that sentences, condemns, and executes humans so that their organs can be extracted, sold, and transplanted by government officials for their personal gain and to continue a repressive totalitarian system." The systematic execution of state violence may well warrant this strong language, but the instability of and inattention to the establishment of the truth behind the stories also suggests that the extreme distancing of this deployment excluding China from the discourse of human rights precludes the dialogic exchange that might better confirm or deny the case.

> untrue. None of these elements on its own either establishes or disproves the allegations. Together, they paint a picture. Many of the pieces of evidence we considered, in themselves, do not constitute ironclad proof of the allegation. But their non-existence might well have constituted disproof. The combination of these factors, particularly when there are so many of them, has the effect of making the allegations believable, even when any one of htem in isolation might not do so [. . .] We also used inductive reasoning, working backwards as well as forwards. If the allegations were not true, how would we know it was not true?[180]

The lengthy and complex negotiations in this search for truth belie the certainty with which Kilgour and Matas arrive at their conclusion. The narratives that circulate about specifics of live harvesting originate in *The Epoch Times*. However, *The Epoch Times* has along with several other media outlets been linked to Falun Gong groups. Orville Schell, Dean of U.C. Berkeley Graduate School and an expert on China, characterizes the relationship succinctly: "They are a manifestly dissident voice and don't pretend to be otherwise. It's hard to vouch for their quality because it's difficult to corroborate. But it's not something to be dismissed as pure propaganda. It is covering an aspect of China, which other publications cover much less aggressively."[181]

The popular narrative in the Western media of China a moral grey zone, permeable and available in terms of markets as well as bodies, is constructed in distinction with the tight regulation and containment of "human bio-products" in the West, according to Heinrich.[182] Although verifiable information about Chinese organ harvesting practices, and representations about the treatment of the Falun Gong by

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[180] Kilgour and Matas, *Bloody Harvest*, 106.
[181] Vanessa Hua, "Dissident media linked to Falun Gong – Chinese-language print, broadcast outlets in U.S. are making waves," *SF Chronicle*, December 18, 2005.
[182] Heinrich, "Souvenirs of the Organ Trade" (revised draft), 54.

the Chinese government that differs significantly from the Western narratives discussed above is difficult to locate, Heinrich's analysis of representations of Chinese bodies in experimental art at the 2000 "Uncooperative Approach" exhibit in Shanghai are useful here.[183] Heinrich suggests that the bodies in these works are portrayed as destabilized and dis-integrated through the tropes of dissection, transplant, dismemberment, etc. As such, these unstable bodies are "uncooperative" and resistant, through their corporeal fragmentation, the economics of the transnational art market that consumes (and to some extent dictates) Chinese art. Thus, Heinrich argues, the perceived permeability of Chinese bodies in a global market becomes coupled, in this critical perspective, with questions of authenticity, power relations, and Chinese identity. In this sense, these Chinese texts arguably present themselves as resistant to the global market forces that open and commodify the Chinese body and art in ways that resonate with the story of Mr. Qiu, even if they not engage specifically with the Western narratives themselves.[184]

Not precluding the seriousness of the accusations and the formal arenas in which some of the stories about China's human rights violations regarding organ harvesting circulate, representations of China's live-harvesting practices resonate with a larger body of organ trade legends. Gillian Bennett identifies some of the key characteristics of contemporary organ theft legends: claims of ownership or use of another person's body or bodyparts for cash, research, or transplant surgery, predation on vulnerable bodies (typically unsuspecting tourists and children), and the ambiguous positioning of the story

[183] Heinrich, "Souvenirs of the Organ Trade" (revised draft), 73.
[184] Michael Davidson, personal communication, May 20, 2012. Michael Davidson's insightful suggestion to locate a counter-narrative to Western constructions of the Chinese transplant body has been useful in enriching my discussion in this chapter.

on the cusp between truth and legend.[185] The "baby parts" legends that centered on South and Central America in the 1990s told of predation on the bodies of children in poor countries by wealthy American transplant patients seeking organs. Versions of these stories circulated widely, in South America and North America, and eventually garnered official government attention in Washington D.C. The formal investigation in 1994 turned up no evidence to support the story of the "baby parts" scandal, though claims about the general vulnerability of certain populations are not to be ignored. Bennett, along with Nancy Scheper-Hughes, assert that these narratives have power as bearers of "metaphorical or symbolic truth" for the social contexts in which they circulate, though they strongly disagree as to how the stories should be approached.[186]

Despite this reminder of the instability of the truth behind the stories, these narratives clearly assert a vision of China as a not-quite-modern state through not only the violence it enacts but also the mismanagement of the kinds of death that produce organs for transplant. Insofar as extreme state violence in the form of religious persecution and concentration camps aligns with Agamben's notion of bare life and the logic of the camp as central to modern life, the construction of China as failing to live up to an ethical standard is very clear; it would likely also enter into the realm of exception to the general rule of biopower as "making live" for Rabinow and Rose. I will now move the discussion to ways in which the notion of "making die" in narratives like the story of

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[185] Gillian Bennett, *Bodies: Sex, Violence, and Death in Contemporary Legend* (Jackson, MS: U P of Mississippi, 2005). Bennett asserts that the act of evaluating whether or not a story is a legend is critical to recognizing it as a legend. For more on the complicated ways in which these narratives lend themselves to an allegory about globalization and capital, see Michael Davidson's *Concert for the Left Hand: Disability and the Defamiliar Body*. Ann Arbor, MI: U of Michigan P, 2008.

[186] Bennett, *Bodies*, 22.

Mr. Qiu and more everyday notions of transplant medicine is not an exception, but rather the rule.

One of the key features of the story of Mr. Qiu that I have not yet discussed is the ethics of harvesting organs from prisoners, even *with* consent, violates some of the fundamental values of organ transplantation in the U.S. which focus on a carefully guarded notion of brain death and on donation as central to this logic. Lawrence Cohen repurposes the term "bioavailability" from pharmacology to mean the "selective disaggregation of one's cells or tissues and their reincorporation into another body (or machine)."[187] He establishes this term against the notion of Agamben's bare life, which Cohen argues is too focused on the operations of sovereign power over life and not attentive enough to the materiality of its effects. Cohen demonstrates that the application of the concept of bare life to the form exception written into India's Transplantation of Human Organs Act (THOA) can enact a second erasure of the excluded subject and mask a significant intersection where biological life and political existence meet. THOA, Cohen informs us, bans solid organ but includes a clause of exception whereby family members and spouses can donate a kidney to a loved one. This exception established a de-facto method by which brokers could easily negotiate kidney transactions by having sellers pose as family members. Thus, the exception actually facilitates the sale of kidneys, thus escalating the very exploitation that the act formally bans. The kidney seller can, as Cohen points out, be considered in terms of bare life: he is uniquely excluded by economic need from the sovereign protection of the state, his kidney rendered up as

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[187] Lawrence Cohen, "Operability, Bioavailability, and Exception," in *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*, ed. Aihwa Ong and Stephen Collier, (Malden, MA: Blackwell P, 2005),. 83.

biological object in the market. (Unlike Rose and Rabinow, Cohen is willing to consider the generalized forces of capitalism, as well as the direct work of the state, to play the role of sovereign power over life.) However, Cohen argues, to see this transaction as one that turns purely on the exposure of the bare life of the kidney seller is to erase the move of sacrifice the seller makes to maintain himself as a political subject.

According to Cohen, the kidney sale is often motivated by love and sacrifice on both ends. The buyer is motivated by love for family members to refuse their sacrifice of a kidney, and to resort to purchase instead; the seller's sacrifice of her kidney is likewise performed for the welfare of her family. The conception of biopower that centers on the figure of the *homo sacer,* of the production of bare life through sovereign exception, cannot account for this move by the seller to exchange her biological being in order to maintain a political existence built on familial love and sacrifice. Whereas Agamben's theorization can recognize only the work of the state, Cohen's notion of bioavailability acknowledges the role of capitalism in making body parts available in various ways. Curiously, attention to the production of bioavailability also destabilizes the assumptions of the natural living body as a coherent material and epistemological subject. No longer is the body the natural, neutral, starting point for acting in the world; it can enter and exit limits defined as life freely, offer up pieces of itself or have parts annexed, work or have labor extracted from it. It is a body alienated. Cohen's concept of bioavailability is useful in this next discussion of the way in which the story of Mr. Qiu turns on the careful and proper production of death-in-life, specifically in the need to keep the medical concept of brain death distinct from other kinds of death.

Even setting aside the question of consent, the portrayal of organ harvesting in the story of Mr. Qiu transgresses some of the fundamental tenets of transplant ethics in the United States in its management of death. In the United States, organs for transplant are obtained through a national donor programs supported by people who donate solid organs after their death. The standard of death used in the United States is brain death, which as I discussed in an earlier chapter, was established in 1968 in order to facilitate the growth of the organ transplantation as a technology. The brain death standard shifts and naturalizes the cessation of life from the traditional moment of the "total stoppage of the circulation of blood" to a series of medical tests designed to ensure that the brain has stopped functioning.[188] The report which introduced the definition in the *Journal of the American Medical Association* stresses the reliance in the prior legal definition on medical expertise to define death, and uses this fact to justify the intervention of the medical community in altering the definition in accordance to new standards of care (the ability to sustain patients in irreversible coma for indefinite periods of time, and the emergence of transplant medicine as a technology).

This new image of brain death was not readily accepted by all. As predicted in the JAMA statement, brain death was somewhat easily integrated into the U.S. legal and medical practice, although the more recent case of Theresa Schiavo is evidence that the debate over brain death still lives on, as Michael Davidson and Patrick Anderson explore in their respective work.[189] The brain death definition standardized and finalized an

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[188] Definitions*, Black's Law Dictionary* (Eagan, MN: West P, 1951). "The cessation of life; the ceasing to exist; defined by physicians as a total stoppage of the circulation of the blood, and a cessation of animal and vital functions consequent thereupon, such as respiration, pulsation, etc."

[189] Davidson, *Concerto for the Left Hand*, 11. See also Patrick Anderson, *So Much Wasted: Hunger, Performance, and the Morbidity of Resistance* (Durham, NC: Duke U P, 2010).

authoritative definition fatality in medical terms. Simultaneously, it transformed legal death into a medically diagnosable state. In Japan however, different conceptions of life versus death and concerns about aggressive organ harvesting significantly complicated the incorporation of brain death as death by medical experts. Margaret Lock thoroughly defamiliarizes the concept of brain death in her work. Describing the way in which Japanese doctors record *two* times of death for patients who are organ donors – one for brain death (which in the U.S. is meant to equal total somatic death) and one for cardiac death – Lock explores how brain dead patients inhabit an ambiguous moment expiration. Lock includes a list of terms that indicates difference in states of death: "living cadaver," "potential cadaver," "reanimation patient," etc.[190]

Furthermore, uneven standards and practices in care prior to organ harvesting, and in the organ procurement organization (OPO) facilitated transition from hospital patient to potential donor, contribute to the notion of "controlled death," as Leslie Sharp terms it, as a gray area.[191] Brain death criteria, especially, are not only not standard internationally, they are not uniform in practice within the United States are nt agreed upon even between different hospitals. These uneven practices, when coupled with a profit motivate that incentivizes OPOs (they are funded in the U.S. according to projected numbers of successfully facilitated donations), shift the seemingly self-evident notion of "death" into a thoroughly negotiated category of distinctions. This dislocation is even more marked when one considers that certain kinds of organ failure – heart and brain – define death and serve as a pathway to organ donation while others – kidney, liver, and even lungs –

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[190] Margaret Lock, *Twice Dead: Organ Transplants and the Reinvention of Death* (Berkeley, CA: U of California P, 2001), 94.
[191] Leslie Sharp, *Strange Harvest: Denatured Bodies and the Transformed Self* (Berkeley, CA: U of California P, 2006).

make the patient a candidate for transplant. The careful negotiations of brain death as a medical standard that naturalizes a certain kind of death (conceived of in terms of certain, standardized procedures that check for the cessation of brain activity) as the proper kind of death that makes organs bioavailable for transplant.

The logic of transplant medicine in the U.S. is based on this method of "making dead." In contrast to China, which fails in the narratives discussed in this chapter to properly manage the production of death-in-life by making organs bioavailable through execution rather than brain death, the U.S. is conceived as modern, liberal state in which organs are derived through the clean, medical standard of brain death from patients who anonymously and altruistically donate. Transplant surgery relies on national donor programs, tissue registries, and the kind of proactive care and management of health that would seem to fit Rabinow and Rose's conception of biopower. However, its reliance on the logic of brain death as a key feature in the rise of transplant technology demonstrates the way in which proper definitions of death are central to the conception of the modern state.[192]

The logic of the gift is, as Richard Titmuss has demonstrated, central to the way in which anonymous blood donation helps to establish a shared sense of community and nation among donors and recipients. Working off of Marcel Mauss' notion of the gift as structuring a relationship of reciprocity, Titmuss argues that the sharing of blood between anonymous and unremunerated donors creates a sense of obligation and what Catherine

[192] The heated debate over whether Terry Schiavo was in a persistent vegetative state (distinct from brain death) suggests the world of difference in perception between "letting die" and "making die."

Waldby and Robert Mitchell translate as a national "imagined community."[193] The anonymous and unremunerated act of blood donation enters the donor into a diffuse gift economy that often operates as an (national) imagined community. For a citizen of this community, the potential for reciprocity in this gift – perhaps a blood transfusion or a place on a national transplant list – helps to forge strong national affinities. As a death row inmate, Mr. Qiu's organ donation (if donation it was) is excluded from this schema of gift giving as participation in an imagined community. Mr. Qiu's organs can be harvested and transplanted, but he is excluded from relationships of reciprocity by his death sentence. In the United States, death-row inmate Gregory Scott Johnson was denied the benefit of transplant surgery and thus any possibility of reciprocity was foreclosed by his sentence.[194] The death row prisoner is in some sense already in the gray area of death-in-life even before execution. His sentence is, as previously mentioned, a kind of conditional commutation of death. In this sense, it bears a resemblance to the vertical relationship of power that Orlando Patterson describes as the primary characteristic of slavery or social death: the production of the body of the slave as biological life itself, a kind of extreme bioavailability.[195]

In his discussion of an extreme form of death-in-life, Patterson makes an important observation about the nature of freedom and slavery. Addressing the puzzling question of how the Western liberal societies could also be slave-holding societies,

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[193] Richard Titmuss, *The Gift Relationship: From Human Blood to Social Policy* (London: New Press, 1997); Catherine Waldby and Robert Mitchell, *Tissue Economies: Blood, Organs, and Cell Lines in Late Capitalism* (Durham, NC: Duke U P, 2006).
[194] *Johnson v. State of Indiana*, 584 N.E.2d 1092
[195] Patterson, *Slavery and Social Death*, 22. Patterson's description of slavery as social death is still less extreme than Agamben's bare life. Whereas the *homo sacer* is explicitly excluded from any political value or meaning whatsoever (he can be killed but not sacrificed), the slave is still always person-in-law in Patterson's view. In this he argues against the common definition of the slave as "someone without legal personality."

Patterson asserts simply that slavery and freedom are intimately connected: "contrary to our atomistic prejudices it is indeed reasonable that those who most denied freedom, as well as those to whom it was most denied, were the very persons most alive to it."[196] I wish to highlight, at the end of this chapter, Patterson's idea that social death is deeply linked with liberal democracy rather than irreconcilable with it. In this chapter, I have argued that the production of death is a core feature of the construction of the modern state. I have also explored the ways in which the proper management of the boundaries between life and death are vital to the conception of the state as having a right to its power over the lives of its citizens. Rather than being "gloomy," as Rosi Braidotti has accused studies which fixate on the Thanatos side of biopower of being, I wish to emphasize the way in which life and death, and potential and danger, are wedded in our modern, technology-driven world.

[196] Ibid., ix.

Conclusion

In this project, I have traced a cultural history of the present that follows cultural representations of the transplant body in the key moments of its technological emergence. I investigated late-19th century British vampire stories as literature that asserts the emergence of the modern, liberal subject in the triumph of the mechanical view of the body as made up of interchangeable parts. This body-as-machine, which is imagined through the new technology of blood transfusion, assumes a new social mobility, over older conceptions of the body as bound in vertical social hierarchies. From this turn-of-the-century transformative moment when the body was liberated into a global system of flows and traffic, I turned to the technological vision of 1960s America in which the body-as-machine became a machine body that could launch the brain past the horizon of the present. The vision of this new human was propelled in part by the impulse, as Hannah Arendt asserted, to find a way to transcend death. Transplant technologies rose to a high point with the spread of this brain-centered view of life. The medical redefinition

of legal death as brain death helped to establish transplant medicine, a technology that was leaping from strength to strength in the 1960s, in the form it exists in today in the U.S. Finally, I turned to the contemporary moment and examined the way that transplant figured in both the fictional narratives in horror movies and medical thrillers, and the highly controversial, non-fiction reports that circulated in more the formal arenas of respected newspapers and congressional hearings.

In doing so, I have elaborated through the theme of transplant medicine a vision of the body that moves beyond the medicalizing, instrumentalizing gaze that is asserted in the official positions of organ procurement organizations as discussed in Chapter 1 and in positivist conceptions of biopower as discussed in Chapter 4. I also have explored several intersections where fiction connects up with real life and narrative culture links up with medical practice. I would like to end this discussion with one final example in the story of Mr. A, which captures the way in which fiction, theory, practice, but also affect can come into contact to define, re-define, and re-work meaning in the transplant body.

In 1979, the use of the term "Frankenstein Syndrome" to describe the psychology of organ transplant patients appeared for the first time in the *American Journal of Psychiatry*.[197] In the notes of a clinical report on the progress of a liver transplant recipient, a man called Mr. A struggles with the aftermath of a surgery that extended his life. At first, Mr. A feels that the transplant is "an alien piece of meat" that stands separate from the rest of his body. Over time, he begins to imagine that he and the liver are joined in an odd sort of union, quipping, "That's a hell of a way to talk about my new

[197] Dubovsky, Steven, Jeffrey L. Metzer, Richard R. Warner, "Problems with the Internalization of a Transplanted Liver," *American Journal of Psychiatry*, Vol. 136, no. 8, August 1979.

wife!" when his doctor speaks of the transplanted tissue as foreign. Eventually this metaphor, which externalizes difference between his body and the new organ, transitions to a conception of self that internalizes these rifts. Mr. A diagnoses himself with what he calls the "Frankenstein Syndrome" which involves feeling, as he describes it, like he has been "pieced together [. . .] as opposed to being a regular human being." He brings a cultural imagination of Frankenstein into the space of medical authority in order to articulate his sense that transplant surgery, rather than revitalizing him as a whole, broke him into a fragmented mass of parts. The clinical report, however, pathologizes this (literary-medical) self-conception and suggests that Mr. A's non-normative experience stems from his failure to properly integrate his new "introject" (the liver and qualities that associate it with the donor) into his already unstable conception of self. The deep tension between these two narrative constructions of Mr. A's surgery highlights the way in which the transplant body is a site of contestation and meaning-making.

Decades after this publication, academic research on the shape of the transplant industry again took up the "Frankenstein Syndrome." In this forum, the syndrome became an emblem for the potential alternative subject positions that sit in tension with the singular, bounded experience of identity that medical authority mandates. Lesley Sharp and Margaret Lock have both explored the way in which transplant discourse disciplines notions of the body that diverge from a monolithic conception of the self as integrated, whole and individual.[198] Despite this doctrine, it is clear that different post-

[198] Leslie Sharp, *Bodies, Commodities, and Biotechnologies: Death, Mourning, and Scientific Desire in the Realm of Human Organ Transfer* (New York: Columbia U P, 2006). In Leslie Sharp's thorough study of the deep tensions that divide the transplant industry, including the discursive disciplining used on both donor and recipient sides to keep "the gift" anonymous, Sharp suggests that the "Frankenstein Syndrome" is a diagnosis that psychiatrists offer for to patients who begin to seriously imagine who their donor may

surgical identities exist, as both the reality of the surgical recombining of bodies and Mr. A's experience, which he labeled as the Frankenstein Syndrome, illustrate.[199] In Sharp's work, in particular, there is a desire to create space for these other subjectivities where they better describe a patient's experience. And indeed, she illustrates compellingly how even the more mundane ways in which transplant s who give serious thought to the identities and lives of their donors allows them to partially inhabit these alternative potentials. However, the Frankenstein Syndrome as Mr. A conceives of it also clearly also points to thoroughly vexing anxieties that haunt some transplant patients as they struggle to maintain a coherent sense of self.

The imagery Mr. A uses to express his post-surgical identity veers towards the dark, monstrous, and maternal. The allusion he makes to Frankenstein in his self-"diagnosis" does not primarily draw on the image of Victor Frankenstein, the Promethean scientist/doctor of Mary Shelley's novel, but the stiffly reanimated creature patched up from a collection of human parts. In the popular imagination the latter is remembered as the monster, though in Shelley's novel the doctor is the one who trespasses into the unnatural. In aligning himself with the wretched reanimated creature, Mr. A expresses not only a sense that his body is fractured, but also a notion that he is isolated by his condition of surgical multiplicity. Frankenstein's creature is utterly unique, a being with no reproductive past or future. Any construction of self-hood he makes is always

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have been. Margaret Lock, citing Sharp, also references the syndrome in this way. In the original 1979 article, however, and the 1987 report by Deborah C. Beidel she cites, the "Frankenstein Syndrome" appears to be a term that the patient uses to describe his own sense of the situation rather than a psychiatrist's diagnosis. Nevertheless, the term does capture the medical disciplining of transplant patient subjectivity as singular and whole, as Sharp convincingly demonstrates in her research.

[199] Here, one cannot help but note the way in which Mr. A's coining of the "Frankenstein Syndrome" cleverly deploys the language of medical authority in his description of an experience that his psychologist, and the normative discourse of the transplant industry more generally, pathologizes.

established in isolation; his is a startlingly precarious existence. Mr. A similarly struggles with a sense of being alone as a surgical creature whose existence is in tension with that of a "regular human being." Upon learning that his donor's name is Virginia, Mr. A attempts to suture his two sides together by moving to that state: "Since Virginia is in me, I should be in Virginia." When this attempt to re-integrate his identity proves unsatisfactory, Mr. A returns to his origins and attributes the transplant to his mother. He dons an earring bearing the image of the Virgin Mary in a tribute that merges donor (Virginia) with mother into a symbol of re-birth displaced from womb to liver. In some ways Mr. A's references to Frankenstein are the least interesting instances of Mr. A's negotiations, which alternately internalize and externalize his alienation of his liver with metaphors of monstrosity, marriage, and mothering, but the mobilization of the famous monster illustrates most clearly how discourse of the "medical miracle" of transplant surgery is far from the last word on the subject.

The case of Mr. A renders visible certain tensions that make the transplant body a site of contestation in which the fracturing of the image of organ transplantation as medical miracle emerges into view. His conception of his post-surgical self as fragmented and multiple marks the emergence of a subjectivity that meets the interchangeability of body-parts with horror. Additionally, in the formal discourse of transplant medicine, the fragmented identities that patients like Mr. A experience are pathologized and disciplined into an understanding of post-transplant identity as whole and integrated, though it is of course sited in a body conceived of as a collection of replaceable parts. In medical anthropology, by contrast, the multiplicities of identity of the "syndrome" are raised up as potential emergences of subjectivities that escape the

monolithic theory of the body forwarded by the medical gaze. The Frankenstein Syndrome, a term which I extend from Mr. A's description of himself as pieced together to the broader context from which it draws and is taken up, highlights the way in which the body is a shifting field on which affect, patient experience, medical authority, and even academic theorizing make contact and struggle to define. As such, it renders visible tensions that trouble the stability of any single narrative about the transplant body; it explodes them out into the complicated, sometimes incompatible, pieces that this dissertation project explores.

BIBLIOGRAPHY

Agamben, Giorgio. *Homo Sacer: Sovereign Power and Bare Life*. Trans. Daniel Heller-Roazen. Stanford: Stanford U P, 1998.

Anderson, Patrick. *So Much Wasted: Hunger, Performance, and the Morbidity of Resistance*. Durham, NC: Duke U P, 2010.

Arata, Stephen."The Occidental Tourist: *Dracula* and the Anxiety of the Reverse." *Victorian Studies*. Vol 33, no. 4, 1990.

Arendt, Hannah. *The Human Condition*. Chicago, IL: U of Chicago P, 1998.

Atwood, Margaret. "Brave New World: Kazuo Ishiguro's novel really *is* chilling." *Slate*. 1 April 2005.

Auerbach, Nina. "Vampires in the Light." In *Dracula*. Edited by Nina Auerbach and David J. Skal. New York: Norton and Co., 1997.

---. *Oryx and Crake*. New York: Anchor Books, 2004.

Barbaro, Valerie. "Heaven for Atheists." *The Humanist: A Magazine of Critical Inquiry and Social Concern*, July/August 2011.

Bennett, Gillian. *Bodies: Sex, Violence, and Death in Contemporary Legend*. Jackson, MS: U P of Mississippi, 2005.

Bilefsky, Dan. "Black Market for Body Parts Spreads Among the Poor in Europe." *The New York Times*. June 28, 2012.

Black's Law Dictionary. Eagan, MN: West P, 1951.

Braddon, Mary E. "The Good Lady Ducayne." In *Nineteenth Century Stories by Women: An Anthology*. Edited by Glennis Stephenson. Peterborough, ON: Broadview P, 1993.

Casper, Monica J. and Lisa Jean Moore. *Missing Bodies: The Politics of Visibility*. New York: NYU P, 2009.

Cohen, Lawrence. "The Other Kidney: Biopolitics beyond Recognition." *Commodifying Bodies*. Ed. Nancy Scheper-Hughes and Lois Wacquant. Thousand Oaks: SAGE, 2001. 9-31.

---. "Operability, Bioavailability, and Exception." In *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*. Edited by Aihwa Ong and Stephen Collier, Malden, MA: Blackwell P, 2005.

Cooper, Melinda. *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era.* St. Louis: U of Washington P, 2008.

Craft, Christopher. "Gender and Inversion in *Dracula.*" Edited by Nina Auerbach and David J. Skal. New York: Norton and Co., 1997.

Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the 19th Century*. Boston, MA: MIT P, 1990.

Cryonics: Alcor Life Extension Foundation. "About Alcor." Accessed April 8, 2012.

Dagognet, Francois. *Etienne-Jules Marey: A Passion for the Trace.* Boston, MA: Zone Books, 1992.

Davidson, Michael. *Concerto for the Left Hand: Disability and the Defamiliar Body*. "Organs Without Bodies: Transplant Narratives in the Global Market." Ann Arbor: U of Michigan P, 2008.

Davis, Mike. *City of Quartz: Excavating the Future in Los Angeles*. New York: Verso, 1990.

Dick, Philip K. *Ubik*. New York: Vintage, 1991.

---. "Letter to Malcolm Edwards." In *The Selected Letters of Philip K. Dick, 1975-1976*. Edited by Don Herron. Nevada City, UT: Underwood Books, 1993.

Disneyland: Lands of Disneyland. "Tomorrowland." http://www.jansworld.net/DL_pages/lands_of_disneyland.htm. Accessed June 10, 2012.

Demeny, Georges. "Talking Photographs," *La Nature*. Sept 1, 1882.

Dirty Pretty Things. Dir. Stephen Frears. Performed by Audrey Tautou, Chiwetel Ejiofor. BBC Films. 2002.

Doyle, Richard. *Wetwares: Experiments in Post-Vital Living (Theory Out of Bounds.* Minneapolis, MN: U of Minnesota P, 2003.

Douglas, Mary. *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. Boston, MA: Routledge, 1980.

Dubovsky, Steven, Jeffrey L. Metzer, Richard R. Warner, "Problems with the Internalization of a Transplanted Liver," *American Journal of Psychiatry*, Vol. 136, no. 8, August 1979.

Editorial. "Ad Astra." *The New York Times*. Jul 21, 1969.

Einstein, Sarah. "The Future Imperfect." *Redstone Science Fiction*, 2010.

Falun Gong: Organ Harvesting and China's Ongoing War on Human Rights: Hearings Before Sub-Comm. on Oversight and Investigations, 109th Cong. (2006).

Fiedler, Leslie A. "Why Organ Transplant Programs Do Not Succeed." In *Organ Transplantation: Meanings and Realities*. Edited by Stuart J. Youngner, Renee C. Fox, and Laurence J. O'Connell. Madison: U of Wisconsin P, 1996.

Fitting, Peter. "*Ubik*: The Deconstruction of Bourgeois SF." *Science Fiction Studies*. Vol. 2, No. 1 (Mar. 1975).

Frayling, Christopher. "Bram Stoker's Working Papers for Dracula." *Dracula*. Edited by Nina Auerbach and David J. Skal. London: Norton, 1997.

Goodland, Lauren M. E. "Go and Marry Your Doctor." *Beyond Sensation: Mary Elizabeth Braddon in Context.* Edited by Marlene Tromp, Pamela K. Gilbert, Aeron Hayie. Albany, NY: State U of New York P, 2000.

Gordon, Avery. *Ghostly Matters: Haunting and the Sociological Imagination.* Minneapolis, MN: U of Minnesota P, 2008.

Haas, Robert Bartlett. *Muybridge: Man in Motion*. Berkeley, CA: U of California P, 1976.

Hakim, Nadey S. and Vassilios Papalois. *History of Organ and Cell Transplantation*. London: Imperial College Press, 2002.

Halberstam, Judith. *Skin Shows: Gothic Horror and the Technology of Monsters*. Durham, NC: Duke U P, 1995.

---. "Technologies of Monstrosity: Bram Stoker's *Dracula*." *Victorian Studies*. Vol. 36, No. 3, Spring 1993.

Haraway, Donna. "The Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth-Century." *Simians, Cyborgs and Women: The Reinvention of Nature*. New York: Routledge, 1991.

Heinlein, Robert. *I Will Fear No Evil*. New York: Ace, 1987.

Heinrich, Larissa. "Souvenirs of the Organ Trade." *Embodied Modernities: Corporeality, Representation, and Chinese Cultures*. Edited by Fran Martin and Larissa Heinrich. Honolulu: U of Hawaii P, 2006.

---. "Souvenirs of the Organ Trade: The Diasporic Body in Contemporary Chinese Literature and Art." Revised draft. Shared by author. April 14, 2012.

---. "Organ Economics: The New Cinema of Transplant and Desire from *Blood Work* to *The Eye.*" Unpublished manuscript, shared by author November 2009.

"Helios: Eadweard Muybridge in a Time of Change." San Francisco Museum of Modern Art. 151 Third Street, San Francisco, CA 94103. April 2, 2011.

Hobsbawn, Eric. *The Age of Empire: 1875 – 1914*. London: Weidenfield and Nicolson, 1987.

Hounshell, David A. *From the American System to Mass Production*, *1800-1932: The Development of Manufacturing Technology in the United States.* Baltimore, MA: Johns Hopkins U P, 1984.

Hua, Vanessa. "Dissident media linked to Falun Gong – Chinese-language print, broadcast outlets in U.S. are making waves." *SF Chronicle*. December 18, 2005

Ishiguro, Kazuo. *Never Let Me Go*. New York: Random House, 2005.

Jackson, Pamela. "Sing Out Ubik." *Histories of the Future*. Edited by Daniel Rosenberg and Susan Harding. Durham, NC: Duke U P, 2005. 171-184.

Jameson, Fredric. *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions.* New York: Verso, 2005.

---. "The Politics of Utopia," *New Left Review*, vol. 25, January-February, 2004

Jastrow, Robert. *The Enchanted Loom: Mind in the Universe*. New York: Simon and Schuster, 1984.

Jefferson, Thomas. *Notes on the State of Virginia*. Richmond, VA: J. W. Randolph, 1853.

Jian Gui. Dir. Pang Brothers. Perf. Angelica Lee, Edmund Chen, Chutcha Rujinanon. Applause Pictures. 2002.

Kilgour, David and David Matas. "Bloody Harvest: Revised Report into Allegations of Organ Harvesting of Falun Gong Practitioners in China." Woodstock, Ontario: Seraphim Editions, 2009.

Kim, Eunjung. “Mothering Disability in the Midst of Compulsion, Prohibition, and Exploitation of Production.” University of California, San Diego, May 10, 2012. Guest Lecture.

Knee, Adam. “The Pan-Asian Outlook of *The Eye*.” In *Horror to the Extreme: Changing Boundaries in Asian Cinema*. Edited by Jinhee Choi and Mitsuyo Wada-Marciano. Hong Kong: Hong Kong U P, 2009.

Koontz, Dean. *Your Heart Belongs to Me*. New York: Bantam, 2008.

Lem, Stanislaw. “Philip K. Dick: A Visionary among the Charlatans.” *Science Fiction Studies*. Vol. 2, No. 1. Mar., 1975.

Lock, Margaret. *Twice Dead: Organ Transplants and the Reinvention of Death*. Berkeley, CA: U of California P, 2001.

Lovett, Laura L. "Fitter Families for Future Firesides: Florence Sherbon and Popular Eugenics."

Lowe, Lisa. *Immigrant Acts: On Asian American Cultural Politics*. Durham, NC: Duke U P, 1996.

Lum, Thomas. “China and the ‘Falun Gong.’” *CRS Report for Congress RS20333*. Congressional Research Service. Library of Congress, Washington, DC (August 3, 2001).

---. “China and the ‘Falun Gong.’” *CRS Report for Congress RL33437*. Congressional Research Service. Library of Congress, Washington, DC (May 25, 2006).

MacDonnell, Kevin. *Eadweard Muybridge: The Man Who Invented the Moving Picture*. Boston: Little, Brown, and Co, 1972.

Maluf, N. S. R. “Histories of Blood Transfusion.” *Journal of History of Medicine and Allied Science* 1954. Vol. 9: 59-107.

Marshall, Tim. *Murdering to Dissect: Grave-robbing, Frankenstein, and the Anatomy Literature*. Manchester: Manchester U P, 1995.

Martin, Fran and Larissa Heinrich, eds. *Embodied Modernities: Corporeality, Representation, and Chinese Cultures*. Honolulu: U of Hawaii P, 2006.

Mbembe, Achilles. “Necropolitics.” Translated by Libby Meintjes. *Public Culture.* Vol 15, no 1, 2003. 11-40.

McCaffrey, Anne. *The Ship Who Sang*. Los Angeles, CA: Del Rey Books, 1985.

Meikle, James. "Face Transplant Man Richard Norris Has 'Life Restored'." *The Guardian*. March 28, 2012.

Molina, Natalia. *Fit to be Citizens?: Public Health and Race in Los Angeles*. Berkeley: U of California P, 2006.

Moretti, Franco. "A Capital *Dracula*." In *Dracula*. Edited by Nina Auerbach and David J. Skal. New York: Norton and Co., 1997.

Moynihan, Patrick. "The Negro Family: The Case for National Action." *Office of Policy Planning and Research*. March 1965. *U.S. Department of Labor*.

Mumford, Lewis. *The Myth of the Machine: The Pentagon of Power*. Boston, MA: Harcourt P, 1964.

Nead, Lynda. *The Haunted Gallery: Painting, Photography, Film c. 1900.* New Haven: Yale U P, 2007.

Naremore, James. *More Than Night: Film Noir in its Contexts*. Berkeley, CA: U of California P, 1998.

Niven, Larry. "The Last Word about SF Detectives." *The Long Arm of Gil Hamilton*. New York: Ballantine Books, 1976.

Ong, Aihwa and Nancy N. Chen. *Asian Biotech: Ethics and Communities of Fate*. Durham, NC: Duke U P, 2010.

Organs for Sale: China's Growing Trade and Ultimate Violation of Prisoners' Rights: Hearing Before Sub-Comm. on International Operations and Human Rights, 107th Cong. (2001).

Patterson, Orlando. *Slavery and Social Death: A Comparative Study*. Cambridge, MA: Harvard U P, 1982.

Puar, Jasbir. *Terrorist Assemblages: Homonationalism in Queer Times*. Durham, NC: Duke U P, 2007.

Rabinbach, Anson. *The Human Motor: Energy, Fatigue, and the Origins of Modernity*. Berkeley, CA: U of California P, 1992.

Rabinow, Paul and Nikolas Rose, *The Essential Foucault: Selections from the Essential Works of Foucault, 1954-1984.* New York: The New Press, 2003.

---. “Biopower Today.” *BioSocieties*, Vol. 1, 2006.

Reese, Diana. “A Troubled Legacy: Mary Shelley’s *Frankenstein* and the Inheritance of Human Rights.” *Representations*. Vol. 96, No. 1, Fall 2006.

Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death. “A Definition of Irreversible Coma.” *Journal of American Medical Association*. Vol. 205, No. 6, August 5, 1968.

Richardson, Ruth. *Death, Dissection, and the Destitute*. Chicago, IL: U of Chicago P, 2001.

Roberts, Dorothy. “Race, Gender, and Genetic Technologies: A New Reproductive Dystopia?” *SIGNS*, Summer 2009. 783-804.

---. University of California, San Diego, Ethnic Studies Department. Cross Cultural Center, La Jolla, CA. 4 Dec. 2009. Guest lecture.

Rose, Nikolas and Carlos Novas. “Biological Citizenship.” *Global Anthropology*. Eds Aihwa Ong and Stephen Collier. Blackwell, 2003.

Rosenberg, Daniel and Susan Harding, editors. *Histories of the Future*. Durham, NC: Duke U P, 2005.

Roth, Phyllis A. “Suddenly Sexual Women in Bram Stoker’s *Dracula*.” In *Dracula*. Edited by Nina Auerbach and David J. Skal. New York: Norton and Co., 1997.

Scheper-Hughes, Nancy. “Commodity Fetishism in Organs Trafficking.” *Commodifying Bodies*. Edited by Nancy Scheper-Hughes and Lois Wacquant. Thousand Oaks: SAGE, 2001. 31-62.

---. “The Last Commodity: Post-Human Ethics and the Global Traffic in ‘Fresh’ Organs.” In *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*. Edited by Aihwa Ong and Stephen Collier. Malden, MA: Blackwell Publishing, 2005.

Senf, Carolyn. “Rethinking the New Woman in Stoker’s Fiction: Looking at *Lady Athylene*.” *Journal of Dracula Studies*. No. 9, 2007.

---. “The Unseen Face in the Mirror.” In *Dracula*. Edited by Nina Auerbach and David J. Skal. New York: Norton and Co., 1997.

Sharp, Leslie. *Bodies, Commodities, and Biotechnologies: Death, Mourning, and Scientific Desire in the Realm of Human Organ Transfer*. New York: Columbia U P, 2006.

---. "Commodified Kin: Death, Mourning, and Competing Claims." *American Anthropologist*. Vol. 103.

---. *Strange Harvest: Denatured Bodies and the Transformed Self*. Berkeley, CA: U of California P, 2006

Shelley, Mary Wollstonecraft, D. L. Macdonald, Kathleen Scherf, editors. *Frankenstein: the Original 1818 Text*. Peterborough, ON: Broadview Literary P, 1999.

Smith, Craig S. "Execution in China, Through a Brother's Eyes." *The New York Times*, March 11, 2001.

Smith, Merrit Roe. *Harpers Ferry Armory and the New Technology*. Ithaca, NY: Cornell U P, 1977.

Solnit, Rebecca. *River of Shadows: Eadweard Muybridge and the Technological Wild West*. New York: Penguin Books, 2004.

Spivak, Gayatri. "Can the Subaltern Speak?" *Marxism and the Interpretation of Culture*. Edited by C. Nelson and L. Grossberg. Basingstoke: Macmillan Education, 1988. 271-313.

Stoker, Bram. *Dracula*. Edited by Nina Auerbach and David J. Skal. London: Norton, 1997.

Sunder-Rajan, Kaushik. *Biocapital: The Constitution of PostGenomic Life*. Durham, NC: Duke U P, 2006.

Schwarz, Harry. "Capitalist Moon or Socialist Moon?" *The New York Times*. Jul 21, 1969.

Titmuss, Richard. *The Gift Relationship: From Human Blood to Social Policy*. London: New Press, 1997.

The Eye. Dir. David Moreau and Xavier Palud. Performed by Jessica Alba, Alessandro Nivola, Fernanda Romero. 2008.

The Island. Dir. Michael Bay. Performed by Ewan McGregor, Scarlett Johansson, Djimon Hounsou. Dreamworks SKG. 2005.

Twain, Mark. "The Queen's Jubilee." *The Complete Essays of Mark Twain*. Edited by Charles Neider. Cambridge, MA: Da Capo P, 1963.

Waldby, Catherine and Robert Mitchell. *Tissue Economies: Blood, Organs, and Cell Lines in Late Capitalism.* Durham: Duke U P, 2007.

Whissel, Kristen. *Picturing American Modernity: Traffic, Technology, and the Silent Cinema*. Durham, NC: Duke U P, 2008.

Vora, Kalindi. "Indian Transnational Surrogacy and the Commodification of Vital Energy." *Subjectivities*. Vol. 28, no. 1. 2009.

Youngner, Stuart, Renee C. Fox and Laurence J. O'Connell. *Organ Transplantation: Meanings and Realities*. Madison: U of Wisconsin P, 1996.

Zhang, Yingjin. *The City in Modern Chinese Literature and Film: Configurations of Space, Time, and Gender*. Stanford: Stanford U P, 1996.