

Undead:
Bodies and Codes of Uncanny Vitality in the Media of Late Capitalism

By
David Bering-Porter
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M.A. Brown University, 2006

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This dissertation by David Bering-Porter is accepted in its present form
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Date_____ Philip Rosen, Advisor

Recommended to the Graduate Council

Date_____ Rey Chow, Reader

Date_____ Wendy Hui Kyong Chun, Reader

Date_____ Mary Ann Doane, Reader

Approved by the Graduate Council

Date_____ Peter M. Weber, Dean of the Graduate School

CURRICULUM VITAE

David Bering-Porter was born in Schenectady, New York in 1982. He received his Bachelors of Science in Psychology (*summa cum laude*) from Excelsior College in 2003 and a M.A. in Modern Culture and Media from Brown University in 2006. In the Summer of 2006, he attended the School of Criticism and Theory at Cornell University where he participated in a seminar on Black Intellectuals. David was the recipient of the Bernard Edwin Bruce Endowed Fellowship at Brown University in 2005, a Graduate Fellow in the annual seminar of the Pembroke Center for Teaching and Research on Women at Brown University in the 2007-2008 academic year studying *The Question of Identity in Psychoanalysis*, and was the recipient of the John Carnegie MacMillan Graduate Fellowship at the Cogut Center for the Humanities at Brown University in the 2009-2010 academic year. David's research on Undead Media appears at the intersection of media and the body, where his work pushes the boundaries of the field of new media to incorporate issues of biology and power. His dissertation focused on figures of undeadness from both popular and scientific cultures to more clearly identify questions of race, knowledge, cultural production, as well as to understand how our notion of "life" has been remapped in contemporary media and culture.

PREFACE AND ACKNOWLEDGEMENTS

This dissertation addresses the contemporary turn towards vitality by looking at how “life” has been remapped under contemporary capitalism and claims that these shifts can be best understood through the notion of the “undead.” The objects of this study move from the zombie in Haitian myth and American cinema to the recessive trait in the history of genetics and the way in which the body itself is mediated in digital culture, pushing the boundaries of new media to incorporate biology and power. The dissertation takes on each of these objects in turn, creating a conceptual genealogy of undeadness that can be traced out from the beginnings of the modern era to the present, arguing that undeadness is not, in fact, about death, but rather about an excess of life.

This project situates itself in relation to recent scholarship that examines the way that technology permeates and reframes the body, changing it from a “natural” and sovereign object to the subject of information, mediation, and exchange. I use the term “uncanny vitality” to designate a kind of excessive life that belongs not only to representations of the zombie in cinema but also to a remapping of “life” itself that exceeds the boundaries of the individual as we see in the distributed identities that form within the context of both new media the life sciences. I argue that the body belongs to an important media history that can be traced from the enslaved body of the African Diaspora, continuing through the screened body of cinema, to the present day as technologies further instrumentalize the body as a source of value, labor, and resources. Beginning from a point of collision between media technology and the body allows me to draw from a diverse range of objects and approaches to answer questions concerning the shifting status of the human subject: the racial subject, gender and sexuality, marginality and minority as categories that emerge amidst late capitalism and globalization.

Engaging in cross-disciplinary work requires an interdisciplinary intellectual community to foster and support this kind of inquiry. I am honored to have been a part of just such a community at Brown University, and the Department of Modern Culture and Media, whose unique combination of rigorous analysis and creative freedom have given me both the space and the tools to produce work in which I am genuinely proud. I have benefitted from the experience, insight, and generosity of the faculty in Modern Culture and Media and especially from my dissertation committee. I would like to thank my advisor, Philip Rosen, who always challenged and supported me throughout my tenure as a graduate student and whose willingness to call my intellectual bluff made me a more careful thinker and a more rigorous writer. Wendy Chun, who introduced me to the field of new media and showed me how I could make it my own, was an invaluable mentor to me in shaping myself as a scholar. Rey Chow always encouraged me to make bold moves and helped me to see how to work across disciplines, and whose warmth and guidance helped bring this project to fruition. Finally, Mary Ann Doane whose meticulous attention to detail has been essential not simply to my writing on cinema, but to the way that I see film as well.

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INTRODUCTION

The mechanism for reproducing life, for dominating and for destroying it, is exactly the same, and accordingly industry, state, and advertising are amalgamated.¹
-- Theodor W. Adorno

Academics today face a newfound interest in “life” in contemporary theory and philosophy as new developments in scientific knowledge make their way into the various discourses in the social sciences, humanities, and mass culture. This focus on “life” relies on certain investments from these fields of knowledge production in the body as a source, a point of origin not only for new industries and new markets but for a re-grounding of an epistemology centered both on and in the body as well. Examples of this new trend towards the vital are many and appear in a variety of contexts. The turn towards the study of biopower and biopolitics, initiated by Foucault, has been the impetus for ground-breaking work all across the humanities and social sciences in disciplines ranging from literature to anthropology, from media studies to economics.

The interventions that stem from Foucauldian biopower all have in common the shared understanding that presently existing modes of governance, new media and technologies, and emerging regimes of discourse have a basis in productivity and potential of the body - as an interest in the human *bios*. This harkens back, even in Foucault, to an understanding first posited by Althusser who famously said, “The ultimate condition of production is therefore the reproduction of the conditions of

¹ Theodor Adorno, *Minima Moralia*, (New York: Verso, 2005), 53.

production.”² My reading of this noted phrase leads me to understand the notion of reproduction in Althusser quite literally; that the “reproduction of the conditions of production” includes the biological and sexual reproduction of the human lives, the laboring bodies necessary to sustain both the material conditions of capital, and the ideological conditions as well.

If one set of examples of this new investment in vitality can be found stemming from the genealogy of Althusser and Foucault, then the other emerges from a much different location within the academy; stemming from the sciences themselves. Disciplines such as molecular biology, genetics and genomics as well as neurology and cognitive psychology all provide a narrative of human life and human behavior that begins with the body and the possibilities that it contains. What these examples have in common is a basic gesture of ascribing the basis of all human action and motivation to the body and the information contained therein; turning the body into a medium and vitality into a resource. Thus, this new vitality must be understood in the context and conditions provided by late capitalism, so we come full circle, theoretically, back to Foucault. Posing these two trends within contemporary knowledge production illustrates a paradigmatic shift: a remapping of the notion of “life.”

This dissertation interrogates these alterations in the notion of “life” emerging within the discourses of the life sciences and theories of political economy, but as it appears in both scientific and popular culture. The contention is that this set of issues is best understood within the context of media studies, since the study of mediation is of central importance to the topic at hand. I will therefore advance my argument through a

² Louis Althusser, “Ideology and Ideological State Apparatuses: Notes towards an Investigation” in *Lenin and Philosophy and other essays*. Trans. Ben Brewster. (New York: Monthly Review Press, 2001). 85.

careful study of representation, and the conditions of re/production,. Yet, what kind of vitality is really at work here, under these new conditions outlined in a study of the *bios* that extends from the humanities to the “hard” sciences?

Giorgio Agamben has argued that the notion of “life” used in contemporary Western culture has its origins in two terms from the ancient Greek; *zoē* and *bios*.³ *Zoē*, according to Agamben, refers to a “fact of living common to all living beings (animals, humans, and gods)” where *bios* designates a “manner of living peculiar to a single individual or group.”⁴ The etymologies of these terms serve to illustrate the overshadowing of *zoē* by *bios* and the emphasis on the *bios* that exists today. Agamben’s point is that despite the modern emphasis on the *bios*, life is separated from the various forms that it takes and that power over this “bare life” serves as the basis for a contemporary regime of political power or sovereignty.⁵ While I fundamentally agree with Agamben’s concerns, my interest here is in the notion of the “life” that is being generated through a confluence of both the raw, biological fact of living beings and the discourses that surround and dissociate this vitality from the forms to which it is immanent. Through the integration of scientific and popular discourses on “life”, these two terms are being amalgamated in new ways that are not adequately explained through the notion of the *bios*.

Where this analysis follows Agamben most closely is where he points out that “What is left unquestioned in the contemporary debates in bioethics and biopolitics is precisely what would deserve to be questioned before anything else, that is, the very

³ Giorgio Agamben, “Form-of-Life” in *Means without End: Notes of Politics*. Trans. Vincenzo Binetti and Cesare Casarino (Minneapolis: Minnesota University Press, 2000), 3.

⁴ Ibid.

⁵ The term “bare life” has been made famous by Agamben in his book *Homo Sacer*.

biological concept of life.”⁶ I am interested in a notion of life that has become implicitly a part of everyday discourses in mass and popular culture as well as in the sciences. This is a life that is removed from its form and becomes independent and abstracted from its usual context, which I call uncanny vitality. Uncanny vitality is a life that returns. It comes back from death, having been never fully extinguished, to occupy a space in which it is fundamentally at home and, yet, alien. We know from Freud that the uncanny always has a certain vitality. Freud’s “unhomely” feeling settles upon us when we see automata, inanimate objects that seem ready to burst into life.⁷ By suggesting that “life” in contemporary discourse is uncanny is to say that never fully seems to belong to us – that the vitality that we understand existing within our bodies is not entirely ours and its source seems somewhat foreign even in the most intimate spaces of our bodies. Eric Santner describes such an “internal alienness” as “a peculiar sort of vitality [that] yet *belongs to no form of life*.”⁸ Santner also describes this peculiar formless life as one that is “neither simply enlivening nor simply deadening but rather, if I might put it this way, *undeaden*ing.”⁹

Agamben and Santner share a similar vision of a problematic kind of “life” that is somehow constitutive of who and how we are as human subjects. While Agamben’s investments lie in questions of classification and biology, Santner’s is a more analytical approach to a vitality that defines humanity as having a kind of life that is not entirely at home in itself. My own intervention is to bring these perspectives together and focus on a

⁶ “Form-of-Life”, 7.

⁷ Sigmund Freud, “The Uncanny” in *The Uncanny* (New York: Penguin Books, 2003).

⁸ Eric Santner, *On the Psychohistory of Everyday Life: Reflections on Freud and Rosenzweig* (Chicago, University of Chicago Press, 2001), 36.

⁹ Ibid.

notion of uncanny vitality, or undeadness, as a symptomatic category that shows something how contemporary culture understands “life” itself.

Just how is it that undeadness comes to illustrate life? My answer to this question is lies in term itself. The “un” in undead designates a negation not of life but of death. The undead are not simply dead, but rather have returned to life, thereby exhibiting what I have called, following Santner and Agamben, an uncanny form of vitality. Thus, undeadness is actually a mode of living but one that has been abstracted from its original, “natural” form and extended beyond its “natural” lifespan. Scholars of media and culture see this figured widely in portrayals of the undead ranging from vampires and mummies, to zombies which will be a key concept in this dissertation as an emblematic figure of the undead. For now, it can be said that undeadness is a foreclosure of death in favor of a sort of endless life. But this notion appears at its most utopian in contemporary advances in the life sciences, which claim to make new strides against illness, disease, and even death itself. At the same time, I will show, popular culture and popular cinema show us a less optimistic picture of the undead, figuring it as an endless drive towards mindless consumption.

This dissertation will address both of these visions of the undead to better understand these newly mapped notions of “life” through the uncanny vitality of the undead. Bringing together scholarly traditions from film and new media studies, critical race studies and postcolonial theory, and science and technology studies, I will argue that these various perspectives are not simply convenient but necessary if one is to fully understand the complex relations of “life” in the contemporary terrain of politics, economics, representation, and reproduction. From a disciplinary perspective, I am

bringing together these fields. I draw on prior work in them to identify the body, and vitality itself, as a valid object for media studies through a view of the body that is both highly mediated in modern culture and, itself, a medium. If, as Santner and Agamben so eloquently point out, a contemporary conception of life belongs fundamentally to no particular form but is, rather abstracted into an independent value, then the body necessarily becomes a medium for vitality itself.

To make this point as clearly as possible, this dissertation takes on begins with theorizing the body as such. In Chapter one, entitled “Blood: Body, Sovereignty, and the Return to Sanguine Society”, which focuses on circulation as a critical framework, looking at how the circulation of blood within the body as served as a model for modern political power. This chapter begins with William Harvey, who famously discovered the circulation of blood within the body in 1628. Along with his famous anatomical study, Harvey posited that the circulation of blood within the body mirrored the relations of sovereignty in the state. For Harvey, and that, like the heart, the king served as the focal point through and around which political power circulated. Beginning from this point, the chapter treats this as a precursor to the writing on biopolitics produced in the later work of Michel Foucault, that is, then moves to a more contemporary scene of politics which examines this as a precursor to the writing on biopolitics produced in the later work of Michel Foucault. Thus, the purpose of this first chapter on circulation gives is to provide a theoretical focus as well as more in-depth analysis of the role of biopower and biopolitics to the thesis overall.

Chapter two, entitled “Labor: The Undead Body in Colonial Capitalism”, also takes circulation as a kind of starting point, going from the individual body as the site and

model of sovereignty to the circulation of bodies in the African Diaspora and the role of slavery in the formation of global capitalism. Here, the zombie makes its first appearance as a figure of monstrous capital. The roots of the modern zombie in are as a monster borne out of the miscegenated cultures of the Caribbean and Haiti specifically. In this early context, the zombie was a figure worse than death, of a life of unending labor; of labor beyond death. This chapter finds the zombie's beginnings in the slave as both an instrumentalization of the human body and an early example of vitality being abstracted from the body to become the possession of some other.

Chapter three, entitled "Zombie: On Screen and in the Flesh", traces the history and evolution of the zombie as a cinematic motif, a movie monster whose popularity has grown exponentially over the course of its history of over seventy years. This chapter follows the zombie from its earliest depiction on screen in 1932, initially appearing in Victor Halperin's *White Zombie*, to more contemporary forms of the living dead, which operate with the speed and efficacy of a viral pandemic. this chapter argues that the zombie serves as an allegory of labor under capitalism as both become ever more consumptive, intellectual, and molecular. In both chapters two and three, the body serves as a medium for uncanny vitality. This enables me to trace a historical trajectory that begins with slavery and continues into the present, using the zombie as a particularly telling example. While the first zombies were literally dead slave labor, more recent depictions of the undead make them "infected" individuals, and undeadness is revealed as being subject to contagion. The chapter ends by connecting the viral as cause of the zombie epidemic to the virus of the contemporary life sciences as itself to be something undead.

Chapter four, entitled “The Recessive Trait: Spectral Biology and Living Media”, changes the terrain of study from cinema and popular culture to the history of science, positing that the recessive trait in the history of genetics belongs to a theory of undeadness within the life sciences. This chapter takes up where the previous chapter left off, moving from the virus in chapter three to the biological concept of the recessive trait in chapter four. The notion of the recessive, first imagined by Gregor Mendel, serves as a spectral object lurking within the embodied memory of the population and making itself heard in the language of heredity. This chapter sees the shift from popular to scientific culture, but it also sees a difference in the form that undeadness takes. While the zombie serves figures undeadness inherently embodied, in science the undead takes on a more spectral character. The recessive trait functions in a manner analogous to the specters that appear central to the work of Jacques Derrida in *Specters of Marx*. Spectrality is inherent in the play of presence and absence, albeit this time in the context of genetic expression.

Chapter five moves to a more contemporary context. Entitled “Screening the Genome: Promising Media and the ‘True Story of Your Own Death’”, this chapter serves as a continuation of this notion of undeadness as it exists within the human body in terms provided by molecular biology. This chapter looks to contemporary practice of genetic screening exploited by new corporate ventures in personalized genomics. This chapter takes as its object the discourse of genetic testing aimed at individual consumer, analyzing at length the online interface provided by the company deCODEme as a particularly telling site of intersection between the science of genetics and the ideology of vitality.. Out of this amalgam of science and capital comes an investment in vitality that

is more than just metaphorical. The business model for deCODEme and companies like it is a real investment in the potential of the body, commodifying the understanding and reading of risk. Central to my analysis of genetic screenings are theoretical concepts such as speculation, risk, promise, and the gift, which help me to think through the problematic emerging around this uncanny vitality.

Taken together, these chapters bring together a genealogy of a kind of vitality that moves from slavery and circulation to risk assessment and genetic confession. Thus, this project also situates itself in relation to recent scholarship that examines the way that technology permeates and reframes the body, changing it from a “natural” and sovereign object to the subject of information, mediation, and exchange. My term “uncanny vitality” designates a kind of excessive life that belongs not only to representations of the zombie in cinema or the gene as a scientific object, but more generally to a remapping of “life” itself. Such “life” exceeds the boundaries of the individual as we see in the distributed identities that form within the context of both new media and the life sciences. From this perspective, the body belongs to a media history that can be traced from the enslaved body of the African Diaspora, continuing through the screened body in cinema, to the present day technologies which further instrumentalize the body as a source of value, labor, and resources. This perspective can consider a diverse range of objects and approaches, all ultimately bearing on the shifting status of the human subject: labor, race, gender and sexuality, marginality and minority as categories that emerge amidst globalization and late capital.

CHAPTER 1

BLOOD: BODY, SOVEREIGNTY AND THE RETURN TO SANGUINE SOCIETY

The heart, ready furnished with its proper organs of motion, like a kind of internal creature, is of a date anterior to the body: first formed, nature willed that it should afterwards fashion, nourish, preserve, complete the entire animal, as its work and dwelling place: the heart, like the prince in a kingdom, in whose hands lie the chief and highest authority, rules over all; it is the original and foundation from which all power is derived, on which all power depends in the animal body.¹⁰

-- William Harvey, 1628

One would be concerned with the 'body politic', as a set of material elements and techniques that serve as weapons, relays, communication routes and supports for the power and knowledge relations that invest human bodies and subjugate them by turning them into objects of knowledge.¹¹

-- Michel Foucault, 1975

From approximately the twelfth-century, vivisection was one of the primary tools used by physicians and anatomists to determine the inner mechanisms of the body and to ascertain the processes of life. To vivisect is to cut into a living thing with its life, if not its body, still intact. While dissection was the primary mode of analysis of human anatomy, opening the body of the dead furnished few answers as to the active properties of the living since the purpose of the vital organs could not be deciphered without seeing them in action. And so it was that the drive to understand the anatomical mysteries that

¹⁰ William Harvey, *The Circulation of Blood* (New York and London: J.M. Dent & Sons and E. P. Dutton & Co, 1907).

¹¹ Michel Foucault, *"Society Must be Defended": Lectures At the College De France, 1975-1976*, trans. David Macey. (New York: Picador, 1997).

served as the motor for the pinnacle of divine creation - the human body; made in the image of God - led physicians like William Harvey to substitute the body of man for an animal body. Strapped to a table designed especially to maximize the openness and availability of the vital organs by holding the limbs outstretched, the unlucky animal was cut open to reveal the organic mechanisms and vital movements of its own life; a sacrifice to the human and to Man's knowledge of himself. While the study of anatomy was, into the seventeenth-century, considered primarily to be in service to the greater understanding of the body and, through its vital processes, life itself without direct recourse to its medical implications, it remains striking that much of the fundamental knowledge of the living human body was generated through the vivisection of the animal and the substitution and comparison of one species' structure to another. It is also worth noting that the practice of vivisection was carried out without mercy or restraint in an analysis of the minutest details of life's vital functions and that this knowledge of life invariably led to the death of the subject of such an analysis.¹² The practice of vivisection reveals something of the way that, to understand the vitality of life, one must cut into the dynamic processes of the living being in order to bring to light the conditions of life's maintenance and production. It is almost ironic to consider the amount of blood spilt in the service of the greater understanding of life, particularly when one considers that it was on the vivisection table that the full importance of blood and its circulation was discovered in the seventeenth-century by the English anatomist and physician William Harvey.

Educated in Padua and Cambridge, William Harvey was a prominent practitioner

¹² The connotations of the term 'vivisection' speak eloquently to the character of its practice, the term 'merciless' was taken from the Oxford English Dictionary.

of vivisection and medicine, serving as physician to King Charles I and as a lecturer of the College of Physicians in London.¹³ Harvey's prominence was, in large part, due to his controversial and revolutionary discovery of the importance of the heart in the body and its role in the circulation of blood throughout the living organism. Before Harvey's publication of his brief but eloquent argument for the circulation of blood within the body, *An Anatomical Disquisition on the Motion of the Heart and Blood in Animals*, it was generally thought that the motor of blood and the pulse was the lungs, a theory given credence due to the peculiar fact that, in the dissection of the recently deceased, the arteries were always empty of blood and so it was thought that while the veins carried blood to nourish the body, the arteries were the channel through which the vital spirits moved. Harvey, through his extensive experiments at the vivisection table, discovered the function of the heart and the processes by which it sent out and drew in the blood throughout the circuit of the body in rapid succession and it was due to this discovery that the heart was the sovereign of life within the body. The heart was the central focus of Harvey's anatomical investigations and one can see from his description of the heart in the epigraph, that he gave special significance to the heart and its position as the seat of the body's power. The motion of blood within the body becomes analogous, for Harvey, to the circulation of power and authority that flows both out from and returns to the central position of the sovereign.¹⁴ Thus, blood and power come to signify each other, thereby revealing something vital to an understanding of the structure of power relations

¹³ See the editors "Introduction" to *The Circulation of Blood* by William Harvey, p. xviii.

¹⁴ This connection between the heart and the sovereign was, no doubt, duly noted by Harvey's proponents of the time, since it was only after the publication of his seminal work that Harvey was appointed as personal physician to the king. For more on the historical perspective on Harvey's relation to the monarchical form of power, see Christopher Hill's "William Harvey and the Idea of Monarchy". This is certainly an area that is deserving of further investigation.

and sovereignty and unveiling blood as the central tissue linking sovereignty and power in early modernity and eloquently illustrating an instance of what Michel Foucault would call the "anatomy-politics of the human body."¹⁵

In the first volume of his *History of Sexuality*, Foucault outlines the trajectory of power from the early modern period to the present by weaving together the circuits of power as they traverse the symbolic realm of the political through the real stuff of bodies that serve to make up a social system and back again. For Foucault, the "anatomy-politics of the human body" was a way of thinking the point of intersection between the two interconnected spheres of the body and politics through the complex web of interrelations that are tissue together by the motions of power as it moves throughout. Thus, the body must always exist in service to a larger system of symbolic and political functions while, at the same time, the political system was dependent upon the functioning of real bodies in varying capacities. It was the changes in this relation that marked the shifts in power that Foucault set out to understand. The anatomy-political model of power brought to light by Harvey in the motion of the heart and the blood serves as a bridge between an early notion of sovereignty embodied within the person of the king and a newer, more institutional models of power propagation that came about in the seventeenth-century. It is this move precisely that Foucault seeks to map out in his discussion of the move from blood to sex in the modern period. In his analysis, Foucault traces out three broad patterns in the relations of power that characterize the periods between early modernity and the present: the sovereign blood of the king and the structure of the aristocracy, the bourgeoisie of sex and the emergence of

¹⁵ Michel Foucault, *History of Sexuality Vol. 1*, 139.

disciplinary institutions of power, and, finally, the emergence of bio-politics and bio-power as the logical culmination of the motion of power across the span of the modern period. As Foucault understands it, the primacy of sovereign blood is subsumed within the discourses of sex, yet blood remains a key consideration in this period. What, then, are we to make of blood in the age of bio-power? In this period, blood returns to the surface and forefront of analysis as it literally embodies the new notions of power that emerge in the dawning age of biotechnology. It is through an examination of blood, in both its symbolic and material capacities and how it functions in the age of bio-power, that one can grasp the full implications of the return of a sanguine society.

Before taking up a study of the role of blood in a bio-political era, it is important to lay out the trajectory of power through the different anatomo-political periods outlined by Foucault as this will allow for a more nuanced understanding of the matrix of sovereignty and sanguinity that structure life itself. Throughout Foucault's body of work, the seventeenth century holds an important place for the development and emergence of modern systems of power and many of the institutions that serve as the foundations for his arguments about the major changes that take place in the modern age. The discourses surrounding blood prove to be no exception to this overall historical trend and the discovery of the heart as the motor of the body also represents a significant moment in the changing conditions of power and sovereignty. In the *History of Sexuality*, Foucault describes this historical rupture as the move away from a certain notion of "sanguinity," where a language of power was spoken through the blood.¹⁶ Here Foucault points to the role of blood within the aristocracy; a time when sovereignty belonged to the figure of

¹⁶ Ibid, 147.

the prince in whose hands resided the ultimate power over life and death within this society of blood. As a social system, Foucault describes this configuration such that: "For a society in which the systems of alliance, the political form of the sovereign, the differentiation into orders and castes, and the value of descent lines were predominant; for a society in which famine, epidemics, and violence made death immanent, blood constituted one of the fundamental values."¹⁷ Blood serves, in its anatomic-political capacity, as the medium through which sovereign power is passed down through lines of filiations within particular royal families as well as the kinship structures of the aristocracy. The sovereignty of royal blood was also established through the power of the sovereign over the life and death of his subjects and in this political dimension the absolute power of the monarch was brought to bear upon society into the early modern era. Yet in its real material dimension, blood also served as one of the key markers of sovereign power as it was the prerogative of the prince to spill blood in direct or indirect response to an injury to the royal personage. For Foucault, this was illustrated through the elaborate mechanisms and devices of torture to which the offending body was subjected to the power of the sovereign - a ritual that took place as a spectacle of the absolute right of the king.¹⁸

As Harvey's description of the heart's role in the body would suggest, the ties that bind sovereignty to blood become visible in several different respects at the juncture of the seventeenth century. The analogy of the heart to the prince was more than a passing fancy of Harvey's work. At both the beginning and the end of his work, Harvey takes up a consideration of the broader place of the heart within the body and the importance of its

¹⁷ Ibid.

¹⁸ I am, of course, referring to Foucault's famous account of public torture that he lays out in *Discipline and Punish*.

functioning for the ongoing processes of life. Illustrating the importance of this notion of the sovereign heart, Harvey again draws out this metaphor in a dedication of his disquisition to Prince Charles I:

Most Illustrious Prince! The heart of animals is the foundation of their life, the sovereign of everything within them, the sun of their microcosm, that upon which all growth depends, from which all power proceeds. The King, in like manner, is the foundation of his kingdom, the sun of the world around him, the heart of the republic, the fountain whence all power, all grace doth flow. What I have written here of the motions of the heart I am the more emboldened to present to your Majesty ... because almost all thing human are done after human examples, and many things in a King are after the pattern of the heart.¹⁹

While Harvey's analysis of the heart and its motion was based in detailed empirical experimentation he nonetheless turned to the metaphor of the sovereign heart on several occasions to clarify the importance of his work and the theories of circulation he was positing. Because of its position within a dedication to a particular sovereign, it is not surprising to see the Harvey place special importance on both the heart and the king as the connection would serve to simultaneously legitimate both and, thus, elevate both his own investigations and curry favor with the prince, whose support Harvey would need.²⁰ However, Harvey returns again and again to this notion and the metaphoric relation of the heart to the prince deserves more scrutiny. The relation of sovereignty to blood runs more deeply than a metaphoric relation might suggest and the intermixture of these two real forces or figures are more than a convenient and politically beneficial position taken up by Harvey. One need think only of the sovereignty of blood itself in the framework of

¹⁹ Harvey, 3-4.

²⁰ Harvey's theories, going contrary to his contemporary physicians as well as the ancients, was decidedly unpopular at the time and his social position was in jeopardy until he was appointed as the royal physician by Prince Charles, who took an interest in his work on the motion of the heart and the blood.

power that dominated the historical scene of the seventeenth-century to understand Harvey's disquisition as a symptom that indicates the role of blood in the real conditions of power; blood served as the medium that transmitted the sovereign power of the king from one generation to another through a system of kinship and decent. The notion of sovereign blood was a very real political concept which was grounded in the transmission of equally real blood from one generation to the next.

This notion of a sovereignty based in blood is one that extends back at least as far as the Romans and the *patria potestas*, a right granted to the father by which he could maintain or dispose of the lives of those to whom he had already "given" life.²¹ Foucault elaborates: "The right which was formulated as the 'power of life and death' was in reality the right to *take* life or *let* live."²² This was not a capricious power with which the figure of the sovereign could dispose of the lives of his family/property at will, but which was still based in the power over life and death, particularly the life of the sovereign and the right to take life and let live was activated when this life was threatened, either figuratively or literally. Thus, sovereignty existed along the lines of a blood relation intermixed with notions of personal property and ownership. The rights of sovereignty and the connection between this foundation of sovereignty on a certain conception of blood reveals the way that this linkage is more than simply a metaphor. Indeed, the power of the sovereign relation is grounded in the material conditions of blood. The importance of blood in this regard did not go unnoticed in Foucault's discussion of the transition of power in the three historical epochs mentioned above and he points out that

²¹ Foucault describes this concept in more detail at the beginning of his final chapter in the *History of Sexuality Vol. I*, 135.

²² Ibid, 136.

the importance of blood is precisely that "blood was *a reality with a symbolic function*."²³ In light of this, Harvey's dedication to Prince Charles takes on its real significance which speaks to materially symbolic nature of blood as a vital element the kinds of power relations which Foucault is engaged in deciphering within his historiographical projects. Foucault describes the emergence of bourgeois sexuality as a turn away from what he is tempted to call a sanguine society, or one in which sovereign blood was passed down along a filial lines. With rise of the bourgeoisie, sex became the primary object through which power was generated and along with the embourgeoisement of sex came the great disciplinary apparatuses that characterized the modern era. However, the rise of sex was merely the internment of blood within a broader and more diffuse framework in which the circulation of power incorporated a broader territory by taking into account the filial motions of blood within classes, races, and taxonomies of society.

The move away from the function of blood as a symbol to sex as the subject of analysis represented a distinct rupture in the formations of power from one era to another. Just as the disciplinary apparatuses of the modern age began to systematically confine the extraneous and excessive elements of society, so too was the symbolic matter of blood moved underground and interned within a conceptual apparatus of race and population. Foucault sought to trace out this shift from "sanguinity to sexuality" through the social mechanisms that would restructure and define this historical/societal break such as the generation of the discourses surrounding sexuality, madness and criminality which all began to coalesce at some point during or after the seventeenth century.²⁴ With the shift from sanguinity to sexuality, the vector of sovereignty changed from a symbolic order in

²³ Ibid, 147.

²⁴ Ibid, 148.

which death was the limit to which power engaged, to an emphasis on life and the conditions of living. Foucault elaborates: "Clearly, nothing was more on the side of the law, death, transgression, the symbolic, and sovereignty than blood; just as sexuality was on the side of the norm, knowledge, life, meaning, the disciplines, and regulations."²⁵ This shift in the emphasis and trajectory of power from the symbolics of death to the practices of life brought about several key changes in the landscape of power. The motions of power became more diffuse and spread out from the direct, filial lines of the royalty to encompass the generation of entire peoples. Sexuality became the object of particular discursive attention because the practices of sex became the mechanism through which social body maintained and propagated itself. Along with these discourses that enclosed sexuality within a rigorous disciplinary framework were new techniques of understanding and accounting for large populations; the embourgeoisement of sex also saw the birth of statistics as a tool of population management within the consolidation of the nation-state.²⁶ The understanding of a people as a population and vice versa brings the close analysis of the individual's sexuality into a larger picture; namely, the use of the individual's sexuality as the motor of the continuation of certain characteristics and traits that passed from one generation to another. It was the circulation of these traits, along with a statistical understanding of population and biological taxonomies that oversaw the birth of the notion of race; a notion in which the circulation of traits coincided with the circulations of capital within a political scene that was based in colonization and re-

²⁵ Ibid.

²⁶ The key role of statistics in the shifting forms of social/political power has been articulated more carefully in Foucault's essay on *Governmentality*, in which he describes that the art of governing (synonymous with the emergence of political economy) was "no longer essentially defined by its territoriality, by the surface it occupies, but by a mass: the mass of the population, with its volume and its density" (245). See also Ian Hacking's work, *The Taming of Chance* for an excellent discussion and analysis of the birth of statistics and their use in the modern era.

appropriation. Despite the predominance of discourses of sex and sexuality, the figure of blood did not disappear entirely but, rather, took up its significance within a somewhat different context. Even as an understanding of blood and its symbolic value underlay the discourses of race in Europe's imperial age, the fundamental motion of blood's circulation simultaneously foreshadowed both the motion and mechanism of capitalism and the economic and property relations that would come to dominate modern discourse networks.

In his lectures at the College de France in 1976, Foucault takes up the problem of race and its position within a larger framework of the anatomo-politics of the body through the sovereignty of the nation-state and the relations of war. The relations of war taken up by Foucault in his lectures for that year emphasized not the conditions of war between nation-states but the war-like relation taken up at all times within the constitution of the nation; a foundational tension that flows beneath the national society and which works as an important driving force behind the mechanisms of the state. Foucault characterizes this as, fundamentally, a race war.²⁷ The conception of race that Foucault articulates in his lectures is more than skin deep, but rather functions as a division of the social body of the populace and a distinction that forms a binary opposition between an ideal population and a degenerate other. It was the grounding of the populace/population in the taxonomic discourses of biology that brought about the modern conception of race and Foucault describes the particular functioning of race and the race war when he discusses the strategic position of a biologico-social racism:

By this, I mean the idea - which is absolutely new and which will make the discourse function very differently - that the other race is basically not

²⁷ Foucault, *"Society Must Be Defended"*, 59-60.

the race that came from elsewhere or that was, for a time, triumphant and dominant, but that it is race that is permanently, ceaselessly infiltrating the social body, or which, rather, constantly being re-created in and by the social fabric. In other words, what we see as a polarity, as a binary rift within society, is not a clash between two distinct races. It is the splitting of a single race into a superrace and a subrace.²⁸

The subrace and superrace that Foucault outlines in this passage convey the formation of a certain racial logic that operates within modern Western culture and which comes into play not only in social scenes of colonization but within all society; this logic functions as the driving force behind the productive frictions of the social order and which motivate certain institutions in times of both war and peace. In this way, the racial logic that Foucault outlines in his conception of the race war is the motor that drives the circulation of power within the modern apparatuses and institutions of discipline.

What is crucial to this logic of race as Foucault understands it is that the racial other is always already *inside* the social/political body; the subrace is not merely a populace who lives outside the borders, who speaks another language and whom exists in the periphery of communal borders but is the infiltrator of the social anatomy. As Foucault points out, the creation of the subrace is not a matter of finding a population that is absolutely other, but rather a division within what Foucault calls the social fabric and one whose difference, whose distinction is one which is being perpetually generated. Unlike older models in which the 'barbarians' were those who lived outside the borders of 'civilized' lands, the race war that Foucault is interested in bringing to light is one that come about through the a notion of alterity generated from within and which is, then, constantly endangering the body of the superrace by its mere presence and the contamination that this subrace always already represents. This is the point at which the

²⁸ Ibid, 61.

discourses surrounding race and practices of sex intersect, for the biológico-social foundation of race and population needed to protect the social/sexual boundaries of the ideal populace through the policing of territories, both bodily and otherwise, along which this race war was waged. Sexuality was more than the representation of this anatomo-political boundary; it intersected the real re-production of the race and as Foucault points out in the *History of Sexuality*, "the notion of 'sex' made it possible to group together, in an artificial unity, anatomical elements, biological functions, conducts, sensations, and pleasures, and it enabled one to make use of this fictitious unity as a causal principle".²⁹ This makes Foucault's claim in regards to the shift from sanguinity to sexuality more clear in the way that blood relations re-emerge in the racial configurations of the nineteenth- and twentieth-centuries. Foucault describes the way that:

the aristocracy had also asserted the special character of the body, but this was in the form of *blood*, that is, in the form of the antiquity of its ancestry and of the value of alliances; the bourgeoisie on the contrary looked to its progeny and the health of its organism when it laid claim to a specific body. *The bourgeoisie's 'blood' was its sex.* And this is more than a play on words; many of the themes characteristic of the caste manners of the nobility reappeared in the nineteenth-century bourgeoisie, but in the guise of biological, medical, or eugenic precepts. the concern with genealogy became a preoccupation with heredity...³⁰

The preoccupation with heredity exhibited by the bourgeoisie takes the aristocratic concern for genealogy and brings it out to a mass scale, encompassing entire populations and bringing about dawn of a biological or physiological foundation of race. Blood retained its significance but at a different level, having spread its symbolic weight out across the generality of the racialized populace emphasizing the role of the enemy within

²⁹ Foucault, *History of Sexuality Vol. 1*, 154.

³⁰ Ibid, 124. Emphasis mine.

at the level of the race, the nation, and the individual.³¹

Foucault is, perhaps, most famous for his theories of the disciplinary mechanisms of power that sprung up in the modern period and which functioned through a process of subjection, in which the individual body was rendered a subject of power which operated precisely through certain methods of individuation. In this way, power itself was individuated and tailored to suit more closely the habits and behaviors of the individual subject. This is most clearly embodied by the figure of the panopticon, a model for a prison which brings to bear the full weight of socially prescribed power upon the individual who is isolated and subjected to the watchful, yet invisible, eye of the prison guard. Due to the constant and invisible surveillance that is built into the structure of the panopticon, the prisoner never knows when he or she may be watched but because of the constant possibility, the individual internalizes the behavioral discipline imposed from without and becomes more perfectly subject to the disciplinary power that characterized the modern era.³² What is key to this discussion about this model of power is the way that it echoes the problematic of the race war and the way that, as a social technology and a technique for disciplining entire populations through the individualized scrutiny bestowed upon sex and the fears of miscegenation and contamination that troubled the eugenic fascination of the bourgeoisie with notions of racial dominance and purity. The characteristic move that the panopticon brings to light is the way that discipline becomes internalized and the individual takes up the task of policing themselves, thereby extending the reach of disciplinary power into the personal realm of the individual's thoughts, actions and behaviors. Thus, as the overall historical trajectory of power was to

³¹ For an excellent commentary on Foucault's theories of the race war and the internalized other, see Ann Laura Stoler's *Race and the Education of Desire*, 52.

³² Again, see *Discipline and Punish* for a more detailed articulation of this concept of disciplinary power.

become more diffuse and to enclose larger and larger numbers of individual bodies as well as the practices of production and reproduction that maintained the dominant structures of power, the effect of power was to insert the exterior forces of discipline into the locus of individual subjectivity.³³ The outside becomes inside, and the methods of discipline engender this move toward interiority in nearly every instance of their functioning. This move is instructive in several respects. Firstly, it corresponds with the increased interest in the motivating factors of individual behavior and what exists in this interiority that moves the subject to act in certain ways - a project of knowledge situated in the occult and elusive spaces that exist inside the territory of the body. Secondly, the internalization of power characteristic of discipline shows the way that race itself, as a social technology and technique of control within the anatomo-politics of the social and individual body, functions as a disciplinary mechanism. Race is a social institution that operates along the same lines as the prison, school, or hospital but which exists as an institution more within the domain of legal/juridical discourse and practice as well as a social institution which functions through social and economic sanction; sanctions which exist at the level of heredity via sexual praxis. This is made even more evident through Foucault's conception of the race war, which exhibits this mechanism of internalization at the level of the social body - a scene in which the superrace must defend itself against the contaminating influence of the dialectical other who exists within the anatomo-political body but which must be eradicated. In such a scenario, blood really does move inside the body in some real and important way; even as it moves unseen and disappears from the

³³ While Foucault was not interested in the category of the subject as the object of study, it is helpful to here make use of this notion because of the way that it designates a kind of interiority. Foucault would, no doubt, argue that this notion of interiority designated by the term 'subject' is precisely the problem, but I am using this term here advisedly and I fully acknowledge that subjectivity in this instance may only be a conceptual or diagrammatic space opened up to the invisible workings of power.

spectacular displays exhibited by the exercise of sovereign power in the monarchy, blood remains the key motivating factor behind the individual's actions - an individual who must be taken and accounted for as a part of a larger racial group.

If we understand race as another disciplinary technology operating as one of the fundamental social institutions of modernity, then we must also understand the way that the institution of race in the West both prefigures and expands into the era of bio-power and bio-politics that Foucault describes. Indeed, race serves as the hinge that connects these two eras, and while race functions differently in each configuration of power, it provides an exemplary instance of this shift. As any history of race as bio-political concept will reveal, there was no clean break that existed between one mode of power's circulation and another and the social apparatuses, technologies and institutions that constituted the disciplinary formation of power did not disappear with the emergence of newer forms of power that were more carefully oriented towards an increasingly broad target. In his lectures, Foucault describes the growing conditions and techniques of power that were the precursors of a mode of power that furthered the interests of race-based disciplinary mechanisms in social functions such as heredity and formations of knowledge in the notion of the population. Sex, and its place within a larger framework of discourse and the logic of race, allowed for new formations of power to emerge for, as Foucault points out, "sex is a means of access both to the life of the body and the life of the species. It was employed as a standard for the disciplines and as a basis for regulations."³⁴ The turn from discipline to regulation signals precisely the character of the shift that Foucault saw as particularly symptomatic of the advent of bio-power, since

³⁴ Foucault, *History of Sexuality Vol. 1*, 146.

this mode of power took as its object not only the individual body, but the collective body of the population and the conditions of life itself. As we have seen, the institution of a racial logic internalizes the larger disciplinary concerns with sexuality and heredity that emerge with the rise of the bourgeoisie at the level of class consciousness and a body politic of purity and contamination. At a more individual level, the social institution of race concerns itself with the 'fitness' of the individual's body and behavior and the selection of traits that would be passed on from one generation to the next.³⁵ In this way, race functions as an excellent example of the internalization of power and discipline that is characteristic of bourgeois power structures, but at a level inside the anatomo-politics of the body as well as the interiority of the subject of power. Foucault goes on to say elsewhere that, "we saw the emergence of techniques of power that were essentially centered on the body, on the individual body. They included all devices that were used to ensure the spatial distribution of individual bodies ... and the organization, around those individuals, of a whole field of visibility."³⁶ So, what differentiates the investment in populations that occur in disciplinary power versus regulatory systems of power? A key distinction lies in the investment in life as such that takes place with the emergence of bio-power and bio-politics. While the life of the individual remains an important consideration and a vital element within a larger aggregate, it is the identity of the group, their past movements, present actions, and future behaviors as well as the conditions of life itself that concern the apparatuses of bio-power.

The development of bio-power comes about through new techniques of the

³⁵ The importance of Darwin's theories of evolution and their influence on this problematic should not be overlooked, and the notions of heredity and race-as-species is one that owes a great deal to Darwin's analysis of evolutionary traits. While some analysis of this would be both interesting and productive, I must defer this until I can take it up again in a later study.

³⁶ Foucault, *"Society Must Be Defended"*, 242.

production and circulation of power as well as the distribution via channels and mechanisms through which power flows. In the shift from one pattern of circulation and distribution to another, power alters the trajectories and emphases that it takes - redistributing its real and symbolic weight, so to speak. Thus, when Foucault points out that, "unlike discipline, which is addressed to bodies, the new nondisciplinary power is applied not to man-as-body but to the living man, to man-as-living-being; ultimately, if you like, to man-as-species", it should not be assumed that, due to this shift in emphasis, the individual (either as a body or as a category) is released from the embrace of power.³⁷ Rather, we can see in this move the next logical step in the overall trajectory that power has followed in the process of becoming finer, more widely distributed and more closely tailored to the life of humanity. New technologies are being established which address themselves to various multiplicities at the level of the group, population, and species - or what Foucault describes as a "global mass that is affected by overall processes characteristic of birth, death, production, illness and so on ... we have...the emergence of something that is no longer an anatomo-politics of the human body, but what I would call a 'biopolitics' of the human race."³⁸ The social mechanisms and technologies involved in the propagation of biopolitics do not take the individual into account in the same way as was done within disciplinary mechanisms. Rather, it takes up the individual body only insofar as the biopolitical system is interested precisely in the life of the individual and the biological foundations of that life, not in its singular aspect, but rather in the processes of man-as-species, which exists as the object of the regulatory apparatuses of

³⁷ Ibid.

³⁸ Ibid, 242-243.

bio-power.³⁹

With the advent of these new technologies of power that emerge out of the dawning regimes of biopolitics, come new discursive formations as well, which reflect and support the more abstract mechanisms of power's flow and functioning. As bio-power continues to rise into a predominant position, it brings with it certain epidemio-epistemological apparatuses that begin to overtake the older disciplinary institutions within our society without completely replacing them. I am referring here to the discourses surrounding new technological interventions into the biological ground upon which is built the biopolitical conception of the human. Biotechnologies and the biological knowledge upon which they are based, such as DNA and genomics or the new technologies of reproduction as well as the interventions into the quality and quantity of life available to the individual through these bio-technological measures, serve as the social apparatuses by which bio-power continues to grow and develop. The notion of the epidemio-epistemological apparatus designates these new techniques and technologies particularly well because it brings the relation of knowledge together with the real interventions into the material of the body at the micro-physical dimension.⁴⁰ Thus, the epidemio-epistemological is both the body and condition of knowledge based in and on the people; a global conception of the genetic identity of the human based in the specific codes and conditions of the human body as well as the political system into which this

³⁹ Ibid, 246-247.

⁴⁰ I take the term "micro-physics" from Foucault, who mentions it in *Discipline and Punish*, but which shares a definite similarity with other micrological notions that emerge approximately in the same historical period as the concept of micro-politics, which comes from Deleuze and Guattari's famous intervention, *Anti-Oedipus*.

body is inserted.⁴¹ Under the reign of these epidemio-epistemological apparatuses, blood re-emerges as one of the preeminent and exemplary figures. Blood is the medium in which is carried the vital information for the very structures of life and the processes of living contained within the genetic code and while this information is ubiquitous, being contained within every cell in the body, the blood is the most mobile and convenient medium for the transmission of this knowledge due to its accessibility as well, no doubt, as its symbolic weight that history has provided it.

For the systems of disciplinary power in a society marked by the ascendancy of the bourgeoisie, race represented one of the fundamental mechanisms through which heredity was invested with the dominant circulatory patterns of power. However, even with the emergence of biopolitics and bio-power, race continues to be an important category of power yet one which is submerged within the re-emerging figure of blood as the primary medium of distinction within the social body. This would seem to be a turn taking place in social/scientific apparatuses of classification, in which race loses some of its social legitimacy as biological discourses come to treat race as a superficial difference and locate the real markers of difference within the invisible level of the genetic code. Here the totality of the species, literally understood to be encoded within the genome, becomes internal and inherent to the multiplicity of cellular forms existent in all bodies. While individuals within disciplinary power belong to a larger race, and internalize the structures of power that seek to discipline their bodies and behaviors, the individual within the regulatory mode of power contains within him- or herself the entirety of the

⁴¹ According to the Oxford English Dictionary, the prefix *epi* designates a sense of “placed or resting upon” the *demos* or people, thus even in the sense of the epidemic, or epidemiological crisis, it is a problem that is propped upon the life of the people. Along similar lines, I would like to posit, along with the category of the epidemio-epistemological, a knowledge that is based in, on, and generated by, the people in a decidedly bio-logical sense. See the discussion of Agamben below for more details.

group to which he or she belongs; the genetic code reveals the totality of the species, indeed the coding structures of life itself in all its myriad forms, within the individual. We can see here a fundamental shift in the orientation of regulatory power, for while discipline operates along a paradigm in which the outside becomes inside; regulation finds the character of the social body that was exterior to the individual already within the zone of interiority that structures the genetic subject. Thus, in the orientation and trajectory of regulatory power, the inside becomes outside.

The discourses that surround genomics have become central to the regulatory apparatuses of power in late modernity. In this scene of regulatory power, blood regains some of its former significance as a highly visible and symbolic medium through which the living conditions of the human species are transmitted. As it has always done, blood signifies the binding connection between individuals and groups, yet the particular way in which this connection is brought together is now understood as the universal contained within the singular being. Foucault suggests in his lectures that, with the advent of regulatory power, the individual becomes less significant in the face of a broader interest in the population, species, and the category of "life" as such. However, what the discourses of biotechnology reveal is the way that the individual serves as the aperture through which the larger totality can be taken into account and the processes of life itself can be interrogated. The place of the individual would seem to be lost within a larger framework of the being inherent to a species, yet if we understand the manner by which regulatory bio-power grows up out of its disciplinary precursors it becomes more readily apparent that it is precisely through the control exerted over the individual that this new mode of power comes to envelope the structures of the individual even more closely.

One might say, following the logic of Donna Haraway in the constitution of the individual within a discourse of genomics, that "the genome projects produce entities of a different ontological kind than flesh-and-blood organisms, 'natural races,' or any other sort of 'normal' organic being. ... The human to be represented, then, has a particular kind of totality, or species being, as well as a specific kind of individuality."⁴² It is the particularity of both the totality and the individuality mentioned by Haraway that is key, since within the framework of genomics it is the productive difference contained within the particularity of the individual that motivates the circulation of discourses of control and freedom within a larger system of regulatory power/knowledge.

Once again, blood comes to the forefront within the discourses of power and late modern society returns to a certain sanguinity through the way that the blood of the individual, which once served as the sovereign medium *par excellence* in the relation of the king to his subjects, opens into the field of totality and the absolute conditions of the structure of life. Foucault characterizes the emergent system of regulatory power becoming prevalent under the regime of biopolitics as one concerned with the creation of norms based in the patterns in which life is lived, not only in practice but also in the ideal forms of life that are governed by various epistemic paradigms. Under the sign of discipline we saw the way in which the race war divided the social/political body and thereby created a productive difference which functioned as the motor for the movements of the nation-state and the various social bodies that existed within its borders. Superrace and subrace were at war with one another within every social scenario. Within the system of bio-power the race war finds expression within the notion of disease, predisposition

⁴² Haraway, 247.

and disorder. The weakness conceived of as inherent to the subrace has now been internalized inside the individual body with various disorders taking place at the level of biology. Genetic predisposition has now overtaken the weakness and degeneracy embodied in an entire race and, like the classification of blood type and group, spreads heterogeneously throughout the population within finely drawn patterns of inheritance and filial transmission. In this way, bio-power operates at an even finer and more closely tailored fashion than disciplinary power, whose mode of control worked through self-governance, for bio-power works at the level of the most basic laws and conditions of human life and behavior.

The advent of genomics brings with it new questions of natural law and the sovereignty of the self over the body - a notion of sovereignty based in the relation of ownership to the informational territory of one's own body and the control one exercises over it - which are further complicated because of the ownership of genetic codes and formations extends into the realms of both material and intellectual property. Since DNA and the organic forms that it structures are so crucial to the formation and functioning of life itself, a regulatory system of power based in biotechnology brings us back to a notion of the sovereignty of blood as a medium which contains and is constituted by the message of life and the conditions of its existence. The questions that come out of the problems of sovereignty in an age under the sign of bio-power have been taken up by Giorgio Agamben in his analysis of sovereign power. *Homo Sacer* engages the questions of life and sovereignty directly through a concern for the formations of governance and law that have grown up in relation to these new modes and mechanisms of a power based in the fundamental processes of living. Agamben turns to the practices of the ancients

and the distinction that was drawn out between two interconnected conceptions of life: *zoē*, which expressed the fundamental quality of living shared by all living things, from gods to animals and men, and *bios*, or the form of life that was exhibited and the manner in which life was lived by living beings.⁴³ It is at the point of intersection between these two modes of life that sovereignty is based as a kind of power that can be exercised over both. This is reminiscent of Foucault's admonition that the sign of biopower was the entry of life into history, which, as Agamben deftly illustrates, has been a key component to the functioning of power and law within a matrix of sovereignty since the earliest forms of governance.⁴⁴ The focus of Agamben's investigation is the notion of bare life, which can be understood as a life which "may be killed and yet not sacrificed," suggesting that bare life is a precursory condition for the political life of the human animal and exists in a liminal zone outside of the signification and sovereignty of the law.⁴⁵

Bare life is the form of life reduced to *zoē*, life taken in its most basic conditions of living and which cannot be sacrificed since it is not subject to the laws and contingencies of any symbolic network, yet *homo sacer* represents precisely this category within a framework of sovereign power for it is only the sovereign which has the ability to bring about a situation in which bare life exists as such. Thus, for Agamben, the camp is the perfect diagram of the *nomos* of the biopolitical era; the camp is a place in which the sovereign exception to the law has been actualized within a particular space. The space of the camp is a zone of indistinction between two different states that exist at

⁴³ Agamben, 1.

⁴⁴ Foucault, *History of Sexuality Vol. 1*, 141. See also Agamben's *Homo Sacer*.

⁴⁵ Agamben, 8.

different levels: the first is the state of nature which exists as a state previous to the exercise of power and the law. Agamben describes this state of natural law so as to say that "the state of nature...is the being-in-potentiality of the law, the law's presupposition as 'natural law'" - a condition in which the law of nature exists as a condition internal to the state.⁴⁶ This is juxtaposed, in Agamben's work on the state of exception, to the second state, which is a state created within the sovereignty of the law but which is exempt from the conditions of the law. Agamben says that the state of exception is "not so much a spatiotemporal suspension as a complex topological figure in which not only the exception and the rule but also the state of nature and law, outside and inside, pass through one another."⁴⁷ The state of nature and the state of exception are merely two sides of a continuous political spectrum which exist in juxtaposition to one another. The space of the camp, as the complex topological figure that characterizes the sovereign exception, is the point of intersection between these two states of being. The zone of indistinction that characterizes the camp in Agamben's understanding, presents us with a useful conceptual diagnosis of the place of biotechnology and the discursive apparatus that encloses the genome and the genetic code. As Foucault points out, blood is a reality with a symbolic effect and the genetic information carried within the medium of blood, itself, is situated as a zone of indistinction between the state of nature and the state of exception. Nowhere is the notion of natural law more easily locatable than in the constitution and execution/execution of the genetic code which encodes the formulation of the shape that life takes in its barest forms. In this way, natural law, as a state that evokes the full possibility of natural laws, becomes indistinguishable from the state of

⁴⁶ Ibid, 35-36.

⁴⁷ Ibid, 37.

exception, or the sovereign exception in which the rule of law is suspended by the law. In the discourses that encompass and comprise the new bio-informational sciences, it is suggested that the genome controls not only the form that our bodies take and thus quite literally inform our *zoē*, but also influence the *bios* or forms in which we live our lives. The behaviors we enact in our day-to-day lives are, within particular discourses of genetic determinism, largely determined by genetic predisposition.⁴⁸ Thus, a natural law is generated and presided over by the genome as a contingent, yet in and of itself sovereign, which circulates in modern legal discourse and which is often thought to suppose the ultimate form of natural law. However, simultaneously, the genome serves as an exception to the juridical sovereignty that holds sway over the rights and conditions of life, and human life more specifically, and functions as an exception which is created precisely through the investment in life that comes about through biopolitics.

These discourses of genetic identity and predetermination are not as central to this discussion as is the place of the conceptual apparatuses that undergird these notions. Regardless of the truth of these statements, what is important to remember is the way that biotechnology signals a massive investment in the basic materials of the body and which serve as the motor of the processes of living. These mechanisms promise to exert an increasing degree of control over the conditions of individual lives, but also the conditions of possibility that generate life itself.

Since the age of biotechnology is still dawning, any conclusion to this discussion

⁴⁸ Prototypical of this kind of scientific discourse is a book like *The Selfish Gene* by Richard Dawkins, who is famous for the notion that we are nothing but mechanisms designed for the propagation of genes, and that we are machines used by genes to perpetuate themselves. This is, admittedly, a somewhat reductionist version of Dawkins' argument. However, my argument here is less with Dawkins himself than the genre of discourse that has been informed by his work and which cites him as a legitimating figure for the kind of scientific or genetic behaviorism that I am pointing to here.

may be premature, but this discussion will provide a framework which can work to account for the problems of sovereignty that arise in relation to bio-power and the epidemio-epistemological apparatuses that are formed out of these new circulatory systems. In the *History of Sexuality*, Foucault was tempted to use the term sanguine to designate the older, classical, model of society in which monarchical power reigned. In positing a return to some notion of sanguine society within a biopolitical era, I seek to get at some of the of the political problems that we face due to the new mechanisms of power that operate in and through us.⁴⁹ Thus, by way of a conclusion, I would point to another connotation of the term sanguine, which in the discourses of medieval medicine, meant that blood was the predominant humor, which at that time signified an ideal type. To be sanguine was to be full of life and optimistic, a meaning which is still carried with the term today when it is defined as "cheerfully optimistic." Sanguinity, understood under the sign of biopolitics, maintains this disposition through the investment in ideal types and the dialectic of regulation and annihilation that would seem to mark out the dominant responses to abnormality and deviation from the ideal norm. For an example of the response of annihilation, we need only look to the much cited case of the holocaust which Agamben, among others, uses as the exemplary model of the camp, which serves as the paradigmatic space of bio-power. Yet, it is important to remember the opposing position, the positive or productive aspects of bio-power which, for Foucault, figured as one of the most important characteristics of regulatory power. This might be understood as the drive to cure, to regulate and to normalize that runs throughout the discourses of

⁴⁹ Some discussion of HIV seems only the first of many conceptual avenues that open up through this discussion, which might also include the notion of other blood-borne diseases, questions of fertility as well as the economies of tissues that circulate globally in which blood and the organs of the body, themselves, flow along the circulatory systems of capital in late modernity.

biotechnology and bio-power and which crop up in the discursive apparatuses of genomics and health. In many ways, these regulatory practices are more insidious than discipline since it operates by way of convenience and cure. If disciplinary power is invested in the past and current behaviors of the individual, leading indirectly to the large race, regulatory power invests in the zone of indistinction located in the genome which extends into and structures both the present actions of the individual and the future of the species and of life itself.

CHAPTER 2

LABOR: THE UNDEAD BODY IN COLONIAL CAPITALISM

In contrast to the knowledge that keeps man in a passive quietude, Desire dis-quiets him and moves him to action. Born of Desire, action tends to satisfy it, and can do so only by the “negation,” the destruction, or at least the transformation, of the desired object: to satisfy hunger, for example, the food must be destroyed or, in any case, transformed.⁵⁰
-- Alexandre Kojève

They’re just dead flesh, and dangerous.
-- *Night of the Living Dead* (George A. Romero, 1968)

While other figures of undeadness can be found in the myth and media of the twentieth century, this project limits itself to a reading of the zombie alone, bracketing other instances of the undead such as the vampire or closely associated figures of the reanimated, of which Frankenstein’s monster would seem the most obvious example. The zombie is a uniquely proletarian monster and as such helps to illustrate the underlying materiality that haunts the anxieties that are found in representations of other modern monsters, generated by a more symbolic mode of capitalist production. From its mythical origins in plantation culture and colonial capitalism, to its recent figuration in contemporary horror films, the zombie has been a monster of the masses that has alternately emerged from, constituted, and generated crowds. What is fearful about the zombie is precisely this relation to the mass – the zombie becomes ubiquitous – and that everyone can, and in some cases will, become a zombie. Whereas earlier representations of the zombie in myth and allegory portray an abject figure, completely under the sway of

⁵⁰ Alexandre Kojève, *Introduction to the Reading of Hegel: Lectures on The Phenomenology of Spirit*, trans by James H. Nichols, Jr. (Ithaca: Cornell University Press, 1969).

a master through the force of magic, more recent zombie movies show the zombie as an autonomous force in and of itself and as a vector of contagion and rampant overproduction. However, in each of these scenarios the zombie has proved to be a figure for the changing conditions of labor and reproduction, making visible the underlying materiality of this medium of labor through the very literal rents and tears that appear in the surface of the body and the decay of both the material of the body, as well as the decomposition of the unitary and imaginary body into a state of matter, meat, or flesh that remains animated with some uncanny vitality.⁵¹ In the figure of the zombie, something of the flesh, the underlying matter of the body, seems to bleed through to the surface and makes itself visible in whatever mode of appearance in which it takes shape, ranging from myth to cinema. At least part of what the zombie shows, in the instances of its appearance in both myth and cinema, is the way in which the body itself becomes a medium within the frame of modernity and through its historical roots in plantation culture and colonial capitalism. The zombie would seem to be an important figure for understanding the affects and anxieties associated with a mode of capitalism invested in representation and figurality leading up to a reading of more contemporary, and highly mediated, form of capitalism.⁵²

The central thread that draws this chapter together is a focus on the roots of the zombie, and the underlying connection to labor that exists throughout the genre. This chapter is about the origins of the zombie mythos in the plantations of Haiti and I am

⁵¹ This distinction between body and flesh is one that I take from Hortense Spillers (See “Mama’s Baby Papa’s Maybe: An American Grammar Book” in *Black, White, and In Color*) and is one that I will take up in more detail further on in this chapter.

⁵² Here I am thinking of the works that seek to articulate and understand the mechanisms of late capitalism such as Ernst Mandel, Fredric Jameson, Jean-Francois Lyotard and, notably, the Autonomist Marxists who have placed an emphasis on the investments in communication, mediation, and information that has taken place within the frame of late capitalism.

particularly interested in unpacking how these early colonial relations have colored and influenced the way that we understand this post-colonial monster in its subsequent appearances. Throughout the twentieth century, the zombie has held a central place in the visual mythology of popular culture with concerns for the masses, transmission, consumption and reproduction seemingly built into the zombie as it exists as a trope or figure. This chapter undertakes an excavation of this figure through a process that brings together a picture of the zombie from the diverse array of its appearances in the early myths and records of the zombie myth, looking to the way in which this monster operates as a monstrous reflection of capitalism. Not only that, but the changing conditions of capitalism can be seen reflected in the changing form of the zombie. By taking the zombie as the focus of this investigation, I hope to bring to the fore the way in which certain issues of form and representation, labor and politics, can be articulated through the context of popular media. A process of calling into question the distinction between high and low culture, good and bad movies, as an object of study as well as certain problems that face us in the everyday life of the twenty-first century. While the concerns of this chapter, and the zombie itself, span national boundaries and media forms, begging questions of reproduction and labor that are global in scope and that appear in a diverse range of media, I have restricted the base of my analysis to the zombie as it appears as a historical and theoretical object, leaving until the next chapter the analysis of films themselves.

As the title of this chapter suggests, an interrogation of the notion of the zombie is grounded in this context in an understanding of labor, and the way that the shifting philosophical and historical notions of labor have been of vital importance to the

formation of the zombie. Labor has generated the zombie as a psychotic construction of the capitalist cultures of the past two hundred years, a limit case of the subject of labor who is no longer a subject but an object that is excessive in its very presence within the political unconscious and the cultural imaginary. Not only have zombie movies taken a pioneering role in the development of extreme cinema, gore, and ultra-violence, but the zombie itself illustrates various issues and contingencies of the flesh. The zombie makes visible the contradictions between body and flesh through a juxtaposition of decomposition, the wearing thin/rending open of the limits and boundaries of body and flesh, and an uncanny vitality and animates and re-animates the undead. The zombie also serves as a figure of the excessive production, and subsequently consumption, that illustrates the trouble with labor that is faced in the scene of contemporary capitalism.

This chapter will look to the evolution of this figure from its roots in colonial myth and in so doing hopes to develop an understanding of the zombie, the conditions that make possible its presence within the imaginary of popular culture, and its ramifications as a cultural form. This chapter will focus solely on the early instances of the zombie, drawing largely on the ethnographies and accounts of the monster from the late nineteenth and early twentieth centuries, from early cinematic representations of this monster, and from philosophical accounts of slavery, labor, and reproduction which seem to serve as the explanatory scaffolding that allows us to see the zombie more clearly within its contemporary context. The object of this chapter is the zombie as a laboring body, in whose very flesh is inscribed the concerns of colonial capitalism and the trends towards an unlimited reproducibility that was discussed in different terms in the first chapter. The following chapter will take on cases of the zombie's cinematic

representation more fully and more carefully, looking to its evolution and continued importance after establishing a clear foundation here, in its mythical origins.

While my reading of the zombie will take place approximately chronologically, this little history of the zombie in no way claims to be comprehensive, totalizing, or all-inclusive. While critical responses to the zombie movie have been few and far between, the sheer number of films makes a comprehensive overview of the zombie-on-screen prohibitive. The zombie also makes an appearance off-screen in myths of the undead that circulate in the Voudoun religion and have been carefully accounted for in the anthropological and ethnographic work of Wade Davis, Zora Neale Hurston, and Katharine Dunham, to name only a few, and an understanding of the matter of zombies would remain impoverished were it to ignore the origins of this modern monster in slavery, colonialism, and systems of transnational production and reproduction. Thus, in this first section of the dissertation, my analysis of the zombie will be broken into two chapters. This chapter will engage in an archaeology of the zombie as a figure that embodies labor and is itself a product of colonial capitalism. The next chapter will more fully develop the changing conditions of the zombie and will take as its object the zombie movies that illustrate these ideas.

The zombie only reaches the height of its popularity when it appears on screen in the early twentieth century – and one might argue that in taking up the zombie in cinema as a primary focus, one need not leave behind issues of myth, allegory, production and reproduction. Despite the international appeal of the zombie movie, I will limit the scope of this analysis to the American context and justify this admittedly arbitrary decision through an appeal to the historical origins of the zombie within an American/Caribbean

context, and through the understanding of the status of America as an epicenter of contemporary capitalism in spite of the inherently global scope and reach found in every definition of late capitalism.⁵³

The following history is broken into three stages or periods in the overall development or evolution of the zombie that takes place, largely, over the course of the twentieth century. While this little history does attempt to provide a picture of the zombie as it develops as both figure and generic form that emerges in cinema and out according to three approximate periods, I would be wary of falling too easily into a method of periodization and a historiography that expects a “natural” evolution of events. The aim of this chapter is not to find a singular or universal *telos* of the zombie or give a unified evolutionary trajectory of this monster, from its contemporary representations to some moment of origin in myth and history, but to bring together a collection of instances that, together form a picture of the zombie, the conditions of its formation and possibility, the evolution of this monster across media forms, and finally the contemporary issues that the zombie brings to light.

The work of this chapter claims to be something of a historical account, a tracing back of the zombie and the roots of its formation. Both in this chapter and the next, the zombie is subjected to a kind of historical or historiographical analysis or a process of contextualization. In this chapter, the history of the zombie is interrogated through the context of colonial capitalism and the notion of labor as it appears in several key points in political philosophy. The next chapter will look at the zombie’s evolution on screen. In

⁵³ The international dimension of the zombie and its popularity as a cinematic form is an important and revealing aspect of the place of the undead in a postmodern context, and one that deserves to be addressed in a more in-depth fashion that this chapter can provide. For more justification of the status of the U.S. as the epicenter of a transnational capitalism see David Harvey’s *The Condition of Postmodernity*.

either case, it is important to make the methods of dealing with history here as transparent as possible and to elucidate the methods by which I am taking the zombie in its various historical contexts. Many of the central premises of this dissertation and the notion of undeadness that I have argued for thus far rest upon a psychoanalytic approach to analysis. Concepts like the uncanny and the repressed, negation and psychosis, have been central to my understanding, and while it is often thought that psychoanalysis as a discipline and a discourse remains largely ahistorical I would turn to the Michel de Certeau's writings on psychoanalysis and its history to provide another viewpoint.

The argument for the ahistorical nature of psychoanalysis generally comes from the perspective that the object of analysis for Freud and his followers are in some way unchanging and ahistorical in and of themselves. The subject as well as its constitutive parts can seem like unchanging or essential elements of analytic training and analysis. However, history, and particularly the history of the subject is central to the Freud's understanding of pathology. Indeed, most of the interpretive strategies of psychoanalysis have to do with reading the traces of the past as they appear within the encoded structures of dreams and present-day behavior. The fundamental difference between the treatment of history within psychoanalysis and the use of history in more traditional historiographies has to do with what de Certeau describes as the "space of memory."⁵⁴ De Certeau goes on to describe the relations more concretely, pointing out that: "Psychoanalysis recognizes the past *in* the present; historiography places them one beside the other. Psychoanalysis treats the relation as one of imbrication (one in the place of the

⁵⁴ Michel de Certeau, "Psychoanalysis and Its History" in *Heterologies: Discourse on the Other* (Minneapolis: University of Minnesota Press, 1986.), 4.

other), of repetition (one reproduces the other in another form)".⁵⁵ This can be compared to the methods used in a more historiographical approach to history, which de Certeau explains is more likely to conceive of the historical relation as "one of succession (one after the other), correlation (greater or lesser proximities), cause and effect (one follows from the other), and disjunction".⁵⁶ As de Certeau aptly points out, what psychoanalysis posits is a competing strategy of time to the more linear version generally understood within the historical disciplines – one which deals first and foremost with the trace, the return, and the residual.

This focus on the residual and uncanny aspects of history make this approach particularly apropos for this study as my goal in unpacking the history of this monster is to understand both the conditions of its emergence and functioning, but also the context of its cultural repression. The zombie's monstrosity comes from its undying hunger and its soulless drive and as such it becomes a figure *par excellence* for the excesses, the repressed elements of colonialism and capitalism. It illustrates the anxiety generated by these excesses, but also figures for their historical return, for as de Certeau says of history vis-à-vis psychoanalysis, it is precisely the trace of the past that returns. This is a history that is "cannibalistic," for it doesn't simply exist along side the everyday operation of the present, but rather it takes it over and takes its place.⁵⁷ The past re-appears and as de Certeau points out, "any autonomous order is founded upon what it eliminates; it produces a 'residue' condemned to be forgotten. But what was excluded re-infiltrates the place of its origin ... It resurfaces, it troubles, it turns the present's feeling of being 'at

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Ibid, 3.

home' into an illusion, it lurks ... within the walls of the residence, and, behind the back of the owner (the *ego*), over its objections, it inscribes there the law of the other.”⁵⁸

According to this reading of history, the zombie itself is the return of a trace of the past and, as a figure within popular representation, it remains to be seen why this figure plays such an important part in contemporary culture.

Put most simply, the zombie is a dead body that has been reanimated and now moves driven by some purpose. This drive or motivating force can come either from without, in the form of the will of some zombie master who directs the movements of the recently deceased, or from within: the driving hunger or rage that seems to animate the bodies of more recent zombies. The origins of the word “zombie” are not perfectly clear, although it is generally thought that term emerged out of West African cultures, coming from the word for spirit or ghost.⁵⁹ This seems an appropriate use of the term when one considers that there are two types of zombie in the religious lore of Voudon from which the myths of the zombie arise. One, a “spirit zombie”, refers to a captured spirit of the dead which can be used in various ways by the sorcerer who created the zombie in the first place. The other is the more corporeal zombie which has become emblematic for the zombie in general and which might be defined precisely as a body without a soul or one whose “life” has been taken away.⁶⁰ It was this embodied zombie that found its way into the popular imagination of the West when it was introduced by the American

⁵⁸ Ibid, 4.

⁵⁹ Various authors and commentators on the zombie have addressed the origins of the name, ranging from journalists to anthropologists. See Jaime Russell’s excellent overview of the zombie *Book of the Dead* as well as Wade Davis’s *Passage of Darkness: The Ethnobiology of the Haitian Zombie* or Alfred Métraux’s *Voodoo in Haiti*.

⁶⁰ Needless to say, the creation of one form of zombie might well coincide with the creation of the other.

writer/adventurer William Seabrook, whose travelogue described dead bodies (personally observed by the author) working in the fields of Haiti.

Seabrook's account of his adventures in Haiti in the 1920s was the first to describe the existence of zombies not as a rotting monster or undead cannibal, but rather as a slave or laborer, a victim of sorcery and misfortune whose fate it was to labor for others even in death. In this stage, the zombie is less a monster than a tool even if its existence seems an abomination to the natural order. For Seabrook, zombies were "dead men working" and seemed to be more a recapitulation of slavery more than anything else and he goes on to describe the zombie in contrast to the superstitions and folklore of "white Europe."⁶¹ Unlike, the demons, vampires, and other specters that have haunted the myths of both Europe, Africa, and the Americas, the zombie as such seemed "exclusively local" to Haiti and seemed neither dead enough to be a ghost nor lively enough to have been resurrected as newly alive. Seabrook goes on to describe these creatures at length;

The *zombie*, they say, is a soulless human corpse, still dead, but taken from the grave and endowed by sorcery with a mechanical semblance of life – it is a dead body which is made to walk and act and move as if it were alive. People who have the power to do this go to a fresh grave, dig up the body before it has time to rot, galvanize it into movement, and then make of it a servant or slave, occasionally for the commission of some crime, more often simply as a drudge around the habitation or the farm, setting it dull heavy tasks, and beating it like a dumb beast if it slackens.⁶²

Seabrook's description of the zombie is telling of the dynamics at work in this magically driven creature. Here, the zombie is less a monster to be feared than one to be pitied and

⁶¹ William Seabrook, *The Magic Island*, 92.

⁶² *Ibid*, 93.

as other anthropological accounts point out, the people for whom this myth was (and is) alive and well live more in fear of becoming a zombie than being harmed by one.⁶³

As Seabrook's description illustrates, the magic zombie is body devoid of will and is, as such, an empty vessel or tool that is purely subject to some alien drive or the commands of another, in this case the *bocor* or sorcerer whose machinations brought the zombie back to some semblance of life or, at the very least, re-animated the dead flesh into a mechanical facsimile of the living. It is interesting to note the connections of the undead to a mechanical form of life in Seabrook's account since the zombie, in this stage of its figural development, seems to make strangely literal the notion of dead labor put forward by Marx. Dead labor was, for Marx, synonymous with machine labor and he argued that the machines that composed the industrial revolutions of the modern age served to abstract and store the so-called living labor of the human worker. In this way, the industrial machine of the factory was able to accumulate the labor-power of the living worker, keeping it at the ready for production on a much larger scale. This dead labor of the machine stands in reserve and at the ready of the capitalist, who provides the driving force behind industrial production. While both machines and the zombies of this late colonial era lack any driving force or will of their own, the analogy between the two through the notion of dead labor does not hold in every instance and I am cautious not to simply apply a Marxist framework to the complex situation from which the zombie myth arises. Unlike machines, zombies of this era are not capable of any superhuman feat of production. This early form of the zombie, created and driven by magic, was capable only of subhuman activity – simple labor and dull heavy tasks, as Seabrook points out –

⁶³ See Wade Davis, *Passage of Darkness: The Ethnobiology of the Haitian Zombie*, 213.

and, lacking an animating soul (the *ti bon ange*, which in Haitian myth is generally stolen by the *bocor* and put to other nefarious uses), the zombie was more akin to the beast of burden. That these early zombies were subhuman, lacking even the living spirit of animals, seems to reflect the discourses on the slave that were prevalent at the time in the colonial period, when justifications of slavery often conceived of the slave as little more than any other animal on a plantation, mill, or farm.

In what is, perhaps, the most famous ethnography of the zombie and its cultural context, the anthropologist Wade Davis puts forward a detailed and compelling analysis of the zombie's place in the cultural imaginary of Haiti and the Vodoun mythos. Two books emerged from Davis' time in Haiti searching for the secrets of the zombie. One was a popularized account, entitled *The Serpent and the Rainbow*, which bears some resemblance to much earlier travelogues such as Seabrook's and which was loosely adapted into a film by Wes Craven. The second book provides a more in-depth and academic approach to the problems posed by the zombie phenomenon. Entitled *Passage into Darkness: The Ethnobotany of the Haitian Zombie*, thoughtfully attempts to account for the actual instances of zombification that have taken place in present day Haiti, while at the same time, uncovering their roots in the Caribbean's colonial past. More than just myth and metaphor, the creation of a zombie is an actual occurrence that takes place as a form of social sanction from certain occult secret societies that make use of a potent poison to induce a death-like stupor in the intended victim. It was the formula for this poison that brought Davis to Haiti in the first place, as it was thought such a toxin could have medical application and Davis was a specialist in acquiring so-called "traditional" knowledge from aboriginal societies in South America. As Davis discovered, the

“zombie poison” was real and was used as a punishment for members of local communities who had transgressed in some major fashion against the social mores of the community and/or the secret society that possessed and implemented this knowledge. While these zombies were never properly dead, they were subject to a social death where the fear of zombies lay in becoming one and the zombie fate was widely known and acknowledged. Thus, in addition to the physical trauma caused by the poison itself, there was a tremendous social and psychical trauma involved in the zombie’s subjection as such, leaving the individual body intact with a broken mind and will – leading to the notion of the zombie as a mindless automaton.

The ethnographic account of the zombie as a phenomenon rooted in poison and the occult laws of Haitian secret societies, one must also consider the cultural context out of which this monster arose. What would be the purpose of creating a zombie, what was essentially a servant or slave, and what were the conditions that not only made this monster possible, but probable as well? In *Passage into Darkness*, Davis points out that this mode of pharmacological enslavement has little or nothing to do with the economic incentive and, rather, seem to have a more symbolic purpose that is no doubt related to the colonial past of the Haitian people as well as the history of slavery that haunts the political unconscious of the island and its traditions. Speaking directly to this issue and the zombie, Davis says:

...a zombie was a being without will, on the very frontier of the natural world ... Zombies do not speak, cannot fend for themselves, do not even know their names. Their fate is enslavement. Given the availability of cheap labor, there is no apparent economic incentive to create a force of indentured servants. Instead, because of the colonial history, the concept of enslavement implies that the peasant fears and the zombie suffers a fate that is literally worse than death – the loss of physical liberty that is

slavery, and the sacrifice of personal autonomy implied by the loss of identity.⁶⁴

Davis goes on to reiterate that the Haitian peasant's fear of zombies lies not in being harmed by zombies, "but rather of becoming one."⁶⁵ Through Davis' account we can begin to see the way in which the zombie, and its mythological armature, is not only indicative of the colonial relations of labor and reproduction, but also deeply rooted in them. As a figure, the zombie points to a return to a state of slavery, yet one without any hope of resistance or escape – a subjection to the point of abjection. The magic zombie figures the ultimate state of slavery in which the will has been removed entirely and only the body remains as a mindless automaton, and even actual instance of zombification appear similar in that the victim of the process is so greatly traumatized by both the social and pharmacological significance of being turned into a zombie that they effectively become a zombie in the mode depicted by myth.

At this early stage in the zombie's figural evolution, the points of intersection between slavery and undeadness seem relatively clear. Historically, the zombie emerges from out of the context of slavery in the plantations of the Caribbean and the trans-Atlantic trafficking that formed the foundation for the system of colonial capitalism in the Americas. The French colony of Saint-Domingue, now Haiti, was the most prized of the French colonies, generating no less than one fifth of the wealth of the entire empire.⁶⁶ Until the revolution in the years 1791-1804, Saint-Domingue was the envy of all the colonial powers and its propensity towards extreme profits was matched only by the

⁶⁴ Ibid, 207-208.

⁶⁵ Ibid, 208.

⁶⁶ Jean Fouchard, *The Haitian Maroons: Liberty or Death*. Trans. A. Faulkner Watts. New York: Blyden Press, 1981. See also *The Black Jacobins* by C. L. R. James and *Slavery and Social Death* by Orlando Patterson.

extreme cruelty of the Caribbean plantation system, which consumed the bodies of the slaves at a rate of approximately 30,000 per year.⁶⁷ Unlike the plantations of North America, which due to expense and other factors relied on smaller plantations and were thus more dependant on the breeding and reproduction of slave populations, the plantations of Saint-Domingue had an extremely high mortality rate and relatively low birthrate and, hence, depended greatly on the importation of new slaves who were, in turn, consumed as the materials of colonial production. The zombie serves as the colonial monster *par excellence* in the sense that it represents the consumption of both body and soul by this colonial capitalism and the figure of the zombie represents the condemnation to labor even beyond death – a condition in which death is no escape from the life and labor of the slave.⁶⁸

It was, perhaps, due to this set of conditions that led to the slave rebellion of the colony and the establishment of the first and only Black republic in the New World. The political and historical conditions of the Haitian revolution have been articulated with great care and detail elsewhere and it falls beyond the scope of this project to enter into such a discussion further. Yet, in order to further understand the complex interrelation between slavery, liberty, and modernity that gave rise to the zombie as a figure, one must consider more carefully the conditions and elements that enter into the notion of slavery, mastery, and freedom. To this end, I would turn to the discussion of the master-slave dialectic framed by Hegel as a key moment, a turning point in the conceptualization in

⁶⁷ Ibid.

⁶⁸ The plantation as a scene of production as well as the annihilation of the slaves at such a tremendous rate is suggestive of the kind of biopolitical engine described by Giorgio Agamben in relation to the concentration camps of the Second World War

and of the modern world and as an important element in the episteme of the zombie more broadly.

However, this reading of Hegel is necessarily oblique as the importance of Hegel's philosophy to this matter of the zombie does not come to us in itself, but rather through the interpretive frame of Alexandre Kojève, whose *Introduction to the Reading of Hegel* tacks back towards Hegel's *Phenomenology* through the staunch and steady critique leveled by Marx. Kojève retells the Hegelian allegory of the Master and Slave in a language inflected by a contemporary Marxism of the time, and finds the roots of this dialectic in desire and labor. As Kojève points out, the master-slave dialectic is a crucial moment in the Hegel's philosophical system and stands at the root of his understanding of both history and society. Indeed, the mechanism created by this interplay of power and position through the allegory of master and slave serves as the driving force of self-consciousness, if not for the entirety of history. The master-slave dialectic is a diagram of human relations that works out at every level of the social interaction – as an allegory it serves to explain the action of social movements and upheavals but, also, Hegel finds that the position of master and slave are necessary moments or elements in the constitution of the self-conscious subject as such.

To speak of the self-conscious subject begins to be oxymoronic when one considers that to be *subject*, is to be subject to something outside of the self and insofar as this relation of subjectivity takes place, it necessarily brings the self back to itself in a maneuver that is both reflexive and reflective. Hegel predicates this form of reflexivity on the operation of desire, which he understands as the motor that lies at the center of the self. Kojève explains that

Desire is always revealed as *my* desire, and to reveal desire, one must use the word 'I.' Man is *absorbed* by his contemplation for the thing in vain; as soon as *desire* for that thing is born, he will immediately be 'brought back to *himself*.' Suddenly, he will see that, in addition to the thing, there is his contemplation, there is *himself*, which is *not* that thing. And the thing appears to him as an *object* (*Gegen-stand*), as an *external* reality, which is not *he* but a *non I*.⁶⁹

It is in this mechanism of desire that Hegel finds the initial split or division that appears between the self and the world, and here the final sentence in Kojève's explanation is of particular interest since it describes this initiatory moment at which self and other, internal and external realities, become distinct from one another. Desire establishes the "non I" through its own reflexive action and gives birth to the thing's appearance as an object.⁷⁰ The action of desire simultaneously brings about the birth of the split-subject – the self-conscious subject – but also the objectification of the other. The enunciation of the *I* brings about the equal and opposite formation of the non-I as a part of external reality ("the thing appears to him as an *object*") thereby distinguishing between the inside and outside of the self but also transforming the thing – which would seem to have previously existed as a condition of the satisfaction of desire – into an object of desire; from a condition of satisfaction to a concrete object or instance that by its very constitution is located outside the boundaries of the human subject.

For Hegel and Kojève, desire provides the driving force behind the enunciation of the *I* – quite literally the line drawn out between self and other, inside and outside –

⁶⁹ Alexandre Kojève, *Introduction to the Reading of Hegel: Lectures on the PHENOMENOLOGY OF SPIRIT*. p. 37 (original emphasis).

⁷⁰ Hegel's articulation of desire is, as Kojève points out, in response to the Cartesian model that preceded it. When Descartes famously spoke of the *cogito ergo sum*, he emphasized the act of thinking itself as the sole ground of certainty. Yet in so doing, Descartes relegated the enunciating function of the *cogito* to a mere support structure for the process of thinking itself. Thus was born the idea of rationality as the foundation of the modern subject. Hegel's critique of this model lies precisely in his questioning of the *I* that thinks, and what makes possible this enunciation – the articulation of the *I* that thinks and that speaks itself. Kojève argues that the entirety of Hegel's *Phenomenology* is an attempt to answer this question and to unpack the conditions of possibility of this act of enunciation.

through a reflexive mechanism that provides the necessary but not sufficient conditions for human reality.⁷¹ Desire is something held in common by human and animal realities (and arguably, by life in general) as it provides the motivation necessary for the satiation of life's needs. Desire is what drives life towards action and sets the stage for the agonistic relations that play out by the positions of master and slave. As Kojève clearly articulates, action is inherently "negating" and this negativity takes shape not solely through destruction, but through transformation as well. Kojève's explanation is worth quoting at length:

Far from leaving the given as it is, action destroys it; if not in its being, at least in its given form. And all 'negating-negativity' with respect to the given is necessarily active. But negating action is not purely destructive, for if action destroys an objective reality, for the sake of satisfying the Desire from which it is born, it creates in its place, in and by that very destruction, a subjective reality. The being that eats, for example, creates and preserves its own reality by the overcoming of a reality other than its own, by the 'transformation' of an alien reality into its own reality, by the 'assimilation,' the 'internalization' of a 'foreign,' 'external' reality. Generally speaking, the I of Desire is an emptiness that receives a real positive content only by negating action that satisfies Desire in destroying, transforming, and 'assimilating' the desired non-I.⁷²

Here the mechanisms of action are staged as destruction, transformation, and assimilation and in this description, we can begin to see how these machinations of desire play into the zombie's constitution. Even as Kojève describes the "being that eats," who transforms the alien, the foreign, the external into themselves we can see the present-day zombie foreshadowed. The most common portrayal of the zombie is something that hungers endlessly and which tirelessly seeks out the flesh of the living; the zombie's bite

⁷¹ Kojève articulates this more fully, saying, "The very being of man, the self-conscious being, therefore, implies and presupposes Desire. Consequently, the human reality can be formed and maintained only within a biological reality, an animal life. But, if animal Desire is the necessary condition of Self-Consciousness, it is not the sufficient condition. By itself, this Desire constitutes only the sentiment of the Self." (Kojève, p. 4)

⁷² Ibid, 4.

(and remember here de Certeau's characterization of history as something that re-bites [*re-mords*]) is not only the focal point of its entire functioning, but also the means of its assimilation. The zombie's undead condition is contagious and its bite is also what infects its victims, so we see here how the condition of the "being that eats" reflects not only the assimilation of consumption in general (indeed, destruction, transformation, and assimilation might well be used as a description of all forms of eating), but the unique consequences of the zombie's consumption, namely the reproduction of more zombies.

Another aspect of Kojève's explanation of desire's negation is worth unpacking here in its relation to the zombie. For Kojève, the "I" of desire is an emptiness that, as he points out in the above cited quote, "receives real positive content only by [a] negating action", one which "satisfies desire by transforming, destroying and otherwise assimilating the desired "non-I." For Hegel and Kojève, the subject or the "I" is the initial dividing line between self and other, inside and outside, and insofar as the subject itself is what constitutes the outside as such, desire is the force that seeks always to re-integrate the divided subject and the divided world. This is precisely the action that makes the zombie so monstrous: complete assimilation. The homogenization of the set of others, of desired non-Is, into amorphous mass of ravening bodies, whose only purpose to take anything unlike themselves, into themselves through an act of consumption. The zombie illustrates the way that desire can function as a driving and homogenizing force, working to assimilate the world – making the world of subjects and objects into a "zombieland," to use the name of a recent zombie film that depicts this state of near-universal assimilation.⁷³ That this force for assimilation takes place through acts of

⁷³ *Zombieland* (dir. Ruben Fleischer, 2009)

consumption, point back towards the relation of desire and subjectivity to capitalism and the ways in which capitalism has utilized our desires towards a process of reification while, at the same time, making concrete reality more diaphanous, where the solid world melt into air.⁷⁴

Bringing a foreign, alien reality into the dominion of the self and incorporating this non-I through the transformative work of assimilation. Nonetheless, the character of the object in question is crucial to the distinction of the human and animal worlds. The similarity here between this system of reality creation and a Marxist understanding of economic production/consumption seems far from accidental, indeed Kojève goes on to explain how the qualities of this “raw material” provides the vital element in the formation and enunciation of the *I*. He says,

If, then, the Desire is directed towards a ‘natural’ non-I, the I, too, will be ‘natural.’ The I created by the active satisfaction of such a Desire will have the same nature as the things toward which that Desire is directed: it will be a ‘thingish’ I, a merely living I, an animal I. And this natural I, a function of the natural object, can be revealed to itself and to others only as Sentiment of the self. It will never attain Self-Consciousness. For there to be Self-Consciousness, Desire must therefore be directed toward a non-natural object, toward something that goes beyond the given reality. Now, the only thing that goes beyond the given reality is Desire itself. For Desire taken as Desire – i.e. before its satisfaction – is but a revealed nothingness, an unreal emptiness. Desire, being the revelation of an emptiness, the presence of the absence of reality, is something essentially different from the desired thing, something other than a thing, than a static and given real being that stays eternally identical to itself.⁷⁵

At his most explicit, Kojève states, “Human Desire must be directed toward another Desire.”⁷⁶ What makes human desire distinct from animal desire, and what generates the

⁷⁴ I am here referring to Marx’s famous characterization of capitalism in which he says that “all that is solid melts into air”, which he writes along with Engels in *The Communist Manifesto*. Marshal Berman has a book of the same name, see *All That is Solid Melts Into Air: The Experience of Modernity*.

⁷⁵ Kojève, 4-5

⁷⁶ Ibid, 5.

human as such, is not just a difference in object, but also the willingness and ability for the individual to risk his or her animal life for his or her human desire. But the reflective nature of desire means that its object always traces back to its origin-point, the desiring subject. For Kojève's interpretation of Hegel, this means that all desire must be directed towards a non-natural object (i.e. another, or an other's, desire) less the subject that is reflected from it be "thingish" or animalistic. Yet, this thingish subject – one that literally embodies the emptiness that consumes and assimilates – is one that receives little or no attention from Kojève. And it is this thingish and empty subject position that is occupied by the zombie. From the perspective of Voudon lore, the corporeal zombie is one that is a soulless body that has been animated and it is undead insofar as it has returned from death (at least death as a socially and symbolically mediated category) and continues to live in excess of its "life," properly speaking. At first the zombie was excessively alive only in its duration, a dead body made to labor for some master. Yet, as it evolved, the zombie became more actively thingish, a more active force of negation who is driven by desire itself, rather than some subject.

To turn to the later stages of the zombie's evolution moves too quickly, as its philosophical and historical origins are still important to the foundation of my larger argument. The role of the master-slave dialectic has still to be fully elucidated before turning towards what the zombie becomes and through Hegel's understanding of the slave, and Kojève's reinterpretation of it, we will come to a more fully articulated understanding of this exemplary figure of the undead. What remains to be seen is the way that all desire is excessive and exhibits traits that seem to prefigure undeadness as such and Hegel himself addresses the relation of desire to the life of the body. For Hegel,

what puts the human in a position that is somehow in excess of the biological reality of animal desire and of life in general is not merely the supersession of a “natural” desire for a “non-natural” desire, but also the act of risking one’s life for something which has no direct bearing on the maintenance of that life. For life in general, the highest value of life is life itself – the preservation and continuation of that life. But only the human is willing to risk his or her life for a purely symbolic end and, as Kojève makes clear from Hegel, it is this abstract or symbolic desire (an “anthropogenetic desire,” as Kojève describes it⁷⁷) – a desire whose object is another desire that generates the conditions of human subjectivity. What becomes clear from Hegel’s vision of desire and the speaking subject is that this doubled desire brings about a scenario of antagonism since, the very creation of the spoken *I* also generates a non-I, which becomes the object or conduit for the subject’s desire. These are the conditions from which spring the positions of master and slave in Hegel’s dialectic.

The positions of master and slave emerge out of a scene of fundamental antagonism. The *I* made possible by the anthropogenetic desire for an other’s desire only exists through the simultaneous generation of a non-I, the objectification of another as the medium of the new-founded subject’s desire. Indeed, one might say that the subject’s desire is the desire to subject, which as we can see from Kojève’s earlier explanation involved a kind of negation, destruction, assimilation that results in the transformation of the object. The antagonism that emerges between two nascent subjects is to be recognized as such, to gain authority over the other at least to the extent that this other is

⁷⁷ Ibid.

transformed into a conduit for the subject's desire and Master and Slave come into being as a result of this struggle as the winning and losing positions respectively.

Hegel describes this grounding antagonism as a "fight to the death," but this can be somewhat misleading since the loser of this struggle cannot really die or there would be no other, no vanquished slave, to carry out the master's desire. Despite being a fight to the death, it cannot actually result in the death of either party. What may be more accurate is to say that this is a fight in which life is at stake, for this struggle can only be won by whichever antagonist is most willing to risk their life – to overcome the biological reality of animal desire in which life is the highest goal, and to risk life itself for desire and this is what distinguishes the Master from the Slave. As Kojève explains, "in his nascent state, man is never simply man. He is always, necessarily, and essentially, either Master or Slave", and goes on to explain how human reality, which is always a social reality, springs from this.⁷⁸ Kojève goes on, "If the human reality can come into being only as a social reality, society is human – at least in its origin – only on the basis of implying an element of Mastery and an element of Slavery, of 'autonomous' existences and 'dependent' existences."⁷⁹

This existential or ontological condition of slavery that is the object of Hegel's inquiry, and this dialectic between autonomy and dependency, figure centrally in the conceptual constitution of the zombie, particularly as we see the development of this monster from slave to ghoul – dead laborer to undead devourer.⁸⁰ The move towards

⁷⁸ Ibid, 8.

⁷⁹ Ibid, 8-9.

⁸⁰ Ghouls are fleshing eating undead originally from the Middle East. They differ from the zombie insofar as they are always autonomous, have at least some intelligence, and exist among the multitude of undead monsters from vampires to draugr. Interestingly, the monsters in George Romero's *Night of the Living*

autonomy finds its way into the development of the zombie's form, seemingly mirroring the struggle between master and slave both in real life and in the philosophical mythology told by Hegel.

To guard against misunderstanding, it seems necessary to make a caveat here regarding the problematic of slavery that I have now engaged on two fronts. To begin with, I have located the origins of the zombie in the myths of a colonial past of the Americas in which slavery was a very real fact of an early modern capitalism and having moved to the more abstract and philosophical dimension of slavery as it is posited in Hegel, I do not suggest to, in any way, detract from the suffering and tragedy of slavery as a historical reality. What seems compelling about this correlation of a necessary slavery posited by Hegel at the root of our subjectivity and society, and a historically contingent reality of slavery is the common roots on this concept in a notion of dependence and autonomy. I would hope to make clear that I do not find Hegel's understanding of the Slave to be helpful in understanding the plight of the slave in the history of colonial America, yet his understanding of the Slave as a necessary element in the generation of self-consciousness is useful in understanding the conception of the slave and its genealogy in the imagination of the West, to which the colonial efforts of the trans-Atlantic slave trade and its surrounding institutions were indebted.

Hegel's understanding of Master and Slave must be understood as figural positions, or necessary elements in the emergence of self-consciousness and subjectivity, and should not be taken literally as anything like an actual struggle that might have taken place in the history of humanity. Rather, the Master-Slave dialectic serves as an allegory,

Dead were never named explicitly as zombies but, rather, were described as ghouls by one of the radio commentators depicted in the film.

or narrative diagram, of the conditions that make possible the emergence of human reality. It is an attempt on Hegel's part to update an ancient conception of freedom and dependence, and through the lens that Kojève provides, it is a useful tool to conceive of the developing conditions of a culture of late capitalism, and the figure of the zombie more specifically. Hegel's Master and Slave are a part of a long genealogy stemming from the ancient's understanding of a politic of/and freedom. This ancient notion is articulated in a modern context in the work of Hannah Arendt, who draws upon a conception of labor that stems from the ancient Greeks. For Arendt, who seeks to provide an explanation for the changes that appear in modern life, the notion of labor is key to unpacking some of the underlying features of modern-day capitalism.

Arendt makes the distinction between three aspects of human life, drawing out the differences between labor, work, and action. At the very beginning of *The Human Condition* Arendt gives a definition for each of these terms, which is worth quoting directly. For each of these three aspects of human life constitute a part of what Arendt calls the *Vita Activa* – a terms that she finds useful in the conceptualization the human conditions as such. Of labor, she says, “Labor is the activity that corresponds to the biological process of the human body, whose spontaneous growth, metabolism, and eventual decay are bound to the vital necessities produced and fed into the life process by labor.”⁸¹ Food preparation, hygiene, the maintenance of the home, are all counted as labor within the system that Arendt is citing and all of these were the provenance of the slave within the political theories of the Ancient Greeks because these tasks left no mark on the world, nor did they contribute to the world itself via the world of objects.

⁸¹ Hannah Arendt, *The Human Condition*, 7.

In contrast, work is defined as, “the activity which corresponds to the unnaturalness of human existence, which is not imbedded in, and whose mortality is not compensated by, the species’ ever-recurring life-cycle. Work provides an ‘artificial’ world of things, distinctly different from all natural surroundings.”⁸² The key difference between labor and work has to do with the lasting consequences of these tasks. Where labor was never-ending - while a meal can be prepared, the process of eating is never ending – work always led to a conclusion of that work. Take, for example, the work of art, which is started and finished before moving on to the next – the art produced is a lasting object in the world that will, at least potentially, outlast the maker. This was untrue, as the Greeks were concerned, of labor which was, like the labor of Sisyphus, ongoing and leaving no evidence of its existence beyond its immediate use.

The third term of the *Vita Activa* is action and Arendt says of this, “Action, the only activity that goes on directly between men without the intermediary of things or matter, corresponds to the human condition of plurality, to the fact that men, not Man, live on earth and inhabit the world.”⁸³ While acknowledging that the distinction between labor and work seems an odd one from the perspective of a contemporary parlance, Arendt nonetheless finds important differences between the two and justifies this distinction by looking to the etymologies of the terms themselves.⁸⁴ What she finds in this differential designation is that the term labor never refers to a finished product, but

⁸² Ibid, 7.

⁸³ Ibid, 7.

⁸⁴ Arendt addresses both the terms and the distinction between labor and work matter explicitly in a chapter on labor in *The Human Condition*, in which she says, “Against this scarcity of historical evidence, however, stands one very articulate and obstinate testimony, namely, the simple fact that every European language, ancient and modern, contains two etymologically unrelated words for what we have come to think of as the same activity, and retains them in the face of their persistent synonymous usage.” (Arendt, p. 80) Thus, for Arendt, language itself betrays the secret of labor and work in a persistence of this distinction in language itself.

rather the ongoing processes that are necessary to maintaining the life of the individual.⁸⁵

In contrast to the ongoing and necessary process of labor, work takes place on a finite scale and generates a specific outcome – a finished product – which, taken together, constitute a world made up of things and objects. More explicit than Kojève, Arendt's engagement with the problem of labor is also a reading of Marx, albeit a more critical one, and in her attempt to unravel the conditions of the human she turns to the ancients as a grounding of her explanation and here, like Hegel, Arendt encounters the notion of the slave at the heart of the matter. Much like Hegel, the ancients found the notion of slavery to be a necessary and elemental aspect of human life, and an unavoidable price of freedom or autonomy. Arendt explains,

The ancients ... felt it necessary to possess slaves because of the slavish nature of all occupations that served the needs for the maintenance of life. ... To labor meant to be enslaved by necessity, and this enslavement was inherent in the conditions of human life. Because men were dominated by the necessities of life, they could win their freedom only through the domination of those whom they subjected to necessity by force. The slave's degradation was a blow of fate and a fate worse than death, because it carried with it a metamorphosis of man into something akin to a tame animal.⁸⁶

This notion that Arendt introduces of being “subjected to necessity” is important insofar as the notion of the slave, and his or her labor, was meant as a substitution for the master. Just as Hegel famously described the relation of master and slave as the one (the slave) being the body for the other (the master), so this relation of slavery was for the Ancient Greeks a sacrifice to necessity itself, which could be understood as the needs for food, hygiene and shelter. Because the slave was meant to labor, the master could then be free to pursue higher goals and ideals – to make his (gendered advisedly) mark on the world

⁸⁵ Hannah Arendt, *The Human Condition*, 80.

⁸⁶ Ibid, 83-84.

through works or actions. To be a slave was to be reduced to some sub-human existence; the slave was no longer a rational animal but a laboring animal, whose existence was subject and enslaved to the necessity of maintaining the biological reality of not only oneself, but also the one who mastered him.

As Arendt points out, “The institution of slavery in antiquity, though not in later times, was not a device for cheap labor or an instrument of exploitation for profit but rather the attempt to exclude labor from the conditions of man’s life.”⁸⁷ From the ancient’s perspective, to be human was to be a citizen, to be able to master necessity through the subjugation of another and to win one’s freedom from the slavishness of one’s natural existence. To master necessity is to be freed of the subjugation of the needs of daily life, which were viewed as an unfreedom in the human existence. To be forced to spend one’s life cultivating and preparing food was to be subjected to the body’s need to eat, hence the slave’s body took the place of the master in order to make him truly free.

The similarity here between Arendt’s reading of the ancients and Kojève’s reading of Hegel is striking. In each instance, the Master puts the slave in the position of his or her own body, forcing this other to be the conduit of the Master’s desire (which can only exist as such in this mediated relation to the desire, body, and life of the other; the Slave) and where Hegel casts this relation in a dialectic form, whose implications will soon be considered, Arendt finds the labor of the slave at the heart of Aristotle’s politics. It is the slavishness of labor, subject as it is to the necessity of life and its manifold processes, that makes clear one of the lines of distinction between labor and work,

⁸⁷ Ibid, 84.

namely, that work generates things worthy of being seen, heard, or otherwise remembered in the public.⁸⁸

The last of Arendt's three terms to be explained is action, which, for Arendt, is the constituting factor for the creation of the public realm. For the Greeks, action and speech are nearly synonymous for to act in the world is to participate in the plurality of humanity and, Arendt explains, "the basic condition of both action and speech has the twofold character of equality and distinction" and goes on to articulate the ancient logic behind this definition.⁸⁹ To act is to take the initiative, to begin and to set something in motion and thus action is the prerogative of the free human being, the one who has mastered necessity through the subjugation of a slave.⁹⁰ According to Arendt, both action and speech serve to reveal this distinctness of human Being from animal life and in drawing out the connection between speech and action, one cannot help but be reminded of Kojève's Hegel who argues at length that the enunciation of the *I* is that point at which self-consciousness is achieved – the reflexive split that is, itself, the moment that initiated the formation of the dialectic of Master and Slave, autonomy and dependence in human reality.

⁸⁸ Arendt goes on to argue that the loss of the distinction between these terms and their meaning can be attributed to explosion of productivity that took place in the modern age, even pointing to Marx as someone partly to blame in the loss of distinction between these two terms. Arendt points to Marx explicitly, stating: "The modern age in general and Karl Marx in particular, overwhelmed, as it were, by the unprecedented actual productivity of Western mankind, had an almost irresistible tendency to look upon all labor as work and to speak of the *animal laborans* in terms much more fitting for *homo faber*, hoping all the time that only one more step was needed to eliminate labor and necessity altogether." (Arendt, 87)

⁸⁹ Ibid, 175.

⁹⁰ This definition of action brings to light the relation between action and authorship – and to authority more broadly, as action is, itself, the right of the powerful. The Master, in Kojève's reading of Hegel, is indeed the author of events and the architect of the world, even if these actions are mediated by the labor of the Slave who must serve to satiate the desires and needs of the Master and must, in effect, be the Master's body for him.

The link that Arendt highlights here between labor and life is crucial for this discussion since, unlike work, labor does not produce lasting objects nor does it contribute to the artificial world of human reality that endures beyond the span of a single human life. Rather, Arendt explains,

Unlike the productivity of work, which adds new objects to the human artifice, the productivity of labor power produces objects only incidentally and is primarily concerned with the means of its own reproduction; since its power is not exhausted when its own reproduction has been secured, it can be used for the reproduction of more than one life process, but it never ‘produces’ anything but life.⁹¹

Life is thus elevated to the most valuable product, the highest good inasmuch as it was of the highest value. This emphasis on life as the highest possible good echoes the mentality belonging to the slave in Hegel’s mythic struggle between master and slave, for in order for one agonist to accept subjection, he or she must want life more than freedom – the distinguishing characteristic of the master. The mentality of “life above all” could well be described as slavish morality from the Greek perspective.⁹² Yet, this perspective on life above all became emphasized in the later political philosophies such as those espoused by Christian theology and, later, by bourgeois ethical/political programs. From the ancient Greeks to the modern bourgeoisie, one witnesses a transition or an evolution in values that continues to valorize life and the labor that sustains it. In emphasizing and re-drawing the distinction between labor and work (and here Marx seems to be as symptomatic as he is influential in the matter of elaborating the dynamics of labor within a capitalist system) Arendt also brings to light the way in which the loss of distinction between these terms reflects a shift in a system whose logic operates toward the

⁹¹ Ibid, 88.

⁹² The notion of a slave morality is, of course, one advanced by Nietzsche. The connection of Nietzsche’s notion of slave morality to Kojève or Arendt is unclear, and certainly worth studying. However, it is beyond the purview of the present discussion and the question will have to remain until a later time.

establishment of perpetual revolution and endless accumulation. The valorization of labor and life becomes virtually synonymous within the system that evolved through the parallax reading of Arendt and Kojève, and which can be understood as a biopolitical system in which the right to death and power over life become the prerogative of a liberal state and corporate system that seeks to find justification of its sovereignty as a natural right.

Arendt points to a fundamental aspect of this transition in the final section of *The Human Condition*, when she argues that the fundamental victory of the *animal laborans* represents a key element in the modern age. Arendt's analysis of the *vita activa* focused on the role of life within the world that humanity has created for itself, what brought about immortality, what defined the boundaries of the human and inhuman, and what created the lasting objects and effects that made possible the world itself. A central thread throughout this discussion was the relation of mortality to immortality; Arendt looked to the changing conditions of the immortal, finding that immortality was granted by action in the ancient world, by labor in this world and granted automatically in the next created by the Christian religion, and by life itself in the modern era. The combination of an ethic of labor and the immortal soul was not completely elided by the advent of a Cartesian doubt at the foundation of modernity, but rather came together into a spirit of capitalism.⁹³ The combination of modern powers of production with the investments in natural law and optimism of a steadily progressing science left the human to fall back upon itself and to see itself as the endpoint of its own drive. The meaning and purpose of life became life itself, a tautology to be sure, but one that worked

⁹³ This is an obvious reference to Max Weber's *The Protestant Ethic and the Spirit of Capitalism*, which also contributes to Arendt's understanding of modernity and capital, as well as my own.

according to a logic amalgamated out of the productive forces of capitalism, the optimism of science, and Cartesian doubt. Arendt describes this scenario in this way,

The only contents left were appetites and desires, the senseless urges of his body which he mistook for passion and which he deemed to be ‘unreasonable’ because he found he could not ‘reason,’ that is, not reckon with them. The only thing that could now be immortal, as immortal as the body politic in antiquity and as individual life during the Middle Ages, was life itself, that is, the possibility of everlasting life process of the species mankind.⁹⁴

Life, in the modern age, becomes autonomous, not subject to the will of the public (the body politic) nor to the will of God, life as the life of the species, the life of the population develops as an end unto itself and one driven by a logic of production.⁹⁵

With life as the ultimate end in itself, labor takes on newfound significance as that which maintains life, its propagation and functioning and it is in this way that Arendt argues for the victory of the *animal laborans* in the modern age. The victory of the human as a laboring animal turns on its head the ancient’s conception of politics as the ultimate form of life, and the victory of the *animal laborans* from Arendt’s perspective would seem, simultaneously, to be the elevation of the position of the slave from within

⁹⁴ Arendt, *The Human Condition*, p. 320-321.

⁹⁵ Taken together, Kojève and Arendt give us an image of a developing crisis taking place in and through the natural or, at the very least in our relation to it, which precipitates the return of desire to the natural yet increasingly refracted through the symbolic order. To see this problematic more clearly, and to find the role of the undead within the system we have been elaborating here, we need only to look at the place of desire under the changing conditions articulated by Arendt and Kojève’s Hegel. To reiterate this relation once more, the difference between animal desire and human desire lays in its relation to the natural; whereas animal desire always takes place in relation to some natural object, one that fulfills some necessity for the maintenance and propagation of life, human desire, anthropogenetic desire, always occurs in relation to another desire. Human desire is constitutively cathected into and onto itself through a representative other and is necessarily detours through this other in its route towards the necessary maintenance of life. Yet, in and through the mechanisms of contemporary culture and capitalism, desire and the symbolic universe that it has precipitated seems to be collapsing back into the natural – being aligned with the natural, and cast as natural. We can see this trend when we look to the role of science in modern culture as a means of revealing the natural order of things both inside and out of a social context. While this has been a project of the modern since at least the time of the Enlightenment, we can see a general increase in the speed and intensity of such a project in the twentieth century with the advent of epistemological movements such as cognitivism, genetics, and cybernetics, and the rise of these scientific naturalisms within fields of knowledge across disciplines.

Hegel's dialectic. Taking Arendt together with Kojève's reading of Hegel, cast in within the context sovereignty and natural right in late capitalism, one can see that the master-slave dialectic shifts in both form and function - even if the underlying dynamics of the dialectic as Hegel understood it remain active. When one looks at sovereignty together with a notion of mastery within Hegel's formulation, we can see a trajectory of increasing abstraction as the position of Master within this dialectic moves from the individual citizen (understood within the social and political system of the ancients) to the broader and more symbolic sovereignty of the state and its various representatives (in the form of institutions and apparatuses).⁹⁶ As the position of Master comes to be filled by more abstract entity of the institution, its ability to subjugate extends outwards to incorporate a greater number of people. The victory of the *animal laborans*, and the autonomy of life as both ends and means in itself present a picture of the slave from Hegel's dialectic given unprecedented autonomy. However, it is important to note that this autonomy is not the same as the freedom conceived of within Hegel's system, which thought that the labor of the slave would, indeed, overcome the inequality of the dialectic itself through increasing knowledge and agency on the part of the slave. For Hegel, the slave would overcome slavishness through labor and be made free through the synthesis of the dialectic. Yet here, we find a scene in which the slave's autonomous labor is in service to an absent master, a logic or diagram of power – and labor as the maintenance of life is not the means to salvation but the end in itself.

The triumph of life, in itself, as the mark of the modern age is something that has been usefully theorized by Michel Foucault, whose theories on the emergence of a bio-

⁹⁶ Organs of the state, if you will.

politics would seem to flow out of the work of Kojève and Arendt that we have already laid out. Famously, Foucault developed the notions of biopower and bio-politics in the first volume of his *History of Sexuality*, in which he describes it fundamentally as the “right of death and power over life,” which he sees as a reversal in the sovereign power exercised in previous eras.⁹⁷ A more careful and detailed discussion of the biopolitical and its relation to sovereignty and natural law will be taken up in a later chapter, but for now it is important to define more clearly how the notion of undeadness, and the figure of the zombie more specifically, emerges as a part of the framework under analysis here, for it is here that the zombie makes its appearance as a figure for the anxiety of late capitalism; from its roots in the actual slavery of the Caribbean plantations, the zombie also serves to illustrate the triumph of the *animal laborans*, the victory of the slave, by default, in the Hegelian dialectic. It is here, at the moment of the unchallenged positivity of life, that undeadness becomes a force to be reckoned with in the cultural imagination and the zombie becomes the modern monster *par excellence*.

From its earliest incarnations, the zombie has been a figure for the slave and for labor unfettered by the limits of death or subjectivity. Life becomes an unlimited good (and an unlimited positivity) only through the foreclosure of death within the modern political unconscious. The zombie, read within the context of the master-slave dialectic, is a figure that provides a diagram of the slave as a symbolic position, and the dynamics of the slavish privileging of life itself over everything else. This picture of the slave depicts it as one who does not overcome their own slavishness, but rather gains autonomy by default through the loss of a concrete master. In this scenario we see a slave

⁹⁷ Foucault, *History of Sexuality Vol. 1*.

who gains not freedom but autonomy and whose labor is not in service to the life of a master, but to life itself. The slave, here, is not the surrogate body of the master, who tends rather to the public sphere and to the body politic, but merely a laboring body, endlessly productive of the conditions of life. The zombie figures this problem not simply in its origins but in its continued functioning as well. In the next chapter, I will look to the various appearances of the zombie in order to further elucidate the problems outlined here by looking to the instances and conditions of the zombie's appearance. Just as this chapter focused on the historical and philosophical, the next chapter focuses on the cinematic as the primary medium and mode of the zombie's appearance and the environment of its evolution across the twentieth century. It is to film that we turn to now, to further explain the matter of zombies as a trope of labor and production in the age of late capitalism.

CHAPTER 3

ZOMBIE: ON SCREEN AND IN THE FLESH

The zombie has changed a great deal since it first appeared, ambling across the screen in 1932, in the context of colonial horror from the film *White Zombie*. In this film, the zombie figured much as it did from its mythic inception in Haiti, as a slave. Yet this early, colonial, zombie was not merely a slave, but rather it embodied an idealized position of the slave as a mindless, obedient servant who had no desires of its own save for that of its master. From these humble beginnings and the context of the plantation, the zombie has emerged into the popular imagination of today as a virtual epidemic - a plague of undeadness that is influenced by no external will and operates only in accordance with its own internal drive towards a continuous, excessive, and viral reproduction. This chapter explores how the zombie has changed and shifted in both focus and function and how these changes have affected this undead monster both on screen and off.

In the last chapter, the origins of the zombie were outlined and framed in the light of colonial and capitalist reason, and were shown to be intimately tied to labor and a notion of life. The zombie gives us a picture of a kind of labor or mode of reproduction – an “undead labor” - that is the result of a symbolic foreclosure of death and a series of investments in a logic of life. This chapter seeks to further outline the zombie, not simply as a holdover from the myths of colonialism, but also as we know it today from movies, video games, and other venues of mass culture. The ambling, flesh-eating monsters

whose origins in the slave-proletariat gave us a picture of undead labor are still reflected in the more virulent and autonomous zombies that we see in movies and video games today. Issues of race and labor exist as residual elements within the overall trajectory of the zombie's evolution, and while these issues are more obvious in an early film like *White Zombie* than in a more recent movie such as *28 Days Later*, these elements return and are reframed in later films.⁹⁸ This chapter examines the trajectory of the zombie's evolution with an eye toward the uncanny returns of earlier issues, looking not to the long gradation of the zombie's appearance on screen, but at the general diversity of its representation – focusing on three approximate ages or stages of its development. Because the emphasis here is on the web or network of relations that exist between the zombie and its environment or context, which in this case includes the social, symbolic, and cinematic context in which the zombie appears, I have called the phases of the zombie's evolution under investigation here the three ecologies of the zombie.

Using the term “ecology” in this context, I am deliberately evoking a notion that was employed by Felix Guattari in his later work. Guattari's use of the term ecology was an attempt to bridge conceptual gaps that he saw being fostered by the contemporary frameworks of knowledge. Rather than focusing one's attention on either nature or nurture, Guattari was picking up on broader interdisciplinary trends of the time by emphasizing the interrelationship between these categories – looking not for a system of linear causality but rather system of circulation, process, and distribution between the environment, social and symbolic relations, and human subjectivity.⁹⁹ Following from

98 By “residual,” I am referring to the concept put forward by Raymond Williams in his highly influential essay “Dominant, Residual, Emergent”.

99 See Felix Guattari, *The Three Ecologies* (New York and London: Continuum, 2008), 19-20. Subjectivity, society, and environment, are the titular three ecologies of Guattari's argument.

the more traditional definition of ecology as the interaction of organisms and their environment, Guattari was attempting to show that the distinctions between these fields was purely conventional and that there was as much an ethical, political, and symbolic dimension to the modern crisis of the environment and that this crisis, itself, extends into the realm of the psyche and the subject.¹⁰⁰ This expansion of the term ecology has also been advanced by certain theorists of media who argue for the notion of a “media ecology,” as one that better understands the saturation of various media into the world around us.¹⁰¹

My own interest in casting the following series of the zombie's developments in terms of ecology, rather than putting it into the language of historiography, is to emphasize the breaks and discontinuities of the changing figure of the zombie and the complex interaction between the zombie as a figure or trope and its environment (both on screen and as screen, if you will).¹⁰² While framing my studies of the zombie according to the breaks between three different environments – i.e. as cinematic and cultural ecologies – it must be said that residual elements remain present and active from one period of the zombie's development to another. The stages of the zombie's evolution take place in a roughly linear fashion across the twentieth century, but rather than engaging in a project of periodization, I am more interested in exploring the particular conjuncture that takes place at that time, thus looking to the ecology of the zombie not as a set of films from the 1940s, 1960s, and 1990s, but rather as race, flesh, and media as elements

100 Oxford English Dictionary (Accessed on 2/8/10)

101 This notion was, arguably, first put forward by Marshal McLuhan in *Understanding Media*.

102 In so doing, I am aligning myself more with the method of archeology, or genealogy, as it is put forward by Michel Foucault that also more specifically addresses the points of discontinuity and rupture in the process of outlining and delimiting a problem. See Michel Foucault's *The Archeology of Knowledge* (New York: Pantheon, 1971).

that appear in all zombie movies, albeit in different ratios and levels of importance.

Media is clearly a central problematic of the zombie movie, since the zombie as we know it appears mainly on film but also (as is discussed elsewhere in this dissertation) makes central the body itself as a medium and as a site of mediation. It would be negligent to attempt to understand any ecology of the zombie without understanding media, and film in particular. However, we can see how it plays differently across the span of the zombie's evolution, from its role in early zombie movies and cinematic convention to questions of mediation that take place in more recent zombie movies that extend deeper into the tissues of the body.

Flesh is also a key feature of the zombie, being the object of its endless hunger, the visible sign of its state of decay, and the medium of its transmission and contagious aspect. Flesh, here, stands in opposition to the category of the body, which is generally understood in terms of its limits, its edges. Flesh exists more as an undifferentiated substance, a kind of matter, rather than as a bounded object. Subsequently, the body is more easily subject to the inscription of signs and to further symbolic distinction than flesh, which, as an undifferentiated form of matter, serves more as a connective tissue extending out from the interstices of the world. Thus, flesh serves as a primary object for the zombie but also as a guiding metaphor for understanding the zombie, as the effect of its undead labor is to generate indistinct and undifferentiated masses – a rampant logic of general equivalence – from the discrete individuals that make up urban and suburban contemporary culture. In some important way, the zombified masses exist in a state of the flesh, with bodies that lose their distinctions as they literally disintegrate before our eyes.

Race is the last of the ecologies of the zombie to be examined in this chapter and of the three it is most clearly connected to the origins of the zombie in Haitian mythology, culture, and religion. Race emerged as a key technology of colonial capitalism, finding support for the economic and political practice of slavery in both biological and historical justifications. Race was a mark on and in the bodies of a class struggle, serving as a tool for the division and demarcation of the social body that operates both visually and demographically. These social divisions can be traced back to a racial logic at work within the cultures of modernity, and which manifest in different ways that derive from the cultural context and conditions in which they appear. This schematic and formalist vision of race was put forward by Michel Foucault, who, in his 1976 lectures at the College de France, argued that race must always be understood as a war – a struggle whose context always took place within a social body.¹⁰³

Foucault's insight was that as the humanist projects of the enlightenment stood witness to the birth of the Human (per se), which was understood as a universal category that engulfed all that humanity was and could be, so too was born a double or inverse to the universal human. The Inhuman was a category that could incorporate all that fell outside of the humanist rationale and thus broad categories such as inanimate nature, the animal, and “inferior races” have been extradited into the Inhuman.¹⁰⁴ The race-war that Foucault outlines was supported by developments in biology, which Foucault describes as a “biological transcription, which occurred long before Darwin and which borrowed

103 Michel Foucault, *“Society Must Be Defended”: Lectures at the College de France 1975-76* Trans. David Macey (New York: Picador, 2003), 60-61.

104 Jean Baudrillard, *Symbolic Exchange and Death* Trans. Iain Hamilton Grant (London: SAGE Publications, 1993) 125-26. Baudrillard is, here, referring explicitly to Foucault and his discussion of madness. Writing at the same time as Foucault's lectures at the College de France, Baudrillard was drawing out the connection between racism and a humanist *ratio*. The birth of Man coincided with the universalist reason of modern humanism and, for Baudrillard, one can see the direct correlation between the increasingly small category of the “normal human” and, in contrast, the abnormal or pathological.

discourse, together with all its elements, concepts, and vocabulary, from a materialist anatomo-physiology.”¹⁰⁵ Race emerges in the process of transcription – the translation of one code (economic, political) to another (biological, demographic) – and becomes a term that spreads throughout modern culture. Here lies the usefulness of Foucault's definition of race as a war and as a logic, a structured and structuring law that works across culture even as it manifests clearly only in specific ways. In this way, race functions like a recessive trait in the codes of contemporary life and modern culture – race is a recessive trait in the entirety of the zombie genre, a structuring element within the zombie's relations with its environment.

The recessive trait functions, within the genetic context, as a character that is continually present within the genetic code, but one that is masked by the presence of a dominant trait. The presence of the recessive trait is not readily obvious on the body of the organism and only manifests under the appropriate circumstances – according to a particular ratio. Knowledge of the dominance and recession of certain genes gave birth to the field of modern genetics and with this understanding came a major shift in the way that pathology, heredity, and visibility were conceptualized. Rather than looking for characteristics on the surface of the body, features that were readily visible, modern genetics found the predictors of outward appearance inside the body, moving invisibly, and according to this new model, it was no longer outside influence that altered the hereditary line but rather the changing ratios of dominance and recession within the genetic code.

My argument here is that race and the recessive share more than a structural homology, and that the relation of derivation, transcription, and support that Foucault

105 Foucault, *“Society Must Be Defended”* 60.

describes between the politics and economy of race, and what he terms its “historico-biological” influences.¹⁰⁶ The zombie itself illustrates some of the ways that race moves both towards and away from ready perception and within the genre of zombie movies more specifically, an understanding of how race plays upon the apparent surface of these films does not to justice to the complexity of its operation within the oeuvre. While race manifests quite explicitly in many instances, in others it is obscured – moving increasingly beneath the surface of the social body as well as in the media genre composed by the zombie. Foucault's schematic description of race as a war that takes place on symbolic terms (albeit with very real effects) that cut across the social/symbolic body echoes the definitions of dominance and recession within genetic discourse within the life sciences.

In the context of defining what he calls “biologico-social racism,” Foucault gives an example of what he means by this structural definition of race. He says, “By this, I mean the idea – which is absolutely new and which will make the discourse function very differently – that the other race is basically not the race that came from elsewhere or that was, for a time, triumphant and dominant, but that it is a race that is permanently, ceaselessly infiltrating the social body, or which is, rather, constantly being re-created in and by the social fabric.”¹⁰⁷ Much of Foucault's description already contains a family resemblance to a genetic terminology, and while categories like the dominant are already present, we must read further to find its counterpart, the recessive, in Foucault's argument. “In other words, what we see as a polarity, as a binary rift within society, is not a clash between two distinct races. It is the splitting of a single race into “superrace”

106 Ibid.

107 Ibid, 61.

and “subrace”. To put it a different way, it is the reappearance, within a single race, of the past of that race. In a word, the obverse and the underside of the race reappears within it.”¹⁰⁸ Superrace and subrace – dominant and recessive – we can see reflected in this binary the idea of race as a threat to the secure hold of domination. This threat is structured as one that causes a withering of hegemony but one that come from inside – a threat that is always already there. What better way to understand the threat posed by the so-called and provocatively titled “subrace” in Foucault's argument than if we read it according to the problems posed to dominance by the recessive within the genetic code.

Without appropriate genetic “coverage”, a certain statistical majority of dominant genes, recessive traits come to express themselves – generated mutations and other deviations from the “norm” of the phenotype. The recessive poses a constant threat, and requires constant vigilance, lest these traits make themselves known in the individual and social body. It is important to remember in this analysis is that the value associated with dominant and recessive traits is socially and politically mediated and is, in no way, inherent to the genetic mechanisms that give rise to these structures. While there are cases of recessive characters being detrimental or even lethal to the organism's life and function, it is equally possible that a recessive element will cause a beneficial change in the organism's form or function. A good example of this level of cultural mediation is that of blue eyes or blond hair, traits that might be highly valued in the historically racist cultures of Germany and the US, are, in fact, recessive – much less common than the brown hair and eyes that are present in most of the world's populations. The racism engendered by the genetics of dominance and recession further supported the eugenic movements in Europe and the US and reading the similarity between dominant and

108 Ibid.

recessive traits and the racial categories that Foucault finds in his lectures of 1976 both provide a vision of race that is always being re-inscribed and reworked into the social fabric.

Race is something constantly rewritten into the social body although it is not necessarily always a visible part of the cultural landscape. Foucault finds one major implication of this new trend that is important to this discussion of the racial ecology of the zombie. He says, “The discourse of race struggle – which, when it first appeared and began to function in the seventeenth century, was essentially an instrument used in the struggles waged by decentered camps – will be recentered and will become the discourse of power itself.”¹⁰⁹ This schematic or genetic vision of race is a model for a structure of modern power and Foucault points to the way that race itself plays into the valorization of life that takes place in the cultures of capitalism – a racism that is interior to the social body, and which does not take place in the confrontation of different social/geographic groups, but from a pathogenic kernel that exists as an element of the social fabric, and one which must be identified and rooted out. Thus, this Foucauldian conception of race ties in with the broader problematic of life, remapped in terms of value, that produce undeadness in late modernity, but also the zombie itself serves as an excellent illustration of the kind of “state racism” that Foucault describes in his lectures.¹¹⁰

While Foucault seeks to understand this problematic within the context of the nineteenth century, I would take up where Foucault leaves off and seek to understand this structural or genetic form of “state racism” that appears in the context of the zombie,

109 Ibid.

110 Ibid, 62. Foucault says, “At this point ... we see the appearance of a State racism: a racism that society will direct against itself, against its own elements and its own products. This is the internal racism of permanent purification, and it will become one of the basic dimensions of social normalization.”

politics, and cinema in the twentieth and twenty-first centuries. The genetic reading of race and/as the recessive comes clearer in the context of films from within the zombie genre itself and I will turn now to a reading of a particular zombie movie, *Fido* (Andrew Currie, 2006) as a control group – an exemplar of a contemporary zombie movie that contains within it many of the key elements of the history of the genre – against which my reading of the various ecologies of the zombie will progress.

***Fido* (Better Living Through Containment)**

The zombies of a film like *Fido* come full circle in the representation of the living dead. Zombies in early films like *White Zombie* or *I Walked with A Zombie* show the living dead as little more than muscle – the remote hand of some menacing figure whose will is responsible for the zombie's every move. Later, zombies grow autonomous, existing as a force of their own and as the twentieth century progresses, so too do zombies, becoming faster and more virulent to keep up with advancing spectacles of gore and violence within the horror genre more broadly. While many contemporary movies feature zombies that are faster and more vicious than in earlier on-screen incarnations, *Fido* finds itself at home with a slower, more pastoral pace that seems apropos of its aesthetic of the American 1950s. A Canadian zombie movie from 2006, *Fido* takes up where a classic film like Romero's *Night of the Living Dead* leaves off with a post-war culture situated against the undead. Famously, the titular night of the living dead was only the beginning of the zombie uprising – framed not in directly political terms, but rather situated as a random event, a world-wide accident – and by the end of *Night* we already see citizen militia's forming in reaction to the new threat of the dead. The setting of *Fido* takes place

after the undead uprising has turned into an all out war, against an enemy whose ubiquity pervasiveness give the post-war environment of the film the overall feeling of McCarthyism. In the aftermath of the so-called “zombie wars,” the remainder of humanity lives in enclosed towns and cities that are walled off against the menace of the “wildzone,” where zombies still roam free.¹¹¹

The zombie conflict staged in *Fido* was won not through force of arms, but rather through the economization of the living dead. It was discovered that zombies could be “domesticated” by placing a specially designed collar around their neck, which would inhibit their violent and ravenous impulses and making them docile and compliant. This discovery, made in the private sector, was immediately taken up by the corporation “Zomcon,” which seems to take a position in the film somewhere between government and a trust-like corporate entity.¹¹² Having cornered the market on securing the undead threat, “Zomcon” became the central hub through and around which circulated a new service economy; namely, zombies as factory workers and domestic servants. Making living labor nearly obsolete, we see humans acting as bored supervisors of mindless zombie workers. The zombie once again falls into the position of the slave, echoing the earliest appearances of the zombie in the American popular imagination as a laborer. It is this literalization of this dead labor (or undead labor as the case may be) that brings about the precarious prosperity of the '50s-like world of *Fido*. Indeed, not unlike the American world of the 1950s portrayed in cinema and on television, the picturesque vision of wholesome families was always under the threat of siege from both inside and out.

Race does not play an explicit role in *Fido*. Indeed, much like the world

111 *Fido* (Dir. Andrew Currie, 2006)

112 Ibid.

portrayed in the media of the 1950s, race doesn't figure at all and nowhere in the film do we see non-white characters. Whiteness is the rule, so ubiquitous in a world that is otherwise over-saturated with color (at least in terms of cinematography and film style) that post-war America in *Fido* is cleansed of ethnic impurity as much as it is kept safe from the undead menace. Yet, race creeps back into the narrative precisely in the figures of the zombies who, while played universally by white actors (the titular zombie is, in fact, a Scottish actor/comedian), exhibit markedly dark skin, which is presumably a result of their undead condition. This is not to say that the skin of the zombie is flesh-colored in any way reminiscent of any real ethnic group, rather it is a sickly-gray hue that them a family resemblance to other zombies in the genre (ranging from George Romero's *Dawn of the Living Dead* to Edgar Wright's *Shaun of the Dead*). The darkened, undead skin of the zombie is part of the zombie's conventional representation, which indeed might be said to speak to something of the zombie's racial past as much as to the biological fact of decay, but in *Fido* this comes clear in a remarkable way.

That the zombies in *Fido* are servants – slaves – is something nearly lost in the narrative of the film, a secondary effect of the dramatic upset of the natural order of things brought about by the existence of the living dead. Yet, the fact remains that these zombies are the slaves of the living inhabitants of the small, suburban town in which the film takes place – bodies bought and sold, used as status symbols and more by their owners – who lack only a soul, that vital spark of humanity that demarcates them decisively from the living and casting them as something between animal and machine. For the zombies of *Fido* death itself is the mark of minority-status, which is only further illustrated by the darkened skin and servile relations, which appear as accidental features

that are seemingly beside the point of the plot. Thus, race functions in a way that is recessive within the context of the film, which differs from representations of the zombie in earlier films in which race might be taken as a more dominant trait. In *I Walked With A Zombie*, race plays out at the surface of the narrative – an integral part of the plot, which takes place within a colonial (or recently post-colonial) situation. In *Walked*, zombies are clearly a part of the colonial world, an ambiguous element that is somewhere between a sign of the subaltern's potency and a sign of the savagery and barbarism that marks them as primitives – and I will come back to a more detailed analysis of this film later. In contrast, race plays no active part of *Fido*, but rather functions inside the structure appearing only in its traces which, in this case, appear quite literally as a phenotypical symptom present in the zombie's skin.

What are we to take from the recessiveness of race as it is illustrated by *Fido*? At least in part, we can understand that race functions as a part of the zombie's genetics – understood here not as an actual sequence within a biological code, but rather as part of the structure that gives rise to the zombie itself, that is generative of the zombie and is, therefore, genetic in a literal sense. Race functions as a part of the zombie's genetic code, but not the only part and we can read *Fido* as generic, genetic, and symptomatic of the larger picture of the zombie that I am seeking to develop here. For example, *Fido* not only reveals race as a recessive trait within the zombie genre, but also illustrates the conception of race that Foucault develops in his lectures, for the racial traits in *Fido* reveal more than a socio-historical division base in ethnicity and shows race to be an integral factor in labor, and therefore in the economies of the political body, but also in the individual and subjective investments that make up a libidinal economy as well.

Race

The zombie serves as a monstrous figure of capital, as well as a figure of monstrous capitalism, and the history of its representation shows the ways in which race moves in and out of visibility on and around the body of the undead. But this connection between race and the zombie also shows the intimate relation between the zombie and labor and it is this figure of “undead labor” that serves as the driving force for this particular ecology. That race plays a role in the figuration of the undead is not new, and various readings have appeared that suggest that a part of the monstrosity of the undead has to do with the overdetermined nature of their bodies and being. The vampire stands in for inter-European divisions, as Dracula moves from his home in Eastern Europe to England and Frankenstein seems the newly alive embodiment of the modern melting-pot within his own mixed and compromised body. However, the zombie stands as an exemplar for this relation, coming from a uniquely American context and out of the stories and myths of plantation culture. The zombie's roots in plantation culture are discussed in more detail in another chapter, however, the role of race in the zombie phenomenon and as an important feature of the undead more broadly has been adeptly situated by Annalee Newitz in her reading of the undead as something racially defined.¹¹³

Newitz takes the undead within the context of a newly modern world, in which conceptions of the undead are symptoms of larger fears of newly fermented cultural encounters in a world made smaller by global trade. The global slave trade within colonial capitalism is certainly a part of this tradition, but Newitz moves away from the economic context and instead examines cultural texts that reflect the subsequent anxieties

113 Annalee Newitz, *Pretend We're Dead: Capitalist Monsters in American Pop Culture* (Durham: Duke University Press, 2006).

of the smaller, globalizing world – taking as her focus the theme of the “racial undead”.¹¹⁴ This theme of the racial undead finds the threat of undeadness in fears of racial mixing or miscegenation and that these stories of undeadness reflect not only the differences between the white population and various peoples of color, but the fundamental connectedness that exists between them.¹¹⁵ Here, Newitz's argument would seem to reflect Foucault's schematic understanding of race, in which the danger that race poses does not come from without, but from inside the population and fears of a miscegenated individual body reflects larger anxieties about the social body which contains too much.

For Newitz, the racial undead exists as a key part of a racial formation that defines race as “an unstable category of identity associated with culture and with material life; hence, for example, race in *[I Walked With A] Zombie* is bound up in materialist economic relations between land holders and servants, but it is also depicted in the cultural clash between Western medicine and voodoo mysticism. What *Zombie* tracks are the profound, even violent, changes in the racial formation of whiteness and blackness as they move into a postcolonial era.”¹¹⁶ Newitz's argument follows from Judith Halberstam's reading of the monster as a metaphor that is inherently mixed. For Halberstam, the monster functions as an excess of meaning, an overdetermined figure, and she goes on to say, “The monster itself is an economic form in that it condenses various racial and sexual threats to nation, capitalism, and the bourgeoisie in one

114 Ibid, 101.

115 Ibid, 100.

116 Ibid, 107. For the notion of the “racial formation” being deployed by Newitz, see *Racial Formation in the United States: From the 1960s to the 1990s* by Michael Omi and Howard Winant.

body.”¹¹⁷ This excess of meaning within a single body is something that we will return to, but we can first find examples of these issues in two examples of early zombie cinema.

These racial dynamics played out in the undead, and the zombie in particular in its first appearance on screen. The film *White Zombie* was loosely adapted from William Seabrook's book on Haiti, which featured the first accounts of the walking dead to a North American audience and for cinema goers in 1932, this was their first encounter with the living dead.¹¹⁸ These zombies most closely resemble the zombies from Haitian myth and Voodoo mysticism, having no will of their own and existing as slaves to the will of the film's true villain, the zombie master “Murder Legendre” in a role made famous by Bela Lugosi.¹¹⁹ Within this context, the film critic Jamie Russell provides a highly political picture of *White Zombie* as a film that stands in for the social and economic anxieties of the time. For Russell, the plot of the film reflected the ideas surrounding Haiti itself, where the main characters served as embodiments of the various political and economic contexts.

The villains of the film are undoubtedly Beaumont, a representative of the colonial European willing to get caught up on local affairs, and Legendre, the real villain of the film, whose mannerisms suggest (at least according to Russell) that he is the real danger to the main characters, Neil and Madeleine. As American newlyweds traveling in

117 Judith Halberstam, *Skin Shows: Gothic Horror and the Technology of Monsters* (Durham: Duke University Press, 1995), 2-3.

118 Jamie Russell, *Book of the Dead: The Complete History of Zombie Cinema* (Surrey: FAB Press, 2005), 22. Russell's book on zombie cinema is an excellent analysis of the zombie's trajectory across the silver screen, and it will serve as a central touchstone for my own analysis. Other texts have come out that also engage with the zombie genre include the recent *Zombie Holocaust: How the Living Dead Devoured Pop Culture* (London, Plexus: 2009) by David Flint, which seems more of an opinionated encyclopedia than a critical study and *Zombie Movies: The Ultimate Guide* by Glenn Kay.

119 *White Zombie* (Victor Halperin, 1932)

the Caribbean, Neil and Madeleine struggle against the machinations of the European characters and while Neil stood for the upright American interests for the film, Madeleine represents Haiti itself. Russell goes on to explain, “The film's plot revolves around a conflict over Madeleine/Haiti in which the American hero Neil, aligned with the forces of Christian moral rectitude . . . , must fight off the dangerous solicitations of Beaumont and Legendre, the representatives of European colonialism that once dominated the Caribbean.”¹²⁰ Madeleine, the titular white zombie of the film, stands in for the colonized island which was once the prized colony of France and the envy of the rest of the colonial powers.

Within the manifest narrative of the film, characters have been zombified for economic, personal, and political reasons. The undead slaves of the villainous Legendre are made up of his former teacher and various public officials – which, as Russell points out, might be read as symbols of the inability of the Haitian nation to govern itself, a significant message at a time when the U.S. was occupying the country – and seem to make up a representative sample of the colonial population.¹²¹ If race functions like a recessive trait in the genre of the zombie, then these early incarnations depict it at the very surface of the narrative. It might be supposed that the name itself implies an important distinction – the point of horror in the film is not simply the zombie, but the *white* zombie, or that the purity of white femininity might be contaminated or enslaved by the *black* magic of Legendre, a European gone “native”.

For *White Zombie* the title itself reveals the role of race in the film, which is not only located in dark-skinned islanders or foreign nationals, but in the whiteness of

120 Russell, 25.

121 Ibid.

Madeleine. Russell's historical and political reading collapses with the colonial anxieties around labor and occupation – the double entendre of “reproduction” as something crucial to both the political and libidinal economies of colonial capitalism. The slippage here in the meaning of reproduction is telling insofar as it suggests not just the multiplicity of meanings in the term, but also the slippage between registers that is characteristic of the undead. The anxieties centered upon the central undead figure in *White Zombie* are generated precisely in this juncture, or space between the two meanings of reproduction, between political and libidinal economies, and between life and death.

Race is a fundamental condition of the zombie, serving as a condition of its very possibility. Yet what films like *White Zombie* and *I Walked With A Zombie* show is the way in which the racial category of whiteness is every bit as important to the formation of the laboring dead. Just as Foucault's schematic understanding of race finds two categories necessary in the logic of the “race war”, the terror and the threat posed by the zombie in its earliest appearances is not simply the slave-like zombie, generated by the colonized masses, but the white zombie as well. This trope of the white zombie appears elsewhere in the zombie genre, most notably in *I Walked With A Zombie* from 1943, which tells a remarkably similar story of white zombification albeit in a more complex and ambiguous context. In *I Walked With A Zombie*, as opposed to its earlier counterpart, the white zombie around whom the mystery of the plot is centered is juxtaposed to the striking figure of the black zombie, reflecting the dichotomy in the western racial imaginary.¹²²

122 For an excellent discussion of this dichotomy, see Richard Dyer's *White* (New York: Routledge, 1997), which neatly frames the way in which whiteness is always constituted in contrast to blackness (regardless of a more complex or accurate understanding of racial and ethnic taxonomies in what can only be described as a remarkably dialectical operation).

The interplay of whiteness and blackness in the zombie is symptomatic of the racial logic at work within the genre more broadly. As Newitz and others have pointed out, the problem of undeadness does not solely reflect the race of the colonized body, but the overall logic of the colonial system in which whiteness plays as much a part as anything else. The racial logic of the master-slave dialectic is reminiscent of Foucault's schematic illustration of race in his lectures and both *White Zombie* and *I Walked With A Zombie* point to the foundational role of race within the zombie genre as both a symptom or tool of colonization. In her discussion of race-thinking, Hannah Arendt makes an important point that is worth quoting here lest I also stray too far from the purpose of race within this discussion of the zombie. Arendt argues that, "The fact that racism is the main ideological weapon if imperialist politics is so obvious that it seems as though many students prefer to avoid the beaten track of truism."¹²³ What this canny observation reminds us of is the real function of race within the context of this discussion; as Arendt points out elsewhere in her discussion of race-thinking is that race was a crucial tool for the creation and implementation of the nation-state and colonial-capitalism.

Arendt's vision of race in her seminal book on totalitarianism was steeped in post-war culture of the West and while her writings are, themselves, remarkably racist at times, her understanding of race-thinking as something that pre-dates racism per se is worth noting. For Arendt, race-thinking emerged around the time of the French revolution as a response to the emergent class-consciousness of the era. Where the class-thinking of the time was producing revolutionary responses on both sides of the Atlantic, race-thinking emerged as a conservative reaction to the status quo; a means of justifying the aristocracy as something that was permanent and natural. Race-thinking was a way

¹²³ Hannah Arendt, *The Origins of Totalitarianism* (New York: Harcourt, 1968), 160.

for the ruling powers to secure their place in the forming nation-states of the era, as Arendt points out:

“...the truth is that race-thinking entered the scene of active politics the moment the European peoples had prepared, and to a certain extent, realized, the new body politic of the nation. From the very beginning, racism deliberately cut across all national boundaries, whether defined by geographical, linguistic, traditional, or any other standards, and denied national-political existence as such.”¹²⁴

Racism functioned as a reactionary element that guarded against the new class-based political movements of the time. Race was a way of ensuring dominant power relations within the context of the nation, capitalism, and imperialism. Over and against a “nation” of citizens, subject to the universal rights of man, grew up a “race” of aristocrats for whom the innate qualities of the race safe-guarded their position.¹²⁵ Arendt once again points out that “Like the title of the heir of an old family, the 'innate personality' was given by birth and not acquired by merit. Just as the lack of common history for the formation of the nation had been artificially overcome by the naturalistic concept of organic development, so, in the social sphere, nature itself was supposed to supply a title when political reality had refused it.”¹²⁶

What is useful in Arendt's definition of race-thinking is that it exposes the way in which race has been used as a tool of mapping that cut across the various populations of the modern world. Race-thinking was an organizing principle, one that worked not simply towards classifying populations but, as Arendt's analysis points out, is one that operates as a program that organizes the knowledge of the human and non-human, master and slave.

124 Ibid, 161.

125 Ibid.

126 Ibid, 169.

In his discussion of whiteness and racial representation, Richard Dyer explains that race itself operates as a twin discourse that alternates between genealogy and biology. The genealogical discourse of race is “concerned with origins and lineages of reproduction” and seeks to trace out the essence of humanity as a historical phenomenon, telling the story of a population to show how tradition and environment have formed the appearance and character of the people in question.¹²⁷ The biological discourse, on the other hand, seeks to secure difference in the body itself as an inalienable, or at least less malleable, fact that exists as physical essence of the body.¹²⁸ As Dyer points out, the biological discourse of race has come to eclipse the genealogical distinction, although it might be argued that the discourse of genetics collapses the two into a single system that takes both history and biology into account.

More than simply an ideology, race is an embodied technology serving to organize populations in accordance with the needs of the burgeoning nation-state and the drives of colonial capitalism. Racial divisions within the population were swiftly supported by arbiters of knowledge, such as evolutionary biology, philology, and linguistics. Yet all of these bodies of knowledge did not (and continue to fall short of) fully define the way that race functioned, and I am arguing here that, following some contemporary arguments, race functions not simply along side technology, but as a technology.¹²⁹ As Wendy Hui Kyong Chun points out:

“Racial discourse has always been polyvalently mobile and capable of thriving in the face of uncertainty. Race as biology and race as culture are

127 Richard Dyer, *White* (New York: Routledge, 1997), 20.

128 Ibid.

129 Contemporary discussions of race as a technology have emerged around discussions of ethnicity, science, and new media, specifically through the work of Wendy Hui Kyong Chun who has recently written on this issue in an essay introducing a special issue of *Camera Obscura*, entitled, “Race and/as Technology; or, How to Do Things to Race.” (*Camera Obscura* (2009): 7.

similarly mobile and flexible technologies. Focusing on race as a technology, as mediation, thus allows us to see the continuing function of race, regardless of its essence. It also highlights the fact that race has never been simply biological or cultural, but rather a means by which both are established and negotiated.”¹³⁰

Chun's analysis extends the intimate connection between race and technology further, showing that race is a program of organization that functions to mark and delimit divisions within the social body. Race is a technology whose essence is not technological, and functions to enframe the population according to biological and genealogical traits. As Chun points out, “Race renders everyone into a standing reserve of genes to be stored and transmitted.”¹³¹ This reading of race and modern biology comes out of Heidegger's understanding of technology as a system of enframing and organization, which expands in scope as modern industry expands across the globe. The essence of modern technology enframes insofar as it organizes in such a way as to make it useful – useable – by the institutions and apparatuses of the modern world.¹³² Eventually, as Chun argues following Heidegger, the scope of technology expands to include even humanity and I would argue, following Chun, that race serves as one of the principle mechanisms of this project of enframing.

Race was a crucial tool in the developing taxonomies of the modern world, and it not only served to organize the human species according to changing scientific principles of the time but to order them in such a way as to justify European imperialism and colonial capitalism. As the last chapter showed, slavery was a crucial practice in the development of capitalism and Chun goes on to point out the connection between

¹³⁰ Ibid, 15.

¹³¹ Ibid, 19.

¹³² Martin Heidegger, “The Question Concerning Technology” in *The Question Concerning Technology and Other Essays* (New York: Harper, 1977), 19.

Heidegger's conception of technology and the way that human beings were counted as quantities quite explicitly during the slave trade.¹³³ She does this by moving adroitly from Heidegger to Hortense Spillers, who takes on the problem of human countability as a key part of an “American grammar” through which she engages race and reproduction. This idea of an American grammar is articulated in an essay entitled “Mama's Baby, Papa's Maybe: An American Grammar Book,” in which Spillers finds the roots of an American ordering of the symbolic in the systems of race, ethnicity, and reproduction. Spillers' contention is that ethnicity functions as a scene of negation, which is an ideological notion that comes out of a perpetual present – a mythic system in the way described by Roland Barthes.¹³⁴ Quite simply, race or ethnicity is a myth in Spillers' understanding but goes further than this rather obvious statement to outline the way in which these myths take as their object the body, which, as Spillers describes it, is “a private and particular space” and is the point at which “biological, sexual, social, cultural, linguistic, ritualistic, and psychological fortunes converge.”¹³⁵

If the body is the site and medium of so many problematics, it is because it is the delimited space into which these signifying systems are inscribed, upon which these various fortunes converge. The body registers as a coordinate in the symbolic universe, indeed it might be considered one of its fundamental units, but this does not fully account for the captive body and the experience of slavery. Thus, Spillers posits another category to engage with this matter of the slave, of the captive body. Spillers says: “But I would

133 Chun, “Race and/as Technology,” 20-21.

134 Spillers is here referring to Roland Barthes treatment of myth, semiotics, and ideology in his seminal essay, “Myth Today.”

135 Hortense J. Spillers, “Mama's Baby, Papa's Maybe: An American Grammar Book” in *Black, White, and In Color: Essays on American Literature and Culture* (Chicago: University of Chicago Press, 2003), 206.

make a distinction in this case between 'body' and 'flesh' and impose that distinction as the central one between captive and liberated subject-positions. In that sense, before the 'body' there is the 'flesh,' that zero degree of social conceptualization that does not escape concealment under the brush of discourse or the reflexes of iconography.”¹³⁶ For Spillers, flesh is the raw matter of the body. It has not been marked by the symbolic order of an American grammar, but is, instead, subjected to inscription. If the body is a symbolic unit, flesh is the material ground that precedes inscription, designation as the site of these many convergences of biology, sexuality, language and race. It is, for Spillers, what preexists the body per se before it is obscured by discourse. The body is all surface, but the flesh lies beneath, ready to rise up or appear at a point of crisis. Thus, Spillers points out that “if we think of the 'flesh' as a primary narrative, then we mean its seared, divided, ripped-apartness”.¹³⁷ Flesh is the “concentration of 'ethnicity' that contemporary critical discourses neither acknowledge nor discourse away”, which is a way of understanding the matter of the slave, and the unmaking that the captive undergoes under his or her conditions of slavery.¹³⁸

This flesh that goes untreated by critical discourse that is ripped, torn, only exposed when the symbolic unity of the body is broken and rent – exposed as something that exists before and beneath the surface, is precisely the purview of the zombie. Flesh exists, for the zombie, as both its primary substance and the object of its hunger and flesh is a key term in the next phase of the zombie's evolution.

136 Ibid.

137 Ibid.

138 Ibid.

Flesh

This next stage in the zombie's evolution comes in 1968 with George Romero's *Night of the Living Dead*. Until this point in time, zombies remained much as they had been in those earlier instances already mentioned. Zombies existed as slaves, mindless thugs that were terrifying only insofar as they represented a fate worse than death and could not be killed because they were already dead. Romero's vision of the zombie, however, took a step away from history and towards allegory. These zombies were significantly different in three important ways. First, these zombies are autonomous. While before, zombies were always created as an undead slave, subjected to the will of some zombie master to do his or her bidding, this new phase of the zombie's existence operated on its own without any outside direction. The zombie remained a mindless corpse, but in this instance it was driven by something internal to itself. The second important difference in the zombies from *Night of the Living Dead* is that they are accidental. The event that reanimates the dead was no longer deliberately caused by some shadowy figure in the background but was, instead, an accident of either science or nature (and typically some uncanny combination of the two). In the case of Romero's famous film, it is "radiation brought to Earth from a space probe back from Venus" that causes the dead to rise and it takes place not in individual instances but as a global phenomenon.¹³⁹ The third and perhaps most important change that took place is that zombies become cannibalistic, hungering for the flesh of the living. This was never a part of the zombie mythos and, indeed, Romero never refers to the undead monsters in his films as zombies per se but rather as ghouls; a monster that traditionally did eat the flesh of both the living and the dead.

¹³⁹ *Night of the Living Dead* (dir. George Romero, 1968)

These three developments in the form and function of the zombie come together to generate several radical implications. Because the zombie is no longer the work of any individual will, and is, instead, generated from some accidental phenomena, anyone can be a zombie. This is nicely illustrated in *Night of the Living Dead* by the broad range and assortment of bodies that we see returning from the dead. Everyone has a potential zombie lurking inside of him or her, and this is key. Not only is this development one that reflects the Cold War culture out of which Romero's film was made, but also suggestive of the role of the flesh in this new incarnation of the zombie.¹⁴⁰ If, as Spillers describes it, the flesh is the literal matter of the captive subject, what the zombie shows us is an instance of the rebellion of that matter – the rebellion of the flesh against the body as a hub of symbolic inscription. The zombies of Romero's films, and here one should include the sequels to *Night of the Living Dead* such as *Dawn of the Dead* and *Day of the Dead*, are less body than an animated and autonomous flesh that seeks, in an almost mimetic fashion, the flesh of the other, to expand into and reproduce flesh itself. The zombie is monstrous precisely in its sub-humanity. Zombies are better than no one, which is illustrated by the pathos and weakness often exhibited by the individual zombie in Romero's films. While in *Night*, the zombies seem dangerous in their strangeness and sudden appearance, in *Dawn of the Dead* the zombie is already an established character and in this later film, the undead take on a slightly different tone.

140 The relation between the Cold War and certain horror films in the 1950s and 1960s has been well established in arguments that often make use of films like *Invasion of the Body Snatchers*, representing the paranoia of the age. In many ways, Romero's zombie movies bear a striking similarity to the *Body Snatcher* films insofar as the monsters are made up of our friends and neighbors and not some outside or foreign figure. This threat, coming from *inside* our country and community (and even our homes) draws out the important connection between this logic of the Cold War, so well illustrated by film like *Invasion of the Body Snatchers* and *Night of the Living Dead*, and the threat of ideological contamination brought to light by Foucault's writings on the security of the state body – and which has already been treated here through the discussion of the race-war and the interior threat to the social body and national health.

Famously, most of *Dawn* takes place in a mall, where a small group of remaining humans have found shelter. The mall provides these survivors everything they might need, although they must overcome those zombies that remain in the mall. The process of eliminating the zombies becomes a comedic scene, in which zombies slowly wandering the mall are easily picked off by the living; zombies lurch about the mall seeming lost and alienated and while they give chase to the survivors they seem apathetic even in this. These zombies are dangerous only en masse – individually they are easily avoided and eliminated, but together they exhibit a frightening collective drive. The individual zombies are unimportant, yet what is anxiety producing is that where one zombie falls, another rises to take its place and in this light it would seem that zombies exist not as individual bodies but rather as a collective, undead flesh that exists in a multiplicity. Zombies expose this flesh to us both metaphorically and literally on screen. Metaphorically, the zombie seems to both embody and survive in and on the flesh, hence my framing the notion of flesh as an “ecology” of the zombie. Literally, the zombie exposes the flesh in that the zombie movie has, historically and generically, the home of cinematic gore. The zombie is always exposing its flesh to us; its own flesh is rotting away and it does not heal from injury often resulting in open gashes, holes, and rents in the skin. In the terms of the narrative, zombies hunger for the flesh of the living but the way that this plays out on screen generally involves the hands or mouth of the zombie breaking into the body of a living human and exposing the flesh beneath the surface.

One of the reasons that zombies can be everywhere and everyone is because the condition of undeadness is fundamentally contagious. Anyone bitten by the zombie will eventually succumb and become undead themselves and in this way the zombie takes on

an epidemic quality, functioning as a biological danger that stems from within the population. Perhaps the most striking change in the zombie's modus operandi has to do with the cannibalism that comes with the 1960s. When *Night of the Living Dead* first came out, many people were horrified by the apparent orgy of senseless violence that took place, with children devouring their parents and people from all walks of life becoming flesh-crazed marauders. Yet, this cannibalistic turn is also important in terms of the zombie's relation to labor. As the zombie becomes accidental, cannibalistic, and autonomous, it becomes the moving embodiment of the collapse between the categories of production and consumption reflected by the turn towards a post-Fordist economy.¹⁴¹ No longer is the zombie simply a means of production, but it is the mechanism of production and consumption at the same time – the zombie reproduces itself in the very act of consumption, a relation that is made almost absurdly literal in the zombie's attempt to eat every living thing that it comes into contact with.

Night of the Living Dead changed the face of the zombie in more ways than one; Romero's vision of the zombie changed how we understood the undead from that point on, which we see illustrated in Romero's later *Dead* films. Films like *Dawn of the Dead*, *Day of the Dead*, and the more recent *Land of the Dead*, take place in a shopping mall, an underground bunker, and an oligarchic city-state respectively. Considered as a part of the horror genre, these zombies present a certain difficulty. Romero's zombies are slow-moving, single minded, and are frightening mostly insofar as they are undead. Thus, the horror of Romero's *Dead* films comes in the form of gore, which need not happen at a fast pace but is, in fact, exacerbated by its duration on screen. The work of gore in the

141 For an excellent and authoritative account of this changeover in economic systems, as well as the move to what Fredric Jameson defines as “late capitalism,” see David Harvey's *The Condition of Postmodernity*. See also *Postmodernism, or, The Cultural Logic of Late Capital* by Fredric Jameson.

horror genre has been unpacked by theorists from a variety of perspectives, which have been useful in understanding its function on screen, but for my purposes here, I will engage the way in which gore and the horror of the post-'68 zombie has to do with the flesh, or more precisely the process of opening and exposing it. One of the most famous scenes from *Night of the Living Dead* takes place when the child, who was bitten and is subsequently succumbing a zombie herself, turns and is seen taking a bite out of her father. This scene has become, in a sense, emblematic of the genre, whereby the horror of the film lies in the rending of the flesh of the individual, but also the connective tissue of the family or that of another intimate social structure. In subsequent films, this scene of rending open the living body by the dead has become almost expected so that by the time *Land of the Dead* takes place (the fourth in Romero's *Dead* series), scenes are constructed solely for the purpose of this exposure. Particularly striking is a scene in *Land of the Dead* in which the body of an unfortunate man is torn apart, his belly pulled open by the hands of the dead. This image, echoed in scores of movies in the zombie genre, indicates a special interest in the inside, of the precondition of the body.

Flesh is, here, the object of desire, exposure, and consumption and, as we have understood previously, the exposed condition of the flesh is precisely that of the zombie itself – whose body is made flesh by the state of decay, the opening of its surface and the revelation of the substance that lies beneath, and of injuries sustained in the process of its (un)death. Flesh extends outwards from the zombie in all causal directions; it is the ecology of the zombie as well as its medium and it is what is generated by the zombie as well as what is left over by the zombie's passing. Thus, the zombie shows us flesh both literally, through the representation of entrails, blood, and gore that is so popular in the

zombie genre, and figuratively directing us to the problem of a flesh that is torn and exposed. But what of this exposure? What of the openness of the body that the zombie seems to show us? These questions of the body's openness are taken up within a different context by Linda Williams' discussion of the "body genre" and of pornography more particularly.

Williams makes a broader argument about these "body genres" in an essay entitled "Film Bodies: Gender, Genre, and Excess", in which she finds an excessive element in three popular genres and draws out the gendered relations between melodrama, horror, and pornography. For Williams, movies that belong to a "body genre" are those that elicit a response from the body. Melodrama makes us cry, horror movies increase our anxiety and makes us jump, and pornography is supposed to elicit sexual excitement. All three film genres have a special investment in the body and in bringing something out of the body, both literally and figuratively.¹⁴² Each of these genres speaks to the body and elicits a response in turn, but none establish this line of communication so clearly as pornography.

In her book entitled, *Hard Core: Power, Pleasure, and the "Frenzy of the Visible"*, Williams starts off her analysis with an allegory of Diderot's *Les bijoux indiscrets* in which a genie bestows upon a sultan a magic ring that will allow him to become invisible and to bring out, in a loud and clear voice, the sexual indiscretions of the women in his harem.¹⁴³ However, this confession of the women's pleasures and indiscretions will come not from their mouths but rather, as Diderot puts it, "Through that part which is the most frank in them, and the most knowledgeable about the things you

¹⁴² Linda Williams, "Film Bodies: Gender, Genre, and Excess"

¹⁴³ Linda Williams, *Hard Core: Power, Pleasure, and the "Frenzy of the Visible"* (Berkeley: University of California Press, 1989), 1-2.

wish to know,” the genie continues, “through their jewels.”¹⁴⁴ Williams then contrasts this parable to the classic of modern-day pornography, *The Opening of Misty Beethoven*. The conceit of Williams' allegory follows Diderot and his word play around the word jewels, which the original text uses to suggest that the sultan will gain this knowledge directly through the “genital-jewels” of the women themselves.¹⁴⁵ My purpose in bringing out this connection is not to go into a discussion of analysis of any particular pornographic text, indeed Williams and others have already done so on several occasions, but rather to draw out the connection between speaking (in the case of Diderot's jewels) and opening (in the case of *Misty Beethoven*) that reveals pornography's interests not only in the body, but in the flesh as well.¹⁴⁶

Williams invokes Foucault to point out that pornography actually exists in a long tradition of “speaking sex”. In Foucault's *History of Sexuality*, he famously outlines this “modern compulsion to speak incessantly about sex” and Williams links this modern scopophilic drive to the mission of hard core pornography.¹⁴⁷ Williams frames the problem this way, “The 'sex' that 'speaks' here is typical of the greater indiscretion of the filmic 'hard core,' of its seemingly more direct graphic display.”¹⁴⁸ Thus, Williams' interest in hard core is around the way in which it illustrates the relation to the body. Not only does

144 Ibid, 1. Quoted from Diderot's *Oeuvres complètes de Diderot*. (Edited by J. Assezat. Vol. 4. Paris: Krauss) This translation belongs to Williams.

145 Ibid, 32.

146 Indeed, these two phenomena, pornography and the zombie movie, seem drawn together until one finds, in films like *Erotic Nights of the Living Dead*, where the inevitable co-mingling of genre, spectacle, and the flesh is brought together in a moment of castration and fellatio, performed in one of the penultimate scenes of the film. Interestingly, here the female “zombie” appeared perfectly normal and it was the other inhabitants, which, we were lead to understand, she represented, that appeared in more prototypical zombie-fashions of ragged clothes and ragged skin. While this film, among others of a similar type, is not to be recommended for its cinematic merit, it is curious to see the ways in which the zombie seems to exceed its own generic boundaries just as much as it exceeds the social and symbolic limits imposed on it within the diegesis of any particular film.

147 Williams, *Hard Core*, 2.

148 Ibid.

it attempt to get the body to react, as with other body genres such as horror, but the camera's gaze in pornography seems to elicit a confession, an attempt to make the body speak directly and authentically and to reveal its truth. Pornography's relation to the truth of the body is certainly vexed. However, as Williams points out, the tradition of pornography belongs more to the fields of optical investigation and investiture that Foucault identified at the *scientia sexualis*, where new knowledges were constructed and generated out of the body and woven into the visibility of the time.¹⁴⁹ Thus, the body is site of optical inquiry, which seems relentlessly to press deeper into the body, beyond the body's surface and into the flesh.

Following Williams, my argument is that the zombie film, like pornography, has an investment in the flesh. Where pornography seems to seek the truth of the body in an authentication of its pleasure, it also seeks to find this truth through the intimate details and openings of the body – finding the truth inside, beneath the surface. While differing dramatically in presentation and purpose, the zombie movie reveals a another drive to reach the interior of the body, to expose the flesh – that substance or matter that exists, as Spillers provocatively puts it, in a “zero degree of social conceptualization” and one that does not “escape concealment under the brush of discourse or the reflexes of iconography.”¹⁵⁰ Spillers' description of the flesh is evocative of the way that Williams describes the female body in hard core pornography; flesh, under this regime (or machine) of the visible exists both as the object of knowledge and the object of desire. It is the site at which the truth of our being can be found through a process of opening up the body, revealing flesh as the matter of knowledge itself. The zombie illustrates this

149 Ibid, 36.

150 Spillers, “Mama's Baby, Papa's Maybe”, 206.

through the violent opening up of the body and the rending of the flesh. Indeed, it seems possible to argue that this drive towards the flesh that the zombie illustrates finds resonance in Williams's argument about the visual machines of pornography, namely, that drive to find the truth of the body through its interiority.

What the zombie movie shares with pornography is an interest in the flesh, in the scopopic opening up of the body to reveal the flesh under the surface and in this opening gesture, to find the truth, the authenticity of the body and of the subject, through the visual apparatuses of cinema and photography and I would go beyond Williams to argue that the kinds of gore we see in the zombie movie is also symptomatic of the "frenzy of the visible" that Williams, herself following Jean-Louis Comolli, find characteristic of hard core. And while the individual zombie is clearly not invested in an apparatus or regime of truth, what zombie movies illustrate in this regard is the desire for truth and the transformation of truth into a commodity to be consumed. The "frenzy" described by Williams via Comolli comes out in the genre through the ravening for flesh that the zombie manifests.

The body and/as flesh of the zombie brings this optical regime of the production of knowledge together with an illustration of this knowledge as something consumed. Thus, the collapse between production and consumption that is carried out in nearly every post-68 zombie movie illustrates something more about the undead labor that we have found so characteristic of the zombie's appearance on screen, namely, the move from alienation to autonomy.¹⁵¹ Just as the zombie becomes autonomous in 1968, so too does labor take a decisive shift within the political and economic spheres of the time.

¹⁵¹ This turn of phrase belongs to Franco Berardi, from his book *The Soul at Work: From Alienation to Autonomy* (New York: Semiotexte, 2009)

Theorists of capitalism and postmodernity see in this shift a move from a Fordist model of regimented production to a mode of flexible accumulation. Franco Berardi, along with the other thinkers in the Italian movement of Autonomist Marxists, bring later figures such as Foucault into dialog with more traditional Marxist ideas and argue that the logic of the factory is no longer localized within industrial walls but, just as the logic of discipline and the clinic became pervasive outside of the prison and the hospital, so too has the logic of labor become ubiquitous.

As Western culture moves towards a service or information economy, even leisure activities become subordinated to the rule of production. For Berardi and the Autonomists, the subject becomes an integral hub in the network of contemporary capitalism and, as Berardi puts it, “The entire lived day becomes subject to a semiotic activation which becomes directly productive only when necessary.”¹⁵² With the zombie, we see the bypassing of the subject altogether, leaving behind capitalism's use for desire and a direct investment in the drive that takes place through increasing inroads taken into the flesh.

The zombie embodies and illustrates this integration of production and consumption, seeming to exist as a violent allegory in this shift in economic processes. The autonomy of the zombie coincides with the theories of autonomy appearing in the analyses of capital. It might seem strange that this age of cognitive and intellectual labor is illustrated in the violent allegory of the zombie, a figure of the mindless body, yet even in this problem finds it correlate in the zombie movie, more precisely in their ongoing search for brains.¹⁵³ The body, here, stands as an intermediary between knowledge and

¹⁵² Ibid, 90.

¹⁵³ It is worth noting that the famous cry of the zombie, “brains!”, which has been taken up widely in

flesh, but it is the flesh itself which is the object of consumption, production, and knowledge. Flesh is consumed by the zombie, but is also produced by it in the form of more zombies. Thus, the zombie takes on an epidemic quality, functioning as a biological danger to the social body that stems from within the population.

Curiously, in most of Romero's films it is not the zombies themselves that end up being the most dangerous of the film's monsters. Rather, it is the remaining humans – whose numbers dwindle as the *Dead* series progresses – that are most to be feared. Governments crumble and the rule of law seems to recede with the advance of the undead. If zombies are tied to labor from the very beginning, then the consumptive labor that they exhibit here is pure in the sense that it is excessive: the zombie does nothing but make more zombies. The labor of the zombie is no longer directed by any outside force, but simply reproduces itself until it ruptures whatever systems, whatever boundaries it exists within. It is an epidemic at the level of the social or state body.

(Undead) Media

The threat of the zombie's bite is the threat of the flesh to rebel, to be overcome with some drive that seems alien to our consciousness. This threat of and in the body, which undoes the social body in one film after another is the embodiment, and the logical extension of, the excessive mode of production and reproduction that characterizes undead labor. And so it seems only natural that the most recent stage of the zombie's evolution is in line with the model of the virus. Like a virus, functioning at the level of

popular culture, is only to be found in a single series of zombie movies. Only in *Return of the Living Dead* (dir. Dan O'Bannon, 1985), do zombies call out for brains and in most other zombie movies of the era are satisfied with any kind of flesh from the living body. Nonetheless, this call for brains by the zombie would seem to reflect the importance of cognitive labor and the curious contradiction that the zombie shows us, and indicates one more way that the zombie movie finds resonance with pornography, namely, the production of knowledge out of the flesh.

the state, the zombie does nothing but reproduce itself until it bursts the confines of the social and symbolic structures that surround it. The virus has also become one of the most common explanations for the zombie phenomenon, along with radiation and chemical contamination. Reflecting the rise of biotechnology and the threat of biological weapons, films like the *Resident Evil* series as well as Danny Boyle's *28 Days Later* and its sequel *28 Weeks Later*, find a virus responsible for the creation of the living dead. The “zombies” of *28 Days Later* represent another departure from the zombie as it is understood thus far, since they are not undead per se – rather, they are “infected” by a virus dubbed the “rage”, and it is this virus that makes them zombie like, albeit much faster and more lethal than its properly undead predecessors.¹⁵⁴

This most recent change in the way in which the zombie appears on screen is not homogeneous, and certainly the zombies from *Resident Evil* are more accurately considered undead than those that appear in *28 Days Later*, however even in Boyle's films the undead zombie does not disappear completely, rather, the undeadness is found in the virus itself. The virus itself becomes the zombie and those infected with it are, rather, subject to undeadness. This viral model of the zombie is important in several respects. The virus itself exhibits signs of undeadness as it has been defined in this dissertation. There is much debate in the life sciences as to whether or not viruses should even be classified as “alive” and are, rather, often considered to be highly complex molecules that have the ability to reproduce themselves. The virus exists at the liminal zone of life itself and has been described in the literature of the life sciences in a way that is telling for our purposes here:

Viruses straddle the definition of life. They lie somewhere between supra

154 *28 Days Later* (dir. Danny Boyle, 2002)

molecular complexes and very simple biological entities. Viruses contain some of the structures and exhibit some of the activities that are common to organic life, but they are missing many of the others. In general, viruses are entirely composed of a single strand of genetic information encased within a protein capsule. Viruses lack most of the internal structure and machinery which characterize 'life', including the biosynthetic machinery that is necessary for reproduction. In order for a virus to replicate it must infect a suitable host cell.¹⁵⁵

The virus is effectively dead until it comes into contact with a suitable host cell, at which time, as Louis Villarreal points out, it is far from inactive and seemingly bursts into life, “it sheds its coat, bares its genes and induces the cell's own replication machinery to reproduce the intruder's DNA or RNA and manufacture more viral protein”.¹⁵⁶

Boyle's film *28 Days Later* and its sequel present a scenario in which there is an outbreak of an especially pathogenic virus that causes its host organism to lose all reason and to violently attack any living thing it encounters. Oddly enough, those infected with the “rage” never go after anyone else who is infected, instead seeking out (in an albeit haphazard fashion) only those survivors of the plague. Even though this may require a suspension of our disbelief, this narrative structure locates a film like *28 Days Later* decidedly within the zombie genre and this scenario of the sick attacking the healthy (also depicted in a film like George Romero's *The Crazies*) seems to bear with it biopolitical undertones.

Viruses are not alive in and of themselves, but rather seem to make use of the cell's vitality giving the virus what Villarreal calls a “a kind of borrowed life.”¹⁵⁷ This notion of a borrowed life reflects the parasitic nature of the virus but also something

155 Dform: multimedia design for science and education, “An Introduction to the Bacteriophage T4 Virus,” <http://www.dform.com/projects/t4/virus.html> (accessed 18 April 2010)

156 Louis P. Villarreal, “Are Viruses Alive?”, *Scientific American*, August 8, 2008, <http://www.scientificamerican.com/article.cfm?id=are-viruses-alive-2004> (accessed 18 April 2010)

157 Ibid. Villarreal is quoting the “poetic” phrasing of Marc H. V. van Regenmortel and Brian W. J. Mahy, virologists from the Centers of Disease Control and Prevention.

interesting about this most recent stage of the zombie's development; the viral zombie. If before, the zombie was an exemplar of the flesh, if we understand the viruses of *28 Days Later* to be the real zombies of the film, then flesh now becomes a medium. The new zombie becomes a literal epidemic and, even more than in Romero's films, Boyle's outbreak films stage the undead as a force that breaks down the social system. In the beginning of *28 Days Later*, after we see that patient zero of the "rage" virus is an animal activist, intent on liberating Chimpanzees who are being used as test subjects for the virus, we are treated to panoramic shots of a modern day London that is empty and bereft of people. As the camera moves through famous landmarks, abandoned of people, we see overturned buses and papers that litter the street as we move towards the hospital where we find the film's protagonist and the first person the viewer sees after the movie's prologue. The next time we encounter moving bodies is also the first time that Jim, the hero of the narrative, encounters anyone else in the seemingly abandoned city, which takes place in a church. The film gives us a picture of a world (we learn from the sequel that the epidemic has been contained on the British Isles) in which the social order has completely broken down and it is certainly worth noting that the first places we see anyone are in those paragons of social institutions, the hospital and the church.

Regardless of whether or not the new zombie is created by viruses or is, rather, the virus itself, like its previous incarnations the zombie reflects something of the systems of labor and reproduction out of which it arises. The notion of borrowed life speaks to this new development, and to the way in which debt becomes a crucial term within a system of flexible accumulation, service and information economies, and a mode of

capital based in symbolic exchange and real subsumption.¹⁵⁸ This notion of borrowing or debt not only reflects the basis of our contemporary economy (as the recent so-called Great Recession, or the financial crisis of 2007-2010) but also the uncanny quality of vitality in the context of the undead. The undead are not a reflection upon death, but rather the return of (and to) life, but with interest in excess of the original debt.

This excess is something that has been symptomatic of undeadness throughout this work, and of the undead labor that was the subject of the last chapter and which figures strongly throughout this chapter. This viral model of re/production works as the logical extension of contemporary practices and the recent recession serves as an illustration of this mode of pure reproduction writ large across the economic landscape. Yet, this pure and excessive reproduction is the result of undead labor, but it is not undead labor itself. Rather, what I am positing here is that undead labor is the force of transgression and indistinction between life and death, between living labor – understood as the productive vitality of the worker – and the dead labor of machines, held in reserve by artificial means.

What we see in the figure of the zombie and the undead labor that it enacts is the dissolution between living and dead labor, the instrumentalization of life itself and the foreclosure of death so that living and dead labor can no longer be understood as different. It is this force of indistinction that I give to the term “undead labor” as a supplement to the terms of living and dead labor put forward by Marx, the ideas of discipline, regulation, and control articulated by Foucault as a part of the biopolitical age of neo-liberalism, and to Agamben's use of these biopolitical notions in his theories of political power and sovereignty. What is common to all three is a theme of the

158 For a succinct definition of Real Subsumption from Marx, see Berardi, *The Soul at Work*, 188.

valorization of life that runs across the thinking of all three. Life is figured as the highest possible good because it has been instrumentalized in service to contemporary capital.

This instrumentalization points us to the role of media in this last stage of the zombie's development into its most contemporary form. In the most obvious respect, media has been an ecology of the zombie from the beginning of its representation in the popular imagination of the West; the zombie arose into the public imaginary from the silver screen, where it has been a presence ever since. While the cinema is the most obvious niche of the zombie's media ecology, it is by no means the only media in which the zombie appears. The *Resident Evil* franchise of video games have likely done more to popularize the zombie in the contemporary imagination and Jaime Russell argues that it is the zombie's appearance in video games that has brought about the resurgence of zombie movies that has taken place in the 1990s and continues well into the present.¹⁵⁹ Russell argues that, "Intriguingly, the relationship between zombie movies and these videogames proved strangely reciprocal. Just as *Resident Evil* took the failing zombie genre and breathed new life into it by transferring the archetypal apocalyptic storylines of Romero et al from cinema to the living room, so the zombie movie itself discovered a new lease on life. Pixelated success bred a resurgence of interest in the cinematic tales of the living dead."¹⁶⁰ This reciprocal enlivening at Russell finds between cinema and video games points to the viral nature of remediation; that if the medium is the message, then the message might well be the medium as well.

Turning once again to the viral model, we see that the virus literally mediatizes the biosynthetic machinery of the cell, making the cell a factory for its own reproduction

159 Jaime Russell, *Book of the Dead: The Complete History of Zombie Movies* (London: FAB Press, 2006), 172.

160 Ibid.

and if we follow from the argument that the zombie becomes viral – at least in its mode of functioning, if not in form as well – then we might imagine the way that, in its epidemic dimension, the zombie itself makes a medium of the masses and much of the danger posed by the undead is that they, like a virus at the level of the state, make use of the apparatuses of social reproduction – the socio-synthetic machinery, if you will – to propagate itself. Even in Romero's pre-virus vision of the zombie, urban centers were the breeding grounds for the undead which showed the epidemic tendencies of the zombie even before a film like *28 Days Later*.

At the beginning of this chapter, I proposed in my reading of *Fido* that the zombie was not only implicated in the collapse of distinctions in symbolic and political economies, but in libidinal economies as well. I take this term from the work of Jean-Francois Lyotard who defines this libidinal economy in contrast to the political economies of capitalism and traditional Marxism. Rather, as is pointed out in the book, *Libidinal Economy*, "According to Lyotard, every political economy is, however, libidinal. That intensity has no equivalent in currency does not rid the circuits of capital of the force of libidinal investment; on the contrary, intensive 'exchanges' are ignorant of the constitutive negation of both political economy and natural theology since the libido invests unconditionally."¹⁶¹ What is important about understanding the dynamics of libidinal economy for this reading of the zombie is that it gives some explanation to the force of consumption and unending reproduction that is characteristic of the zombie, of the undead labor that it represents, and of undeadness more broadly. As Lyotard points out, every economy within capitalism is also a libidinal economy and this unconditional investment sheds light on the excessive dimension of labor and life, consumption and

161 Jean-Francois Lyotard, *Libidinal Economy* (London: Continuum, 1993), xvi.

reproduction, which the zombie brings to light. The operation of libidinal economics is nicely illustrated in *Fido* and I will return to this film as the concluding gesture of this chapter, looking to the way in which it figures the role of libidinal investment while, at the same time, suggesting that the force of indistinction that characterizes undead labor (i.e. the work of the zombie both on screen and off).

As the title of the film suggests, *Fido* is about more than the use of zombies as domestic, undead labor. While this provides the backdrop for the film, most of the narrative centers around the social relationships that play out in the particular family and specifically those relations that the zombie enters into and disrupts. As described before, the world of *Fido* is entirely themed based upon the imaginary world of the American 1950s and the clichéd nuclear family that we see, it comes as no surprise that the son, Timmy, finds as his only friend the zombie servant recently purchased by his family. The zombie, who comes to the house without a name, is given the name Fido and the plot follows a fairly predictable course outlined in the “boy-and-his-dog” narratives of the era like *Lassie* or *Old Yeller*. Less predictable is the relationship that begins to develop between the mother and the zombie, whose gentle quietude and good-natured apathy (albeit artificial) seems to fill in for all the shortcomings of her living husband – a man traumatized by the zombie war and his own father-turned-zombie. Over and over again we see the alienation and miscommunication play out between husband and wife, where Fido seems unconditional in his abstract affection.

Interestingly, while the undead in *Fido* remain mostly mindless, Fido and the other zombies seem to harbor echoes of their former affect and while they are incapable of speech, and seemingly of any complex action, they can follow orders and behave as

though they almost remember their former life. The end of the film seems as much a critique of the model of masculinity, as both of the father figures of the film are killed, only to be replaced (at the very least within the formal structure of their respective families, although the film leaves it up to the viewer to determine if anything more is at stake) by zombies, whose affection seems genuine, albeit muted. *Fido* enacts this move of indistinction that characterizes the undead and the mother, Helen's relationship to Fido is certainly in excess of social norms and the boundaries of the nuclear family. The zombie is, here, uncharacteristically, in the position of father, friend, animal companion, and lover despite its (his) undead status. *Fido* functions as a zombie movie that runs full circle, bringing back some of the earliest aspects of the zombie through labor and service, while at the same time pointing us towards what, in many ways, is the future of the zombie movie, namely, the role of humor, parody, and self-reflexivity. *Fido* shows us a picture of the zombie that works much as it does in other films, an undead figure that is a force of indistinction, overcoming or transgressing social boundaries and symbolic distinction and in *Fido* this takes place in and around the most central of social institutions, the family.

Fido illustrates the role of libidinal investment through the complex relations between the living and the dead. Fido's post-mortem family is not the only non-normative relationship we see in the film, and indeed, this direction of the cohabitation of human and zombie reflects a turn in the zombie narrative as we see that as well at the end of *Shaun of the Dead*. As one might expect, Fido works as a force of indistinction within the family unit, replacing the father, who fulfilled his role as the speaker of prohibitions nicely within the film, with a different kind of masculine figure, one that is

simultaneously more dangerous and more loving. One could read this final move of *Fido* in one of two ways. First, one could say that Fido represents a picture of masculinity that is somehow more natural – coming from the flesh and therefore more authentic – and thus his role at the end of the film as a figure domesticated not by a collar, but by the social relation itself. The second way of reading the ending of this movie is to think of the work that the zombie does even in the narrative of this film and to leave open and ambiguous the transgression of the traditional family drama that plays out. What seems especially curious is that, in the end, the crossing of social borders seems not to matter and the generic happy ending of the film takes place only after Timmy's biological father dies and is replaced by his best friend, the zombie.

CHAPTER 4

THE RECESSIVE TRAIT: SPECTRAL BIOLOGY AND LIVING MEDIA

The last two chapters of this dissertation engaged with the figure of the zombie, using it as an exemplary instance of the undead. Earlier, I traced the zombie's origins as a monster born of slavery as a figure from Haitian myth. The zombie was a body that labored endlessly with no mind or soul to preoccupy its master's will. The last chapter examined the evolution of the zombie as a mediated monster, looking at its emergence within American mass culture from the horror films of the early twentieth-century to its more virulent incarnations in contemporary cinema. By following the zombie's movement on screen we saw how the changes made to its form and function reflected changes cultural anxieties, but also the shifting conditions of labor and reproduction, leading me to the conclusion that the zombie fundamentally stood for capital – and a form of monstrous capital – whose characteristic melding of production and consumption continued to speed up and intensify over the years. Thus, changes in the larger systems of labor and exchange were reflected in the body of the zombie, whose undeadness was, itself, symptomatic of the nature of capitalism – it was a monster whose origins in slavery belie the system's investments in human capital as the initial staging area for subsequent economic production.

In some respects, Chapter 4 will go back to the introduction of this dissertation, which examined the way that the circulation of blood served as a model for early modern political power and forged a conceptual link between sovereignty, politics, and natural

law. The question of circulation remains relevant. However, the object of the study has shifted to a more contemporary problematic: the circulation of traits or genes within the population, but also within the epistemological reframing of the human that has taken place around these concepts. The object of this chapter is the recessive trait, one of the most emblematic and important discoveries in modern science, which I will use as a central term in this chapter. One may ask what the role of undeadness is in this chapter and what, if anything, the life sciences have to do with such a notion. My answer is that the recessive trait contains the life science's theory of undeadness. The discourse and practices of genetics locates undeadness outside of myth or popular media but, instead, in basic science of life itself.

One of the assertions of this chapter is that biology becomes spectral in the age of genetics and that the recessive trait makes the body into a medium, a vector of transmission for certain characteristics and elements in human life and the functioning of the human body. To elucidate this, I will turn back to the question of heredity, which was at the center of the debates in the nineteenth century biology that led to genetics and the theory of evolution.¹⁶² In this chapter I will look at the emergence of the recessive trait within the discourse of the life sciences and examine the theoretical ramifications of its emergence as the inauguration of genetics one of the defining moments of modern biology. This chapter is divided into three sections, the first of which frames this discussion in terms of the archive as conceptualized by Foucault and, Derrida's discussion of the shadow archive. These two sides of the archive allow us to take on the question of the human genome and the science of genetics, understanding the recessive

¹⁶² While I will not be discussing evolution, or the theories of Charles Darwin, in this chapter, it would be interesting to note the context out of which these two discourses emerged and combined with one another.

trait as something that belongs to the shadow archive. It is a dangerous secret within us, and this invisible presence spurs an entire field of knowledge based on prediction, calculation, and control. The second section looks at the recessive trait as it first emerged in the writings of Gregor Mendel and his followers, reading it as a conceptual object containing a theory of undeadness, reading the recessive within the history of science. The third section draws from the arguments on undeadness in previous chapters, and brings them into dialog with the field of new media which, I argue, is the precondition for this kind of genetic knowledge.

The frame I use to analyze and dissect the recessive trait thus belongs as much to theories of media, and new media in particular, as it does to the history of science. This chapter will draw upon both of these theoretical traditions.¹⁶³ Thus, if one half of this thesis belongs to the study of the undead in popular and mass culture, this chapter belongs to the other half, looking to its place in scientific discourse and scientific cultures. However, I do not wish to make these two cultures radically separate and would, rather, argue that the two interpenetrate each other. Science generates a great deal of the knowledge deemed legitimate in contemporary culture, and popular interpretations of this knowledge which find currency in the drives behind scientific inquiry and epistemological endeavor.¹⁶⁴ To give proper ground to this theoretical framing of the genome and its functioning, we must first understand what constitutes the archive and, particularly, how it maps onto the biological knowledge we have of the body, of heredity, and of the notion of life as information.

¹⁶³ It's rival for this position would be the virus, as described in the previous chapter, which also seems to belong in a liminal space between living and dead.

¹⁶⁴ This notion of the "two culture" divide belongs to C.P. Snow, from his book *The Two Cultures* (New York: Cambridge University Press, 1998).

The (Shadow) Archive

According to Foucault, “The archive is the first law of what can be said.”¹⁶⁵ For Foucault, the archive was more than simply collection of books or documents, a place in the world with an order and an architecture, rather the *idea* of the archive was the organizing principle for knowledge itself regardless of form and irrespective of medium. As the first law of what can be said, the archive serves as a regulatory apparatus of possibilities, of presences and absences within the field or terrain of enunciation. The archive explains why some things can be said while others cannot. “In short,” says Foucault, “why, if there are things said – and those only – one should seek the immediate reason for them in the things that were said not in them, nor in the men that said them, but in the system of discursivity, in the enunciative possibilities and impossibilities that it lays down.”¹⁶⁶ This emphasis on possibility and expression speaks not only to Foucault’s interest in an abstract and all-encompassing system but also to a peculiar investment in the future. On the one hand, the archive envisioned in *The Archaeology of Knowledge* is only ever about the already-said. The actuality of a discourse that only exists in the documents, statements, and utterances that compose its material form and as such it exists as a method of historiography. On the other hand, however, the very attempt to make the project of archaeology so totalizing in its scope makes it the grounds for not simply those statements already said, but the yet-to-be-said statement as well.

Two years after the publication of the *Archaeology*, there was a division in Foucault’s theory of history when he wrote *Nietzsche, Genealogy, History* which posited

¹⁶⁵ Michel Foucault, *The Archaeology of Knowledge and The Discourse on Language* (New York: Pantheon, 1972), 129

¹⁶⁶ Ibid.

not an archaeology and an archive, but a genealogy within the frame of history.¹⁶⁷ While some view this as evidence of Foucault's repudiation of archaeology, the contrast of the two seem to suggest that the two strategies exist side by side and that while both speak to many of the same issues, neither one is meant to supplant the other. The notion of *Genealogy* speaks more directly to history, to the past, and the problem of origins, while the *Archaeology* speaks more to the abstract systems in which particular expressions are articulated and is thus more concerned with regulation than with reading.¹⁶⁸ In opposition to the singularity and particularity of genealogy, archaeology as a way of navigating the archive is a predictive tactic and attempts to consider the very impermissibility of certain statements, to understand why and where they do and might yet appear, in short, to predict the pattern of their appearance.¹⁶⁹

Just because there was a bifurcation in Foucault's articulations of history, it does not mean that one or the other must be swept away and forgotten. Indeed, while genealogy became a more privileged term, archaeology is still taken up as a method, particularly in the context of media studies, where the practice of media archaeology attempts to make use of Foucault's conception of the structures inherent in knowledge. This is especially true of the notion of the archive, which Foucault first advanced in the

¹⁶⁷ Michel Foucault, "Nietzsche, Genealogy, History" in *The Foucault Reader*. Ed. Paul Rabinow (New York: Pantheon, 1984).

¹⁶⁸ Concerned with the problem of origins, Foucault follows Nietzsche in troubling this concept throughout his essay. Indeed, Foucault explicitly states "A genealogy of values, morality, asceticism, and knowledge will never confuse itself with a quest for their 'origins,' will never neglect as inaccessible the vicissitudes of history." (Ibid, 80)

¹⁶⁹ It should also be said that Foucault pointed this out in his *Genealogy* as well through his argument for an "effective history" (*Genealogy*, 88). The notion of "effective history" would seem to set Foucault's conception of history apart from a more disciplinary historical construct, allowing for more fissures in the edifice of history and acknowledging the role of chance. In light of "effective history", it would seem that Foucault's move from *Archaeology* to *Genealogy* is more of a rhetorical repositioning of himself within larger discussions of history, aligning himself more closely with Nietzsche and against a more positivist account of history represented by the discipline.

Archaeology and which has subsequently been utilized in a wide range of theoretical contexts. While the substitution of the archive for a farther-reaching notion of history – making Foucault’s discourse conversant with a broader range of disciplines – the archive itself remains a useful concept for describing and articulating systems of appearance and disappearance. The abstraction of the notion of the archive is precisely its usefulness, insofar as it provides a conceptual and critical lens through which to observe an object in a more schematic or diagrammatic form. The notion of genealogy is suggestive of the turn in Foucault’s work towards a notion of life, its regulation, and control, that is, biopower and biopolitics. *The Archaeology of Knowledge* represents a break or rupture in Foucault’s own work, and it is interesting that, after its publication, Foucault’s work moves in the direction of the *bios*. However, it is not history but rather the archive that is the term of use for this chapter, and my object is not genealogy but the genome.

That the genome could be understood as a kind of archive is not a new observation. The genome seems to exhibit many of the characteristics of the archive in Foucault and his theoretical descendents, particularly in anthropology and the social sciences, have taken up Foucauldian analyses in relation to genetics on more than one occasion.¹⁷⁰ On the surface, the genome does bear a remarkable resemblance to the archive. Each and every living cell contains the entirety of the information necessary to the organism to live and grow and this molecular codex regulates all forms of genetic expression. Put another way, the genome is the “first law of what can be expressed” in the living medium of life itself, just as the archive is the first law of what can be said

¹⁷⁰ Paul Rabinow being one of the most visible examples, having written several books and numerous articles on the subject of genetics using a Foucauldian methodology and his work, amongst others such as Nikolas Rose and Lily Kay have made the study of networks of power and systems of knowledge a mainstay of the emerging field of Science and Technology Studies.

within the less organic traces of culture. However, the genome is not simply a collection of expressions or of possible bodily forms encoded into the base elements of molecular biology. The hereditary information contained in the genome cannot be gleaned simply by looking at those characteristics that manifest on the surface of the body. Foucault's notion of the archive is useful because it provides a methodology by which one can navigate the formal complexities of heredity and genetic expression, a way of looking at the living expression of "statements" that are native to the inner-most interiority of the body; a literal bio-logos. Yet, also like the archive, the genome is more than simply a collection of information, but also the architecture that houses it, the means by which said information can be accessed, and the ramifications of the laws that it consigns.

My argument goes further than simply positing a metaphorical similarity between the notion of the archive as laid down by Foucault and the genome as it is understood by contemporary science. Rather, my aim is to suggest that an archaeology of the genome could be undertaken as a way of navigating the complex interchanges that exist between the molecular architecture of the genome, the information contained therein, and the discourse that surrounds it both in the life sciences and in popular cultures as well. To fully understand the kind of archive that the genome embodies - the body that it creates for itself, in information, discourse, and flesh - I turn to a founding moment of twentieth century biology as the discovery of the recessive trait by Gregor Mendel. Mendel's discovery of the recessive trait inaugurated modern genetics, although it would not come to be called by that name until forty years later. As opposed to dominant or expressive traits, the recessive trait consists of those genetics statements that remained unsaid and,

for the most part, unseen.¹⁷¹ What Mendel discovered was a genetic ratio, a rationality that belonged below even the interior of the body, which governed an order of transmission and expression of traits from one generation to the next. Mendel's discovery enabled heredity to be understood as a system based on absence rather than presence, as it gave explanation for why some traits seemed to disappear only to appear again in a later generation.

Despite the fact that the recessive trait was the founding piece of modern genetics, it does not fit neatly into the archival metaphor for the genome. Unlike the Foucauldian archive, understanding or reading the genome is not simply about access – having the right tools to enter the hallowed halls of life through visual technologies such as microscopy, x-ray crystallography, or other forms of representation. Rather, the discovery of the recessive trait quickly brought to light the way in which genetics involves statistical thinking, prediction and a different kind of vision.¹⁷² Vision here refers not simply to the act of seeing, but to an initiation into a kind of visibility that also includes the definition of future prediction, hallucination, and revelation. If Foucault theorizes the archive as an abstracted version of the libraries and national archives that were home to his own research, Jacques Derrida has something altogether different in mind.¹⁷³ Derrida looked to psychoanalysis for a model of the archive in the form of the Freudian unconscious, which records indiscriminately the experiences that go into the

¹⁷¹ The term “genetics” was coined in 1906 by William Bateson who used the term to describe what he called a “new branch of Physiology”. (Quoted in Evelyn Fox Keller, *The Century of the Gene* (Cambridge, Harvard University Press, 2000), p. 1.

¹⁷² This notion of statistical thinking appears in Foucault, but has been more fully elucidated by Ian Hacking, whose writings on the subject of statistics from a Foucauldian perspective have been vital to the development of these ideas. See Ian Hacking's *The Taming of Chance* (Cambridge: Cambridge University Press, 1990).

¹⁷³ I am echoing here Kittler's critique of Foucault in which he points out that the archive emerged out of the time spent pouring over texts in the library.

formation of subjectivity.¹⁷⁴ The archive represented by the unconscious bears a greater resemblance than that of Foucault to the archive constituted by the genome, since neither one is created with the historian's impulse in mind, but rather to generate a kind of embodied "memory" that is not conscious but that impacts the very fiber of the subject's or body's being.

Psychoanalysis seems to fall in between the two kinds of vision described, providing way of seeing or accessing the interior spaces of the subject. As Akira Mizuta Lippit describes, "Psychoanalysis can be said to function as a kind of technology of the inside, an apparatus of the invisible. It determines through Freud's oeuvre, an archaeology of the secret. (A science of the secret, a secret science.) This other technology of the archive, the archive of secrets, appears in the mechanism of repression, which is bound to the dialectics of consciousness, but also to memory and history, two distinct archives separated by the protocols of homogeneity."¹⁷⁵ Lippit's reading of Freud through Derrida gives us some insight into a different kind of archive from that of Foucault. This is an archive based not on order and access, but on ciphers and secrets – an archive based on the secret which Derrida refers to as the anarchive and Lippit as the shadow archive.¹⁷⁶ For Lippit, the shadow archive is motivated by a drive that both preserves and destroys and, in Derrida's language, it takes on a spectral quality because

¹⁷⁴ Jacques Derrida, *Archive Fever: A Freudian Impression*, trans. Eric Prenowitz (Chicago: The University of Chicago Press, 1995).

¹⁷⁵ Akira Mizuta Lippit, *Atomic Light (Shadow Optics)* (Minneapolis: University of Minnesota Press, 2005), 10.

¹⁷⁶ Derrida builds his notion of the anarchive out of its psychoanalytic roots, finding that it represents the opposite of the archival impulse. Whereas archives are traditionally understood as being about preservation, the anarchive represents the inverse drive towards destruction, erasure, and death. Thus, for Derrida, the anarchive can only be thought along with the death drive in Freudian psychoanalysis, which only shows itself through the compulsion to repeat.

of this ambivalence in presence and absence.¹⁷⁷ Lippit quotes Derrida on the matter who points out that, “the structure of the archive is *spectral*.”¹⁷⁸ Lippit’s citation of Derrida continues, “It is a spectral *a priori*: neither present nor absent ‘in the flesh,’ neither visible nor invisible, a trace always referring to another whose eyes can never be met”.¹⁷⁹ Taking these things in the context of genetics, we can see the role of this present absence in the recessive trait itself, literally in the flesh.

The recessive trait is a trace that refers to another, in this case an ancestor, the genetic other in the sense of their actual absence in our lives despite their hereditary presence. Dominant and recessive traits correspond to the two sides of the archive, preservative and destructive, present and absent, visible and invisible, expression and dormancy. The shadow archive haunts its open half, functioning as a kind of secret script or cipher and this plays out in, and complicates, the architecture of the entire structure. Put another way, the recessive trait serves as a kind of genetic secret whose alternating presence and absence within the population reflects this spectral entity, this ghost in the archive. This follows Lippit’s formulation, when he says, “What is seen as inside, what gives the inside its essence, its law, comes from the outside, from an unlocatable outside, an outside whose exteriority has been absorbed by the phantasm of interiority. The ghost of the outside that haunts the structure of the inside, its constitution, but also its archive.”¹⁸⁰ The inside/outside dynamics that Lippit describes map neatly onto the play of expression and dormancy in the functioning of genes and genetic traits; he might as

¹⁷⁷ Lippit is clearly thinking of the death drive here, a subject that will be dealt with in more detail later in the chapter.

¹⁷⁸ *Archive Fever*, 84. (Emphasis in original.)

¹⁷⁹ *Ibid.*

¹⁸⁰ *Atomic Light*, 15.

well be describing the operation of heredity after the dawn of modern genetics.¹⁸¹

Mendel's concept of the recessive trait, depends on such an archive. Its law is constituted from both within and without, the law of the genome's form and expression comes from the outside, the past, from the ancestors of the individual and from the population itself. The phantasm of interiority that Lippit describes belongs to the innermost spaces of our bodies, in the nuclei of the cell and the strands of DNA that exist there.

But Genetic interiority is a phantasm insofar as it exists only in a mediated state. We have access to DNA only through modern technology. Elsewhere in the same book, Lippit describes these shifting borders of inside and outside in terms of technologies of vision such as the x-ray, which afforded new ways of seeing into the body; of making the inside visible.¹⁸² The interiority of the body rendered accessible by modern genetics belong to the phantasmatic insofar as their physical reality is beyond our ability to see without technological intervention; indeed, the word "phantasm" itself is defined not simply as an illusion or hallucination, but also an "illusory likeness to an abstract concept" or vision.¹⁸³ While the phantasm and the specter remain distinct, as two concepts within contemporary theoretical framework that is deployed here they share a

¹⁸¹ The notion of the "gene" itself is a term that is rapidly losing its coherence and its usefulness. As Evelyn Fox Keller points out in her book, *The Century of the Gene*, this term was first used to describe a hypothetical agent that was at the root of hereditary transmission and genetic expression in the body. It was a shot in the dark that became one of the most culturally invested terms of our time, finding its way into every aspect of our knowledge of ourselves in both scientific and popular cultures. While the notion of a single gene serving as the cause for a single characteristic has long fallen out of fashion, the term still finds itself at the center of scientific investigation, political debate, and popular imagination. The term itself might no longer find itself useful in thinking about molecular biology and heredity, it is still vital as a part of the discourse network of both the twentieth and twenty-first centuries and this investment reveals the imaginary component of genetics as a whole. Even if the gene itself does not adequately map onto the genetic mechanisms to which it pertains, it does still serve to enliven the idea of genetics as one of the last utopian sciences, one that promises to remove sickness, and even death, from our lives. Indeed, in a time that claims no grand narratives, the gene has sparked one of the grandest narratives of the century in the very heart of the postmodern.

¹⁸² *Atomic Light*, 42.

¹⁸³ *Oxford English Dictionary Online* (accessed December 12, 2010)

certain “family resemblance” that allows me to think them together within the context of genetics. The recessive trait belongs to this register of the specter because it is a ghost-like presence in the archive of the genome, but also because its existence belongs entirely to the historical period of its invention. As molecular biology and the science of genetics have developed, new ways of conceiving the function of the recessive have developed and from a more contemporary perspective, the precise mechanism of the recessive trait is not so easily defined.

While the notion of the recessive revolutionized the field of biology and inaugurated the discipline of genetics, it does not strictly define any mechanisms that take place at the molecular level of the cell. It is true that certain traits are recessive and other dominant, but traits themselves do not line up with any known genetic mechanism or unit. The vast majority of physical characteristics, those features that were so meticulously observed by Mendel in plants and by the eugenicists in humans, have no direct correspondence with a gene. Contemporary thinking in genetics suggests that physical traits (both dominant and recessive) are, for the most part, overdetermined. That is to say, physical traits are likely the result of more than one gene, acting in combination, and the relations of influence and combination are, at present, too complex for us to understand any easy or one-to-one correspondence between a single gene and a physical expression. Thus, when we speak of the recessive trait, we are referring to a genetic precept – a law of genetics based more in our understanding than upon the actual mechanisms existent within the genome. What kind of vision is it that modern genetics shows? Following Lippit, I will argue that the vision afforded us by genetics, and which

the discovery of the recessive trait let slip, belongs to the shadow archive, and to an optics of avisuality that belongs to both the past and the present.

The Recessive Trait

There is no more emblematic discovery of modern science than that of the recessive trait. This notion of the recessive character, and its dominant counterpart, was first theorized by Gregor Mendel, an Austrian monk doing horticultural research in his abbey garden during the latter half of the nineteenth century. His long-term work on pea plants eventually led him to understand that certain physical characteristics, or traits, did not routinely pass from one generation to the next. When these traits did express themselves and become manifest, they did so in a set pattern; a genetic ratio. Mendel's work went largely unnoticed in his own time and when he presented the findings of his experiments at the Brunn Natural History Society in 1865, they were met with a lukewarm reception. The paper he presented there, entitled "Experiments in Plant Hybridization", would later be hailed as one of the landmarks of biological science, however Mendel would not live to enjoy the fame that he would later garner at the turn of the nineteenth century.¹⁸⁴ Mendel's work on the formation of plant hybrids and heredity was rediscovered in the year 1900. The story of Mendel's discovery and rediscovery is one of the most frequently told tales of modern science, and has taken on mythic proportions. As Evelyn

¹⁸⁴ Mendel died in 1884, his good name having been called into question and his papers lost not due to scientific infighting but between a feud between Mendel and the Austrian government over taxes. In order to preserve the larger peace, Mendel was censored by his bishop; he was "dispossessed, removed bodily from his office, and his office was padlocked. When Mendel died, all his papers were burned to prevent embarrassment to the monastery." (Quoted from Elof Axel Carlson, "Routes to Classical Genetics: Breeding and Hybrid Formation" in *Mendel's Legacy: The Origin of Classical Genetics* (Cold Spring Harbor: Cold Spring Harbor Press, 2004), 48-49.

Fox Keller recounts at the beginning of her book on the role of genetics in the twentieth-century:

In 1900 three papers appeared in the same volume of the *Proceedings of the German Botanical Society* – the first by Hugo de Vries, the second by Carl Correns, and the third by Erich von Tschermak. De Vries, Correns, and Tschermak had independently 'rediscovered' the rules of inheritance that Gregor Mendel, at that time an obscure Austrian monk, had found forty years earlier in his solitary investigations of pea plants. Mendel's original paper may have failed to attract much attention, but these papers did not. Indeed, they are generally credited not only with rescuing Mendel from oblivion but also with launching the science that would soon be called 'genetics' and with that new science the age I am calling 'the century of the gene.'¹⁸⁵

Keller goes on to point out that even after Mendel was rediscovered, the term “genetics” was not coined until 1906 when William Bateson, one of Mendel’s great proponents, posited it as the proper name of this new physical science in a lecture to the International Conference of Botany.¹⁸⁶ The notion of the “gene” was not coined until three years after that, first used by Wilhelm Johannsen who wanted a term *devoid* of other connotations.¹⁸⁷ Indeed, it was precisely the void of other connotations that the term had in 1909 that made it so successful. Keller quotes Johannsen directly on the topic, “The ‘gene’ is nothing but a very applicable little word” and in regards to coming up with a clear and concise definition he went on to say that “as to the nature of ‘genes,’ it is as yet no value to propose any hypothesis” merely pointing out that the “ ‘gene’ covers a reality [that] is evident in Mendelism.”¹⁸⁸ Thus, the recessive trait did more than simply bring to light the means by which certain characteristics of the living organism remained invisible, but also inaugurated a new way of thinking about the body and a new way of looking at

¹⁸⁵ Evelyn Fox Keller, *The Century of the Gene* (Cambridge: Harvard University Press, 2000), 1.

¹⁸⁶ *Ibid.*

¹⁸⁷ *Ibid.*, 2.

¹⁸⁸ *Ibid.*

heredity.

If the gene was merely an empty cipher, a placeholder used to indicate a principle, then so too was the founding inspiration of genetic science: Gregor Mendel himself. In spite of being given credit as one of the great scientific geniuses of the modern era, Mendel remained a somewhat mysterious figure who has been, in turns, glorified and vilified in the history of science. As Jan Sapp describes in his article, “The Nine Lives of Gregor Mendel,” the actual origins of this discovery are, not unlike the recessive trait itself; overdetermined. While he was ignored in his own time, Mendel has become the patron saint of genetic science and his theories of hybridity and heredity took the scientific community by storm. As Sapp describes it, “after an eclipse of some 35 years Mendel’s experiments became universally hailed as providing the foundations for a chain of scientific research that has culminated with the Darwinian evolutionary synthesis of the 1930s and 40s, and the spectacular accomplishments of modern molecular genetics.”¹⁸⁹ Sapp’s analysis of the various “lives” of Mendel give a more textured account of the origin story of modern genetics and reveals it to be one of the key founding narratives of modernity.

Mendel’s story belongs to the life sciences, but the sea change it brought about had ramifications in the way that scientists, and through them other parts of modern, Western culture, came understand life itself. Indeed, Mendel’s discovery of the recessive trait and the genetic ratio is one of the key technologies of the self and represented a new way of accessing the interior spaces of the human. It’s rediscovery at the turn of the twentieth century seems especially auspicious since it arrived alongside other

¹⁸⁹ Jan Sapp, “The Nine Lives of Gregor Mendel” from *MendelWeb* (www.mendelweb.org/MWsapp.html), 1-2.

“phenomenologies of the inside” such as cinema, psychoanalysis and the x-ray.¹⁹⁰ Each of these technologies, discovered approximately around the turn of the century, created new ways of seeing inside and of making visible the interiority of the self. Thus, Lippit’s phrase defining these new modalities as “phenomenologies of the inside” fit perfectly the experiences of these new technologies. Cinema, opening up the space, gesture, and movement to our gaze, showing us what is “inside” everyday movement, the x-ray making the inside of the body visible as a ghostly image highlighting bone and density, and psychoanalysis, making possible a metaphorical view into the interiority of the subject. To this list, I would add the screening practices of genetic science, which allowed new access to the inside as well, albeit this time the view was not of the inside of the body, but the inside of the population. It provided access to the causal mechanisms of heredity and the genetic transmission of traits. The visual observations by Mendel in his garden, looking for the present absence of certain characteristics, would eventually become the practice of genetic screening that we see today in contemporary medicine.

Screening is, here, the operative word since the word connotes both the ability to project and to filter. While screening is used in this context as a medical term, its roots still belong to visual inspection, interpretation, and prognosis. The visibility of genetic screening seems more like psychoanalysis than cinema, since it relies on the interpretation of data and less on the power of the image itself. However, one could argue that movement is still key to the process of genetic screening as it is fundamentally predictive, tracking differences between individuals, correlations between genetic elements, and potential futures. Thus, the science of genetics, particularly after the play

¹⁹⁰ *Atomic Light*, 5.

of appearance and invisibility in variously dominant and recessive traits, belongs alongside cinema and psychoanalysis as one of several “phenomenologies of the inside” that emerge at the beginning of the twentieth century.

Where cinema gave us a modern way of representing the world through new openings in the everyday, and psychoanalysis presented a novel way of representing ourselves through the interiority of the subject, Mendelian genetics gave us a way of representing the subject-in-general or the population by way of the interior mechanisms of heredity. It gives us a way of representing the mechanisms of life itself, and a set of tools to decrypt it. Yet, as Sapp argues in his essay, “Although almost everyone agrees that these experiments are central to modern biology, there is no consensus about their exact significance. Indeed, despite attempts to understand Mendel and his experiments, the great heap of literature addressing his motives, his experimental protocols, his beliefs about heredity and evolution, the exact nature of his discovery remains largely incoherent.”¹⁹¹ Thus, as one commentator says, Mendel himself is a “curious wraith in history.”¹⁹²

The incoherence of Mendel’s actual discovery can be traced back to the “wraith-like” quality that he exhibits in the history of genetics. Sapp points out that as a myth of origin, the Mendel story provides more than simply a scientific foundation for future work in the field. Rather, Sapp argues that Mendelism, as a discourse, relies upon the moral foundation that is provided by the myth of Mendel and thus depends upon the impermanent or spectral presence that Mendel has in the history of science. This moral foundation shows us more about how the biologists of the time wanted to see themselves

¹⁹¹ Sapp, 2.

¹⁹² Loren Eisely, *Darwin’s Century: Evolution and the Men Who Discovered It* (New York: Anchor Books, 1961), 211. Quoted in Sapp’s “The Nine Lives of Gregor Mendel”.

than it does about the real foundations of this knowledge.¹⁹³ Sapp points out how Mendel's story is laden with morality: "The long neglect theme, portraying the discoverer as a creative genius clothed in monastic virtues pursuing the truth undauntedly on the lonely frontiers of knowledge, unappreciated by his contemporaries," base Mendelism (as well as the scientific practices that Mendel both engendered and came to stand for) with both the moral and scientific high ground.¹⁹⁴ Mendel became a figure for more than scientific progress, but for scientific purity as well.

Mendel serves as the absent father of an entire field of scientific study and yet remains largely empty, an absent presence or placeholder that serves as a screen upon which can be projected the ideals of the life sciences. Mendel's "wraith-like" quality within the annals of history brings to light the ideology of science at work in the figure of Mendel. In a way, he becomes subject *to* history insofar as the discipline of genetics needed its own legitimate genealogy.¹⁹⁵ Mendel left behind relatively few papers and little record of his work above and beyond the famed presentation to the historical society in Brunn. Mendel's proper name becomes paternal, as the auspicious sign under which the science of modern genetics can lay claim to unlocking life's secrets and Sapp's argument is particularly useful insofar as it reveals the ideological function of this myth of genetic origin.

What Mendel found was that certain traits always expressed themselves from

¹⁹³ It should not be overlooked that Mendel was a "man of God." A profession that no doubt appealed to a discipline that was already embattled with certain conservative religious groups due to the evolutionary theories of Charles Darwin.

¹⁹⁴ Sapp, 10.

¹⁹⁵ Sapp argues that Mendel's simultaneous rediscovery by multiple scientists was due to the fact that the biologists of the time needed a precedent in order to support their own arguments. Mendel was a neutral figure who was not involved in the arguments of the time and so became a convenient sign under which to christen the new science of genetics.

parent to offspring, while other seemed to go missing from one generation to the next; the first type are called dominant, and the second recessive. Recessive traits do appear, but not with the same frequency or regularity as their dominant counterparts. These recessive traits, as Mendel called them, appeared in approximately one in every four offspring of parents who exhibited the recessive character.¹⁹⁶ Mendel's derivation of the notion of recessive traits stemmed from methodological differences between Mendel's experimentation and his contemporaries in the biological disciplines of the nineteenth century.¹⁹⁷

Orthodox science of the period sought to understand the essential character of an organism, and the species to which it belonged, through a careful examination of visible traits that were readily observable on the surface of the body. Mendel's methods were based in horticulture, not biology, where breeding experiments had long focused on producing specific results in the plants and animals in question. This difference manifested in a change in focus; where the biology of the day emphasized differences at the level of the whole species, Mendel was interested in difference at a biologically smaller scale. He was interested in "crossing closely allied varieties [of the same species] not different species."¹⁹⁸ Thus, difference was, for Mendel, figured as minor differences in form – traits that could be bred into or out of successive generations. Mendel's focus on the trait was different from more essentialist claims of the time, which sought to find the essential type that the species represented and which the individual reflected.

This difference in methodology is illustrated in the contemporaneous work of

¹⁹⁶ Gregor Mendel, "Experiments in Plant Hybridization" (1865). Posted on *MendelWeb* www.mendelweb.org

¹⁹⁷ Sapp, 19.

¹⁹⁸ Ibid.

another famous biologist, Francis Galton, whose composite photographs attempted to isolate the essential form of particular races or types. Galton's approach was informed by a different strain of nineteenth century biology, which was interested in finding the ideal representative not only at the level of species, but in terms of types within a species as well. These exemplars could be representatives of entire races or of specific types of humanity such as criminals, the insane, or even "consumptives." Galton's approach, and that of his contemporaries in nineteenth century biology, was a hypertrophic Lamarckianism, finding differences everywhere and assuming each difference was representative of some underlying manifestation of an essential form. Galton's composite photographs were precisely an attempt to make visible this idealized physical form, which was then reflected, in the iterated bodies of races, criminal types, and social traits. Layering one image on top of another, Galton hoped to discern this essential character in the composited images that emerged. Galton's sedimentation of the visual was seemingly an attempt to generate the fossilized remains of the essence he was hoping to identify. These composite photographs fit into the larger project of eugenics that was his life's work, and they provide excellent contrast to Mendel's plants for several reasons.

Galton's methods relied on reading the surface of the body in order to uncover some hidden truth located somewhere, unseen, inside the body. This was why photography worked so well for his research. Indeed, the composite image that Galton so carefully observed in fact removed specificity of the individual; smaller and less distinct images like the ears were became a haze of accidental features surrounding the head. In his masterful study of Galton's photographs and the archive, Allen Sekula points out "Galton's passion for quantification and numerical ranking coexisted with a qualified

faith in physiognomic description.”¹⁹⁹ This research relied upon the mechanical objectivity of the photographic camera, Galton conceived of his composite photographs as an epistemological tool that could make apparent those “truths” that he believed were readily apparent to common sense. As Sekula points out, “Galton was concerned also with the psychology of the visual imagination, with the capacity of the mind to construct generic images from sense data ... [h]e claimed in fact that the composite photographic apparatus shared, and ultimately surpassed, the capacity or artistic intelligence to generalize.”²⁰⁰ Indeed, Sekula’s larger argument in *The Body and the Archive* looks to these photographs as a way of understanding the archiving processes that came into power and prominence in the nineteenth century and the way that these techniques of ordering served to control and discipline the population. The subjects of Galton’s photographs were meant to demonstrate the existence of the undesirable types, which could be readily identified through an examination of the surface of their bodies. The compositing process was, itself, an archive in the form of recorded data and visual record.

Galton made clear that he believed his work in composite photography to be a kind of “pictorial statistics,” placing this epistemological tool in line with probabilistic methodology, yet one that was rooted firmly in the visual. This viscosity was a symptomatic anomaly in Galton’s project that revealed several of the biases that emerged in his work. His description of “generic images” is worth noting in full:

Composite pictures are ... much more than averages; they are rather the equivalents of those large statistical tables whose totals, divided by the number of cases and entered on the bottom line, are the averages. They are real generalizations, because they include the whole of the material under consideration. The blur of their outlines, which is never great in

¹⁹⁹ Allen Sekula, “The Body and the Archive” *October*, Vol. 39 (Winter 1986), pp. 3-64, 44.

²⁰⁰ *Ibid*, 47.

truly generic composites, except in unimportant details, measures the tendency of individuals to deviate from the central type.²⁰¹

Sekula describes this passage as a point of “logical rupture” in Galton’s discourse, pointing to what he accurately describes as a “glib slide” from a description of an empirical whole to those unimportant details that fade literally away into the background of the photographs.²⁰² Galton’s emphasis on the visibility of his racial categories and criminal types belies his own inability to see the inconsistencies of his own argument; a structural invisibility (and impossibility) from his own position.

This emphasis on the visible, and the visibility and readability of characteristics on the surface of the body, which could then indicate or lead one to infer the essential character of the individual, marked Galton’s difference from Mendel in terms of methodology and practice. In his experiments with the garden pea, Mendel too relied upon a visual analysis of the plants he was breeding to determine which traits were passed between parent and child. However, the importance of Mendel’s method and subsequent discovery lay not in those traits that did regularly appear in both parent and offspring, but those that did not. In some sense Mendel’s proto-genetics relied upon invisibility as a fundamental part of its problematic; that some traits were transmitted down the hereditary line, yet did not express themselves in every body. More important than the visibility or invisibility of these traits was the fact that Mendel discovered that this play of appearances took place according to a very specific schema, and that he could therefore predict the frequency of their appearance. Mendel’s discovery of this genetic ratio underlying inheritance was, in fact, one of the crowning blows to Galton’s attempt

²⁰¹ Francis Galton, “On Generic Images” *Proceedings of the Royal Institution*, vol. 9 (1879), 166. Quoted in Sekula, p. 47-48.

²⁰² “The Body and the Archive,” 48.

to create a scientific practice of visual statistics that would support his eugenic principles. Rather, the recessive trait was an avisual principle, a trait whose presence in certain bodies could only be inferred. While Galton relied upon physical characteristics readily apparent on the surface of the body in order to uncover an essential type that belong to an entire population, Mendel's analysis worked tended to conceive both the individual and the species as a collection or aggregate of traits that could be traced and mapped out over time.

Much of what is know about Mendel great insight and inspiration comes from his interpreters and self-proclaimed inheritors, leaving a shadow of a doubt over the exact importance of his work and the precise nature of his intervention. It is clear is that his presence continues to be one of the most notable in the history of the field, becoming almost synonymous with the history of the science itself.²⁰³ If Mendel haunts the field of heredity and genetics, it might also be said that his place in history is, itself, "recessive" insofar as he exists as a present absence, an undead element at the heart of the genome, which simultaneously intersects with the history, culture, and science of genetics. The recessive trait is a spectral entity that both ground and destabilizes the terrain in which it appears. Mendel's discovery contradicts the visual system of Galton's composite photography, but more than that it disrupted the logic of surface reading altogether. The recessive was something to be deciphered beneath the surface and in this way provided the impetus behind more contemporary concerns of genetic codes and genetic screenings. Mendel's proto-genetics required a different kind of reading, one that ran below the

²⁰³ Indeed, this is the heart of Sapp's argument, suggesting that Mendel's many "lives" reveal an invaluable inconsistency to the history of heredity and allow for a seamless transition into the world of molecular biology, DNA, SNPs, and other facets of modern genetics. Mendel's various lives allow for the patina of his proper name to cover over the suturing of this discovery to evolution, and other fundamental elements of contemporary science.

surface and which required a more hermeneutic approach. Thus, to rephrase the famous opening of Marx's *Communist Manifesto*, we might say that a specter is haunting genetics – and that specter is Mendel.

In *Specters of Marx*, Derrida meditates on this famous opening to the *Communist Manifesto* and considers what it means to have this spectral character. He finds in the spectral an asymmetrical relation that is always plays out in the encounter with these ghostly figures.²⁰⁴ While descriptions of the specter evolve over the course of Derrida's excursus on Marx he gives a key definition at the beginning of the text when he writes, “The Thing is still invisible, it is *nothing* visible ... at the moment one speaks of it and in order to ask oneself if it has reappeared.”²⁰⁵ The specter is the Thing, the nothing made visible when one knows when to look. The specter comes and goes according to a certain interval, a play of visibility and invisibility whose very absence must be noticed. The relation that we, as subjects, have to the Thing is one of haunting and if we understand the Thing here as the spectral, recessive trait then it can also be said to inhabit us insofar as it exists in the human body but does not entirely belong either to the body or in it.

The specter, like the recessive trait, is the Thing in us even more than us, so to speak.²⁰⁶ It is in us more than our subjectivity or selfhood – it mediates our relation to our past by way of our heredity and, yet, inhabits us. Indeed, the spectral relation of

²⁰⁴ Jacques Derrida, *Specters of Marx* (New York: Routledge, 1994), 6. In regards to Shakespeare, it is interesting to note that the example that Derrida finds most useful is that of Hamlet's father, whose ghostly presence instigates the entire plot of the play and whose description Derrida finds particularly apt in regards to considering the spectral character not only of ghosts and fathers, but of capital and ideology as well.

²⁰⁵ Ibid, 5. Italics in original.

²⁰⁶ The phrase “in you more than you” is a reference to Lacan's characterization of the *objet a*, which bears many structural similarities with the recessive trait as I am framing it here. However, for a variety of reasons, I find that Foucault and Derrida provide a more useful set of theoretical tools for understanding the recessive within the context of the life sciences, but also within the intersecting discourses of popular and mass culture as well. The role of the phantom and the death drive here lend themselves to a more active psychoanalytic reading, however that will have to wait for another time and another reading.

kinship and visibility that Derrida describes begins to look more like a case of possession than of a simple haunting. Of course, Derrida describes a different space than that of the genome. The haunted environment he describes is the space of the narrative and of the stage.²⁰⁷ However, elsewhere, Derrida frames the archive in a similar fashion identifying its roots as a place of both beginning and command. He says at the beginning of *Archive Fever*, “*Arkhe*, we recall, names at once the *commencement* and the *commandment*. This name apparently coordinates two principles in one: the principle according to nature or history, *there* where things *commence* – physical, historical, or ontological principle – but also the principle according to the law, *there* where men and gods *command*”.²⁰⁸ Like the archive that Derrida describes in *Archive Fever*, the genome spans these two principles. It belongs both to the world of natural, physical laws and to the social and historical world of the *nomos* all housed within the chiasmic site of the mediating and mediated body.

Describing the nature of the apparition in the discourse surrounding Marx, Derrida speaks to the mode of its visibility when he says, “Nor does one see in flesh and blood this Thing that is not a thing, this thing that is invisible between apparitions, when it reappears. This Thing meanwhile looks at us and sees us not see it even when it is there.”²⁰⁹ Later on, he points out that, “The specter, as its name indicates, is the *frequency* of a certain visibility.”²¹⁰ As an arbiter of experience, the specter seems to operate according to a tempo of its own. The recessive is spectral because it exists in a

²⁰⁷ In this case, Shakespeare’s *Hamlet*.

²⁰⁸ *Archive Fever*, 1. Emphasis in original. Derrida would, only a page later, describe its origins in the domicile of the law-giver: “Greek *arkheion*: initially a house, a domicile, an address, the residence of the superior magistrate, the *archons*, those who commanded.” (Ibid, 2)

²⁰⁹ *Specters of Marx*, 6.

²¹⁰ Ibid, 125.

certain schedule, the genetic ratio determined by Mendel and his followers, but in between its appearances it exists in an avisual state within the medium of the genome. The kind of “vision” afforded by genetics brings us full circle to the kind of visibility, or avisuality, foreshadowed by Lippit’s discussion of the archive and the shadow archive. The specter comes into being precisely at this interchange between the visible and the invisible, its “life” comes only at the liminal space of vision and in reaction to this spectrality that exhibited by the specter of the recessive trait and the recessivity of Mendel himself who, as we have already seen, is a wraith haunting the history of biology.

The recessive is more than simply a condition of certain traits within the genome; it speaks to a kind of passivity, a nascent source of risk insofar as it typically exists in an unexpressed or unrealized state. However, the recessive does at times manifest. It appears in certain bodies and certain places, moving throughout a population; a specter on a mass scale. The spectrality of the recessive is only apparent over time, the frequency of its appearance plays out across generations. The recessive is, to quote Derrida again, a “Thing which is not a thing” and while its existence does not belong entirely to flesh and blood, its effects certainly do.²¹¹ The fully embodied condition of the recessive trait could be contested in several respects. First, the biological building blocks that go into its constitution belong to a scale far below that which we can directly interact. Second, the “trait” is a term of use in genetics that is remarkably difficult to define. In the course of twentieth-century science, the trait became closely associated with the gene – a regular three-part sequence of nucleotides arranged in the double-helix of DNA that appears to “code” for particular proteins. However, the relation between

²¹¹ Ibid, 6.

traits, understood as physical characteristics of any kind, and genes now appears to be overdetermined at best. Indeed, as Evelyn Fox Keller points out in her extended study of this term, the notion of the gene itself is rapidly losing its usefulness as a descriptive term in genetics.²¹² Rather than focusing on the gene as a precisely defined term in molecular biology, Keller finds it more useful to think of it as a term that accrued a certain amount of cultural capital and because of this is in no danger of disappearing from the lexicon.²¹³

Even if the gene, as a term of use, is one that is becoming increasingly useful for contemporary molecular biology as science comes to understand more and more about the inner workings of genetic expression, the notion itself is still important within the discourse of genetics. This is a key distinction in Keller's argument, and she speculates that the gene exists at the center of a network of discourse that extends beyond the field of genetics and into other areas as well. Keller's discussion of this is superb, and I will not replicate her argument here, but both the gene and the trait have in common the way in which they seem to span the divide between discourse and biology, belonging to both equally. Both pass through the medium of the body as something like discourse or information, something that cannot by itself be classified as alive but which literally in-forms the body. The trait is more than simply a distinguishing feature or quality, it is a word whose origins go back to a notion of stroke, line, or shot.²¹⁴

While "trait" could once mean a "shot" of any kind, the term also suggested a drawing out, a protraction, or more commonly, a drawn line or a "stroke made by a pen

²¹² Evelyn Fox Keller, *The Century of the Gene* (Cambridge: Harvard University Press, 2000). See above, note 20.

²¹³ Ibid, 10.

²¹⁴ *Oxford English Dictionary*

or pencil; a short line; a touch (in a picture)".²¹⁵ Like the trace, which is its etymological cousin, the trait serves as an inscription in the body. The trait is more than a distinguishing feature, it is a connective element that reveals something of the past in the present moment; inscribed into the tissue of the body. Even in the way that scientists understand genetic traits today, a part of its etymological ancestry is apparent as something that can be written in the hereditary language of the body, making the task of modern genealogy inherently palimpsestic. The line of the trait is a blood-line, tracking backwards into history, but also reemergence of an ancestral element and the recognition of a trait passed down from one generation to the next can be an uncanny experience. We may have our grandmother's nose, but even in the very grammatical construction of the phrase we must note that it still belongs to her. The trait is a trace of our own genealogical past (re)asserting itself, its recognizable presence a real return. Even the term recessive can be read as the activation (read adjectivization) of the term "recess", connoting both a vestibular exit or hole, but also a period of time when some official body, a court of law for example, is temporarily suspended. Earlier, Derrida's description of the spectral was as a force or factor mediating appearance or, more specifically, the interval between appearance and disappearance, visibility and invisibility, presence and absence. Here we see in the very genealogy of the trait a similar *modus operandi*; a trait, and the recessive trait in particular, is the suspension of visibility while at the same time the condition under which we have a certain vision.

Spectral Biology

The recessive trait exists in a kind of half-life as potential within the genome, active

²¹⁵ Ibid.

insofar as it can be transmitted to one's offspring but is more typically inactive in its character and behavior. This liminal state, in between life and death, natality and destiny, can be characterized in this way: what Mendel effectively discovered was a view of life that we can now understand as life-as-information, even though he did not have the concept of information at his disposal. This new model of life, implies a statistical "vision", one that did not emphasize the literal act of seeing but rather the predictive character of an imagined sight – a kind of ideological “vision” that relied upon a notion of seeing and knowing functioning as one and the same. This kind of “vision” belonged to a larger scale both in space and in time, since what fall into its purview were elements of both the past and the future.²¹⁶ Earlier, I emphasized that Mendel's contribution to biology was less the recessive trait itself than his ability to predict its appearance. Thus the kind of visibility that I am framing here in terms of statistical thinking falls more in line with the notion of vision as a kind of hallucination or foresight.²¹⁷ This visibility is simultaneously forward-looking and anachronistic; it has a predictive power through a system of statistics and biopolitical investments and, yet, seems to frame the genome as an oracular text. Contained within the genome is, at the same time, the power of natality and destiny; of one's birth and the fostering of human life as well as what potential we, as biological beings, may have is foretold in our genetic code. What Mendel began was the reframing of life as information could also be understood as a kind of spectral biology, a kernel of undeadness within the very heart of the life sciences

²¹⁶ The temporal dimension of this genetic visibility fits neatly within the framework laid out by Derrida in *Specters of Marx*, which plays with the notion of time being out of joint. Taking off from *Hamlet*, Derrida points out that the spectral relation upsets the linear progression of things; time can no longer flow uninterrupted from past to future with the intrusion of the specter. The specter is not simply disruptive of the orders of life and death, but is also an intrusion of the past; the ghost returning to haunt the living.

²¹⁷ *Oxford English Dictionary Online*

This undeadness that lies within the discourse of the life sciences was the recessive trait itself, whose spectral presence relied on an understanding of life based in information itself. This notion is supported by the foundational role of statistics and calculation that existed from the very beginning with Mendel; a relation that has only become more closely entwined over the course of genetic science in the twentieth century. Indeed, it is not too strong to say that the understanding of genetics provided by contemporary science is mediated almost entirely through computers and other digital technologies; shot through with information even to the extent that we understand life itself as information and genetics as a code to be broken. Despite Francis Galton's mistaken use of photography as a tool of statistics, he was right about the role of visuality in the operation of the genetic sciences, only his understanding of vision was too literal. Rather, genetics were tied to a visuality of prediction – of a vision of the future that it both allowed and thrived within. Genetics became the science of the future, promising unlimited control over the natural world and, more importantly, control over the human body and its various potentialities as well.

After the birth of cybernetics around World War II, the genome was increasingly conceived of as a kind of computer code, a program that could be decrypted and changed. As biology increasingly deployed cybernetics, programmability became a key notion for understanding the genome. Thus, the growing field of computer science became a rich source of ideas for molecular biology.²¹⁸ The notion of the genetic program was one that

²¹⁸ The relation between the life sciences and cybernetics have been explored in a variety of contexts, and the histories of the cross-pollination of ideas between these two fields has been eloquently discussed in several other places. Evelyn Fox Keller's book, *The Century of the Gene*, describes in lucid detail the way in which the metaphor of programmability helped to further our understanding of the genome and its operation, even as these allegories fell short of fully explaining the complexity of DNA and its expression into the other elements of life. Keller describes it quite well when she says, "Without question, computers

came to be widely used in the life sciences. A number of contemporary scholars have begun elaborating on its implications. Thus, as Keller describes it, “the genetic program has come to be widely regarded as a fundamental explanatory concept for biological development.” Thus, to quote Keller again, “buried deep inside the innermost core of cellular structure, inscribed ‘in a sequence of chemical radicals,’ was the ‘invisible guide’ required to direct the organism ‘along the path it follows, leading it to the place it occupies.’”²¹⁹ This “invisible guide” was the program that directed the organism in both form and function.

This ability to see such an “invisible guide,” to make the invisible visible through the modeling techniques of statistics and metaphor is at the root of what I am describing as spectral biology. The recessive trait has been my prime example of spectral biology in this chapter, but we can broaden the definition to include the kind of forward-looking, information-based systems that came after Mendel. Indeed, information, cybernetics, and the notion of the program have been integral in the contemporary understanding of molecular biology. The notion of the program and programmability, brings us full circle in this discussion back to the undead, something illustrated by the work of another contemporary scholar, Wendy Chun. In her forthcoming book, she describes the role of

have provided an invaluable source of metaphors for molecular biology, the metaphor of the program being only one of many.” (*Century of the Gene*, 81.) These ideas have been a vital thematic in Keller’s other work, each of which engages the role of metaphor, figure, and model in the way we understand life through molecular biology. See *Making Sense of Life: Explaining Biological Development with Models, Metaphors, and Machines* (Cambridge: Harvard University Press, 2002) and *Refiguring Life: Metaphors of Twentieth-Century Biology* (New York: Columbia University Press, 1995). More recently, Wendy Hui Kyong Chun has brought up this connection between life, information, and programmability in her forthcoming volume *Programmed Visions*, which will be discussed in the next section.

²¹⁹ Keller, 74, 109. These notions of the genetic program were first defined by the French biologists Francois Jacob and Jacques Monod, whose programmatic models for the genome were massively influential to the life sciences. Here, however, Keller is not simply quoting theories of biology and cybernetics, but Immanuel Kant as well, and his initial definition of the term “organism,” which we still use to this day. See Keller p. 106-107.

what she calls “programmed visions”, which is itself a play on the programmability of both the biological future of the human species, and the role of the future within the notion of programmability. For Chun, software and cyberculture are forming a paradigm that incorporates the human genome directly. Indeed, Chun touches upon the role of Mendel in creating a biological science that provided the ground for the programmatic metaphors of contemporary genetic science.²²⁰ The role of metaphor, allegory, and model is important to several scholars working in this area. For example, Phillip Thurtle’s work on genetic rationality also foregrounds the role of information and modern bureaucratic archiving in the development and emergence of the discourse and science of genetics that we know today.²²¹ However, what makes Chun’s analysis particularly useful to this discussion, is the way that she characterizes a condition she calls “the undead of information”: “Information is ‘undead’: neither alive nor dead, neither quite present nor quite absent.”²²² Chun deals with software and computer memory, but the paradigm that she describes applies equally to that of genetics. From an epistemological perspective, these two disciplines cannot be completely separated. The science of genetics essentially belongs to “new media” insofar as our access to it is completely mediated by computer technologies that allow us to navigate such massive amounts of data. This connection between genetics and new media is not, however, limited to the contemporary scene. Mendel did not just discover that some traits were not reliably passed on from parent to

²²⁰ Indeed, Chun notes in her introduction that the “undeadness of new media, however, is not the simple consequence of economics; rather, as this book argues, this cycle is also due to the ways in which new media encapsulates an (undead) logic of programmability.” (Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* [Cambridge: MIT Press, 2011], 4.)

²²¹ Phillip Thurtle, *The Emergence of Genetic Rationality: Space, Time, and Information in American Biological Science, 1870-1920* (Seattle: University of Washington Press, 2007).

²²² Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge: MIT Press, 2011) 318.

child, but rather that a) those characteristics were still present, buried in the tissue of the child yet existed in an unmanifest state and b) that this play of appearance and disappearance could be *predicted*. This was revolutionary aspect of his work.

When Chun describes the undeadness of information within the context of computer memory, she could equally be describing the genome and the data contained within the genetic code. The dominant epistemological model that we have for both the form and its function of DNA treats it as information. Chun links both the notion of spectrality and that of the undead with the problematic of memory. Through Derrida and the lens of historicized new media theory, she describes the way that “permanence has become intertwined with undead repetition and transmission, and how this repetition both grounds and threatens...[the] archive.”²²³ This undeadness is woven into the play of inscription and erasure that runs throughout Chun’s text on computer memory and broadening its horizons toward questions of media more broadly. As she points out, “Repetition, as Vannevar Bush and Jacques Derrida have argued, is further the marker of forgetfulness. Drawing on Freud’s work on the death drive, Derrida argues ‘repetition itself, the logic of repetition, indeed the repetition compulsion remains ... indissociable from ... destruction.’”²²⁴

Freud’s the death drive was always at the heart of Derrida’s discussion of the archive. Chun brings it to light to show the ways in which it plays out in the realm of memory and programmability. Inscription and erasure play out as the two sides of the archive, the archive and its shadow. In heredity, as conceived from Mendel through cybernetics, the trait really is a trace, or mark, that endures the passage of generations. In

²²³ Ibid, 237.

²²⁴ *Archive Fever*, 10-11. Quoted in *Programmed Visions*.

framing the shadow archive, Lippit also touches upon this notion of the death drive and on memory.

The memories of the mark archived in the act of marking are also violent and destructive, registered in this case, in the gift from father to son. The relation of father to son, *genetic* and theologic, is bound by the gift of death, by the impossible economy of sacrifice. Genetic, instinctive ... the impulse of the gift appears, according to Derrida, in Freud's notion of the drive, specifically the death drive. This drive, the most interior of interior conditions, leaves its mark on the skin, says Derrida: it forms on the body a set of inscriptions that turns it ... into a book, an archive of private inscriptions.²²⁵

In these complimentary commentaries, Chun and Lippit both describe memory and genetics in terms of the death drive. While Lippit's understanding of genetics and death include the spectral and the shadow archive within the impossible economies of sacrifice and the gift, Chun's highlight of the actively destructive aspect of this compulsion to repeat seems to belong more to traditional notions of the undead. As she points out, "this repetition also relies on degradation." Within my own argument, we might well see the zombie in this destructive, repetitive figure.²²⁶

In the next chapter, the economics of the gift and sacrifice will be discussed more fully. But for now, I will bring this discussion to a conclusion by pointing out that the body as an object of study that belongs to the field of new media as much as it does to the various disciplines composing the life sciences. "New" media has emerged within the larger field of media studies as a sub-discipline, but it deals not only with digital technology and new ways of mediating older forms of media, but also with general questions of media and mediation. Indeed, because of the broad scope of so-called "new media," various interpretations of this term have been used in contexts ranging from the

²²⁵ *Atomic Light*, 29. Emphasis mine.

²²⁶ *Programmed Visions*, 237.

latest trends in digital imaging, to cyberculture and user interfaces, to the processes of emergence in technology and media.²²⁷ This last category is not restricted to media developed in the twentieth century, but opens, “new media” to include discussions of almost any technological development within the frame of modernity.

Across this discussion of the recessive trait emerges the notion that the body itself must be understood as a kind of new media or, at the very least, can be fruitfully understood in the terms that the study of new media provides for us.²²⁸ But this means discourse is not only linguistic but materializes in bodies and because of this I propose to push the boundaries of new media to include and incorporate biology and power. Following Keller’s fundamental question of what genes actually do, we are left with an answer that belongs more to the archive than it does to the laboratory. Like the recessive trait the gene is, in many ways, an outmoded concept, yet one which carries with it a tremendous amount of cultural capital. The term’s scientific significance may be on the wane, but as a force in discourse, it is only gaining momentum and power; “gene talk” as Keller describes it must be dealt with as much as the chemical components of molecular biology. Given the anachronistic nature of some of these terms, “gene talk” tells us what the gene or the trait, actually *is*.

The task of concluding a chapter that has taken on such an open field, and an open topic of discussion is not an easy one. However, I take this as a guide for future study and a call to understand the role of the archive in the emerging field of epigenetics.

Epigenetics is defined as the study of inherited changes, phenotypical or embodied shifts

²²⁷ This last definition has been provocatively utilized in Lisa Gitelman’s works, *New Media, 1740-1915* (Cambridge: MIT Press, 2004) and more recently *Always Already New: Media, History, and the Data of Culture* (Cambridge: MIT Press, 2008).

²²⁸ This argument is supported by the work of Eugene Thacker, whose work posits several theories of *Biomedicine* and *The Global Genome* in the terms of media studies and cultural theory.

that are brought about by forces external to the individual's genetic code. Epigenetics takes on the highly varied context in which the genome operates, and my goal in working through these issues is to call to understand discourse as a lively part of the epigenetic context. Like the gene, the recessive trait does not belong to any specific element within human biology, yet what I have sought to unpack here is the way that it drives the entire epistemological operation. If the genome is, functionally, an archive, then the recessive trait is the dangerous secret that lets slip the existence of the shadow archive. In both its constitution as the undead element at the heart of modern biology and as a spectral condition of molecular biology, the recessive figures into the economy of the undead.

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CHAPTER 5
SCREENING THE GENOME: PROMISING MEDIA AND THE “TRUE STORY OF YOUR OWN DEATH”

This dissertation as a whole has been concerned with understanding the terms and conditions of the undead and these examples of undeadness have drawn upon popular culture, film, and media, to see undeadness figured in the zombie. Yet the undead does not only appear in the cultural imagination of the West, and the U.S. in particular, but also in the life sciences and my argument in the last chapter was that the recessive trait served as the theory of undeadness that emerged from scientific practice taken up in the history of biology, and heredity in particular. This chapter also takes up the question of the undead within the context of the life sciences but here looks to more contemporary practices in genetics and attempts to understand the relations that exist between this science and its public consumption. Undeadness exists not only within genetic discourse but in the way that it is traded upon, as well. To develop this claim, this one must take seriously the epistemological claims made by scientific discourse, but also the way that this language circulates outside of scientific discourse as well.

This chapter looks to one point of intersection between scientific, economic, and popular discourses involving the biotech industry. deCODE Genetics is only one of a growing number of companies practicing a personalized genomics. The interests and investments of this field lie in providing the key to unlock one's own genetic information, hidden deep within cells. Practices of personalized genomics provides a fascinating picture of the role of genetic data at the nexus point of biology, new media, and science.

If the last chapter figured the recessive trait as the founding moment of modern genetics, and the moment at which the body became an archive, then this chapter looks to the developments of the recessive within a more contemporary context of screening the genome.

One of the key ideas from the last chapter which bears repeating here is the way in which the recessive trait can be understood as a kind of undead element within the genome. My argument on this draws upon the work of Wendy Chun who argues that information is, itself, undead and she shows the way that within the context of cybernetics and new media, information exists in a kind of half-life between what is properly alive and properly dead.²²⁹ I go on to understand the recessive trait, as it stands within a kind of genetic archive, and show, along with Chun, Keller, and others that the realm of biology has been increasingly described in terms borrowed from information theory, computer science, and cybernetics.²³⁰ In this chapter, my aim is to better understand the way that this translation, between information and biology, or signification and the body, is taken up by the practice of screening the human genome as an act of scientific divination. "Scientific divination" might seem oxymoronic, yet as I intimated in the last chapter, there is an explicit discourse of prediction and control that appears as the promise of biotechnology and modern genetics. The ability to determine future health and disease, personal predilections, and physical and subjective expressions have been the tacit drive behind the scientific exploration of the genome and the massive capital investment in this field.

²²⁹ Chun, in turn, takes up a theory of the fetish as it was written out by Thomas Keenan in his essay, "The Point Is to (Ex)Change It: Reading 'Capital' Rhetorically" in *Fables of Responsibility: Aberrations and Predicaments in Ethics and Politics* (Stanford: Stanford University Press, 1997).

²³⁰ This position has been articulated by Chun, but also by Evelyn Fox Keller in her book *The Century of the Gene*.

This kind of phenomenon is something that belongs to late capitalism and while the last chapter framed the question of undeadness and of the archive in terms of information and a spectral biology, here I would like to go further and posit that these developments tell us something important about the structure, direction, and motivations of contemporary capital. These questions puts this discussion into dialog with others who have discussed relations between science and economy, between media and the body, within the cultural conditions of late capitalism.

In his book *Biocapital*, Kaushik Sunder Rajan provides a rich account of the valorization of the body within a system of capital outside the typical framework of North America and Western Europe.²³¹ He studied power relations between the former first and third worlds through a series of provocative ethnographic accounts of biotechnological investments. The strength of Rajan's analysis lies in his reading of "biocapital" within the framework of a traditional Marxist analysis of political economy while, at the same time, updating such analyses to account for changes in contemporary global economies such as speculation. In a similar line, Michael Fortun, in his extended study of the genome within the flows of international politics, speaks of the chiasmatic relations of hereditary data and global capitalism in his book *Promising Genomics*.²³² Similarly, Melinda Cooper examines the role of biotechnology and the role of modern genetic science within the political context of neoliberalism in her book on *Life as Surplus*.²³³ All of these authors all draw upon the works of Marx in relation to the political

²³¹ Kaushik Sunder Rajan, *Biocapital: The Constitution of Postgenomic Life* (Durham: Duke University Press, 2006).

²³² Michael A. Fortun, *Promising Genomics: Iceland and deCODE Genetics in a World of Speculation* (Berkeley: University of California Press, 2008).

²³³ Melinda Cooper, *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era* (Seattle: University of Washington Press, 2008).

economies of the body, particularly as they have emerged within the past twenty years as a part of processes of globalization, and also on Foucault, whose theories of biopolitics and biopower undergird more recent theorizations of genetics, genomics, and capital.²³⁴

My own investment in these ideas comes at a more symbolic level, looking to the way in which capital rides on uncertainty and memory. While a great deal of thought has gone into questions of capital and recent speculative economies, what interests me here is the way that this speculation is reflected formally in the objects of its investment, as well as the alleged “newness” of these shifts in capitalism. Like the genome itself, these discussions need to bring together archaic or atavistic elements with an understanding that relies upon modern technology, modern knowledge, and modern media. We have already seen this played out in the remapping of the genome onto the notion of the archive, and resemblances between the genome and the science of genetic functions and the Foucauldian archive. But more importantly, while the archive was “the first law of what could be said,” the undead element within the genome belonged more to the register of the anarchive, or the shadow archive, as it was thought by Derrida and, later, by Akira Lippit. Derrida and Lippit argue that the shadow of the archive reveals a different side of the preservative, archival impulse connoting the excesses of the archive rather than simply the opposite of the archive.

Implicit in my argument thus far is that the body is an object which can be studied in the context of media studies. Here, the argument can be made more explicit. In Foucault, the hallmark of modern power and knowledge is to reframe the body under a grid of discipline, regulation, and, increasingly, prediction. The body is reconceived of as

²³⁴ This is in no way meant to be a comprehensive or exhaustive list of theorists considering these issues and, indeed, the list would be too long and include thinkers from a wide array of disciplinary backgrounds and interests to be included here.

information. Thus, we might also invoke Chun's insight that the idea of information is something in between a state of living and death – as something necessarily embodied, but strangely preserved and abstracted from the causal order of erasure and decay. And that each stage in the development of modern media the body is reimagined within the format of its epistemological infrastructure. Beyond the fact that we understand the body in terms provided by cybernetics, information, and new media, I argue that it is necessary to incorporate these issues of biology and power into the discourse of new media itself. This expands the field of the body to include vital parts of political economies and digital culture. The emergence of the recessive trait was the moment at which heredity was not simply subject to being archived, but when the body itself became an archive through the incipient discovery of the genome – and information as Chun so convincingly points out, is undead. Thus, life itself is valorized, promoting the liberal, and now neoliberal, tendencies that gave birth to biopolitics.²³⁵ This valorization takes place not simply through a reification of a kind of vitalism or vitalist principles, but through biopolitical investment in fostering life and drive towards self-knowledge and self-improvement.

Undeadness as the foreclosed absence of death is a form of unending life that seems to exist as an underlying motivation for contemporary genetics. This desire is expressed less in the actual claims of contemporary science, but rather in the public and

²³⁵ This was the contention of Michel Foucault who argued in his 1978-1979 College de France lectures that the emergence of liberal politics during the Enlightenment and modernity gave rise to the methods of discipline, regulation, and control that he characterized as the biopolitical. Biopower was the productive resistance that was generated as a result of these ever-smaller and more intimate interventions into the patterns of modern life, leading to the interventions into the mechanisms of life itself. This took place, first, through the codification of sexuality and reproduction but has also been found more recently in genetics, and other technologies of the *bios* by Foucault's intellectual followers. These figures include, but are not limited to, Paul Rabinow, Nikolas Rose, Evelyn Fox Keller, Lily Kay, and many more in an intellectual tradition in which I situate myself. For more on these issues from Foucault, see *The Birth of Biopolitics: Lectures at the College de France 1978-1979*.

popular discourse relating these discoveries.²³⁶ The complete mapping of the human genome has left us with little or no idea what to do with such a massive amount of information, but the dream of the genome seems to offer us health, life, and limitless vitality. One typically associates the undead with monsters, but here undeadness is an excessive mode of life that exists at the limits of life and knowledge.

But to what economy does this undeadness belong? Earlier in the dissertation, I argued that the integration of labor and life taken from the Ancients, and the abolishment of labor and work in the modern age have been the result of capitalism's growth and expansion. But in what ways does the undead reason of the postmodern, or late modern capitalism translate into a kind of economy of politics or political economy? To understand this more fully, I will turn to the notion of the shadow archive once again to see how it plays out in this late modern context.

“The True Story of Your Own Death”

The archive described in the last chapter came largely from Foucault, drawing on the schematic he developed in *The Archaeology of Knowledge* as a prelude to later theories of biopolitics. Derrida also borrowed from Foucault's notion of the archive, bringing its own Freudian underpinnings to light while posing the problem of the archive in its relation to the death drive. In this chapter, I propose to arrive at the problem of the archive from a different source. The genome is viewed as something like an infinite archive, containing every possible permutation of the genetic instructions necessary to create the phenotypical individual. This is not to say that the individual genome is

²³⁶ This discourse can be seen in any number of places from the “immortal” cells of Henrietta Lacks recently popularized in an excellent book *The Immortal Life of Henrietta Lacks* by Rebecca Skloot (New York: Crown Publishers, 2010) and countless news articles touting the most recent genetic discovery as the next step to a newfound control over life and death, health and disease.

expands infinitum, but rather that the genome-in-general, insofar as it contains the information for all life as we know it, seems to expand outward as a concept to include not only the existing combinations of genes and base pairs, but an infinite number of variations. My interest in thinking of the genome as an infinite archive is not to better understand how the genome actually functions, but rather to think about how the fantasy of the genome functions.

In his short story called “The Library of Babel” Jorge Luis Borges gives us a model of an infinite archive; an entire universe in the form of a library.²³⁷ Borges’ universe of information is highly structured, consisting of “an indefinite and perhaps infinite number of hexagonal galleries, with vast shafts between, surrounded by very low railings” and, here, even the texts present a uniform appearance, “There are five shelves for each of the hexagon’s walls; each shelf contains thirty-five books of uniform format; each book is of four hundred and ten pages; each page, of forty lines, each line of some eighty letters which are black in color. There are also letters on the spine of each book; these letters do not indicate or prefigure what the pages will say.”²³⁸ This system is evocative of the genetic archive insofar it is a universe of information with a highly regimented structure, seemingly containing an infinite combination of texts. The reference to Babel here is also worth considering, since the code contained in the genome is not only difficult to decipher, but much of it appears to be nothing but gibberish. “Junk DNA” analogously suggests the random accumulation of nucleotide signifiers out of which the stable form and function of genomes emerge.

²³⁷ Jorge Luis Borges, “The Library of Babel” in *Labyrinths: Selected Stories and Other Writings* (New York: New Directions Books, 2007).

²³⁸ Ibid, 52.

The Library of Babel is shaped by two core principles, described by the narrator in the story as “the fundamental law of the Library.”²³⁹ The story describes these principles in the following way: “all the books, no matter how diverse they might be, are made up of the same elements: the space, the period, the comma, the twenty-two letters of the alphabet. . . .” Additionally, “*In the vast Library there are no two identical books.*”²⁴⁰ The proscription of any perfect copy suggests that this is no particular or definitive archive, but rather a collection that seems to have no governing principle other than the expansive accumulation of characters. Thus, the fundamental laws that govern the infinite hexagons of the Library similarly echoes the first rule of the archive as Foucault understands it; namely, that the archive is the “the first law of what can be said.”²⁴¹ Indeed, the narrator of Borges’ story prefigures Foucault in this matter, saying that this archive contains “all that is given to express”.²⁴²

The narrator of the story goes on to say, “the Library is total” and “its shelves register all the possible combinations of the twenty-odd orthographical symbols.”²⁴³ In this way, the structure of Borges’ library eerily foreshadows the structures of the genome. There is an infinite combination of variations on a similar theme with countless redundancies built into the structure and an almost infinite diversity of texts can emerge from a limited number of characters, the “orthographical symbols”.²⁴⁴ Borges goes on,

²³⁹ Ibid, 54.

²⁴⁰ Ibid, italics in original.

²⁴¹ Michel Foucault, *The Archaeology of Knowledge*, 129.

²⁴² “The Library of Babel”, p. 54. The story “The Library of Babel” was first published in 1941 as *La biblioteca de Babel* and was first translated into English in 1962, thus predating Foucault’s text by over a decade.

²⁴³ Ibid.

²⁴⁴ Indeed, orthography might be a better linguistic metaphor to describe the processes by which the genome operates than would grammar or metaphor. Orthography is described as the “art or study of correct spelling according to established usage” and as such it neatly fits the ways that the combination and

“Everything: the minutely detailed history of the future, the archangels’ autobiographies, the faithful catalogue of the Library, thousands and thousands of false catalogues, the Gnostic gospel of Basilides, the commentary on that gospel, *the true story of your death*, the translation of every book in all languages, the interpolations of every book in all books.”²⁴⁵ Amidst this pleasing array of the Library’s contents lies one thing that stands out for my interests, that this nearly infinite archive contains “the true story of your death” and even a history of the future, meaning that the Library is a generalization of all libraries. As Akira Lippit points out it “exemplifies the promise of all archives, the fantasy and ‘fundamental law of the Library’: totality.”²⁴⁶ The Library here seems to offer us the totality that we lack ourselves, comforting us in the sense that, somewhere, is an objective account of our future down to the last detail; the true story of our own death. Of course, Borges’ library contains this truth but also a nearly infinite number of false accounts as well, making the task of finding such an account nearly futile – thereby illustrating the shadow archive that Lippit makes the point of his chapter on the topic.

The scale of this Library also ties it conceptually to the genome. The genomic “book of life” has yielded a bewildering amount of variation, yet it seems to fall short of the promise of all archives that Lippit identified. The similarity between the genome and the Library of Babel for Borges’ story has also been noted by Daniel Dennett, who found this narrative particularly provocative in thinking about the limits of biological

recombination of nucleotide sequences along the genome are transcribed. Framing these processes of translation and transcription in DNA according to orthography is telling insofar as the art lies in the proper spelling according to convention. Thus, the notion of orthography, with its reliance on a notion of tradition, suggests a rule by which the genome operates largely by what has come before as opposed to some pre-ordained design or plan; that life emerged out of the contingent and successful accumulation of genes rather than by a master plan.

²⁴⁵ “The Library of Babel”, p. 54. Italics mine.

²⁴⁶ Akira Lippit, *Atomic Light (Shadow Optics)* (Minneapolis: Minnesota University Press, 2005), 6.

possibility. Moving from the Library of Babel to what he describes as the “Library of Mendel,” Dennett claims that we can think of the two archives together to think about the logical scale and the limits of this possibility in actuality.²⁴⁷ Dennett makes this comparison in a very straightforward fashion when, after giving a brief tour of the Library from Borges’ story, he writes, “We are now prepared to consider a variation on Borges’ theme, which I will call the *Library of Mendel*. This Library contains ‘all possible genomes’ – DNA sequences.”²⁴⁸ Dennett’s archive would contain all possibilities of the genome as the instructions for every known organism and every conceivable organism based on the laws and principles that we know. But Dennett points out that this Mendelian Library is not infinite, nor is it strictly true that it contains all possible genomes. As he says, “Just as the Library of Babel ignored the Russian and Chinese languages, so the Library of Mendel ignores the (apparent) possibility of alternative genetic alphabets – based on different chemical constituents, for instance.”²⁴⁹ Although it must be said that such an archive would translate any possible text from such an alternative alphabet into the *lingua franca* of the Library.

Dennett opposes conceivable genetic possibilities to the genomic actualities identified in contemporary science. Two aspects of his discussion are worth bringing up here. The first has to do with the difficulties of finding an item in such a library and the second has to do with a problem of reading. At one point, Dennett tells us, “In other words, this *logical* space is so vast that many of our usual ideas about location, about searching and finding and other such mundane and practical activities, have no

²⁴⁷ Daniel C. Dennett, *Darwin’s Dangerous Idea: Evolution and the Meaning of Life* (New York: Simon & Schuster, 1995), 107.

²⁴⁸ Ibid.

²⁴⁹ Ibid, 112.

straightforward application.”²⁵⁰ The italicization of the term “logical” is important, because both of these libraries tell us more about possibilities than actualities. It is possible that the Library of Mendel contains every variation of every human genome that ever has been and ever will be, and this is not to mention even our closest cousins in the animal kingdom, but we have the remarkable luxury of having a meaningful text at hand, which, in all likelihood, we would never live long enough to find in the halls of Borges’ or Mendel’s libraries.²⁵¹ This is to say that, logically, a user of the Library would never be able to find a meaningful text due to the vast size of the Library itself. However, in actuality, we have a meaningful text ready at hand insofar as our own, fully functional genome, along with those of other living things around us, are available for identification and study.

The other element in Dennett’s discussion of the Library has to do with the necessity of reading. The genome, he argues, is more like a recipe, which must be understood and acted upon in order to function as anything more than the possibility of meaning, in the case of Borges’ Library, or a living, functioning organism, in the case of Mendel’s Library. Dennett astutely points out that the story of the Library of Babel would be remarkably different if there were no inhabitants, no readers of it and similarly the genome must be acted upon in order to generate living organisms. He says, “The Library of Babel presupposed readers: the people who inhabited the Library. Without

²⁵⁰ Ibid, 110.

²⁵¹ Dennett frames it this way, “Human DNA is readily distinguishable from the DNA of any other species, even that of the chimpanzee, which is over 90 percent the same at every locus. Every actual human genome that has ever existed is contained within the galaxy of possible human genomes that is Vastly distant from the galaxies of other species’ genomes, yet within the galaxy there is plenty of room for no two human genomes to be alike. You have two versions of each of your genes, one from your mother and one from your father. They passed on to you exactly half of their own genes, randomly selected from those they received from their parents, your grandparents, but since your grandparents were all members of *Homo sapiens*, their genomes agree at almost all loci, so it makes no difference most of the time which grandparent provides either of your genes.” (112)

them, the very idea of the collection of volumes would make no sense at all; their pages might as well be smeared with jam or worse.

In regards to the problem of readers, Dennet argues, “If we are to make any sense of the Library of Mendel, we must also presuppose something analogous to readers, for without readers DNA sequences don’t *specify* anything at all – not blue eyes or wings or anything else.”²⁵² Dennett points out that the process of reading the genetic text is fundamentally similar to the notion of reading allegedly held dear by “Deconstructionists”, namely, that “no two readers of a text will come up with the same reading” which he likens to the contextual similarity of the genome and its embryonic environment insofar as there is always an element of chance in the formation of an embryo.²⁵³ Later on, Dennett likens the genome to a text-to-be-read saying that “No analysis of the genomes in isolation of the organism they create could yield the dimension we are looking for. It would be like trying to define the differences between a good novel and a great novel in terms of the relative frequencies of the alphabetical characters in them.”²⁵⁴ Dennett’s surprising agreement with deconstruction, albeit a rather naïve gloss on the practice, contains something useful for my argument. Namely, it reveals that if we are to understand the real limits of biological possibility, we will have to look beyond the genome itself and also take into account whatever might be effectively “reading” it.

²⁵² Dennett, 113.

²⁵³ Ibid. Dennett describes the notion of reading within the context of genetics in the following way, “The immediate effect of the ‘reading’ of DNA during the creation of a new organism is the fabrication of many different proteins out of amino acids (which have to be on hand in the vicinity, of course, ready to be linked together). There are Vastly many possible proteins, but which become actual depends upon the DNA text. These proteins get created in strict sequence, and in amounts determined by the ‘words’ – triplets of nucleotides – as they are ‘read.’ So, for a DNA sequence to specify what it is supposed to specify, there must be an elaborate reader-constructor, well stocked with amino-acid building blocks.” (113)

²⁵⁴ Ibid, 127.

This analysis brings us back to Lippit and Borges. If the Library of Babel is, in fact, a useful conceptual tool for understanding the genome as Dennett's Library of Mendel then I would refocus this discussion on the imagined possibilities of this master archive rather than its actual limitations. Understanding both provides an important conceptual bedrock for the ideas that follow, but let us remember that the purpose of genetic screening is two-fold, not unlike the archive and its shadow. On the one hand, the analyses of the genetic data provided by customers does provide some useful and applicable knowledge regarding certain predispositions for one's health and some coordinates for one's ancestry. However, very few of these predictions can be guaranteed and, as an industry, genetic screening relies on the promise of genomics more than the concrete data delivered by it.

Borges says it best when he gives voice to this feeling of promise, "When it was proclaimed that the Library contained all books, the first impression was one of extravagant happiness. All men felt themselves to be masters of an intact and secret treasure. There was no personal or world problem whose eloquent solution did not exist in some hexagon. The universe was justified, the universe suddenly usurped the unlimited dimensions of hope."²⁵⁵ If anything, the Library of Babel (and that of Mendel as well) expands to fill these unlimited dimensions of hope coinciding with Dennett's logical space of biological possibility. However, the extravagant happiness that was mirrored by the feelings surrounding events such as the complete mapping of the human genome fly on the wings of risk and promise, not any guarantee of actuality.

²⁵⁵ Borges, 54-55.

Lippit provides an elegant reading of the situation: “In the infinite Library, the total archive that expands outward without end, the only limit is *you*, the limit that you encounter as your death, your proper limit. It is this sole limit that one discovers in the archive. You are its only limit, absolutely singular and universal, formless. You are its nucleus: indivisible and secret.”²⁵⁶ In this reading, Lippit also identifies the key to Borges’ story as the narrator. Despite the infinite expanse of the Library, the real limit is the position of the narrator who provides the account of the archive and its properties. In fact, there is a singular element in all of these accounts: the narrator in Borges, the reader in Dennett, and *you* in Lippit all refer to that fundamental and irreducible singularity not of the subject but of death itself. Indeed, we can compare genetic screening as it is practiced by corporations like deCODEme, whose very name gives away this emphasis on the self and the, perhaps, unwitting display of its own limit.

Empowering Prevention

However, biological knowledge is not entirely in your own hands even though it may be, quite literally contained in the tissues of your body, for despite the fact that, as living beings and as humans, we are, or at least hold, the objects of genetic study, we have little or no direct access to that information. We are all carriers of the “code of life” but we have none of the tools at hand to decipher it, and practices of genetic screening speak precisely to this problem of access. While genetic screening takes place in both medical and scientific contexts, it is particularly interesting to look at the way that this practice has been taken up in the corporate sector as a fast growing part of the

²⁵⁶ Lippit, 9.

biotech industry. Companies like deCODE Genetics offer themselves as intermediaries between customers and their genetic data. As our understanding of who we are, where we come from, and what our future holds has become increasingly tied to, and based on, the information contained in our genome - reducing us to mere expressions of genetic data – companies like deCODE Genetics offer, for a price, to give an individual access to themselves. deCODEme is the interface between the larger corporation and the user, giving the customer access to the scientific expertise necessary to crack your own genetic code.

What is the service offered by deCODEme? The answer lies in the name itself; decoding. In what follows this practice of genetic screening will be analyzed in order to understand what is offered by this company, through their user interface, and the claims that are made regarding the status of genetic knowledge. In all of this it is important to ask what is the promise of the body that drives genetics, not just as a science but an industry as well? What does the individual really come to know about his or herself through the screening practice and the exchange facilitated by deCODE? I am reminded of the Delphic maxim, *know thyself*. This is the imperative behind the call for genetic screening, that we should know ourselves better and through that knowledge gain more control over our own destiny. But what version of ourselves are we coming to know and at what cost? What kinds of exchange are involved in dealing with a corporation put in the position of the Oracle at Delphi?

A biotech company founded in the late twentieth century, deCODE Genetics is notorious because of its attempt to begin patenting the Icelandic genome in 1998. Possessing such a large and valuable body of information, deCODE Genetics was

flooded with venture capital based on the promise of genetic understanding and control. At the time, the human genome was nearly mapped in its entirety and this promise of the body was coupled with the apparently endless promise of the financial markets in the 1990s. Promise here connotes not only potential excellence – as in a *promising* student – that is encoded in the discourse surrounding the genome, but also the term *promise* in the sense of a pledge or a vow – a promise of what genetics will deliver. deCODE was uniquely situated to develop new areas of genetic knowledge since they had access to Iceland, which offered a small and relatively isolated population to use as a control group. In his ethnography of the rise and fall of deCODE Genetics, Mike Fortun says of this company and its competitors, “These genomic companies were entirely new phenomena, which has emerged in the mid-1990s, in the same accelerated time, high-speed culture, and fast and volatile economy as the internet and the innumerable dot-coms. Think of them as bio-dot-coms, since they too traded on the promise of information – promising to turn the recent torrent of DNA sequence information, genetic information, and other kinds of bioinformation unleashed by the Human Genome Project into new understandings of disease, new diagnostic tools, and new drugs.”²⁵⁷ The larger business plan of the company proposed to sample the population of Iceland in order to provide a genetic mirror against which to compare the rest of the world and to use this more manageable subset of the global population to seek out possibilities for disease prevention, health, and longevity.²⁵⁸

Yet, once the human genome was successfully mapped, the seemingly endless promise of this ‘code of life’ receded into the horizon. The complete genome was an

²⁵⁷ Mike Fortun, *Promising Genomics*, 5.

²⁵⁸ Once again, Fortun.

ideal object of glowing potential and speculation, yet the sheer volume of data contained in the genetic code dwarfed the tools available to understand and decipher it. Finding specific information and an accurate causal model - a single gene that could be linked to a single disease or physical characteristic – was, for the most part, beyond the ability of contemporary science to use understand; a situation which has been likened to attempting to “drink from a fire hose.” The unwieldiness of the information contained in the genome made it clear that the hoped-for transparency of genetic knowledge remained, at the very least, out of reach and, at worst, entirely impossible. The complete mapping of the human genome effectively called into question the very assumption that increasing control of the human body and human destiny was possible through technologies of genetic testing and intervention. As Fortun points out, once the fantastic promise of complete control comes into doubt, the question becomes: How can we read the actual promises of genomics, and how should we understand the new apparatuses, archives, and interventions that aim not only to affect our lives, but also to remap life itself?

Through deCODEme, deCODE Genetics promised a different strategy. In the face of such overwhelming information, a new wave of genomic sampling for individualized health care gathered momentum. This model of personalized genetic reading can be contrasted to the work carried out on a larger scale by its parent, deCODE Genetics, which aimed to sample the DNA of the entire population of Iceland. deCODEme emerged as a leader in “personalized genomics,” a service that offered the public an opportunity to voluntarily send in their genetic data to be screened and analyzed by the expert labs at deCODE. These screenings searched for any known correspondences or predispositions for a large number of possible ailments, presumed to

correlate to the presence or absence of a certain configuration in human genes.²⁵⁹

Companies like deCODE**me** serve as prophets or genetic oracles, promising answers about who we are and where we come from as well as giving us insight into our future health and well being. This is illustrated as we navigate through the web interface of deCODE**me** and the polyvocal and highly mediated discourse they use to sell their services to a public anxious about their own health and their own future. This anxiety is one that is active shaped and constructed by companies like deCODE**me**, who foster a sense that health is a fragile balance that needs to be constantly maintained and that illness is a constant threat.

As suggested by the name, deCODE**me** centers squarely on the individual. The name serves as an indicator of the primary focus of the company's business strategy, personalization. It also depicts an imperative coming from the individual to be decoded. deCODE**me** gives the customer a language to describe what they will be doing when they participate in the screening process. This strategy enables the company to educate their customer even as they sell their services. Even in the company logo, the "me" is emphasized and bolded. While the larger corporate structure works primarily with other biotech ventures, such as pharmaceutical companies and governmental organizations, the deCODE**me** site constructs the customer as an individual seeking to know themselves better through their own code. Prophecy is an apt term used to describe the role that deCODE**me** has set for itself - as the knowledge that the client might obtain pertains directly to their future.

²⁵⁹ The practice of personalized genomics is not unique to deCODE**me**, indeed it is a growing field in the genomic sciences. deCODE**me** is one of the "big three" personal genomics companies, the other two being "23andme" and "Navigenics".

The promise of a knowledge of future potentiality lies within the commodification of prevention. This is the product that the company is actually selling. The ability to “empower prevention” is the explicit imperative within contemporary discourses of personalized genetic screenings, and this phrase appears throughout the deCODEme interface.²⁶⁰ The information gleaned from one’s genetic codes cannot, in most cases, be used to diagnose precise illnesses but rather the tendencies that an individual may have towards certain problems and diseases based on family history and the presence of certain “risk factors” that are determined probabilistically. Fundamentally, the service provided by genetic screening companies is that of understanding and assessing one’s risk in order to foreclose the threat of death and disease. That is, the claim is codification of risk and its prevention through the tests and measures of the human genome.

The calculation of risk by making inferences based on probabilistic relations, is fundamental to genetic screening. Because of the massive quantity of information contained within the genome, and the inability (at least as of yet) to make sense of the genome in all its complexity, the service provided by personalized genomics trades on a kind of speculation. While contemporary genetics can say for sure that there are certain genes that cause particular states in the body, and certain conditions for diseases, generally, these conditions are highly overdetermined. It is typically thought that diseases that are linked via correlation to genetic predisposition have several causes, both genetic and environmental.

²⁶⁰ This phrase is mentioned verbatim on several banners on the deCODEme website. Originally, it comes from one of the customer testimonials, which mentions that the individual in question felt empowered by their ability to prevent the possibility of illness by better understanding what their risk was, according to her genetic scan. See www.decodeme.com for examples.

This is actually acknowledged in the discourses of a company like deCODEme. It only claims to offer a way to manage one's risk factors that relies on understanding risk and offering action to decrease the likelihood that those risk factors will come about, typically through a change in lifestyle. Thus, what is actually prevented is the high risk itself since these screening procedures can only suggest that we are at risk for the potential expression of certain disease. However, the language of deCODEme says something different. The company presents this understanding, this knowledge of our future, as a gift to us, their presumed customer, which the company calls "the gift of knowledge." If knowledge is indeed power, a phrase that appears throughout the customer testimonials of deCODEme, then the knowledge of these genetic tests empower the individual and allow them to exert control over their own future – and, by extension, their future selves. One sees this language of knowledge and empowerment at its strongest in a section of the website that gives a series of success-stories from previous deCODEme customers. Each is a different and equally relatable account of the ways in which this gift of genetic knowledge has served as a sensible investment in the individual's future.

The customers of deCODEme are represented as a cross-section of upwardly mobile, typically white individuals who have utilized the services of personal genetic testing to learn about themselves, to minimize their risk, and to maximize their potential. While the tests offered by deCODE are explicitly not for diagnostic purposes – according to the website, any information gleaned from these tests should be interpreted with the help of a health care professional, and no radical change should be made unless consulting a doctor - the customer-stories are almost equally divided between health-care

professionals and individuals who have come to deCODE as a part of their journey of self-discovery. Typical of this promotional style is the testimonial of Anna Peterson, a Canadian graduate student who reports she came to deCODEme because she was concerned about her family history of cancer and a predisposition for a particular vision disorder.²⁶¹ In what seems an interesting parallel to Anna's concerns of blindness, deCODEme seemingly offers her the vision she lacks, offering her the ability to see into her potential future, particularly when Anna learns that her lifetime likelihood for being affected by age-related macular degeneration is lower than average.²⁶² Anna's problem of vision is surrogated to deCODE itself; her blindness as to her own future is substituted by the vision provided by the testing service.

The information gleaned from Anna's genome is the raw material for this enhanced, vision of her possible future.²⁶³ Anna's testimonial speaks for the company itself when she says, "Genetic testing is a revolutionary new way to protect yourself and the one's you love from unknowns and potential future illness."²⁶⁴ Key words like "unknown" and "potential" seem lost in a discussion of protection and empowerment. Later on, Anna continues, "Empowered by a greater understanding of my genetic predisposition to different illnesses, I have become even more proactive about

²⁶¹ deCODEme <http://www.decodeme.com/customer-stories/the-gift-of-knowledge-genetics-and-prevention> (accessed 9/2/2010)

²⁶² Ibid.

²⁶³ This notion of vision is more than simply an association between vision and knowledge. Rather, my point is to suggest that there is a symptomatic relation between the role of vision in Anna's testimonial and the relation to knowledge and, more importantly, to the future that is key to the operation of a business like deCODEme. This is a relation that goes beyond simple wordplay and is something folded into the construction of these notions, and the images from the website as well. This is something that will undoubtedly be of greater importance to a future version of this chapter.

²⁶⁴ Ibid.

prevention.”²⁶⁵ This comes from the final paragraph of Anna's statement and makes clear that this narrative casts the information gained through genetic testing as a kind of personal empowerment, a sensible investment in the self - even as the testimonial as a whole is carefully worded in such a way as to include the potentiality, the uncertainty, of any benefits gained through such a screening process.

Vision and speculation is key in this exchange and vision is used here in the sense not only of out physical sight, but the ability to see, to imagine, to hope. Anna's empowered prevention is based on the insight she was - granted or given access to - by **deCODEme**, a vision that the company aims to share with all of its customers. The ability to see into her future, granted to Anna by deCODE, is technically probabalistic. The concept of speculation brings all these connotations of vision together with the screening practices of the company; speculation refers to vision (the specular) and to a venture (speculation). This clarity of vision appears in various forms and through the services offered by deCODE, in the form of this speculative vision in Anna's customer story, but also in a more iconic representation through the graphic illustrations of the genome's form and function that appear throughout the site. As was mentioned before, there is a certain reliance on education in **deCODEme**'s business model; it must inform its audience about the processes that occur within them at a molecular level. Since **deCODEme** provides a service that requires a certain familiarity, if not expertise, with genetic science, it is necessary to provide its potential customers with the language to understand their own genetic information.²⁶⁶

²⁶⁵ Ibid.

²⁶⁶ To help educate their customers, **deCODEme** relies on a set of animated videos that explains the value of genetic testing even as they help to illustrate the promised benefits of deCODE's services. Vidoes are animated in Flash and are given soothing music and a strong, masculine voice with a vaguely European

While screening is based on probabilistic risk assessment, Anna's case reveals another definition. Until this point, the term has been used to mean a process of selection, filtering, associated with "screening out". However, it is important to note, that screening can also mean a surface upon which something is projected. This projection can be taken literally, such as the projection of a film onto a flat surface, a surface or frame that hosts such a projection. But projection also has a more interpersonal and subjective meaning; that is to say that when we are projecting, we are pushing our ideas, hopes, and desires – or with less positive connotations, our fears, hurts, and anxieties - away from us and onto someone or something other. Genetic screening seems to include both of these definitions. On the one hand, we can speak of genetic screening as a process by which our genetic information is read and deciphered, screened in the sense of a filter for a host of possible diseases or maladies. On the other hand, we can imagine genetic screening as a surface upon which we project our desires for health, longevity, and also a space into which we push away our fears, our anxieties about the threat of cancer, diabetes, etc..

Individuals go to companies like deCODEme in order to empower and protect themselves and hopefully to be able prevent an undesired future from ever coming about. But what is it that is given in return? The most obvious answer is that customers give money in return for the services provided by personalized genetics – and these services run from monthly fees and recurrent updates to a one-time screening of one's genetic data – usually running from \$200 to \$2,000.²⁶⁷ It is important to remember that this is not all

accent, all of which add to the suggestion of an official, medical setting. These videos can be seen in a section of the deCODEme interface entitled "Genetics Explained", <http://www.decode.me/genetics-explained> (Accessed 4/13/2011).

²⁶⁷ deCODEme www.decode.me

that customers provide to the company. We also give them pieces of our bodies when we submit our genetic data to these corporations for screening, such as cheek swabs, saliva, or some other tissue which are the raw materials for this kind of testing process.

deCODEme serves as the medium between the individual self and his or her genetic data. Customers pay for access to the information contained in their bodies, but in the process these individuals are also giving this information to the company for permanent residence in its archives. If we agree with the ideology that who and what we are can be essentialized into a genetic code-script, then we are giving ourselves over to this corporate entity. This means there is a peculiar relation of power that seems to take place here regardless.

To better understand what is meant by genomic confession, we will turn briefly to mention one possible comparison on the theoretical level, which is the model of confession developed by Michel Foucault who defined confession as one of the most important ways to reach the truth of sex. While Foucault talks about sex and I am referring to genetics, the two are not unrelated. Genetics as confession is unlike the model of confession of religion or psychoanalysis, for it bypasses our minds in order to interact directly with our genome, with the information contained within the body. We confess, through our genome, secrets that we literally cannot tell. The recombination of DNA relies on sex, but more than that, both sex and genetics engage a truth of the body.

On confession, Foucault says, “next to the testing rituals, next to the testimony of witnesses, the learned methods of observation and demonstration, the confession became one of the West’s most highly valued techniques for producing truth. We have since become a singularly confessing society. It plays a part in justice, medicine, education,

family relationships, and love relations, in the most ordinary affairs of everyday life, and in the most solemn rites; one confesses one's crimes, one's sins, one's thoughts and desires, one's illnesses and troubles; one goes about telling, with the greatest precision, whatever is most difficult to tell."²⁶⁸ In this line, screening the genome would be an ultimate act of confession, the ability to speak the truth of the self that would be otherwise impossible to tell, and to speak it in a language that is "native" to the body. Furthermore, the institutions that Foucault had in mind were religion and medicine - apparatuses that aim to guide the individual towards a better life; the drive towards reducing investing the future of one's body and oneself seems motivated by similar principles. Through the imperative to care for oneself, one is made guilty or afraid for not empowering oneself, for not living up to one's full potential, or for risking one's health. This is reminiscent of what Brenda Weber has describes as an affective domination.²⁶⁹ The concise Foucauldian formulation "the truthful confession was inscribed at the heart of the procedures of individualization by power."²⁷⁰ And it is well known that for Foucault, power operates in conjunction with knowledge and that the two are impossible to dissociate from one another and that this mode of power/knowledge functions through social apparatuses of discipline and regulation. Foucault describes that confession was at the heart of individualization by power – meaning also that power functions by way of individualization - and we can see this play out directly in the processes in and around genetic screening.

²⁶⁸ Michel Foucault, *History of Sexuality Volume I*, 59.

²⁶⁹ Brenda R. Weber, *Makeover TV: Selfhood, Citizenship, and Celebrity* (Durham: Duke University Press, 2009).

²⁷⁰ Foucault, *History of Sexuality Vol. I*, 58-59.

We might say that there is no better method of marking and identifying the human individual than the unique genetic signature contained in his or her genome. Accessing and archiving this information makes literal the procedures of separation and individualization that Foucault suggests. The perfect individuation – a unique signature that cannot be forged - genetic identification seems to be the logical end-point to the workings of power that Foucault followed throughout his writings, extending from a centralized system of disciplinary institutions to the more distributed systems of regulation and biopower. The very procedure for genetic screening appears similar. In order to know something of ourselves that we cannot access - some part of ourselves that falls below or outside our conscious perception - we seek out a medium through which we can know ourselves. Foucault's examples suggest that the drive behind this confession is a therapeutic one, although he also points out that the act of confession is also about producing truth. For Foucault this truth was to be found in telling one's sex; giving voice to one's desires as a way of uncovering the truth of the body. But here, the truth of the body – and in fact procreative sex itself - is given a definite series of coordinates, a unique and singular account of the self that is placed under the banner of care and empowerment. The genome is the site at which the truth of the body is produced, and it is through the process of a hermeneutics of the genome that we find clues as to who we are, and gain the knowledge that we can use to foster and promote our lives. They say that confession is good for the soul, but this takes on somewhat unsavory connotations when we are reminded, as Foucault mentions, that the soul is the prison of the body.²⁷¹

²⁷¹ Michel Foucault, *Discipline and Punish* (New York: Vintage, 1977).

The act of genomic confession lies in submitting oneself, or at least one's genetic data, to a private corporation that has the tools to "read" and access the information contained in DNA. The corporation can then use the genetic data from the exchange to promote future testing and profit. The more genetic information that is contained within the genetic databases of a company like deCODEme, the more wide ranging its tests can become. This aspect of genetic screening is foregrounded by deCODEme's competitor, *23andme*, which offers not only the screening services of deCODE but also an ongoing subscription service for a monthly fee. This services provides customers with continual updates as to new findings that impact the reading of one's singular genetic code, based on advancements made in the calculation of genetic risk and the discovery of new correspondences between disease and the configuration of an individual's genes.²⁷²

This integration of the self with larger systems of power on a largely voluntary basis corresponds with Foucault's later theorizations of power and knowledge. Here Foucault conceives of smaller, more personalized systems of regulation that leads to a power that fosters life rather than one that imposes death. This decentralization of power takes place through what Foucault describes as capillary action, which, increasingly, calls upon the individual to voluntarily submit himself or herself to power. This is not a democratization of power, but rather the investments of power in individuals and the inner spaces of individual being. The rationale of this power, as we can see with genetic screenings, comes from a distinctly liberal tradition that emphasizes personal freedom. However, this notion of freedom – this promise of the body – comes out of a highly regulated system of archiving, encoding, and control.

²⁷² *23andme* www.23andme.com

The Gift of Knowledge

Foucault's notion of confession involves a system of power based in a complex of biopolitical regulation and therapeutic control. The previous section illustrates what happens when these are brought to bear on the relations of knowledge and subjection that take place in regards to personalized genetic testing. But the role of exchange and obligation that arises within this economy of confession is underemphasized in Foucault. Foucault's ground-breaking work on the confessional system of subjection works remarkably well in regards to medicine, religion, and, as we have seen here. However, Foucault's emphasis on confession lies solidly within the historical framework of modernity and within the liberal economy that propped it up. This historical frame is latent throughout much of Foucault's writings on power, but comes to the fore in his College de France lectures of 1978-79 entitled *The Birth of Biopolitics*.²⁷³ Foucault's lectures give a detailed background to the ideas presented in shorter form in the first volume of the *History of Sexuality*, and root biopolitics within liberal political economies, positing freedom as a key problematic in the kinds of disciplinary apparatuses, both material and immaterial, that have become a staple of Foucault's contributions to theories of power.

What we see, after this analysis of deCODEme, is that liberalism still plays a part in the sense that the sovereign individual being posited by the practice of personalized genomics. However, what these discourses of power and knowledge ignore is the role of obligation that seems to be operative in this exchange. Confession is a transfer of information, among other things, and so my reason for considering this goes beyond

²⁷³ Michel Foucault, *The Birth of Biopolitics: Lectures at the College de France 1978-1979* (New York: Palgrave, 2008).

critiquing Foucault and towards an important update to the theories that he so carefully laid out. While Foucault's understanding of the liberal grounding of biopolitics is crucial, it seems important to change the terms of this argument in regards to the digital technologies and immaterial modes of production that are illustrated in the problematic posed by deCODEme and other sites of the speculative industry growing up around the genome.²⁷⁴ More than one attempt has been made to bring new emphases to Foucault's descriptions of power and economy, most notably those in the Autonomia movement who have attempted to rethink old Marxist terms within a more contemporary context of digital technologies, immaterial labor, and alternate modes of production.²⁷⁵ Tiziana Terranova gives precisely this kind of account when she elaborates the notion of soft control that was initially developed in Foucault.

Terranova provides an account of biopolitical or soft control that describes regulation as something immanent to the means of production. For example, Terranova moves from a discussion of knowledge/power's movement through the computer network to forms of biological computing. Importantly, she describes this problem not in terms of the facticity of biology and its increasing integration with "new" media technologies, but rather as a conceptual paradigm that understands the body *as a kind of productive information*.²⁷⁶ We can already see the conceptual value of Terranova's theories to an

²⁷⁴ Contemporary critiques of political economy have shifted to take into account the changing conditions of neoliberalism and digital technology, perhaps most clearly in the reinvention of Marxist thinking that has taken place through figures like Antonio Negri, Paolo Virno, Maurizio Lazzarato and Tiziana Terranova. Each of these figures has taken part in the Autonomia movement that began in Italy in the 1970s, but which has continued to be a vital source of critique for contemporary Marxist discourse that seeks to attend to more contemporary changes in the modes of production. Notable and relevant shifts might include the notion of immaterial labor as a more detailed understanding of the labor that takes place within an information economy.

²⁷⁵ Informational, affective, libidinal and communicative.

²⁷⁶ Tiziana Terranova. *Network Culture: Politics for the Information Age* (London and Ann Arbor: Pluto Press, 2004).

analysis of personalized genomics. She speaks to the problem of the gene precisely in her reading of these new formations in political economies of knowledge:

Genes, however, are not individuals but units in the sense that they do not grow senile, they are never young or old, that is they are never subject to the second law of thermodynamics that decrees that the individual organism is bound to die and decay. As informational units, all that matters is their capacity to replicate themselves and survive in their many copies – or fail in replicating successfully and hence disappear. In this sense the life of a unit is binary: it is either there or not there²⁷⁷

This account of genes is suggestive not only of the epistemological infrastructure of digital media and technology in thinking about the most fundamental structures of the body, but also the spectral nature of both information and the gene – which under Terranova’s insightful reading appears to operate in the abstracted body of the population in the same way as the recessive trait functions at a smaller scale of heredity.

But in all this we are still left with the question of how to more precisely understand what kind of economy these speculative practices of personalized genomics operate within – and to understand this, I believe we can look again to deCODEme. Throughout its discourse, amidst the prophetic and pedagogical language of its interface, runs the notion that the knowledge that it provides is a gift. At first this might seem to be a simple case of craven self-promotion; it is all well and good that their service gives us a “gift of knowledge” which we must pay hundreds if not thousands of dollars. But interrogated more closely, the gift has a fundamental and important function, not only within the broader digital economies but also in the precise relation between the corporate structure of deCODEme and the individuals that it serves.

²⁷⁷ Ibid, 125.

Within the structure of confession is embedded an excess value stems from the speculative nature of the service: since the customer don't know precisely what the service is worth, but that it might be worth his or her life or at least the ability to forestall his or her own death, then the information provided is excessively valuable. Since it is valued in excess of what we are getting it for, this excessive element becomes a gift – the "gift of knowledge" as it is called in promotional materials. This invites some thought about the very nature of this "gift," and its importance in this speculative economy? Is knowledge always a gift and if so what benefit does it provide to companies like deCODE? To fully answer this question, I would like to consider the dynamics of gift giving in more theoretical depth and follow its path at the nexus point of exchange and obligation, luxury and sacrifice.

One might say that the importance of this “gift” of knowledge bestowed upon the customer by the corporate entity of deCODEme is that it initiates the individual into a system of obligation and exchange with the company. This serves a variety of purposes, to the benefit of the corporation. First, because of the excessive (yet unpredictable) value of this knowledge, and despite its immaterial and spectral character, we are put into a relation of debt to the company at a level that is more symbolic than it is financial. This, in turn, would seem to justify the fact that an individual gives him/herself, in the sense of genetic data, to the company in exchange for the future possibility of more life. This relation between the gift and obligation has been a part of its theorization since Marcel Mauss' seminal analysis.²⁷⁸ His book *The Gift* was, for Mauss, a study of an “archaic” mode of exchange, but one which demonstrated something important about the

²⁷⁸ Marcel Mauss. *The Gift: The Form and Reason for Exchange in Archaic Societies*. Trans. W.D. Halls (New York: Norton, 1990).

underlying motor that drives all forms of economic exchange. Mauss emphasized that the gift carried obligation with it – the obligation of a return gift.

What demands this reciprocity? And how should we best go about understanding the underlying relations that necessitate this return within the context which we have been attending in this chapter? It might seem strange to posit a similarity between an allegedly archaic mode of exchange that, for Mauss, includes such an array of practices as Icelandic poetry, Maori animism, and the potlatch of the pacific islanders within an analysis that seeks to understand the exchange of information and knowledge in genetics via new media. However, Mauss himself pointed out that “ this morality and organization still function in our own societies, in unchanging fashion and, so to speak, hidden below the surface, as we believe that in this we have found one of the human foundations on which our societies are built, we shall be able to deduce a few moral conclusions concerning certain problems posed by the crisis in our own law and economic organization.”²⁷⁹ While Mauss first published the essay in the mid-twentieth century, the observations that he made regarding the gift and remain pertinent today.²⁸⁰

In Mauss’ analysis, there are three different aspects of the gift exchange. The first aspect lies with the object itself. Here, the object given is not an inert thing but rather something that, itself, takes an active role in the exchange. As Mauss describes it, “Invested with life, often possessing individuality, it [the object] seeks to return to what Hertz called its ‘place of origin’ or to produce ... an equivalent to replace it.”²⁸¹ This animistic view is that the object itself has wants and desires and must be taken into

²⁷⁹ Ibid, 4.

²⁸⁰ The essay was first published in French as *Essai sur le Don* in 1950.

²⁸¹ Mauss, *The Gift*, 13.

account when considering the dynamics of such an exchange. The second aspect stems from this insofar as it suggests that the process of gift-giving has more to do with giving oneself. This aspect of the gift exchange reveals the matter of honor and respect embedded within the practice and suggests something regarding just where the debt lies, namely, with the subject. According to Mauss, “All in all, it is one and the same. If one gives things and returns them, it is because one is giving and returning ‘respects’ – we still say ‘courtesies’. Yet it is also because by giving one is giving *oneself*, and if one gives *oneself*, it is because one owes *oneself* – one’s person and one’s goods – to others.”²⁸² This version of the gift-exchange extends out of the first because, in both cases, the difference between subjects and objects is made indistinct. Here, the act of giving does not simply reflect upon the giver, but the exchange itself involves some part of the one giving as well to the extent that Mauss articulates this as giving oneself. This suggests a rather porous boundary between subjects and objects, persons and things.

It would also be easy to attribute this indistinction to animism. But, even though Mauss is writing about archaic societies from the perspective of the anthropologist, one should keep in mind Mauss’ claim that these archaic forms of exchange (and the reasons behind them) are still present “below the surface” of our own time. And indeed, for the “gift of knowledge” provided by deCODEme, the distinction between subject and object is also strangely porous. The information being exchanged through the medium of the body’s tissues and a certain “communicative biopolitics” is an object that nonetheless *is* who the customer is in some important way.²⁸³ Indeed, this is only an extreme example

²⁸² Ibid, 46. Emphases in original.

²⁸³ For the notion of “communicative biopolitics” I am indebted to Tiziana Terranova who brought together communicative capitalism and immaterial labor with Foucauldian biopower explicitly in her book *Network Culture*.

of the zone of indistinction between persons and things, which Mauss analyzes for “archaic” societies. For Mauss, this was a situation brought about by the animism of “archaic” societies, but here we find something similar taking place under the auspices of late capitalism and in this light the confusion between subject and object that comes about through attempting to explain the gift extends outward in a more contemporary economy of information, for which this distinction seems to break down even further.

Every exchange presupposes a previous gift extending backward ad infinitum. Where, then, is the first gift, a primordial exchange that brought about this endless cycle of surplus and debt? Mauss divides his answer into two. The first group to whom humanity owes its existence and the things and places it holds in the world is the dead. The world and everything in it belonged to our ancestors long before it came to us, and so we pay homage to them through gifts. The other category is the gods, from whom humanity received everything that we have. In myth it is often through some form of contract or exchange that humanity emerged as such. Mauss reflects, “The relationships that exist between these contracts and exchanges among humans and those between men and the gods throw light on a whole aspect of the theory of sacrifice.”²⁸⁴ He goes on later to say, “This evolution was a natural one. One of the first groups of beings with which men had to enter into contract, and who, by definition, were there to make a contract with them, were above all the spirits of both the dead and the gods. Indeed, it is they who are the true owners of things and the possessions of this world.”²⁸⁵

To put this in less mystical terms, one might say instead that the initial gift was given by, and our first obligation was to, the other. Mauss’ analysis suggests that one is

²⁸⁴ Mauss, *The Gift*, 15.

²⁸⁵ Ibid, 16.

born into a system of obligation and exchange and that the ur-gift, was being itself. Thus, in answer to that notorious question, why is there something rather than nothing, Mauss' study of the gift suggests that it is because our existence as such was given to us from something outside, or other, to us. In this view, life itself is a fundamental imbalance, a disturbance in the general order of things. It is implicated with a debt that can never be fully repaid until, perhaps, death. This means that from the standpoint of the gift, life is always already excess, a luxury whose purpose is little more than to be either expended or expanded.

In *Given Time*, Derrida also addresses this problem of the gift and attempts to rethink its place within political economy, taking seriously the claim made by Mauss that the gift underlay the foundations of our own economic systems.²⁸⁶ For Derrida, the gift is a kind of madness within the system of economic reason and he begins by pointing out, with Mauss, that while the gift must appear freely given, it is actually obligation that drives the process of exchange.²⁸⁷ Derrida points out that the true gift would be one that did not contract a debt and so any real gift, one that would not obligate the receiver to the giver, would be one that appears out of nothing and from no one. "It is thus necessary, at the limit, that he [the receiver] not *recognize* the gift as gift. If he recognizes it *as* gift, if the gift *appears to him as such*, if the present is present to him *as present*, this simple recognition suffices to annul the gift."²⁸⁸ In short, the only way for a gift to be truly a gift and not, instead a debt, it must be giving without the recognition or knowledge of the giver or the receiver. Why does this not take place? Derrida answers, "Because it gives

²⁸⁶ Jacques Derrida. *Given Time: I. Counterfeit Money*, Trans. Peggy Kamuf (Chicago: University of Chicago Press, 1992.)

²⁸⁷ Ibid, 34.

²⁸⁸ Ibid, 13. Emphases in original. Derrida goes on to answer just why this takes place when he says, "Because it gives back, in the place, let us say, of the thing itself, a symbolic equivalent.

back, in the place, let us say, of the thing itself, a symbolic equivalent. Here one cannot even say that the symbolic *re*-constitutes the exchange and annuls the gift in the debt.”²⁸⁹ Rather, “The symbolic opens and constitutes the order of exchange and of debt, the law or the order of circulation in which the gift gets annulled.”²⁹⁰ Derrida’s reading of Mauss is useful here since it moves away from the mysticism which is the object of Mauss’ analysis and toward his own language of ethnography. Instead, what Derrida describes is a set of relations that engages automatically at the moment the gift is given – a system that brings together subjects, objects and the other in a common symbolic equivalency.

This makes the gift is a peculiar non-thing, a spectral entity whose presence signals the future absence of the return gift, a debt, it defers. It is a thing that demands, that voids its own presence. Derrida describes this as a kind of madness at the center of economic reason and finds its stakes in more contemporary settings, surpassing Mauss’ stubborn attempt to insert it into a more traditional economic framework. In opposition to “cold economic rationality”, the gift proposes that something else lies at its center. Through Mauss, Derrida critiques modern economic thinking in ways that can be aligned with Foucault’s argument that liberalism provides the foundation not for individual freedom, but for a more individualized system of power and regulation. Here is Derrida on Mauss’ insertion of the gift as a term in a discourse that has tried to do away with it.

By reintroducing the word and the category of gift where other authors attempt or are tempted to get by without it, Mauss would like to bring off several operations (and this is one of the admirable things about his essay: it seeks to match the stubbornness of this impossible non-thing that would be the gift with a certain stubbornness of its own): (1) to succeed in maintaining an originary specificity of the process of gift in relation to

²⁸⁹ Ibid.

²⁹⁰ Ibid.

cold economic rationality, to capitalism, and mercantilism – and in that way to recognize in the gift that which sets the circle of economic exchange going; (2) to succeed in describing the symbolicity that runs throughout cold economic reason, to render an account of religious, cultural, ideological, discursive, esthetic, literary, poetic phenomena that are inseparable from the process of the gift and that organize it from within this *total social fact* which Mauss makes the very object”²⁹¹

(The “total social fact” is Mauss' term for understanding the ubiquity of the gift across cultures.) Most importantly, Derrida follows Mauss in reading the gift not simply as a way of understanding the relations of exchange, but of the originary point of both exchange and value.²⁹²

If the gift is that event that engages an entire symbolic system of obligation and exchange, then we must also imagine that it is also an instance of memory. As far as it is a thing inscribed with obligation, a thing that demands a return or an equivalence, as far as the gift always also concerns debt, then the gift is an object of memory. As Derrida puts it, it is “the marking of a trace.”²⁹³ The obligation or debt brought on by the gift speaks not only to the problem of value and exchange, but to memory and promise, two of the key terms earlier in this chapter. Heredity itself may be likened to memory, a memory consisting in the information contained within the body. This is well illustrated in the exchange involved via deCODEme. Personalized genomics understands the genome as a kind of long-term biological memory, and this conception is entirely explicit. Indeed, not only is the testing for genetic predisposition entirely reliant on the encoded traces of the past contained within the genome, but the same tissues are used to determine the other major facet of deCODEme's business, namely testing for ancestry. It

²⁹¹ Ibid, 42.

²⁹² “The gift would be originary. It would be the true producer of value, being in itself the value of values.” (*Given Time*, 44.)

²⁹³ Ibid, 43.

is beyond the scope of this study to address ancestry testing here. But I do want to argue that the exchange of tissues and information -- and money -- between deCODEme and its customers relies on the excessive nature of the gift-related expenditure. As we have seen, for Mauss something in excess of the thing originally given.

For Mauss, potlatch was the ideal illustration because it involved not just expenditure, but excess and the complete destruction of value in the form of sacrifice.²⁹⁴ He writes, “In certain kinds of potlatch one must expend all that one has, keeping nothing back. It is a competition to see who is the richest and also the most madly extravagant.”²⁹⁵ Elsewhere, he remarks “Consumption and destruction are here really without limits.”²⁹⁶ This, for Derrida, is the moment of madness in the process of exchange. It is the kernel of spectrality at the heart of every gift that seems to extend both forward (promise) and backward (debt) in time. It puts time “out of joint” as Derrida is fond of pointing out.

To see this clearly as it relates to the field of speculative exchange that I outlined in the first part of this chapter, we can refer to Bataille for a summary: “The *subject* leaves its own domain and subordinates itself to the *objects* of the *real* order as soon as it becomes concerned for the future.”²⁹⁷ Thus, subjects and objects become indistinct when future use comes into play. This insightful line comes from George Bataille. In his

²⁹⁴ Potlatch was a practice of extravagant sacrifice practiced by several cultures ranging from the Pacific Islanders to the first nations of the American Pacific Northwest. The practice involves the sacrifice or expenditure of an exorbitant amount of goods and materials, typically in the context of a festival where multiple groups of people come together. Thus, the hosting group might give their guests extravagant gifts as well as a public expenditure (read destruction) of as many valuable objects as could be spared. For more on this practice, see Mauss (op. cit.) and also George Bataille’s *The Accursed Share Vol. I*.

²⁹⁵ Mauss, 37.

²⁹⁶ Mauss cited in Derrida, *Given Time*, 46.

²⁹⁷ Georges Bataille, *The Accursed Share: An Essay on General Economy: Volume 1: Consumption* (New York: Zone, 1989), 58.

theories of sacrifice and expenditure in the general economy, Bataille is like Derrida in finding a key part of exchange and expenditure in its forward-looking stance. The gift itself is a forward looking object, instituting a future obligation, and in this applies to the gift of knowledge constructed on the deCODEme site. The exchange of genetic information similarly breaks down the set boundaries between subjects and objects; however, as opposed to the supposed promise of genomics, this gift of knowledge obliges us to take part in an ever more extensive regime of regulation and control – it obliges us to give ourselves. In Bataille's the realm of sacrifice, potlatch, and the gift, the subject leaves its own domain to enter into the world of objects. Put another way, subjects and objects become *equivalent*. Where should we draw the line between the object, genetic information, and the subject that seems to surround it? This equivalence between subjects and objects – and the space in between – is also the realm of the undead.

CONCLUSION POST-SCRIPT ON UNDEADNESS

*Power is established on death's borders.*²⁹⁸
-- Jean Baudrillard

This dissertation has addressed the notion of the undead in a variety of ways. Throughout, I have made use of various instances of its appearance: the zombie as it appeared in Haitian myth and in horror movies across the twentieth century; the recessive trait in the history of science and early genetics; and more recent forms of speculation and spectrality in the archive of the human genome. I have shown that undeadness does not belong only to cinematic fantasy or mythic hyperbole. Information, and genetic information in particular, exhibits the kind of uncanny vitality that has been associated with the undead throughout this dissertation. However, as the final chapter also points out, undeadness also has something to do with the gift and the promise insofar as the undead have a relation to the unpaid debt. From this perspective, whether one imagines that this debt is inscribed into the objects in the world around us or in the very fact of living, something is owed.

In the case of deCODEme and, indeed, the entire field of personalized genetics, this is literally true insofar as the company itself inserts itself into the role of the other, giving the customer knowledge of his or her true self. It is striking that this discussion of zombies, specters, and other forms of undeadness emerge as an echo of foundational

²⁹⁸ Jean Baudrillard, *Symbolic Exchange and Death*, trans. Iain Hamilton Grant (London: SAGE Publications, 1993).

structures in the late capitalist symbolic universe. Perhaps it is at these borders of human knowledge that one encounters an opaque edge to what is known, an area that generally falls into the category of mysticism. However, I prefer to avoid the category of the mystic and, instead, to reconsider these liminal zones at the edges of economy that have been given new life by the promise of newly formed categories of the vital.

To define undeadness as a concept that can bring together this diverse range of objects, I turn to a definition given by Slavoj Žižek who points out that the dead and the debt have more than simple auditory similarity. He writes “the dead return as collectors of some unpaid debt.”²⁹⁹ Žižek refers to undead figures in literature and cinema, the zombie among them, and here it is worth considering just what hunger the undead seem to exhibit. Perhaps the zombie’s desire to consume is taken too literally and, rather, it might be imagined that the undead more broadly hunger to redress a debt. If the subject truly does belong in the night of the world, that that night would be the night of the living debt.³⁰⁰ Ridiculous as it may seem, living debt may be more precise than it, at first, appears. For if we owe our lives to our ancestors, to the gods, to the dead, then life itself may be the debt which cannot ever be fully repaid.

This dissertation began with a discussion of circulation. The circulation of blood and its discovery had political resonance, equating the political body with the operation of the individual and his or her interiority. In this sense, the body served as a medium of power which was not a new concept to the aristocracy, but which nonetheless served my argument as an entre into the mediation of the body and the simultaneous transformation of the body into a medium. In Chapter five, I revisit circulation as a motor of exchange

²⁹⁹ Slavoj Žižek, *Looking Awry: An Introduction to Jacques Lacan through Popular Culture*, (Cambridge: MIT Press, 1991), 23.

³⁰⁰ This refers to Hegel’s famous idea that the subject was the “night of the world.”

and obligation that drives the gift as an underlying element beneath contemporary forms of political economy. Circulation here means less the actual movement of tissues, representations, or products and refers instead to exchange and its meanings. The body as media is one of the fundamental arguments of this dissertation. The other fundamental argument is that more clearly defining undeadness works as a way of understanding the role of “life” itself within systems of media and mediation, the embodiment, and technology and power. Here, at the conclusion, I can echo a theme posited throughout this thesis and say that undeadness is not about death. Death, which stands for the zero point in the trajectory of return – the resetting of all values, the erasure of obligations - is, itself, the thing foreclosed with the appearance of the undead. Rather, undeadness is refers precisely to *more* life.

This is so regardless of whether we are discussing the highly embodied undead forms of the zombie or the more abstract, spectral undeadness of the recessive trait and genetic information. Undeadness overall is about the foreclosure of death in favor of an unending and excessive life, an uncanny vitality that serves as a symptom for the turn towards a new forms of vitality. At the beginning of this dissertation, I asked the question, “how has life been remapped in the face of the radical changes taking place under the auspices of late capitalism?” Now, at the end, I answer that life is remapped precisely as the undead. As a life that can always be improved, an undying life that belongs to no exact form, but rather expands across a variety of forms and expends them.

To say that this uncanny vitality of the undead mirrors the expansive and globalizing desires of capitalism might be too easy. As the understanding of the gift has shown us, an excessive and endless series of obligations and exchanges do not belong

exclusively to capitalism. What is more important to think about is the way that late capitalism, in its drive to find new frontiers, new territories into which it can expand, has invested in the liminal territory of the gift, which may have already occupied the highly abstract position that more contemporary issues of value and exchange. And is it not possible to discern the madness of the gift as described by Derrida in the workings of contemporary, late capital with its emphases on limitless frontiers of production and consumption?

In future work, the question of foreclosure should be taken more strictly as it has been theorized and understood in the work of Jacques Lacan. Likewise, this notion of the undead has been taken up in the work of Slavoj Žižek, in whose writings the term has been defined as a state of being that is “between two deaths.”³⁰¹ Žižek refers to the state of being symbolically dead while, at the same time, remaining alive at some biological level. Žižek’s notion of the undead recalls Agamben, whose considerations of “bare” life takes up a similar conceptual shape. But for now, I will turn to a different question, namely, why the undead? What is it about this subject that proves so timely? As questions of speculative economies become ever more relevant and figures like the zombie continue to rise in popularity, what is it about this issue of undeadness that so captures the imagination of the present?

One way of answering this question lies in each of the preceding chapters, all of which suggest one in a series of instances in which undeadness has emerged at a particular historical juncture that belongs to or has had historical impact on the present. But in another way, one might read the re/appearance of uncanny vitality as symptomatic

³⁰¹ Slavoj Žižek, *The Ticklish Subject: The Absent Centre of Political Ontology*, (New York: Verso, 1999), xvi.

of contemporary culture more broadly. By this I mean the postmodern era. Capitalism has been of central importance in my accounts of the emergence and reappearance of undeadness in a variety of forms and contexts. The term late capitalism is taken from Fredric Jameson who, in his seminal text “Postmodernism, or, the Cultural Logic of Late Capitalism,” suggests that the phenomena of the postmodern is integral to the working of late capital.³⁰²

Jean-Francois Lyotard argues that the postmodern in Western culture is not a true break or rupture from the modern era, but actually an extension of modernity itself.³⁰³ This makes it the continuation of the modern, after the fact. Jameson and Lyotard share a vision of postmodernity as existing in the logic of the modern, even if the conditions that served to structure the modern have undergone significant changes. This makes postmodernism if not a kind of undead modernity, a form of modernity that has lived past span of its own time. Indeed, one might describe the automatic or mindless continuation of modern principles as an acephalous drive to reproduce the conditions that produced modernity. Only without the guiding ideas and ideals that pushed it forward: is not the postmodern itself a kind of zombie

Furthermore, postmodernity has brought along a variety of other “posts”. Postcolonialism becomes a telling and relevant example. Like the postmodern, it seems to speak of a mode of colonialism that continues even after the former (and formal) ties to the old metropole have been cut. Different commentators on contemporary culture have named a variety of “posts,” including post-feminism, post-secularism, post-nationalism,

³⁰² Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism*, (Durham: Duke University Press, 1991).

³⁰³ Jean-Francois Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi, (Minneapolis: University of Minnesota Press, 1984).

and post-race. They all designate the end of an issue and, at the same time, they carry over, the residual element, of the defining characteristics of those issues into the present moment.³⁰⁴ To say that one is post-feminist or post-race is to claim that one has projected him or herself into a space that is literally *past* the subject at hand. Yet, I would argue that the defining term, feminism, colonialism, secularism (all of them great projects of modernity) remain active and continue to reproduce themselves, but without the limits imposed on them by a central organizing problematic. Instead, these “posts” reproduce themselves in a fashion devoid of the stable meaning out of which they came into being. Post-feminists may claim the banner of feminism while able to participate fully in the fashion industry. Claims that Western culture is “post” race tend to mean that we no longer need to even consider racial and ethnic discrimination. Postnationalism is just another word for the increasing precarity and flexibility of populations, labor, and value under globalization – conceptually vaulting past the nation-state towards a global economy without realizing that, of course, these transnational corporations and mass migrations are entirely dependent upon the limits and laws of the nations that they seek to exceed.

In my future work, it would be interesting to revisit this argument with more extensive research as I believe that the relation between the “posts” that I have identified here and a notion of undeadness would allow for an compelling study on the state of contemporary theory. However, at present, I will only gesture towards this future project

³⁰⁴ The term residual should be read in the context given to it by Raymond Williams in his essay, “Dominant, Residual, and Emergent,” which engages the way that certain cultural elements are held over and remain active even if they are no longer dominant. This notion is important to my discussion, but I differ from Williams in that I would argue that these residual themes, designated by the “post” remain dominant, only they do so under the sign of the “post” which seems to effectively disavow the centrality of the terms themselves. For Williams’ full argument see: Raymond Williams, “Dominant, Residual, and Emergent,” in *Marxism and Literature* (Oxford: Oxford University Press, 1977).

based on the extensive arguments I have made on undeadness and without going into further detail in regards to the specific fields in question. It would be important, for future research, to give a more in-depth analysis of each of the categories mentioned and to explore what recent theorists of the post-modern, post-colonial, and post-feminist would contribute to a more refined understanding. For now, I will simply move towards one possible direction and consider how Ulrich Beck has made an argument that goes in a similar direction.

In defining these issues under the category of undeadness, my argument echoes ideas in recent scholarship on modernity, economy, and capital, under the name zombie. In a 1999 interview, Ulrich Beck makes the case for “zombie categories,” which are ideas that remain past the time of their original definition and usefulness. He names concepts like “family, class, neighborhood” as “zombie categories,” focusing on the family as a key site for interrogating this notion.³⁰⁵ In the “post-family” condition, the family becomes increasingly difficult to pin down. He says, “Ask yourself what actually is a family nowadays? What does it mean? Of course there are your children, my children, our children. But even parenthood, the core of family life, is beginning to disintegrate under conditions of divorce. Families can be constellations of very different relationships.”³⁰⁶ What is important about Beck’s argument, despite its peculiar conservatism under the veil of empirical sociology, is that the proliferation of categories. This illustrates how the zombie is not simply a figure for the undeadness of the

³⁰⁵ Ulrich Beck and Elisabeth Beck-Gernsheim, “Zombie Categories: Interview with Ulrich Beck,” in *Individualization: Institutionalized Individualism and its Social and Political Consequences* (London: SAGE Publications, 2002), 203.

³⁰⁶ *Ibid*, 204.

contemporary family, nation, ideology, but also the proliferation of it.³⁰⁷ My argument here is slightly different. While I do not disagree with what Beck argues in terms of these zombie concepts, what I am interested in is considering the form of these notions rather than the specific content. I believe it is the “post” itself that figures undeadness, that signifies the loss of a centralized structure that moves a set of ideas in a particular direction and, instead, devolves into a habitual reproduction of the same.

³⁰⁷ Beck is only one example of several in which the notion is put forward. Similarly, we see a number of recent arguments and books such as *Zombie Capitalism* by Chris Harmon or *Zombie Economics: How Dead Ideas Still Walk Among Us* by John Quiggin.

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