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**Medical Images and the Optical Unconscious:
A Sociology of Visual Language**

By

Nadine Ann Lemmon

A dissertation submitted to the Graduate Faculty in Sociology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2002

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ABSTRACT**Medical Images and the Optical Unconscious:
A Sociology of Visual Language****By****Nadine Ann Lemmon****Adviser: Professor Stanley Aronowitz**

The moment in which an individual looks at a medical image of his or her own body is a charged moment. The moment is entwined in a vortex of personal, cultural, social, and historical phenomena that construct the image as meaningful—a vortex, referred to as the optical unconscious, that is coded into the signifiers of visual language itself. Analyzing selected examples from visual history, this dissertation hypothesizes about how that optical unconscious is formed by social desire and how it informs the way medical images are constructed and read today.

Early Daguerreotype and x-ray images were widely embraced by popular culture. The physical form of these images created an aura associated with vague innuendoes of sensuality, identity, death, and truth, especially in books like Thomas Mann's *The Magic Mountain*. The public learned to fantasize about the relationship between these images and self-definition, thus establishing a way of "reading" photographic images that lingers today.

Medical images stray far from the world of science and facts; some are astoundingly beautiful, others psychologically compelling. Aesthetic theories from the 18th and 19th centuries reveal how beauty functions ideologically in the system of capitalism. As seen in Todd Hayes movie *[Safe]*, American alternative health philosophy also has a clear function in capitalism—for example, emphasizing personal responsibility in the etiology of disease not universal healthcare, stressed work environments, or dumb luck. Both aesthetic theory and alternative health proliferated at times of chaotic, social upheaval and both work symbiotically to produce the fantasy of an autonomous individual, separated from the social, and in control of their world. This fantasy reveals certain social desires that effect the way we read medical images.

Through the work of Jacques Lacan, Jean-Paul Sartre, and Michel Foucault, the final chapter analyzes the psychological and interpersonal effects of medical images: specifically, how a visual language relates to our construction of the self and our fear of damage to the body. Medical images often allow us to simplify, to clean up chaotic and contradictory information, and to imagine that we can see the boundaries of knowledge.

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Dedicated to Petie and Jorge

Only tears can fill in where words fail...

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While writing this, I realized that it is not necessarily the quantity of friends and colleagues in my repertoire nor the amount of time that each person spent on my work, but more the silent nod of approval that goaded me to go on.

First and foremost, I'd like to thank my dissertation chair, Stanley Aronowitz, for his baffling and unwavering acceptance of my work. Through deed, he has taught me that the confidence to take on maverick and problem ideas (and students) is an invaluable asset to academic life. Additional thanks to my dissertation committee: Patricia Clough, who was always a pleasure to think and spar with (and who kindly invited me to speak on her ASA panel); Catherine Silver, who offered crucial insight and a supportive hand at the right time; and Richard Maxwell, who willingly jumped departments to provide a needed point of view. Barbara Katz-Rothman, Carol Armstrong, and Judith Balfe asked tough questions both in class and on my orals—questions that were crucial to the ultimate outcome. The Graduate Center sociology department provided a flexibility that enabled me to do things that at first glance didn't look sociological, but that I think—in my modest way—could lead sociology to an interesting, new place.

In many ways, Laura Szichman taught me to dream Lacanian dreams, and to embrace the knot of the Real. She will undoubtedly recognize many of her thoughts

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The tough ones to thank are all those faceless authors that line my bookshelves and that have kept me company throughout the years. Even when one works in isolation, the world of words enables one to be comfortingly social.

Ultimately, it is at the intimate level of the family that I located my desire to struggle with the ideas contained in these pages. The actual production of this dissertation started with the illness and death of my mother, and ended with the death of my father and stepfather, events that inevitably effected my vision. The ideas herein are rooted in what the family taught me about life, death and the pleasures that can saturate the two.

Words are indeed all-powerful. When I was 12, my mother said I could do whatever I wanted to. Those words haunted me when I was helpless within the forces of

circumstance, but they've also guided me when no other reference point could be found. My father's role in this dissertation was more specific...he taught me to argue and to love words. His repeated praise of my writings—even when I was working at a bank and producing the most boring corporate credit analysis—was more than a child could ask for.

I'd like to thank my brother Geordie, whose security in the real world enabled me to stray from the course, and my sister Dell, whose forays into a delusional world helped me to understand the limits of wandering. A special thanks to my sister Andi, who has been a patient listener every since I first imposed my thoughts upon her—she must have been at least 4 or 5 months at the time. Her steadiness and cheerfulness has provided ballast to the rocky parts of life. Of course, this dissertation couldn't have been done without Bessie Shaw, a grandmother whose feminist foresight many years ago enabled me to make choices unavailable to most women.

The backbone of this production lies in my man, Phil. He has kindly bared the brunt of my ill body and has patiently guided me through the moments of depression that are inevitable when one is caught transfixed on the root. Ultimately, Phil always proved to be the great Buddha—the one who knew intuitively the answers it took me months and years of struggling to understand—and the comedian who never failed to make me laugh.

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INTRODUCTION

My thoughts on medical images have been brewing for several years now and the more that I think about them, the more I feel no one "voice" or approach to the topic can encompass the complexity of ideas that they engender. The photo historian, the sociologist, the philosopher, the psychoanalyst, the humanist and the writer all vie for their time on the block.

The ideal solution from a textual point of view would be to create the ultimate website with links and colors and pictures that could illustrate the potential complexity of the issue, the non-linearity of thought itself, and that could simultaneously enable the reader to create his or her own meanings. But alas, I like books. I like the materiality of books; the taking of a good (or bad) book out onto the back porch to read and mark and be inspired (or angered) by; the way that books sit in my office on shelves, surrounding me, not necessarily with thought, but with the concept of thought.

The result? I've settled for a book that knows there is such a thing as disciplinary methodology but one that periodically avoids it; a book that has an order and developed thought process but that will frustrate the reader who looks for an "answer"; a book that wavers between academia, personal musings, and that perennial, unanswerable (and at times, maudlin) question: "the meaning of being." I have been far from systematic in my

selection of topics, images, and texts to analyze. Those ideas that over the years have continued to haunt and frustrate me are the ones that I have chosen to tackle. The pleasure lies in the fact that they have yet to be untangled.

The driving force of this book is my desire to understand the moment in which an individual looks at a medical image of his or her own body. Though medical images have been around since the turn of the century, in the last twenty years in the United States, the social acceptance and proliferation of a variety of medical imaging technologies have made the medical image a regular guest in the doctor's office. More and more, doctors use these images to diagnose illness and to help patients understand their medical situations. What is most interesting to me in that moment in front of the image is the tinge of the existential—the way that moment combines both the confrontations with one's material existence and the possibility of one's mortality.

That moment in which the patient sees the image is not, of course, autonomous—it is entwined in a vortex of personal, cultural, social, and historical phenomena that construct the image as meaningful. Clearly, each person stands in a unique position that creates a unique reaction to his or her medical image. It would therefore be impossible to characterize or generalize about that moment—or even to "understand" it. Given the breadth of phenomena that potentially effects the reading of that image, it also would be impossible to comprehensively analyze the relevant forces

that may construct the image. Therefore, what follows can only hope to provoke thought, to proffer certain hypotheses that may help to *imagine* that moment.

A hypothesis has the signifier of science attached to it, with the promise of either true or false waiting somewhere in its future life. However, most of the ideas that I will be broaching, while being hypothetical, can never be "proven." There are a few studies and eyewitness accounts of people's philosophical and emotional reactions to their medical images. Yet, while traces of writing here and there help point towards an answer, and a "scientific" survey might help outline the issues, the concept of an hypothesis gets murky when the object of one's inquiry is mostly unconscious—emotions that never make it into the realm of recordable, logical speech. This dilemma of an hypothesis that can neither be proven true nor false due to its unconscious underpinnings is the wall that Sigmund Freud and others have encountered; the wall that delineates "hard" science from "soft" science and that excludes potentially interesting thought from the field of "knowledge."

Freud, and more directly Jacques Lacan, turned to the methodological tool of the metaphor in order to create their hypotheses. Both theorists selected examples from their analytic practice (such as Freud's "fort-da" game and Lacan's "mirror stage") and used those examples to build and extrapolate a theory for the workings of the unconscious. In a similar fashion, I have chosen certain concrete examples from visual history—both images and philosophical texts—and have used those examples as metaphorical tools to

try to hypothesize about a cultural, social, political and personal unconscious that informs the encounter between a patient, their medical image, and a social realm. I will also be exploring some of the historical *traces* of thought that have been bandied about in reference to notions of the photographic image, the medical image, aesthetics, illness, and death. However, this is not an historical or chronological account of the comings and goings of ideas. I have chosen those historical traces that seem to exist in some form or another in our current beliefs about the body and that seem relevant, if ever so remotely, to the current question: what effects the way that we read medical images? When looking at these historical ideas, it is not a Jungian unconscious that I'm hunting for, more of a Freudian notion of time and memory traces, the way in which past thoughts have become commingled and ingrained in the social memory—whether via language or objects or customs—making these ideas irrevocably current.

The existence of these traces renders the fashionable prefix "post" utterly absurd when describing an historical moment. While the basic dictionary indicates that the prefix simply refers to something that is chronologically after, Freud will never let us forget that the present is perpetually infused with a reincarnated past: the time line of ideas and ideologies is never a progressive chronology.

It is my intention that these metaphors and traces of thought will create a space for the possibility of meaning, not the definition of it. Lakoff and Johnson (1980) “see metaphor as essential to human understanding and as a mechanism for creating new

meaning and new realities in our lives.” Their compelling arguments, describing truth as always relative to the conceptual system in which it is articulated, highlight the necessity of analyzing the cultural rubric of language and the social. Though technically the advanced medical images are not “photographic”, they are configured in the language of the photograph. Therefore a good deal of this book will be an attempt to understand that language and the ideologies of the social realm in which it is situated.

With such apologies to science and methodology aside, let me turn to the subject at hand.

...

Looking at an image of oneself in the mirror or in a photograph is indeed a psychologically charged phenomenon. What we think we are looking at is not only our tangible exterior but also our "selves," whatever that amorphous term may mean to us. Our personalities and histories seem to be embedded in our gestures, in the way that we hold our shoulders or compose our smiles, in the way that we "present" ourselves. Most revealing are the eyes—the ones with which we look, and the ones that are reflected back at us—which the cliché tells us over and over, are the "windows to our soul." In other

words, the eyes are the peepholes that cut through the veneer of the body in order to reveal that seemingly unadulterated substance: *being*.¹

It seems rather simplistic and dramatic to state that a two-dimensional image is a summation of being. However, the body has become a site of communication, a space in which we can construct signs (through gesture, posture, clothing, and other forms of "expression") about who we are or, more accurately, who we think we are. It is through this body that, for the most part, we communicate with the other. As we will see, the health and illness of this body have become increasingly correlated with the definition of "self" in America. Expressions such as "you are what you eat" neatly summarize this perceived shift towards body= self, and the amount of money pouring into the health industries gives some indication of Americans' increased concern with this body.

Historically, the photographic portrait and the mirror image have been linked to fabrication—to the myths we weave and present to the world—and to "truth"—to that aspect of being that uncontrollably escapes the veneer.² The medical image, however, is a bit different. As subjects of the image, we can't change the way we look: We can't puff out our rib cage to make ourselves look taller or stronger; we can't smile to distract the

¹ As Zijderfeld argues in *On Clichés: The Supersedure of Meaning by Function in Modernity* (1979), although the cliché is repeated often to the point of stripping it of meaning, it frequently harbors a core thought in human discourse—here *being*—that can be difficult to express or understand.

² For a discussion of the mirror as fabrication and truth, specifically in relation to women's self-image, see La Belle (1988).

viewer from our flaws. Our traditional methods for controlling our image are completely useless when we walk into that x-ray room. For the most part, the medical image does not show the eyes—that last signifier of the veneer and subjectivity has been removed. For this and a variety of other reasons that will be discussed in the course of this book, the medical image has almost fully escaped the label of fabrication or manipulation. It appears to reveal a body that has not been coded by the signifiers of race or class or sex or culture—signifiers of ideology that are inextricable from the portrait or mirror image. It just appears to be an objective transcription of what *is*. It is within this context that the medical image of the body has acquired a charged, psychological meaning.

But why is the medical image accepted as "truth"—on both a physical and metaphysical level? The medical image—especially computer-generated images—and the way that we read the medical image is utterly a product of social attitudes towards science, health, knowledge and the body. What are the attitudes that we bring to that moment of reading our medical image? How do those attitudes effect our reading? And, if the medical image is indeed seen as some sort of tangible proof of what *is*, how is that moment infinitely complicated for the individual if the image is seen to signify pathology and potential death? Although these questions are largely unanswerable, there are several interesting lines of inquiry that will help to shed some light on the subject.

Given that the crucial question that I am pursuing has to do with the issue of "reading" an image, the first chapter will try to revisit the initial moment in which people

learned to read photo-generated images (daguerreotypes in the early-to-mid 19th century) and then subsequently, the moment in which they *learned to read* medical images that were taken through the skin of the body (x-rays in the late 19th to early 20th century). My hypothesis is that a trace of these initial *ways of reading* the daguerreotype and the x-ray may still exist in our current relationship to the medical image.

Most historians and theorists have focused on trying to unravel the "origins" of photographic culture—which some believe lay in the developing science of visual optics and perspective, while others believe lay in the rapid changes of modernity. Yet to understand the phenomena of *reading* a photographic image, my main focus will be on the object itself: the first popular image, the daguerreotype, which became all the rage within a year of its introduction. The daguerreotype was produced on a silver-coated, copper plate that was buffed to a mirrored surface, placed in a precious case and viewed in a somewhat fetishized manner. The indescribable sensuousness, mysteriousness, aura—and accuracy—of the image enabled it to seamlessly evoke the languages of art, the metaphysical *and* science. Its primary use as a means of portraiture at a time that the "self"³ was being redefined in relation to imperialism and modernity, created a lasting link between the image and self-definition. Learning to read the daguerreotype involved

³ Following Cushman (1995) and as indicated by the quotation marks, I take the position that the self is a construct that changes in any given culture or era—it is not a universal concept. However, putting quotes around the term every time it is used would be cumbersome.

not only deciphering of the codes of modernity but also embracing the crossovers between science and magic as well as the self and the Other.

These crossovers become all-important when dealing with medicine and the medical image. Caught within the confines of positivism, medical science at the end of the 19th century was all about categories: normal/pathological, the self (health) vs. the non-self (illness) (see Canguillem, 1966). When Wilhelm Roentgen discovered x-rays in 1895, there finally was a tool that provided a (seemingly) tangible, objective and quantifiable—read "scientific"—means to diagnose people according to these categories. In a culture that fully embraced "seeing is believing," this medical image eventually took on a verity that was unsurpassed in the public's eye.

However, the image still had the remnants of magic about it. The x-ray mysteriously was able to ignore the skin, revealing a skeleton in much the same way that magicians had been revealing skeletons for the past century. In addition, it was an image that pierced beyond the superficial depictions of portraiture; it seemed to reveal more than ordinary photographic images. In a curious mutation of science into popular culture, it became fashionable for women to get x-rays of their hands to reveal their "true" selves. In the second part of chapter one, I will explore the context in which people *learned to read* the x-ray. Specifically, through an analysis of Thomas Mann's *The Magic Mountain* (1924), I hope to uncover how this new medical image may have substantially transformed the individual's approach to their own body and "being".

As becomes clear in Mann's work, medical images are often incredibly beautiful and captivating. Obviously, not all medical images are beautiful, but today the ones that can be seen outside of the hospital, in mass market magazines or while surfing through the medical think tank sites on the net—i.e. the ones in popular culture or the ones used in high-tech scientific models—are often astounding. What is the function of this beauty and how does it effect the way that the patient and doctor read the medical image?

Interestingly, philosophers went through a sort of renaissance in their thoughts about beauty at the same time that society was dealing with the growing pains of modernity. This renewed interest in beauty and its relationship to the social lays a complex foundation for our current beliefs about beauty and the body, science and technology, the social realm and the medical image. In chapter two, I will explore this philosophical heritage as it relates to the notions of humanity, community, the commodity, aesthetics, and the individual. Then, continuing the theory that the current day is infused with traces of thought from the past, I will ask how these notions function in today's medical image. My main object of study will be a contemporary body of work that is positioned as popular culture, high-tech science, and art simultaneously—a coffee table book of images by Alexander Tsiaras titled *Body Voyage*. These images, computer generated from the data of the Visible Human Project, are a particularly useful tool for unraveling the ideologies of aesthetics, the body, and the medical image.

Tsiaras' images reveal a romantic, reified relationship to the body and death. The book highlights the potential use of imaging technologies in the "miracles of medicine," and the underlying fantasy seems to be that medicine is, or will soon be, omnipotent. However, as will be seen in chapter 3, this particular positioning of medicine is an historical construct, closely tied to a variety of changes that occurred in American society in the 1960s and early 70s. Today, when a person is faced with an "incurable" disease, as defined by allopathic medicine, the romantic image put forth by Tsiaras is quickly drawn into question. The individual is left with a tough choice: follow the doctor's orders, which often means a treatment that falls short of a cure, or pursue a different path, such as the world of alternative health, a world full of promises that are supposedly attainable to the hard-working individual. I will do an in depth analysis of the movie *[Safe]* which presents the story of a sickly woman caught between the ideologies of the alternative health movement and allopathic medicine. Of particular interest are the conflicting philosophies that have developed in both fields to deal with the prospect of an "incurable" disease, and how those philosophies are grounded in the American belief in individualism. I will then juxtapose this notion of the incurable disease with the ideologies surrounding the plethora of computerized imaging technologies developed since the '60s. What interests me here is the possibility that the fundamental fantasy of "incurable" illness and death in America has changed in the last few decades and that the

radical new ways that the body is being imaged in medicine has played a crucial role in this shift.

Through the course of this book, it will become clear that medical images stray far from the world of science and fact—they are deeply embedded in our fantasies about the body, the self, and society. In the final chapter, I will take a closer look at this notion of the self (or being) in relation to the act of vision and how this notion may effect the way that we approach our own medical image. Two central 20th century bodies of knowledge will be helpful here—philosophy and psychoanalysis. By comparing and contrasting the three different theoretical positions put forth by Jacques Lacan, Jean-Paul Sartre, and Michel Foucault, I hope to reveal how the act of vision became integral to the initial definition as well as the continual renegotiations of the concept of self. Given that the medical image is all about looking at the body, it will be important to delve into the ways that the body effects the individual's concept of self, especially in relation to others that are looking at that body. It is through this analysis that I will further explore the ways in which the medical image uses a visual language that is embedded with ideologies and contradictions, and the ways in which this language effects social control.

In the end, I am still left with my hypothetical patient sitting in front of their hypothetical medical image. In a supposedly rational world of medicine, it is indeed marvelous that there is this object that can be so sensual, that can speak so directly to our own reverence for the body at the same time that it encapsulates a strangely-charged,

existential moment. Not only is it a hypothetical patient and a hypothetical image, but also a hypothetical moment—one that many patients, possibly caught in a whirlwind of circumstance, may not allow to register on the conscious level. However, on the unconscious level, one can assume it is a moment that is remembered, a psychological knot that refuses to be untangled, but a moment that undeniably changes our perspective on being.

A Note on Image Selection:

When trying to understand the psychological underpinnings of social phenomena such as medical images, it is always difficult to pinpoint the most revealing objects of study. It is my contention that when ideas begin to filter into popular culture they can help reveal the anxieties of that culture. It is for this reason that the main objects of empirical evidence that I will be looking at are the objects of popular culture: the daguerreotype image; the image of Roentgen's wife's bejeweled hand; the coffee table book of Tsiaras' pictures; the movie [*Safe*]; and medical images that pop up in advertising or in *Time* and *Life* magazines. Though some actual medical images will work their way into the arguments, they are mostly images that I found browsing the Internet—cool-looking pictures that might catch the eye of any hapless browser.

In the end, the images we see in the doctor's office are rather banal in comparison to these other, often dramatized images of popular culture. However, popular culture provides a prime space for us to fantasize about our fears and hopes in life. Therefore, one could argue that the images of popular culture are the ones that crucially mirror and shape our attitudes before we even make it across the threshold of the doctor's office.

Autobiography and Writing

Writing and ideas are often inextricably caught in the psyche of the individual thinker. There is a long tradition of academics sweeping under the rug those linkages that might reveal how their ideas are deeply rooted in the conflicts and rationalizations of their own mind. This tradition was established for good reasons. On the surface, it is a tradition that tries to uphold the pursuit of "objective" knowledge, knowledge that is relevant to more than just the individual's own struggles. Though a falsity to deny autobiographical roots, the myth of objectivity might actually have the positive effect of driving writers away from the grasps of self-involvement and encouraging them to evolve their ideas beyond the psychoanalyst's couch.

It is also a tradition that protects the authority of the author's ideas. Too often, at least in conversational battles between close associates, one can hear the retort: "Well, you believe that because of X, Y, & Z"—X, Y, & Z being the dirty little secrets of the

thinker's individual history that undermine the idea as a mere personal quirk. The retort is tough to defend against. Writing to a general audience, who might not know the details of one's autobiography, can have the advantage of giving one's ideas an unencumbered space in which to live. There may always be the retrospective discounting of the idea—"Che Guevara fought the revolution, not because it was the right thing to do, but because of his upper class guilt"—but hopefully this discounting will not gain force before the idea, or revolution, has developed a life of its own.

The current fashionability of confession culture is riddled with intellectual problems. Although autobiography has recently come to signify "authority-on-this-subject," first hand experience with a particular subject does not necessarily enable one to have greater insights about that subject—in many cases, experience clouds one's vision. The fetishization of individual experience in America is pervasive in the new popularity of academic confessions; in the glut of autobiographies in publishing; in the re-emergence of art that heroizes "personal vision"; as well as in the recovery movement that puts the individual "victim" at the center of the world.⁴ While the personal voice can provide a fresh vantage point—especially in certain academic fields, like sociology—it also risks feeding the negative aspects of the ideology of the individual in capitalism.

⁴ See Kaminer (1992) for a fuller exploration of the political ramifications of the self-help and the recovery movement.

However, that said, not exposing relevant autobiographical material also has its risks. If the ideas are presented as wholly objective, a false myth is created that there is the possibility of achieving one, correct knowledge system instead of multiple knowledge systems that are rooted in particular times and places. Recent studies have clearly demonstrated that people from different cultures have vastly different philosophical systems and ways of thinking that affect the way that they view life and the way that they create knowledge in order to navigate that life (Goode, 2000). Thus a thinker from China might have a different perspective that would positively inform America's approach to illness, but in the end, their knowledge system could never seamlessly blend with another system of knowledge. In addition, autobiographical material can help a reader to tease out the unquestioned assumptions of the author.

Therefore, in the interest of showing the roots (and possible fallibility) of the following ideas, it is important to point out that I have never experienced a medical system in a country other than the United States and I have done very little cross-cultural analysis on the issue. During the course of this book, I will briefly discuss two formative encounters that I have had with the (American) world of medicine: the first was viewing an image of my mother's heart a month before her death; the second relates to my own experience of being diagnosed with an "incurable" disease. I view both experiences as bouncing boards for the theories I have subsequently developed—not as signifiers of my authority on the subject.

Inevitably, during the course of exploring this subject, I was asked: “What are you writing about?” Although people’s reactions to my work varied, the reactions that intrigued me the most were: “oh, how depressing” or “Hospitals and medicine are about life not death.” Amidst Prozac culture, you are not allowed to contemplate illness and death for very long before people start wondering about the level of your cheeriness or lack there of. I can’t help but think that the cultural demand to not “dwell” on the issues enclosed in these pages translates as a form of repression that is revealed in the psychological “slips” of culture—for example, a media obsessed with violence and death. Or medical images.

CHAPTER 1:

Learning To Read The Image

When Ronald Reagan bemoaned the state of national literacy in the 1980s, he was not concerned with *visual* literacy—a term that has only recently started appearing in common parlance. In general, people today are taught to read words at a very early age but not taught to read images in any kind of organized manner. It is assumed that reading an image is a natural act, not one that needs to be learned.

It seems quite obvious that understanding the meaning of an image is easier to the uninitiated than understanding words on a page. Those who believe that one must learn to read an image always pull out an example from Claude Levi-Strauss' anthropological research: A mother from a tribe was shown a photograph of her child but she was unable to recognize that it was a representation of that child—she had not learned to read the image. To that example, I would add another: During the Gulf War, there were reports of young children watching TV who hid under their chairs because they believed the bombs were coming into their living rooms—they had yet to learn to read the image as representation, not reality.

In today's "image culture", a great deal of information is being conveyed via the image but very few of us are learning the conventions of visual linguistics. Without learning the language itself—the signs and syntax and especially the historical construction—it is difficult to *critically* unravel what our relationship to the image is.

The act of reading is the act of translating signs into meaning.¹ Signs are the product of accepted social conventions and are therefore usually associated with things that are clearly human products: such as spoken or written words, graphic or painted representations. When one looks at a tree outside, it appears that one is looking at "reality", not at a sign that is laden with societal convention. Therefore, it seems that one does not need to learn to *read* a tree. But inevitably, a tree is a sign. It has a series of meanings that society and culture have ascribed to it: it can signify nature, or tree-huggers, or shade, or building material depending upon the context of the tree and the standpoint of the viewer.

When photographic images first appeared in the public realm in 1839, it seemed like one did not need to learn to read them either. They looked like nature—like a direct transcription of that which they represented—and therefore did not seem like a re-

¹ Peirce (1950) provides the initial semiotic explanation of the sign via its component parts: icon, index and symbol. For further discussions of photography and semiology see: Barthes (1961), (1963), and (1981); Sekula (1975); Berger and Mohr (1982); Krauss (1985); and Armstrong (1998).

presentation (i.e. a translation from objective to symbolic form). This reality-effect was heightened by the fact that the most popular early images, the daguerreotypes, were so accurate a transcription that when viewed through a microscope, one could see details that could not be seen with the naked eye. The camera was more "accurate" than the eye. Additionally, since the images were made with a technological tool, it appeared that the "hand of man" did not act upon the resultant image. Even though the photographer actively chose the cropping, lighting, and composition of the image in order to convey a certain feeling or meaning, early influential photographers like Henry Fox Talbot emphasized that the images were "light writings" executed without the hand of man.² Emphasis remains on the idea that it is nature—not the human—that produces the image.

From the start, photographers adopted a number of the same language conventions that had been developed in painting since the Renaissance—conventions that tried to make the image look as natural and realistic as possible: 3-point perspective, a

² Talbot called them "The Pencil of Nature." Louis-Jacques-Mandé Daguerre, one of the original inventors of the process, called it "the spontaneous reproduction of the images of nature," and stated: "The Daguerreotype is not merely an instrument which serves to draw Nature; on the contrary it is a chemical and physical process which gives her the power to reproduce herself" (Trachtenburg, 1980, p. 13). An early newspaper account stated: "M. Daguerre has found the way to fix the images *which paint themselves* within a camera obscura, so that these images are no longer transient reflections of objects, but their fixed and everlasting impress which, like a painting or engraving, can be taken away from the presence of objects" (emphasis added, *La Gazette de France*, January 6, 1839. Translated by and reprinted in Newhall, 1980).

level horizon line, balanced composition, etc. People had become so accustomed to this language of painting that it didn't appear to be a language or convention at all. Therefore, when these conventions were used in photography, they fit in nicely with the overall impression that a photograph was a transcription of reality not a linguistic signifier. Though many painters abandoned realism soon after the development of photography, photographers continued to utilize the tools of realism until the latter part of the century. What might be termed a photographic language (such as the "snapshot aesthetic") did not become widespread until the development of faster films and more portable cameras in the 1880s. By that time, the conventions of reading a photographic image had become utterly naturalized.³

Like the tree, it appeared that one didn't need to "read," or learn to read, the photograph. In order to understand our relationship to images today, it is important to unearth some of the conventions of reading that were embedded within those early

³ For a further discussion of this realist quality of the photograph, see Tagg, (1988, p. 99): "The dominant form of signification in bourgeois society is the realist mode, which is fixed and curtailed, which is complicit with the dominant sociolects and repeated across the dominant ideological forms. Realism offers a fixity in which the signifier is treated as if it were identical with a pre-existent signified and in which the reader's role is purely that of consumer. It is this realist mode with which we are confronted when we look at the photograph as evidence. In realism, the process of production of a signified through the action of a signifying chain is not seen. It is the product that is stressed, and production that is repressed."

images, but hidden in the process of their naturalization. As John Tagg states: “The transparency of the photograph is its most powerful rhetorical device” (1988, p. 35).

The Daguerreotype

What follows are some exploratory musings that revolve around one detail from the history of photography: the *physical form* of the daguerreotype image, often considered the first photographic image.⁴ The daguerreotype embodied and represented an astounding breadth of pressing social concepts in the 1840s: science, “truth,” and technology; magic, the ethereal, and the metaphysical; social change, personal change and the encounter with Otherness; beauty, art, and craft; permanence and temporality. Understanding that one phenomena could apparently resolve—or at least encompass—the contradictions of modernity will help to explain the seemingly instantaneous and resounding acceptance of photography around the world and its role in the growing acceptance of the fields of science and technology. More importantly, it will also shed light on the way that society initially understood the photo-generated

⁴ For an introduction to Daguerreotypes and especially their influence on Americans see: Wood (1991), Newhall (1976), and Rudisill (1971).

image—an understanding which resonates within the way that we, today, still look at, interpret, and use images.

The *Why* of History

It should not be necessary to point out there are no such things as continuities and discontinuities in history, only in historical explanation. So my broad temporalizing is not in the interest of a “true history,” or of restoring to the record “what actually happened.” The stakes are quite different: how one periodizes and where one locates ruptures or denies them are all political choices that determine the construction of the present. (Crary, 1990, p. 7)

The *why* of history is often difficult to pinpoint. One can string together a listing of related facts, personalities and coincidences that appear to map a pattern that coincides with a social psychology. Using this pattern and social psychology, the historian creates a space in which one can imagine that the answer—to *why* this or that occurred—can be placed. With adequate repetition, we academics and thinkers come to accept a certain answer or narrative about history, possibly even a dialectic of narratives, and then need only reference those narratives, in abbreviated form, to establish for our readers the grounding from which we spring. An example might be the term “modernism.” There are indeed a plethora of narratives of modernism, but a few carefully chosen words or texts

can situate the historian as Marxist or formalist or postmodernist—the stories are that well known.

But what happens when one small idea, one parameter of the narrative is changed or emphasized in a slightly different manner? The *why* becomes murkier, the narrative possibly exposed as a story not an answer, the historian thrown into the pleasures of new hypothesis.

One of the fallacies of historical narrative is that the answer to the question will somehow be miraculously delineated within the origin. This, as Jacques Derrida has pointed out, is an epistemological mistake, if for no other reason than the fact that the origin is forever elusive. But we've grown accustomed to the belief that stories have a beginning and an end, so the attempt to avoid the "origin" is always questioned by methodologists.

There is no doubt that *The History of Photography*—even when it is more appropriately termed "a history of photography"⁵—is a series of narratives, all of which seem to start with a search for the origin. As Geoffrey Batchen has so cogently pointed out in his recent book *Burning with Desire* (1997), there has been a rather singular history of photography to grace our books. The originary stories have all gone back to certain

⁵ This is a reference to two of the more popular history of photography books, Newhall (1982) and Rosenblum (1989).

facts—the developmental paths of science, modernity, visual perspective, etc.—that, when juxtaposed, seem to explain the appearance and phenomenal social embrace of "light writing."

As Batchen discusses, the main focus of inquiry has been to ascertain *why* the invention occurred at one particular moment instead of another and why it captured the public's imagination and attention so quickly. As many have noted, the technical know-how was in place in 1725 (when Johann Heinrich Schultz discovered that silver halides tarnish with light)⁶ but the public announcement of a method for "fixing images from nature" was not made until more than a century later, 1839. Historians have, for the most part, tried to explain this delay in two different ways: the formalists linking it to a progression of artistic and visual developments that "originate" with the invention of Renaissance perspective; the postmodernists linking it to social and economic developments that "originate" with the enclosures in England and the beginnings of capitalism. Accordingly, it is not until visual regimes had reached a certain level of sophistication, *or* capitalist development had created a receptive and eager middle class,

⁶ Batchen (1997, p. 254) points out in a footnote that the visual theorist Joel Snyder refutes the technological readiness theory by listing a number of scientific discoveries that happened after 1725 that were crucial to the invention.

that the world was ready for the image.⁷ To Formalists, learning to read the photographic image was part of a cumulative project of learning to read the signs of painting and other visual representations in the arts and sciences; to postmodernists, learning to read the photograph was part of a cumulative project of learning to read the signs of modernity as they were configured by class, race, nationality, sex, etc. Undoubtedly, photography's invention and the subsequent process of learning to read the image were a combination of these two narratives.

The explanations that have constituted the histories of photography appear to encompass the complexity of a phenomena that was so powerful that it would be difficult not to consider it a paradigm shift (despite the arguments against the theory laid forth in Kuhn, 1994). The image continues to grip us more than a century and a half later, radically affecting the key element that constitutes a society: communication (See Lowe, 1982). As the theories stand—Batchen's included—it was the primeness of the moment that led to the invention and the proliferation of the photographic image. Batchen, less concerned with origins, looks very astutely at the social *desire* to have an image that "nature draws," a desire that seemed pervasive from 1790 to 1830s. While I applaud the exposition of desire as a crucial element of history, Batchen still provides a

⁷ Crary (1995) offers another original critique of these narratives through an analysis of various visual tools and games in the prehistory of photography.

developmental approach that emphasizes the primeness of the moment and side steps the importance of the resultant object itself: the daguerreotype.

The primeness of the moment is tangibly woven into the very production of the image and it certainly explains, at least partially, the subsequent social fascination with the image. But if the primeness of the moment builds the jewel's conceptual bed, what would have happened if the jewel itself had been more...ordinary? How would that have affected the way it was embraced, interpreted, used?

Obviously, "what ifs" are beyond the historians' parameters but that shouldn't keep us from examining the object itself. Eschewing development to some degree, I propose that it was the physical form of the object itself that is a lost key to the history of photography and our current relationship to the image. Though I'm not interested in upturning the history that stands, there are several aspects of this object that have been under-theorized and that I think are crucial to the way we learned to read images. In the following sections, I will concentrate on the three aspects of the daguerreotype that are particularly relevant to the future reading of medical images: the elision of the physical and the metaphysical; the role of fantasy in the overlaying of self and other in the image; and the aura of the daguerreotype portrait that produced a particular reification of the concept of the self.

The Jewel

Neither words on a page nor pictures in a book can convey the experience of looking at a daguerreotype. As Edgar Allen Poe said of the daguerreotype in 1840: "All language must fall short of conveying any just idea of the truth" (p. 38). Made on a copper plate that has a polished, silver-coated surface, it looks like a mirror from almost any angle—hence the nick-name "mirror with a memory." However, looking at a daguerreotype is much harder than looking at a mirror. The image that one is looking at is not reflected back from the surface but inscribed *onto* it. Therefore, the image is often difficult to see: one needs to tilt the daguerreotype back and forth until the light reflected off the surface no longer washes out the various tonalities of the image inscribed on the surface. One also needs to focus one's eyes on the inscribed image itself and not on one's own image (or the image of the space around oneself) which is reflected in the mirrored surface. If one focuses one's eyes on the inscribed image, the image is visible with the blur of one's own reflected image "behind" it. If one focuses on one's reflection, one sees it "through" the blurred, inscribed image. This difficulty in the viewing process is precisely what makes the image interesting, at least to a contemporary theorist. The image seems ever elusive and magical as it fades in and out of view. It's also conceptually intriguing that as one looks for the inscribed image, one is perpetually negotiating the reflected image of one's self or the viewing context.

Like a hologram, the daguerreotype has a multiplicity to it—not because there are *different* images to see from different angles, but because the same image appears to change from different angles due to the different tones of the image reacting with the light reflected off the surface. For example, while looking at an image of a person with a dark dress and light skin, if one tilts the image in bright light, at a certain angle, that light will completely wash out the darker tones, leaving only the mirrored surface visible in their place. The lighter tones, however, are still visible, though they take on a negative appearance (as in the negative/positive photographic process). If the face is white (with the eyes slightly darker and therefore more washed out), the resulting sensation is that one is looking at the ghost of the person, their body no longer visible, but their head eerily reflected.

Most significant of all, the well-executed daguerreotype is captivating in its mysteriousness and beauty. Although it is technically an image that is etched in a simple grey scale, the apparent richness of the tones and the way the image picks up the ambient color of the viewing context adds an enchanting depth to the viewing process. The image is obviously a still image of a time passed, but the way that the tones fade in and out and the way the image seems to change from different angles makes the daguerreotype uncannily alive and of the present.

The Physical and the Metaphysical

Within the context of 19th century America or France—the more industrialized countries where the daguerreotype was wholeheartedly embraced by the growing middle class⁸—these strange qualities of the daguerreotype are quite significant. Amidst industrialization, the physical and the metaphysical were struggling to gain credence in the popular mind. Part of the daguerreotype's allure might have been its ability to blend the physical and the metaphysical (two apparently incompatible phenomena) seamlessly into one gorgeous object.

The daguerreotype was initially embraced as a tool of science. As mentioned before, it was astoundingly accurate in its replication of detail:

The extraordinary minuteness of such multiplied details as was shown in the street views.... The slightest accidental effects of the sun, or boats, the merchandise on the banks of the river, the most delicate objects, the small pebbles under the water, and the different degrees of transparency which they imparted to it—every thing was reproduced with incredible exactness. The astonishment was, however, greatly increased when, on applying the microscope, an immense quantity of details, of such extreme

⁸ Because the French government decided to make England pay for the use of the daguerreotype process due to national rivalry, the daguerreotype process was a bit more limited there.

fineness that the best sight could not seize them with the naked eye, were discovered. (*The Literary Gazette*, London, July 13, 1839, p. 444. Reprinted in Newhall, 1980).

Because the daguerreotype was produced using a technological apparatus, it was also widely perceived to be more "truthful" and objective than an image created by human hand. The camera's operator seemed to be absent from the process, the machine (and nature) seemed to be the sole agents. Early terms used to describe the daguerreotype—such as "light writing" (photo-graphy) or "nature writing itself," (*phusis aut graphus*)⁹—disavow the agency of the photographer, and thus disavow the meddling of subjectivity.

Daguerreotypes were made with a camera that was very similar to the original *camera obscura* (literally "dark room") used at least since the late 1500s as a tool for architects, surveyors and artists. "For two centuries [the *camera obscura*] stood as model, in both rationalist and empiricist thought, of how observation leads to truthful inferences about the world" (Crary, 1990, p. 29).¹⁰ A strange acknowledgment of this link between the camera, observation and truth appears in a mezzotint print by Georg Desmarées,

⁹ A phrase found in the notebooks of one of the original inventors, Nicéphore Niépce.

¹⁰ For an in depth analysis of the correlation between photography and Auguste Comte's theories of observation and positivism, see Armstrong (1998).

Portrait of the Court Painter Fanz Joachim Beich, 1744 [Plate 1]. In order to imply that the portrait was an accurate description of its subject, and, presumably, to imply that Beich himself was a truthful painter, Desmarées included a camera obscura in the image.¹¹

Unlike drawing or painting, the camera image had what has been called, more recently, an indexical connection to its subject, a one to one link that makes the image appear to be the skin of the real object.¹² Given this purported link to truth and accuracy, the image appeared to be the ideal tool to categorize, record, and study phenomena in an intellectual era that was increasingly interested in the concept of order and knowledge itself. As Crary states, “The camera obscura, with its monocular aperture, became a more perfect terminus for a cone of vision, a more perfect incarnation of a single point than the awkward binocular body of the human subject. The camera, in a

¹¹ This example, as well as others, is discussed further in Schwarz (1987).

¹² For a further discussion of the index as it relates to photography, see Krauss (1985). Oliver Wendell Holmes wrote quite poetically and prophetically about the photograph as the “skin” of the object in his 1859 article “The Stereoscope and the Stereograph,”: “Matter in large masses must always be fixed and dear; form is cheap and transportable. We have got the fruit of creation now, and need not trouble ourselves with the core. Every conceivable object of Nature and Art will soon scale off its surface for us. Men will hunt all curious, beautiful, grand objects, as they hunt the cattle in South America, for their *skins*, and leave the carcasses as of little worth” (Reprinted in Trachtenberg, 1980, p. 81).

sense, was a metaphor for the most rational possibilities of a perceiver within the increasingly dynamic disorder of the world” (p. 53).¹³

However, 19th century science, which was utterly ensconced in the process of uncovering the mysteries of the physical world, was also struggling to capture the support of a populous enamored by a competing belief system: that of the metaphysical and magical world, or what Max Weber termed "enchantment" (1991). For a variety of reasons, the daguerreotype rested comfortably on the cusp between science, enchantment, and popular culture and thus became the bridge that linked the three.

As mentioned before, the daguerreotype *looked* magical. The evanescent quality of the image and its duality as negative and positive alluded to the ghostlike, the ethereal, and the otherworldly. In addition, when developed, the image seemed to appear inexplicably on the mirrored surface. It was so much more accurate than other known methods of representation that it seemed as though it had either been created by a metaphysical force (“nature writing itself”) or that humans had begun to usurp god-like powers. William Henry Fox Talbot (1800-1877), a contemporary of Daguerre’s who invented the calotype process, said this of “fixing shadows”:

¹³ Though Crary is not talking about photography here, he later states that the photograph is modeled after this monocular construction of the observer.

The phenomenon, which I have now briefly mentioned, appears to me to partake of the character of the *marvelous*, almost as much as any fact which physical investigation has yet brought to our knowledge. The most transitory of things, a shadow, the proverbial emblem of all that is fleeting and momentary, may be fettered by the spells of our “*natural magic*,” and may be fixed for ever in the position which it seemed only destined for a single instant to occupy. (Talbot, 1839, emphasis in original)

The marvelousness of the otherworldly that is intimated in these words was not welcomed by all contemporaries. Religions that strictly interpret the first commandment and the aniconic rule, such as Muslim or Judaic, initially rejected photography wholeheartedly as the attempt to play God. The following quote from the *Leipzig City Advertiser*, a German newspaper, is revealing:

To try to catch transient reflected images is not merely something that is impossible but, as a thorough German investigation has shown, the very desire to do so is blasphemy. Man is created in the image of God and God’s image cannot be captured by any human machine. Only the divine artist, divinely inspired, may be allowed, in a moment of solemnity, at the higher call of his genius, to dare to reproduce the divine-human features, but never by means of a mechanical aid (quoted in Benjamin, 1978).

Despite grumblings by the religious, magic was deeply lodged in the popular mind as evidenced by the number of traveling magicians and magic shows in the 19th century—attractions that were not truly eclipsed until the advent of the cinema. As Eric Barnouw points out in *The Magician and the Cinema* (1981), magicians had a long history of using recent scientific discoveries, such as image projection or electricity, to

create the illusion of magic.¹⁴ Of course the key to the magic was to always keep the science hidden and the otherworldly in the forefront. Some of the more popular shows used images to create the illusion of ghosts or disappearing heads or the transformation of the body into a skeleton. The magician Robertson initiated a very popular form of entertainment around 1794 called a *Fantasmagorie*, that utilized "magic lanterns" (the precursor to today's slide projectors) to project images of bodies on smoke, giving the "ghosts" the illusion of movement.

The unique qualities of the daguerreotype image were especially suited to carry on this elision of ghost and image. In addition to capitalizing on the ghostly qualities of the image itself, daguerreotypists widely used double exposures to create the illusion of ghosts on the daguerreotype plate for customers eager to contact their dearly departed ones. Given that the technology was radically new and strange to most people and that the mirror had a mythological history that linked it to magical powers, it is understandable that individuals could believe the daguerreotype had indeed captured the otherworldly.

The daguerreotype was accepted as "truthful" not because science deemed it so from above, but because culture embraced it as so in its heart. The daguerreotype was most widely used in the first few decades for portraiture—everyone that could afford it

¹⁴Also see Barnes (1967) and Castle (1988).

got their image taken—and it is thus that the daguerreotype quickly won the hearts of people outside of the scientific community. Though historians have not discussed it at length, it is my contention that the link between the daguerreotype and the metaphysical must have been a key element to its popularity as a medium for portraiture. In a variety of times and cultures, portraits have appeared to hold a magical power. Part of this power is the portrait's ability to preserve, control and replicate time. The daguerreotype was uniquely suited to do this in a way that far surpassed any other medium. The subject of a portrait is immortally captured in one moment, defying the march of age.¹⁵ In the daguerreotype, there is the uncanny merging of permanence and temporality: the image is indefinitely inscribed and yet looks as if it were just taken, especially since it appears to change when tilted in the light.

As Otto Rank and Freud have pointed out, mythologically, the double was a form of protection from death (Freud, 1919; Rank, 1971). The casual tourist-photographer may come across this concept of the double even today. In some contemporary cultures, people still feel that the taking of an image is the equivalent of the taking of a soul, and they become quite disturbed by tourists blithely wielding cameras. Some African cultures believe that if one remembers a loved one, they stay alive (see Willis, 1994)—the

¹⁵ The attempt to defy this magic of the portrait has serious, negative ramifications in Oscar Wilde's *The Picture of Dorian Gray* (1890).

technological image enables memory to exist potentially indefinitely. As industrialization became more and more about controlling nature, the rationality of science and the mysticity of the image shared a common element: the drive to stave off death and time, whether real or symbolic.

When reading a daguerreotype, one did not have to see science and metaphysics as separate philosophical systems. Though difficult to prove, it seems clear that the daguerreotype may have helped to usher in an acceptance of science, at a certain level, by the masses. This interlinking of science and the metaphysical becomes particularly important to the issue of medical images. When a patient is tackling severe illness, there are two belief systems that are called upon simultaneously: medical science and the metaphysical (in the form of god or fate or whatever exists outside the rationality of medicine).¹⁶ The medical image, being historically linked to the metaphysical, becomes a useful way to communicate the doctors' belief system to the patient who is caught between the rationality of medicine and the sensations of the body.

Today, the physical form of the photograph has changed drastically. The images that we consume daily have lost that relationship to visual enchantment that was so

¹⁶ For the most part, unless otherwise noted, I am referring to traditional western medicine. Eastern medicine and alternative medicines do not necessarily follow the same rational constructions or the same separation between the physical and the metaphysical.

evident in the mirrored surface of the daguerreotype.¹⁷ Mostly, photography is now printed on paper and therefore has a comparatively flat quality to it. However, in *Camera Lucida* (1981), one of the most astute tributes to this magical quality of photography, Roland Barthes was able to claim that photography is “an emanation of *past reality*: a *magic*, not an art” (emphasis in original, p. 88). Along with Barthes, it is my contention that the enchantment with the image has not been entirely lost—especially if it is an image of one’s own self or family, whether as a portrait or a medical image.

The Space between Self and Others: the Space of Fantasy

Around the time that the daguerreotype was introduced to the public, the social world was undergoing two radical shifts that affected the ways that people navigated the space between themselves and others. The first shift had to do with the changes incurred by the modernization of industry. Because of the increase of jobs in urban areas that were

¹⁷ As an interesting aside, recently NASA wanted to use the daguerreotype to photograph space because of its superiority over film in capturing detail. However, the images that NASA produced did not have that luminous quality that one finds in the older daguerreotypes—they looked rather dull in comparison. Supposedly, because of the current purity of chemical science, the chemicals used to produce the images were slightly different than the ones used in the 19th century. This rationality of chemistry excluded the “impurities” that must have been responsible for those magical images. The NASA attempts become a poetic signifier of the effects of a rationality that excludes the irrational.

related to the growth of factories and commerce, individuals migrated away from smaller communities into the larger cities; such migrations had significant effects on the “mental life” of the new city dwellers. An individual, who previously might have been familiar with everyone in their community and who might have had a clear sense of their own place in that community, could easily feel lost and groundless in the sea of city faces (Simmel, 1903). As Sennett (1977) points out, individuals who were unfamiliar with the social backgrounds of those they encountered on the streets became increasingly dependent on the visual as a way to size up the other. Because of this shift (amongst other reasons), the visual presentation of self became increasingly important and directly linked to the way that one judged the other *and* one’s self.¹⁸

The second shift was related to the growth of international commerce. As shipping and trading abroad became more prevalent and as more individuals were starting to have access to the goods and images of other countries, people were increasingly coming into contact with a radical other—people with different skins, languages, objects, and customs. Like the stranger in the city street, there was very little verbal or active interaction with this other, so an individual had to understand this other by 1) the way

¹⁸ Tagg (1988) provides an excellent analysis of the ways this visual self played out in the field of the photographic portrait and institutions of control.

they (and their culture) looked and 2) the personal and social fantasies constructed around the limited information known about this other.

As industrialization and imperialism seemed to redraw the physical, cultural and existential boundaries between oneself and others, the daguerreotype helped to navigate the shifting concepts of the "individual" and the "other". Because of the mirrored surface, the daguerreotype is one of the few representations that enables one to overlay, in real time, one's own image with the image of the other or visa versa. The ability to see oneself and the other simultaneously, to play with that space that divides the two, helps one to gain some mastery, if only fantasmic, over the psychic threat of the other. Early portrait images were filled with examples of individuals fantasizing about the other. Dressing up as someone of another class or gender or nationality was a popular form of entertainment both in the photographic studio and in Victorian parlor games.¹⁹ When an individual looked at the image of an other from a foreign country, the daguerreotype automatically set up a dialogue of sorts between self and other.²⁰

¹⁹ For a further discussion of the relationship between these games and photography, see Lemmon (1991).

²⁰ Travel photographers moved to the collodian process much quicker than portrait photographers given its advantages: collodian negatives allowed for infinite reproductions and the resultant albumin paper images were lighter and more transportable. So it would be difficult to argue that daguerreotype images of foreigners proliferated in the same way that domestic portraits did. However, the dominance of the daguerreotype in early portraiture established a way of seeing that affected the reading of all photographs.

The physical presentation of the daguerreotype heightens the component of fantasy and the intricate relation between self, image, and other. The surface of a daguerreotype is delicate and easily scratched. To protect it, the image was usually placed behind a piece of glass, framed with matting (often gold and oval-shaped), and embedded in a case that was lined with velvet (usually a royal blue or maroon). The exterior of the case was most often made of decoratively tooled leather but sometimes the cases were more elaborate, inlaid with mother-of-pearl or semi-precious stones. Even the simplest cases exude a sense of luxury and beauty that transforms the act of looking into an intimate and sensuous experience: undoing the little locket-latch that holds the case close; opening up the case to find a velvet and gold bed for the "magical" image inside; cradling the case in your hands as you tilt it back and forth to see the image that is evanescently inscribed on the surface of the mirror. It is difficult to properly view a daguerreotype at the same time as someone else, so the viewing process itself is an individual, and not a public, ritual.

With the daguerreotype portrait, identity became precious, something to behold, to mold, to display. The intimate and sensuous qualities of the viewing process, combined with the accuracy of the image and the ability to simultaneously see one's self and the image, was a radically new phenomena that forever transformed the relationship between the sense of self and the image. The fact that one could dress-up and manipulate the image produced carried over into the notion that identity was somehow malleable, subject

to one's fantasies and desires. The image became a point of negotiation between oneself and the outside world.

It is also no surprise that this medium was ideal and quite popular for pornography—the most intimate, fantasmic form of interaction between self and other. “The daguerreotype’s form is the vehicle of a potent sexual charge. It indulges our voyeurism more blatantly than any other art; it permits us to do what society does not allow us to do; it allows our gaze to go unrestricted. To some degree this is the case with all photographs, but to a lesser extent in the other processes because they cannot render reality with such precision” (Wood, 1991, p. 7). Pornography enables one to imagine occupying a space and a time that is not necessarily the present, and to imagine interacting with the untouchable other. At times, the more real the image, the more the fantasy seems like reality. The daguerreotype as an object is crucial here. The viewing process is undoubtedly intimate, but also filled with the symbolic relations of holding this “other” in one’s hands. Like pornography, the linking of image and fantasy enabled an indeterminate boundary between the self and other that formed a double move. It helped one to gain a sense of power over the other by breaking down the strangeness of that other at the same time that it blurred the sense of one's own boundaries and forced one to intimately encounter, and metaphorically incorporate the other.

This unsolvable knot between self and other still haunts our current relationship to photographically derived images. The image—whether a portrait or a medical

image—provides a crucial space for fantasizing about our notion of ourselves and our place in a world of others.

The Retrenchment of Aura

Unlike the contemporary "negative/positive" process that uses film and enables multiple reproductions, the daguerreotype image is both negative and positive at the same time, but *not* reproducible (without taking another picture of it). Therefore, it is a one-of-a-kind object. The combination of factors—the strange, delicate image surface, its presentation in a somewhat fetishized case, and its uniqueness—gives the daguerreotype a preciousness, or an "aura," that is often lost with contemporary photographic images.

Walter Benjamin, in his now classic essay "The Work of Art in the Age of Mechanical Reproduction" (1936), was the first to link mechanical reproduction with the idea of aura, but his theory was that reproduction *destroyed* the aura of the object imaged. Though his discussion centers on the reproduction of art objects via film types of imaging processes, it still provides some useful theoretical tools for the notion of the aura as it may manifest in the daguerreotype and subsequent photographic techniques.

As Benjamin describes it, the aura is tied to the art object's original location; its "presence in time and space; its unique existence at the place where it happens to be" (p. 220). This emphasis on *where* the object is seen *before* it is reproduced—for example a

church or a manor house that creates a certain grandeur or enchantment about the object—is, in most cases, not as important with the daguerreotype. There is a key shift between the viewing space of Benjamin's original works of art and the "space" in which the daguerreotype is viewed: one is a mostly public or royal space that is imbued with social, public ritual; the other is the space of private ritual. Industrialization brought about a sharp split between public and private space, the "necessity" of which was theorized by Karl Marx as crucial to the workings of capitalism. By the time that the daguerreotype appears on the scene, the private, personal space had come to be viewed as the core to humanity, that which would protect the individual, and the nation, from the corruptions of modernity.²¹ This is the space that usurps the aura previously found in the church. It is a space in which the individual learns to negotiate the other and the self—no longer by means of religion or public ritual but by means of the daguerreotype and fantasy. Though some daguerreotype images did make it to public exhibition, mostly they were displayed and consumed in the home, functioning as signifiers that stopped time long enough to

²¹ According to Samuel Smiles in his 1859 book *Self-Help*: "The home is the crystal of society—the very nucleus of national character; and from that source, be it pure or tainted, issue the habits, principles and maxims, which govern public as well as private life. The nation comes from the nursery; public opinion itself is for the most part the outgrowth of the home." Quoted in Nead (1988, 33).

establish for the owner/viewer some sense of roots in a world that appeared increasingly rootless.²² Photography parallels and facilitates a shift to the private, isolated individual.

According to Benjamin, the importance of aura is that it conveys a preciousness and magnitude to an object. With the daguerreotype portrait, the aura shifts from a public domain to a private one and, simultaneously, it is the individual depicted in the portrait that becomes reified in the same way that the art object used to be. By the time that Benjamin wrote his essay, photography had already gotten into its reproducible stage and had indeed lost the ritual quality of the daguerreotype. However, he does mention that photographs of people take on the cult value lost in the age of reproduction:

In photography, exhibition value begins to displace cult value all along the line. But cult value does not give way without resistance. It retires into an ultimate retrenchment: the human countenance. It is no accident that the portrait was the focal point of early photography. The cult of remembrance of loved ones, absent or dead, offers a last refuge for the cult value of the picture. For the last time the aura emanates from the early photographs in

²² This shift, by means of photography, to the individual and the private is crucial to the way that photography is consumed today. Though photographic images are often viewed in a very public context today—advertising billboards for example—the majority of images are still consumed privately or semi-privately via television, magazines, the computer or the photo album. Even movie theatres, which seem to be public spaces, encourage us to forget that we're in public: the space is darkened, the audience reminded to stay silent. The emphasis is on the interaction between the individual (or intimate few) and the image.

the fleeting expression of a human face. This is what constitutes their melancholy, incomparable beauty. (pp. 225-226)²³

Unfortunately, Benjamin doesn't fully elaborate on this issue but locating aura in the human face does point towards the reification of the individual via the image.

Benjamin states: "The presence of the original is the prerequisite to the concept of authenticity" (p. 220). Is there a parallel "authenticity" to the presence of the original person in the portrait?

One will often hear a person comment (in disgust) upon looking at a portrait of themselves, "That doesn't look like me!" It's a truly bizarre sort of comment because of course it looks like the person—who else would it look like? The catch is that we each develop a sense of who we look like, of what the "original" is. Often, this original is based on a concatenation of images derived from the mirror, from other pictures of

²³ Here, Benjamin's coupling of melancholy, beauty, and implicit death are related to the romantic notions of death discussed later in this chapter. Carol Armstrong's division of photography into two trajectories, iconic and indexical, in many ways parallels Benjamin's recognition of the unique place of the portrait. "One might, in fact, divide the common history of photography into two trajectories, the one tilting toward the iconic side and the other leaning more heavily on the indexical aspect of the photograph: the one that of the photographic fetish, beginning with the daguerreotype and leading to the framed family photograph, the other that of the mechanical reproduction, beginning with the paper calotype and leading to the mass media incarnation of the photographic image" (1998, p. 4). One could argue that medical images stride the cusp between these two, though it is the iconic side that drives my curiosity.

ourselves, or of others in the public realm. The "original" is often an idealized notion based on what we would want to look like—and often, those "wrong" portraits are not put in the picture frames to act as reinforcement, but at the bottom of the drawer so that they don't confuse our self-image. Ultimately, the person is changed by their portrait; the person is constituted by their portrait; there is no authentic person. The human countenance becomes other than its own materiality; it becomes the concatenation of remembered and/or desired representations. This is the crucial power of the photographic portrait.

Oliver Wendel Holmes talks about photography as the "skin of the real" and Benjamin talks about how for the masses, "every day the urge grows stronger to get hold of an object at very close range by way of its likeness, its reproduction" (p. 223). Both accounts view photography as partial object, not as constitutive object. But when dealing with the representation of a human, the game changes. Both of these comments ignore the ways in which the individual's sense of self is transformed by the image.²⁴

The daguerreotype takes the idea of ritual one step further—the ritual of viewing the image becomes the partial constitution of identity formation itself. While the meaning

²⁴ To drive the point home, let's take the classic example of the myriad of negative representations of women in the media. These are not mere representations but agents that affect the way that women constitute themselves: the women either reject or internalize or reinterpret the images *in relation to* their sense of themselves. There is inevitably a certain degree of exchange between image and the sense of self.

of the work of art is "destroyed" (or I would argue, re-functioned) by representation, the meaning of the individual has become (at least fantasmically) inseparable from its representation. At that moment that an individual cradles the daguerreotype image in the palm of their hand, identity is imbued with the power and aura of the intimate viewing space; it is seen as something that can be controlled, fantasmically and is constituted as the new form of ritual. It is not by chance that Benjamin states: "The camera introduces us to unconscious optics as does psychoanalysis to unconscious impulses" (p. 237).

The full significance of this optical unconscious is difficult to grasp. To what degree does this optical unconscious still operate in the way that we use photographs? To what degree does the photographically derived ideal notion of ourselves affect our reading of portraits or even medical images? Although it seems logical that a *trace* of this original reading process remains today, there is no way to definitively pinpoint the relationship between today's medical images and these three aspects of the daguerreotype image—the way the daguerreotype dances between science and the metaphysical; its relation to the other and fantasy; and its aura and subsequent reification of the individual. However, even if one were to reject the thesis—that the way that people learned to read daguerreotypes continues to affect the way that we read images today—these aspects of the daguerreotype do at least present an interesting metaphor for today's interaction between psyche and image.

Medical images still have a magical, otherworldly and enchanting quality to them, as we will see in subsequent chapters. While they undoubtedly reference the bravura of techno-science, they also signify the more human elements of death, beauty, the “self,” and all that lies beyond the machine. Like the daguerreotype, the medical image has a legitimate foothold as a tool of science, but the simple example of women putting their fetus’ sonograms in a picture frame shows that the medical image also has a rooted place in the emotional life of popular culture. Without this popular acceptance of the medical image, would it have become so widespread in medical practice? Does medicine’s use of this image help us to accept the paths of medicine a bit more?

The ability of the daguerreotype image to facilitate fantasy and the way that it enables a viewer to confront the concept of otherness is also evident in the medical image. When one looks at one’s medical image, sometimes it is so strange and unfamiliar that it is easy to objectify as something outside of one’s body proper; it’s as if it were an image of someone else, like all the other images in the mass media. Often doctors will show the pathological image next to a “healthy” image, and one can begin to compare self and other with ease. Sometimes, one can identify with the image directly, on a psychological level. A few years ago, looking at the image of my broken arm directly provoked a physical ache in the bone itself. With the help of the image, I imagined a little mind over matter: if I drink this glass of milk, I can feel the calcium racing to mend the fracture.

These somewhat pedestrian examples show the way that the medical image has affected the psychology of everyday life. More radical effects are evident when one starts examining the relationship between a seriously ill individual and their own image—especially the way in which images change an individual's sense of themselves as we will see in the next section.

II. The Jewel's Trace: X-rays

Although the daguerreotype is no longer used as a means of reproduction in popular culture today, its impact can still be felt. By January 1896, when Wilhelm Conrad Roentgen introduced his x-rays to the world, the daguerreotype had been out of vogue for at least 15 years in the United States. Photography, in its reproducible stage, had lost the seductive correlation of magic, aura and image that had been so apparent back in 1839. As Benjamin indicates, a part of this seduction was still embedded in the photographic portrait, but it was not until the introduction of the x-ray that this trace of the daguerreotype's power fully resurfaced.

Like the daguerreotype, the x-ray enjoyed an immediate, overwhelming acceptance in popular culture.²⁵ The fact that the x-ray did not take off in medical practice for at least 10 years after its introduction indicates that somehow the x-ray touched a sensitive core in the social psyche that extended way beyond the fascination with science and technology. Maybe the best way to uncover what this core may have been is to peruse one of the richest literary explorations of the early culture of the x-ray: Thomas Mann's *The Magic Mountain* (1924).

Depicting the years just before World War I, *The Magic Mountain* reveals a world in which illness, specifically tuberculosis, appears to be enticingly sensuous and seductive. Tuberculosis symbolically becomes a disease of passion for knowledge and love and the pleasures of the body. Mann's main protagonist, Hans Castorp, is a relatively healthy man when he arrives for a short visit with his cousin, a resident of this Swiss Alps sanatorium. Though at first frightened by the strange customs of the community, Castorp is slowly sucked into its allure, not to emerge until seven years later. The reader experiences his gradual transformation from visitor to member, finally carrying in his wallet that ultimate signifier of belonging: the medical image of his lungs that proves

²⁵ The bibliography on the history of the x-ray is quite extensive. For recent discussions of the history see Kevles (1997), Reiser (1978), and Howell (1995).

disease, what the intellectual in the story, Herr Sentembrini, calls "'a kind of identification, like a passport or membership card...yes, yes...your legitimation'" (p. 238).

It is no coincidence that these words that seem so antithetical to the x-ray—identification, passport, membership, and legitimation—fit perfectly with the use and circulation of the daguerreotype portrait in the mid-19th century. The daguerreotype's ability to objectify and almost quantify its subject via the social signifiers of dress, gesture, and surroundings seen in the image made it the perfect tool for defining individuals via the various "imagined communities" (of race, class and nation) ²⁶ that were being negotiated at the time. At the tail end of the romantic movement, *The Magic Mountain* presents an alternative community, a community that worshiped the body. Admittance to this community required a verification of being, much like the daguerreotype, however it was a verification that signified one was a being-for-death. It is the x-ray showing the "strands" and "nodules" in the tubercular lung that is the passport to this world. As Mann indicates throughout his novel, the newly introduced x-

²⁶ Although Anderson (1992) uses this term specifically in reference to nationalism, I believe there are ways in which both race and class have elements of imagined boundaries incorporated into their definition. This is illustrated by the fact that today in the United States, even though we have the second smallest middle class of all industrialized countries (Russia having the smallest), most people identify themselves as middle class. Or, by the fact that if someone is "part-black/part white"—even if it is a very small percentage of black—they are considered "black", thus creating an imagined boundary of "purity" around the category "white."

ray must have presented a strange, alternative way of looking at and understanding one's self-in-the-world—indeed, a new way of identification.

Life at the sanatorium was an indulgence of the body: the monitoring of fevers punctuated by sumptuous meals and "rest cures"—enforced lounging, wrapped in blankets, on picturesque balconies. Mann states that "Illness makes people even more physical, turns them into only a body" (p. 175), thus indicating a sharp delineation between those who have their passports and those who do not. Of course tuberculosis, one of the first diseases that was successfully diagnosed with the new technology, required its members to withdraw from the outside world into sanitariums, for both public and private health reasons. The physical split between the healthy and the ill heightened the phenomenological split between ordinary people and those who entered this other, "magic" world; those who were "only a body." The x-ray, which was bereft of the social signifiers of the exterior of the body, heightened this correlation between one's state of body and one's being. Unlike previous diagnostic tools such as the stethoscope or the microscope, the x-ray enabled even the lay person to see the signifiers of belonging.

Essentially, Castorp, an engineer by training who had been caught up in the ordinary paths of middle-class German life, discovers the aesthetic body amidst this community of illness. His doctor states:

“I believe you're afraid to reveal your insides to us, aren't you, Castorp? You may set your mind at ease—our procedures are quite *aesthetic*. Look here—have you seen my private gallery?” And grabbing Hans Castorp by the arm, he pulled him over to the rows of dark glass plates; he flipped a switch. Illuminated now, the plates revealed pictures. Hans Castorp saw body parts; hands, feet, knees, thighs, calves, arms, pelvises. But the rounded living contours of these fragments of the human body were phantomlike and hazy; like a fog or a pale, *uncertain aura*, they enclosed a clear detailed, and carefully defined core: the skeleton. (p. 212, emphasis added)

Mann's term “uncertain aura” indicates that this aesthetic is taking a new and tentative direction: Medical images are positioned as artistic achievement but clearly this is an art that sidesteps the archaic rules of art historical form, possibly to reveal a truer human essence or "core." Kevles (1997) presents an hypothesis about how artists were affected once society could see beyond the skin: “If the world beyond the fluoroscope [essentially a real-time x-ray] revealed bones and ligaments, then what they saw with the naked eye was somehow false. This new sight devalued the visual world they had always assumed was the whole world. In short, many artists felt that they could no longer trust their eyes now that they knew that another level of reality underlay the superficial (p. 126).”

Art is often positioned as philosophy. It has been perceived as a tool to explore the meaning of humanity, carrying with it the platonic hangover that correlates beauty, truth and essence. If x-rays were perceived to show a new truth about humanity that somehow falsified our previous conceptions derived from naked vision, it is not

surprising that the x-ray quickly influenced the avant-garde art practices of modernism, for example, affecting the works of Duchamps, Moholy-Nagy, and Malevich.²⁷

The ramifications of this shift that Mann and Kevles are pointing out are multiple. The medical image marshaled in a heightened importance of technological vision and also denigrated the belief in the individual's ability to perceive the world—a mini-coup for the powers of medicine. Medical images take the initial step of the daguerreotype, which correlated self with image, one step further—here it is the interior of the body or one's health that defines being. Being loses a bit of its malleability that one might have found when it was grounded in one's clothes or gestures or portrait—being moves into the realm beyond the surface of the skin. The medical image, positioned here as avant-garde art, becomes the new radical rupture, the new era that signifies a new way of thinking of the body and being.

This new relationship to the physical world introduced by the x-ray also had repercussions beyond the philosophical musings of high art. Soon after the image of Madame Roetengen's bejeweled hand was published in the newspapers, it became a fashion craze for women to get their hands x-rayed [Plate 2]. The fashion was driven by more than the novelty of seeing one's own skeleton. The resultant image supposedly revealed the subject's true essence, the "beauty" that was "more than skin-deep." The

²⁷For further discussion of the effects of the x-ray on art see Kevles (1997).

implication was that once one had striped off the superficial social signifiers that one might see in the photograph, one could reveal the unadulterated beauty of one's being. Science, art, philosophy and popular culture have never come so close.

Of course, at the "core" of what Castorp sees in his doctor's "gallery" is the skeleton and thus death and beauty become inextricably linked to this new, physical perception of being. Each time Mann discusses what he calls the "intimate portraits", there is a frisson between the sensual and the mortal. In the quote below, we see Mann's remarkable ability to render a discussion of death into a discovery of palpable sensuality. Upon looking at his own hand for the first time through the fluoroscope, Castorp

Saw exactly what he should have expected to see, but which no man was ever intended to see and which he himself had never presumed he would be able to see: he saw his own grave. Under that light, he saw the process of corruption anticipated, saw the flesh in which he moved decomposed, expunged, dissolved into airy nothingness—and inside was the delicately turned skeleton of his right hand and around the last joint of the finger, dangling black and loose, the signet ring his grandfather had bequeathed him: a hard thing, this ore with which man adorns a body predestined to melt away beneath it, so that it can be free again and move on to yet other flesh that may bear it for a while. With the eyes of his Tienappel forebear—penetrating, clairvoyant eyes—he beheld a familiar part of his body, and for the first time in his life he understood that he would die. (pp. 215-216)

This is Magic Mountain; the whole scene recalls the previous century's fascination with magicians' visual games and metaphysical transformations. The x-ray

itself seemed magical and otherworldly, even to its inventor. Not knowing where the radiation rays came from, Roentgen called them “a new kind of light” (Kevles, p. 2) and thus named them “x-rays”. Roentgen’s biographer, Otto Glasser, states: “One can only imagine how this first ghostly shadow picture of the human skeleton within living tissue affected the observer. Doubt must have been followed by wonder, and perhaps by a reluctance to continue experiments that promised to bring him disrepute in the eyes of his colleagues. At that point he determined to continue his experiments in secrecy” (quoted by Cartwright, 1995, p. 114).

The words used to describe Castorp’s own experience of looking at this image—*decomposed, dissolved, airy, delicately, dangling, hard, melt, flesh, penetrating*—create a tangible, visceral aura, pulling the image beyond what might otherwise be considered a scientific or medical document. The transformation of the familiar hand into the phantomlike image is an encapsulation of time in fast-forward, a “process of corruption anticipated,” but also a heightened ability to perceive the body differently than before—the body as an uncanny process of death in life. The only thing that seems to be indifferent to time is the signet ring, the poetic witness of generations of flesh in decomposition that, unlike flesh, does not melt under the fluoroscopic rays.

However, it is not just the body as mortal and sensual and magical that Mann is pursuing in his narrative. Corruption has a *double entendre* that highlights the paradoxical linking of pleasure—a guilty and lascivious pleasure—and death.

So much for pathology, the study of disease, with an emphasis on bodily pain, which at the same time was an emphasis on the body, an emphasis on its pliers—*disease was life's lascivious form*. And for its part, what was life? Was it perhaps only an infectious disease of matter—just as the so-called spontaneous generation of matter was perhaps only an illness, a cancerous stimulation of the immaterial? The first step toward evil, toward lust and death, was doubtless taken when, as the result of a tickle by some unknown incursion, spirit increased in density for the first time, creating a pathologically rank growth of tissue that formed, *half in pleasure*, half in defense, as the prelude to matter, the transition from the immaterial to the material. This was creation's true Fall, its Original Sin. The second spontaneous generation, the birth of the organic from the inorganic, was only the sad progression of corporeality into consciousness, just as disease in an organism was the intoxicating enhancement and crude accentuation of its own corporeality. Life was only the next step along the reckless path of spirit turned *disreputable*, matter blushing in reflex, both sensitive and receptive to whatever had awakened it. (p. 281, emphasis added)

*Lust and death...intoxicating, reckless, disreputable, blushing, sensitized, receptive, awakened...*the original sin lodged not in the craving for knowledge but in the lasciviousness of the diseased spirit. The "sad progression" is not from the conscious to the corporeal as one might think in this post-enlightenment world, but the other way around—it is the enhancement and accentuation of the corporeal that is seen as our ultimate goal, Descartes be-damned. Mann manages to turn Descartes' summation of being on its head. Where Decartes links being with thinking, Mann links being with illness, or the sensations of a body-towards-death. In a parallel shift, where the

daguerreotype reified the self as a visualizable entity, here the x-ray of illness displaces consciousness with a reified corporeality.

It is here that we see the poverty of the English term "pleasure". Somehow the word doesn't capture the dialectical underside that Mann is exposing. Illness allows a certain guilty indulgence of the body that is not allowed in the world of the mind, the world of jobs and family and health. There is a subtle undercurrent of hedonism throughout *The Magic Mountain* that would be looked down upon in the "outside" world. This linking of pleasure and death is perhaps best symbolized by the memento of Castorp's new found love that he carries about in his breast pocket: Claudia's interior portrait "...without a face, but revealing the organs of her chest cavity and the tender framework of her upper body, delicately surrounded by the soft, ghostlike forms of her flesh" (p. 343). Though clearly a signifier of her death, for Castorp, this x-ray oozes with reverence for the body. As Kevles notes in reference to Castorp's fascination, "[x-rays] served as a preview and an analogy to the sex act, one of life's few opportunities of being inside another person" (p. 122).

The linking of x-rays and sensuality is not some strange product of Mann's mind—the link was thoroughly evident and talked about in popular culture as well. "From almost the day of their discovery, x-rays had been connected facetiously, frivolously, sensuously, pruriently, and seriously with sexuality" (Kevles, p. 120). Fearful that the x-ray would make it out of the doctor's office and into the public realm, some

entrepreneurs marketed ray-proof underwear while others lobbied vociferously to outlaw the possibility of x-ray opera glasses.

We are sick of the Roetengen rays.... The consequence of which appears that you can see other people's bones with the naked eye.... On the revolting indecency of this there is no need to dwell.... Perhaps the best thing would be for all civilized nations to combine to burn all works on the roentgen rays, to execute all the discoverers, and to corner all the tungstate in the world and whelm it in the middle of the ocean. Let the fish contemplate each other's bones, but not us. (1896, quoted by Cartwright pp. 119-120)

Before the x-ray, there was a certain discretion, boundary and privacy allowed by the skin. Doctors, respectful of public decorum, had even been hesitant to touch their patients (especially female patients) when making a diagnosis. But here was a technology that could see through, could expose the hidden with all of the associations that come along with such a feat. The implied voyeurism upturned the relationship between what is public and private. It is here that we find the strange situation in which Castorp can carry close to his heart an image—a portrait that is somehow more than naked—of a woman he has barely talked to. This is a symbolic intimacy and pleasure at the crossroads of the medical world, the body and death that was not possible before the advent of photographically-based medical images.

Clearly *The Magic Mountain* was written on the tail end of the romantic movement, that pre-World War I era that glorified in the sensuous and dramatic intensity

of the body-for-death (Aries, 1991). The patients of Magic Mountain have a certain resigned attitude towards their illness. They don't seem to invest in the notion of an all-powerful medical system that promises a cure, nor do they seem to believe that through sheer determination, the patient can will a cure, mind over matter. Treatment is to indulge the body—not to be too eager to re-enter the world but to accept that one must eat and rest and take leisurely walks and not get too caught up in the passionate discussion of politics or life. The treatment is to withdraw and accept. What is highlighted is the strange fascination with bodily processes and the sense of an intimate, individual community, in touch with the bodily. The taking of one's temperature daily, the constant monitoring with x-rays...is it a sense of control? Is it a verification of being alive in the face of inevitable mortality? A needed drama? A sense of milestones? Perhaps just a reminder that the body rules and that entwined in illness one often finds a hint of sensuality and *jouissance* (a French term that is difficult to translate but that is connected to the concept of pleasure).

For our purposes here, it is significant to remember that the readings of the first x-rays were thoroughly grounded in the multilayers of social meaning that swirled about them. Yes, the x-ray had one foot solidly planted in the medical, scientific and technological worlds. However, in addition, popular culture, which was tenuously connected to those worlds, used the x-ray in a radically different discourse. The public first learned to read the x-ray image through the more vague innuendoes of sensuality,

metaphysics, beauty, identity, death, truth and reverence for the body. These are the innuendoes that, strangely enough, may linger today. It is hard to imagine the relevance of all of these romantic readings of the image, especially when one is sitting in front of one's own medical image that might signify radical pathology. Indeed, if the x-ray were to have been developed in the late 20th century instead of the late 19th century, it would undoubtedly have had a radically different reception and social meaning. However, it is entirely possible that some trace of the "unconscious optics" introduced by the daguerreotypes and the x-rays of the 19th century remains in our current relationships to medical images. Although the medical world can often seem overly rational and scientific, as we'll see in the next chapter, traces of 19th century romanticism can still be found in the image today.

CHAPTER 2:

Beauty As A Function Of Social Desire

Within the dense welter of our material life, with all its amorphous flux, certain objects stand out in a sort of perfection dimly akin to reason, and these are known as the beautiful. A kind of ideality seems to inform their sensuous existence from within, rather than floating above it in some Platonic space; so that a rigorous logic is here revealed to us in matter itself, felt instantly on the pulses. Because these are objects which we can agree to be beautiful, not by arguing or analyzing but just by looking and seeing, a spontaneous consensus is brought to birth within our creaturely life, bringing with it the promise that such a life, for all its apparent arbitrariness and obscurity, might indeed work in some sense very like a rational law. (Eagleton, 1990, p. 17)¹

Why are we attracted to things that are beautiful? What role does art and Beauty² play in our lives, in our ways of perceiving the world and relating to others? Though these questions are in many ways internally flawed (who is "we" and what is "beautiful") and ontologically unanswerable, they have been tackled by philosophers as diverse as

¹As will become evident by the multiple references to this text, I am indebted to Eagleton's creative exploration of aesthetics and ideology.

² Throughout this chapter, Beauty and Nature are capitalized to indicate their reified form.

Plato, Theodore Adorno, and Jesse Helms. They also become loaded questions when one is confronted with a “beautiful” medical image.

In the summer of 1994, I found myself in a hospital room. My mother lay on the bed, hooked up via wires to a TV screen. The technician came in and started the exam, moving a hand held device over her chest as we watched the movement translate into a video image. They were doing an echocardiogram of the heart. It was a beautiful image that resulted: bright blues and reds pulsing accompanied by the squishing, deep sounds of blood pushing through the heart. I was transfixed, and immediately thought this would be an incredible art piece. Roll one of these machines into an art gallery with surround sound speakers and let the audience be engulfed in their own pulsing heart.

Of course, later that day I was kind of shocked by my reaction. I thought that maybe my head had been tied up in the art world for so long that I was no longer able to relate to life without reference to art. This wasn't an everyday life experience. My mother had advanced lung cancer and that picture was of a pulsing heart that would soon stop. It was a heart that was genetically and emotionally linked to mine. It was an image that was unfathomable for both of us. And I was thinking about Beauty.

That perplexing moment which fused Beauty, death, kinship and the medical image is a difficult knot to unravel, but it radically affected my understanding of my mother and her illness. Clearly, the moment revealed that the medical image is much more than a simple, diagnostic tool. It was not until three years later when I came across

a popular book of artified medical images that I was able to begin to explore and understand the role of aesthetics in that moment.

In 1997 Warner Books and Alexander Tsiaras came out with a coffee table book called *BODY VOYAGETM: A Three-Dimensional Tour of a Real Human Body* which combined aesthetics, computer technology and medical images in a very strange, haunting, and beautiful way. The book flap states:

You are about to witness a phenomenon almost no one has ever seen before. You are going to experience the wonders of the human body through revolutionary images generated by computer techniques at their most advanced. The medium is the familiar x-ray transformed into an art form. The results are pictures of the human anatomy that are startling, provocative, and breathtakingly beautiful.

Alchemy meets the revolution meets the techno-scientific meets entertainment meets high art. In the introduction to the book, John Hockenberry very clearly and intentionally positions these images as art. Seemingly ahistorical themes of aesthetics ~~seem~~ to popup over and over again in the course of his sentences: "sanctuary"; "harmonic chords"; "Greek-sculpted marble"; "search for soul"; "characters of Bosch"; "stained glass angels soar in the cathedral at Rheims." Indeed, even if you don't read Hockenberry's words, it's hard not to browse through this book without wondering whether the images are hanging in an art gallery somewhere. They are dramatically presented on black, high gloss paper,

and the vibrant and often ghostly colors seem to be a treatise on the philosophical, not chemical, composition of the body.

Though "merely" a popular culture, coffee table book, it's hard not to ask what function these images have and specifically, what role they may play in the medical arena. It is a curious thing that medical images of the human body, at times stark signifiers of pathology, are often positioned as beautiful in mass circulation books, magazines and even specialized scientific journals.³ Or *is* it so strange, given our historical and ideological relationships to the notions of Beauty, aesthetics, and truth? It is my contention that it is not just a coincidence that some medical images conform to current concepts of aesthetics. These images (Tsiaras' as well as others) are being affected, either on a conscious or unconscious level, by the belief in the powers of science and technology to overcome adversity and to perform "wonders," and in the desire for medicine to be omniscient. On one level, the Beauty of the image may

³Though each person has an individualized relationship to the concept of beauty, the definition of something as beautiful is often formulated via cultural and temporal factors, and thus, there is often a dominant notion of what is beautiful in any given time and space. Though not everyone will concur, the following discussion is based on the assumption that some medical images produced today, especially the computer-generated images often used in research, conform to a dominant concept of beauty in contemporary America. Though things aesthetic (loosely defined as that which has sensuous qualities) are not always deemed beautiful, the aesthetic and the beautiful will often be used interchangeably in this chapter.

somehow help to distract us from the reality that doctors and scientists don't always know what they're doing and that technology is not always progress. On another level, a level hinted at in the romantic musings of Thomas Mann in *The Magic Mountain*, the Beauty of the image recalls a history of aesthetic theory that deals more generally with the relationship between the individual, the social and the natural world.

Before analyzing the social construction of Tsiaras' images more closely, it will be important to address this history of aesthetic theory and, specifically, the way that ideas about aesthetics have been used by philosophers to locate the self and the body in a world radically transformed by modernity. It is clear that the notion of the self today is still, to some degree, grounded in events and theories of the not so distant past:

Descartes' split of the mind and the body; the enlightenment's new conceptualization of the "individual"; and the transformed relationships among humans, machines, commodities and Nature brought on by industrialization. Interestingly, aesthetic theory was used to understand and contend with each of these phenomena.

Nexus of Humanity and Community

Philosophizing about Beauty is hardly of modern origins, but a resurgence of interest in Beauty can be clearly traced to the Enlightenment era, and is especially prominent through the 18th and 19th centuries, soon after Alexander Gottlieb Baumgarten

introduced the term aesthetics to philosophical parlance. This of course begs the question: Why *then*? Perusing the history of thought, it appears that there is a correlation between the emergence of aesthetic theory and the changes in the social realm at that time—such as shifts in the social structure, the social effects of Enlightenment thought, the rise of the commodity, and the relationship to Nature.⁴ As Chase and Shaw (1989, p. 3) note, radical changes such as these often lead to a general feeling of instability in the social realm.⁵ For many, this instability breeds a sense of nostalgia for the (imagined) past and the attempt to find some idea or reference point that reconfirms that all is still well in the world. Often, this nostalgia and search for reconfirmation leads to the idealization of a supposedly ahistorical phenomena—something that will never change, despite the turmoil of the present. It is my contention that the aesthetic, at least partially, filled this roll.

⁴Mortensen (1997, p. 8) ties the increased interest in the arts to the period following the 1688 revolution in Britain, and the pursuant collapse of the old social order. The appreciation of the arts became a way of reestablishing the lost social order.

⁵ These authors outline several factors that are usually present in a society that inclines towards nostalgia: 1) the present time must be perceived as unfavorable or unsatisfactory, thus leaving the individual longing for a change; 2) the society must perceive time linearly instead of cyclically (if perceived cyclically, then it will be assumed that the fortuitous or pleasurable period remembered will be reinstated); 3) if a society believes in “redemptive histories” there is a decreased possibility for the infusion of nostalgia (for example, if the present is perceived as just a stage or a rite of passage on the road to some better place (as in religious salvation), one will not be looking back nostalgically but rather forward in anticipation).

This sense of social insecurity during the 18th and 19th centuries is manifest in two fears that reoccur in philosophical and popular writings of the time: 1) the fear that amidst the movement towards modernity, society has lost touch with its own "humanity;" and 2) the fear that, with the birth of the "autonomous, rational" individual, society has let the bonds of human community disintegrate. It is amidst these two fears, which share a sensation of human discordance and chaos, that ideas about the role of the aesthetic in society are constructed.

The aesthetic or beautiful was seen to embody two purported goals of enlightenment thought: order and harmony. To be able to recognize and appreciate these qualities was (and is?) perceived to be a core and functional part of being human. "To love and admire Beauty is advantageous to social affection, and highly assistant to virtue, which is itself no other than the love of order and Beauty in society."⁶ Many felt that the aesthetic was a phenomena outside of the subject to be recognized, and the recognition of something as aesthetically pleasing revealed an almost intuitive quality that indicated that humans were in harmony with the forces of both Nature and the social. Theorists such as the Earl of Shaftesbury (Anthony Ashley Cooper, a widely read philosopher in Europe) and Adam Smith believed that two individuals who mutually recognize that something is

⁶Shaftesbury, *Characteristics* (Gloucester, MA 1963), Vol. 1, p. 79, cited by Eagleton, 35.

aesthetically pleasing, have acquired a form of "shared humanity," of intersubjectivity on the grounds of common feelings.

David Hume indicated that appreciation of the aesthetic lends itself to a form of disinterestedness, i.e. to judge aesthetically one must step outside of one's own self interests and tastes to recognize that something is *universally* beautiful. In this sense, the individual ego must be set aside in favor of a communal sensibility, one that creates a sense of mutual solidarity in and of itself—a resonant idea at a time that the concept of the individual was being redefined. According to Immanuel Kant, the concept of taste is not something inherent to the object, nor could it be a product of the interests of the subject (given the diversity of individuals) and so taste or recognition of the aesthetic must be some kind of innate, structural aspect of being human. Thus, "part of what we enjoy in the aesthetic, then, is the knowledge that our very structural constitution as human subjects predisposes us to mutual harmony...the aesthetic is this experience of pure contentless consensus where we find ourselves spontaneously at one without necessarily even knowing what, referentially speaking, we are agreeing over"

(Eagleton, p. 96).

Clearly, it is society's struggle with the concept of the individual that is at the crux of this philosophical debate. The primary threat posed by this new individual was its separation from the whole, the ways in which it threatened the idea of people working harmoniously together in one "family of man." Aesthetic theory worked hard to make

sure that there was something that still linked these increasingly separated and independent individuals. The admiration of Beauty came to serve as glue for the social.

Even though the concept of the individual is not as threatening now, especially in the United States, as it was back in the 18th century, the perceived correlation between the concepts of humanity, community, and Beauty has been an enduring one. The expression "to commune with Nature" is a good example. Despite what some may think, it is not an expression that appeared in the 1960s. The expression was particularly popular in 19th century America, a time when philosophers such as Ralph Waldo Emerson and Henry David Thoreau were trying to grapple with the contradictions inherent in a new nation, one devoid of salient historical or cultural roots, one that was increasingly caught in the tensions between science and god; technology and Nature. At this time of soul searching, it was almost a prescribed medicine, a salve for the ravages of modernity, for individuals to go out into Nature and enjoy its Beauty.

But pleasure and health were not the only beneficial effects of Nature worship: by appreciating Nature, one in fact was re-learning how to form a sense of community with one's fellow human. With the spread of Protestantism, God became a primary focal point of the notion of community—individuals, no matter how diverse, at least shared positions as sons, daughters, and servants of God. As Enlightenment thought slowly eked out the death of God, a vacuum occurred where community once was. As Novak (1980) points out, Nature, a repository and symbol of national pride in this new country, was seen by

some as the physical embodiment of God's being and its Beauty signified God's implicit approval of the human march towards progress—rationalized into the doctrine of Manifest Destiny. By the time Nietzsche proclaimed that "God is dead" at the end of the 19th century, Nature had come to replace God's role as spiritualized guidance. For both those who believed and those who did not, the appreciation of Nature's Beauty was a nodal point in human relations and testified to the essential harmonious balance between progress, individuals, community, and the universe.

Reverence for an object or idea often springs from the fear that it could be lost: this partially explains the 19th century reverence for Nature amidst industrialization as much as the renewed interests in debates about God and the aesthetic, humanity and community. Taking into account the psychological effect of the economic recessions, which plagued America in the 19th century with turmoil, one might find the nascent fear that Nature and Beauty were tottering precariously close to modernity's damaging forces.⁷ Reinventing the roles of these two phenomena—making them into signifiers of harmony not imminent destruction, of community and humanity as opposed to alienated autonomy—was a form of preservation. It should be no surprise that the expression "to

⁷Though Nature is not widely perceived to have a threatened position until at least the 20th century, the writings of Ruskin and Thoreau clearly point towards an imminent tension between modernity and Nature.

commune with nature" resurged in common parlance in the '60s in America: once again, the precarious positions of Nature (voiced most poignantly in later years by Carson, 1962) and Beauty (threatened most visibly by the ravages of war in Vietnam) were conscripted to cure the growing fissures in social cohesion.

As this brief introduction might indicate, the aesthetic was positioned in the 18th and 19th centuries as the tangible manifestation of order and harmony in the social world, as the central point of identification between individuals, and as the antidote to the ever-threatening rampant individualism that threatened communal bonds. As Eagleton points out while discussing Smith's *Theory of Moral Sentiments*, "the aesthetic is in this sense no more than a name for the political unconscious: it is simply the way social harmony registers itself on our senses, imprints itself on our sensibilities" (p. 37). Social *desire* creates and drives this political unconscious, this attitude towards the aesthetic. At this point, we might redefine the aesthetic as the *desire for social harmony*, a desire that is projected onto Nature, objects, and other phenomena that are deemed beautiful.

The Veiling Powers of Beauty

It's important here to emphasize the positive sides to this role of the aesthetic as political unconscious. Social harmony, notions of sympathy and community with others are inherently advantageous forces when navigating the difficulties of the social world.

Unfortunately, nothing comes without its flip side. All of the philosophizing about humanity and community certainly points, as mentioned, to a rift in the notion of social cohesion itself, a rift that aesthetic theory tried to veil more than fix. Social cohesion was also threatened by other components of modernity: the negative ramifications of Enlightenment knowledge, the dilemmas of bourgeois society, the rise of absolutist political power. Again, the aesthetic was used to veil the problems that arose from these radical changes.

By the time Baumgarten was broaching the subject in his *Aesthetica* of 1750-58, the discourse of aesthetics was not strictly tied to objects or art, but rather, it primarily revolved around the body, a perceiving and sensuous body as the Greek term *aisthesis* suggests (Eagleton, p. 13). In the mid-18th century, the term "aesthetic" was not that which distinguishes between

‘Art’ and ‘life’, but between the material and the immaterial: between things and thoughts, sensations and ideas, that which is bound up with our creaturely life as opposed to that which conducts some shadowy existence in the recesses of the mind.... That territory is nothing less than the whole of our sensate life together—the business of affections and aversions, of how the world strikes the body on its sensory surfaces, of that which takes root in the gaze and the guts and all that arises from our most banal, biological insertion into the world. (Eagleton, p. 13)

This notion that our intellectual and biological constitutions have been clearly demarcated—persuant to the Enlightenment desire for mind and body to be imprisoned in their own separate domains—is a division that, despite subsequent efforts by phenomenologists and others who have pushed for reunion, has persisted to this day as a nagging hangover in all pursuits of knowledge. The main culprits responsible for this split were the changes in scientific investigation and the growing belief in a rational world of objectivity in which the "deceptions" of the senses could be filtered out via technology or regimented experimentation.⁸ As Horkheimer and Adorno (1944) point out, the Enlightenment is the equivalent of the disenchantment: the banishing of things that hover in an ethereal realm of myth, indeterminacy, and the corporeal; the usurpation by things quantifiable. The concept of the "rational" spread beyond the reaches of science, governing the movements of law and institutions of power as well.

One theory for the rise of interest in things aesthetic has to do with this change in science: "When empirical and scientific forms of explanation of natural phenomena become predominant, nature, including human nature, becomes objectified, which leads

⁸This split between mind and body is crucial to the relationship between aesthetics and medical images. Crary (1990) argues that certain visual technologies in the 18th and 19th centuries were integral to the paradoxical abstraction of vision from the body, and enabled the belief in a disembodied observation that became the hallmark of science.

to a break or a form of loss in relation to earlier, more holistic approaches. The new sciences do not concern themselves with the truth of human existence” (Mortensen, 63-64). The arts, it is hypothesized, were seen to compensate for this. Beyond mere compensation, as the senses became increasingly banished from the machinations of the mind, there was a realization that the rational alone was insufficient to navigate the social world—one also needed to take into account the whims of the sensate, with all of its indeterminability. Here enters the aesthetic.

Reason needed to somehow contend with the existence of sensation, which operated with a different logic and language; political power needed to somehow gain control of subjects often ruled not by cerebral abstract laws, but the body sensate. Kant argued that the aesthetic is part and parcel of the "need of a mediatory zone which will bring this order of pure intelligibility home to felt experience” (Eagleton, p. 83). For Kant and Baumgarten, though mind and body are irrevocably separate domains, they do share a moment eye to eye when confronted with an aesthetic phenomena. This moment, when the aesthetic phenomena simultaneously presses itself upon the sensate body and is recognized by the intellect as "beautiful," is perceived to help the individual (and society) to breach the gap between what has come to be termed the rational and the irrational. As Eagleton suggests, it is by understanding and wielding the aesthetic that systems of power can navigate the space between subjects and abstract laws.

At the same time that the mind becomes split off from the body, we see that the bourgeois individual suffers a similar sectioning off from the whole. Alexis de Tocqueville (1840) looks at the dilemma of the bourgeois individual that is increasingly condemned to a life of autonomy, and for that individual, the aesthetic comes as the ideal juncture between autonomy and the communal. The new "middle" class is caught in a tough bind: at the same time that it is pushing towards a kind of universal subject position, it is also pining for that idealized individuality, what today we call "uniqueness." "If the aesthetic intervenes here, it is as a dream of reconciliation—of individuals woven into intimate unity with no detriment to their specificity, of an abstract totality suffused with all the flesh-and-blood reality of the individual being" (Eagleton, p. 25). The aesthetic serves again as a reference point between people. Getting together to discuss or view art showed class allegiance towards an activity that typified *individual* production. Here, the appreciation of Beauty is intimately tied to the veiling of the contradiction between individual and class.

Yet, while aesthetics seemed to reconcile autonomy and class, paradoxically, it was increasingly used as a way to distinguish between the classes. In the old social order, an individual's status in society was directly linked to birth. As Mortensen argues, with the demise of the old authorities and clear social distinctions during modernity, "taste" became one of the key indicators of social standing. David Hume in his two influential 18th century articles, "Of the Delicacy of Taste and Passion" (1741) and "Of the Standard

of Taste" (1757), discusses the idea that while there is a universal standard of taste in society, only some individuals are sufficiently freed from prejudice and have the acute and delicate senses that are required to judge good taste. As Lawrence Levine (1990) points out in his study of Shakespeare in 19th century America, an individual's appreciation of things aesthetic became tied to that individual's identification with a certain class. Appreciation of what later became known as "high" art served to distinguish the "higher" classes from the "lower" classes.

Within this developing 18th and 19th century hierarchy along the lines of aesthetic "taste" lies the roots of the notion of an artistic avant-garde that emerged at the turn of the century: the idea that certain cultural producers are on the forefront of ideas, ideas that will lead society onward and upwards. By association, those who appreciate these avant-garde forms are the ones who are also on the forefront—of progress, ideas, class, whatever is considered the "forefront" at that particular cultural moment.⁹ Though in art circles today, classic concepts of Beauty have often been usurped by what is termed the

⁹This artificial distinction between "high" and "low" is still linked to class ideology today—evidenced by the "High/Low" show at New York's Museum of Modern Art (October 7, 1990-January 15th, 1991); a distinction evident with a critical reading of Kramer's (1990) review of the show. Though the original avant-garde positioned itself as anti-bourgeois (see Burger 1984), today "appreciators" of what has come to be known as high art or the contemporary avant-garde (though Burger argues that the term avant-garde is an historical term that cannot be used to describe today's art) often simultaneously identify with bourgeois ideology.

"anti-aesthetic" (Foster, 1983), the notion of progress is still linked to the term avant-garde. This developing notion that some are better able to appreciate Beauty (or dissonate Beauty) than others is not so ideologically separate from Herbert Spencer's idea of Social Darwinism, especially since many philosophers (including John Ruskin) believed such ability to appreciate was hereditary.

As can be seen by some of the above ideas, the aesthetic was at times an eclectic notion that helped to veil and naturalize a social world increasingly characterized by a split between the rational and the irrational as well as dilemmas relating to the reification of the individual and the stratifications of class. Where politics and Victorian morality failed to patch up the growing rifts in the social order, the aesthetic stepped in to veil those rifts.

The Commodity's Antithesis

Though it could be argued that aesthetic production today is carried out in a thoroughly commodified art market, the aesthetic object of the 18th and 19th centuries was seen as quite separate, at least ideologically, from the commodity. The proliferation of mass-produced items set the stage for the production of a fetishized space for art that

became one of the last respites of individualized, manual production.¹⁰ The word fetishized is used specifically in the Freudian sense here. According to Freud (1927), a fetish results when desire for an object that is threatening is redirected onto another, less-threatening object. At the same time that the commodity was used, displayed, and desired as a signifier of self,¹¹ it embodied a dialectical threat to that individuality given its mass-produced and alienated form. Like the fetish, the aesthetic was put into a separated category that denied the potential threat posed by the commodity and the changes of modernity.

Again, it is no happenstance that aesthetic discourse is re-discovered at the time of cultural commodification. As Simmel (1903) states: “To the extent that money, with its colorlessness and its indifferent quality, can become a common denominator of all values it becomes the frightful leveler—it hollows out the core of things, their peculiarities, their specific values and their uniqueness and incomparability in a way which is beyond repair” (p. 330). The newly formed role of aesthetics was significant to the producer (the artist struggling to distinguish his or her activities from the debased commodity producer), as well as the consumer (the bourgeois subject looking for an alternative to

¹⁰ Hence the perceived threat to art posed by mechanically-produced photography.

¹¹ Sennett (1977), expanding upon Marx's theory of commodity fetishism, makes an interesting correlation between the rise of the commodity as signifier of self, the alienation of work, and the depersonalization of social interaction in industrialized cities.

alienated objects), and to the new class formations (that turned to aesthetics as signifier of the divide between "high" and "low"). Each group had a desire to support a reified notion of aesthetics.

The aesthetic became a respite of the soul, the spiritual counterbalance to the degradations of materiality. As objects increasingly embodied the tangible manifestation of the alienated relations between people, the aesthetic acquired a symbolic value of non-alienation that revealed the "essence" of humanity, and the "meaning" of life. One of the reasons the aesthetic commanded this symbolic value was due to the fact that amidst a world utterly geared towards functionality, the aesthetic was seen as functionless, autonomous. The "autonomous" nature of cultural productions refers to their (nominal) severance from social function (such as their use as ornament, sacrament, or religion). As Herbert Spencer phrased it, "the aesthetic character of a feeling is habitually associated with separateness from life-serving function." As an autonomous production, the aesthetic carried a philosophical weight that the functionality of the commodity could never carry. Because it purportedly had no *raison d'être* outside of itself, art was positioned as a signifier of human superiority and advancement—unlike the animal kingdom, human activity moved beyond mere survival. Again, there is a social Darwinist flavor to this belief in the superiority of autonomous production, typified by the late 19th

century Aesthetic School that promoted "Art for Art's Sake."¹² This belief also partially explains the chilly reception, even today, to art that has "political" intentions.

Not surprisingly, the rise of the autonomy of art and the positioning of art as the jewel of human production parallels the rise—and *acceptance*—of the autonomous individual. In the 18th century, mutual aesthetic appreciation by two individuals signified a shared social bond. By the end of the 19th century, aesthetic production acquired a new and conflicted layering of meaning: the discounting of mass (social) production and the reifying of individual production and appreciation.

The link between autonomy and the aesthetic, whose initial influential supporter was Kant, remains to this day. As Mortensen phrases it: "According to this idea [of art's autonomy], when we contemplate art we adopt a specific 'aesthetic attitude' which serves to bracket whatever practical, moral, religious, political, or other concerns we may have, and we attend to the object in an aesthetic manner only" (Mortensen, p. 107). In other words, the social has been bracketed, while the individual is privileged. Connected to the concept of functionlessness, the aesthetic attitude enables us to carry Beauty outside of

¹²In the history of photography, the aspiration to push the medium to the status of art was often held by photographers who believed art would lift humanity out of the deep morass of modernity. Not coincidentally, these individuals also tended to feel particularly threatened by the ways of the lower classes and perceived their mores to be faulty, in many ways, the cause of the morass: Julia Margaret Cameron and Alfred Stieglitz being prime examples (see Wollheim 1982/3).

the materiality of the everyday and imagine that it exists in a meta-world, one that is pure and innocent. This contradiction embedded in the aesthetic theories that span the 18th and 19th centuries—a contradiction between the social and the individual—is not resolved today. The aesthetic continues to take on both meanings, often simultaneously.

It is this symbolic position of the aesthetic as signifier of human essence, pinnacle of individual and social achievement, and receptacle of purity that renders it most dangerous: who would dare criticize that which defines us as human? Who would dare call aesthetics ideology, the veil of power, the tool of capitalism when it is seen as our greatest asset? The aesthetic was (and is?) positioned as "the wan hope, in an increasingly rationalized, secularized, demythologized environment, that ultimate purpose and meaning may not be entirely lost" (Eagleton, p. 88). To this day, the aesthetic is laden with romantic notions about its position as one of our greatest achievements. Of course, one of our other "great achievements" is technology. Thus the medical image, combining aesthetics with technology, has to this point sustained an almost uncritiqueable position.

Fantasy and Totality: A Psychoanalytic Approach

One can view the aesthetic as a tool of fantasy: a vacated, functionless space into which amorphous notions such as individuality, community, humanity, and modernity can be projected and then transformed into the material, the tangible. The realm of

fantasy, which the child learns to use as an initial foray into the terrors of the world, becomes an inextricable component of all future encounters between an individual and his or her surroundings. It is in its fantasmic form that the aesthetic helps us to disavow a world that has become uncomfortably utilitarian and pragmatic. At a time of confusing change, aesthetics became the utopian alternative to everyday life.¹³

"The dream of transcending one's own petty subjecthood is a familiar enough idealist fantasy; but it generally turns out to involve a flight into some higher, deeper form of subjectivity, with a corresponding gain of omnipotent mastery (Eagleton, p. 170)." The aesthetic is all about "higher" and "deeper," all about omnipotence (in the face of impotence). The idealization of the artist is an excellent example of these aspects of the aesthetic.¹⁴ Despite the ravages of Jesse Helms, we do indeed live in a society that often puts the artist on a pedestal. To say "I am an artist" is a loaded statement, a socially constructed notion of being. In western society, the artist carries the signifier of reverence

¹³ Adorno's (1970) reading of autonomous, modern art as the pinnacle of politics follows along this line of thought: the idea that functionlessness is somehow situated as the ultimate rejection of capitalist functionality. Though this politicization of autonomy is rife with philosophical dilemmas (namely, by privileging the functionless, Adorno has ignored politically savvy and effective work), it is significant as an example of the ways in which we continue to see a dialogue between the problems of capitalism and the ideology of art.

¹⁴ Although the following characterizations are stereotypes and ideal notions that rarely take material form in the lives of artists today, after teaching classes on art for the last 10 years, I've noticed that this ideology of the artist remains latent in the ways that art is discussed.

for one who has purportedly "gotten in touch with their feelings," feels the world more sensitively or intensely, and has gotten beyond the baggage of materiality and found access to "truth". The artist is our Shakespearean jester: the one who may be a bit strange, but the one who has their finger on the heartbeat. I once heard someone say, "I can't communicate with anyone who is not an artist" as if the category "artist" automatically reifies someone, lifting them above the deceptions of daily life.

Embedded in this attitude towards the artist is the hangover of Ruskin's philosophy: the belief that the artist has maintained their "innocence," their childlike relationship to the world and thus not been corrupted by the materiality or functionality of modern life—or at least they have transcended it. "Harmony," "totality," "at one with the world:" fantasies such as these are often projected into the world of the artist.¹⁵ In the process of our idealization, we have created an artist who has not succumbed, who remains the master of his or her world, the peruser of the core of humanity—a state we wish for ourselves if only we could shrug the duties of laundry, bills and the torturous hours between 9 and 5.

This fantasy—that rings of mastery, harmony, totality, and innocence— is ever so reminiscent of the fantasies of a child described in some psychoanalytic theories.

¹⁵Interestingly, these three fantasies are at the core of many self-help manuals of today, as we will see in Chapter 3.

The psychoanalytic register of the imaginary involves a peculiarly intimate relation of the infant to the mother's body; and it is possible to catch a glimpse of this body, suitably screened, in Kant's aesthetic representation. What else, psychoanalytically speaking, is this beautiful object which is unique yet universal, wholly designed for the subject and addressed to its faculties, which in Kant's interesting phrase 'relieves a want' and brings us keenly pleasurable sense of repletion, which is miraculously self-identical and which, though sensuously particular, evokes absolutely no libidinal impulse from the subject itself?...The bliss of the aesthetic subject is the felicity of the small child playing in the bosom of the mother, enthralled by an utterly indivisible object which is at once intimate and indeterminate, brimming with purposive life yet plastic enough to put up no resistance to the subject's own ends. (Eagleton, pp. 90-91)

When Lacan talks of the concept of lack, he is referring to the child's loss of (and desire to reattain) the wonderful (though fantasmic) unity initially shared between mother and child—a totality in which the mother fulfilled all of the child's wants, left nothing lacking. This concept of lack carries over into Lacan's metaphor of the mirror stage: the child, whose body is lacking coherence given his/her fractured motor skills, recognizes in the mirror image a sense of totality, unity, wholeness. The child's initial encounter with this self-as-totality (through representation) becomes the ideal that carries forth with the child, an ideal that the child simultaneously strives for and assumes as its own (see chapter 4 for further discussion).

Is it so far fetched to extrapolate that our desire for an aesthetics that signifies totality, omnipotence, and innocence is born out of our desire to reunite with the

fantasmic totality experienced between mother and child? Is the child's reaction to a perceived lack so different from the Kantian subject who discovers "a unity and harmony [in the object of Beauty] which are in fact the effect of the free play of its own faculties"? Both cases are a misrecognition: the subject imputes to the object (mother-child, mirror image, object of Beauty) a totality that is, in fact, not of the object but a projection of the *subject's desire*. In this sense, Beauty is a mere fantasy, a desire that says more about interior psychology and social psychology than external reality. It is a desire to simplify and totalize, a desire to create a story that veils the messy complications and contradictions of life.

Hypothetical Effects of Beauty in the Medical Image

We weave, as it were, stories based on the way we understand our lives. The modern conception of art is an important part of the way many people view their lives, an integral part of their personal narratives. (Mortensen, p. 9)

In the 18th century, as the old social order collapsed and fears of a threatened humanity and community were rampant, Beauty became a key concept. It was constructed as an ahistorical reference point for society's innate humanity—a way to communicate between autonomous individuals, a signifier of social order and harmony, a force that encouraged people to step outside of their selfish interests in order to recognize

the universal. Given the above traces of thought about the aesthetic, it seems appropriate to conclude that the aesthetic, as it was conceived in the 18th and 19th centuries, was constituted by a multitude of narratives or projected desires (for order, harmony, unity; for an essence of humanity and community; for the good and the true; for progress). How do these historical “traces” or ideas inform our current relationship to the aesthetic and today's "beautiful" medical image?

In 1993, the artists Komar and Melamid orchestrated a "scientific" market-survey of 1,001 adult Americans residing in the contiguous states, trying to probe contemporary concepts about art and aesthetics. Interestingly, the survey reveals how many of these philosophical notions about the aesthetic tenaciously linger in the popular mind and the attitude toward painting (Komar and Melamid, 1994).¹⁶ Taking into account the answers to very specific questions about art (questions on color, subject and style, for example: "In general, would you rather see paintings of outdoor scenes or indoor scenes?"), the artists painted the picture that Americans most wanted—according to the statistics. The resultant painting looks like the quintessential, American 19th-century landscape painting. It is ordered and calm, an outdoor scene with water and mountains, blue sky and green grass, with people and animals, all in a harmonious consort. Though it is difficult to see

¹⁶ See also Bourdieu (1986) and (1990).

this as a "scientific" project that definitively reveals America's attitude towards art, it is none-the-less revealing of the "way many people view their lives." Despite the expanse of time, for many people the desires for what art should be (and implicitly, how it should function) have changed little.

Clearly the fear of a threatened humanity and community exists today. The apocalyptic tone that often accompanies discussions of the perceived transformations of "community" and "humanity" created by tele-visual and computer culture is widespread. TV, computers, and video games get blamed for everything from mild depression to unfathomable anti-social behavior such as the wave of high school shootings in the United States during the 1990s. Eruptions such as the 1992 Los Angeles riots testify to the continued effects of rampant racism, yet get retroactively characterized by the appeal to a return to humanity and community—"Can't we all just get along?"—as if such an appeal could somehow ameliorate the structural inequality of advanced capitalism. Concepts of humanity and community *are* changing rapidly, and such change is existentially disturbing.

Amidst this chaos, the medical image positions us as human—as connected to others, despite all. Lodged within the notions of humanity and community today is the subsequent desire to find ways to identify with one's fellow being, *despite difference*. It seems clear that there is a political unconscious behind the imaging of the body beautiful—especially a body that appears to be imaged as unsexed, unraced, and

unclassed (as is often the case with medical images) in an historical moment that has been extremely concerned with the concept of difference and social disharmony. In a cartoon from 1897 [Plate 3], one sees on the left a couple that appears very different on the outside: a male and a female, of differing size, clothing, and demeanor. As the accompanying quote indicates—“Whether stout or thin, the x-ray makes the whole world kin”—difference is easily obliterated with medical technology. Cartwright (1995) points out that this cartoon only represents one side of the story. Other poems and cartoons from the era indicate uneasiness with the erasure of signifiers that locate a person in a social hierarchy. Yet could this cartoon reveal a notion of the *universal* body that is part of our (periodic) projected desire to *all* identify not as autonomous individuals of difference but as the same, as the “human”? There has clearly been a social backlash against the politicization of difference. Though I wouldn't want to propose a cause and effect scenario (clearly the reasons for the construction of medical images and concepts of difference are over-determined), there does seem to be a symbiotic relationship between beautiful images of the body stripped of nationality and race and class (and at times gender) and a society unable to come to terms with difference and unable to construct a sense of shared humanity.

As will be more thoroughly argued in the next chapter in reference to the alternative health movement, it is my contention that the body and bodily health have become one of the new sites of self-definition in the United States. In the 19th century, the

nation turned to Nature as the grounding of the individual *through* the communal identity, and as a space in which one could come to terms with the contradictory changes of industrialization. In the late 20th century, the concept (and reality) of "Nature" has rapidly been desecrated. Corporate and governmental polluters as well as the increasing separation of the populous from the outdoors (via increased suburbanization and office life), has irrevocably transformed the complex symbol of Nature, and somehow made its totality seem outside of our individual grasp. Yet Nature has not disappeared as a reigning idea—far from it. We consume it daily, in packaged form, as organic lotions and health food and recyclable products and TV shows on "The Nature Channel"—most importantly, we usually consume it as individuals, not communally. As Andrew Ross notes, "ideas that draw upon the authority of nature nearly always have their origin in ideas about society" (1994, p. 15). This shift from going out into Nature to contend with society towards consuming Nature individually (and thus contending with society individually) significantly parallels the shift to the individual body as the site of self-definition, political action, and medical intervention as we'll see in the next chapter. The notion of the social seems to have gotten lost in the shuffle, erupting like a repressed memory during catastrophes like the Los Angeles riots.

Consider the possibility that many of the functions attributed to "Nature" in the 19th century may have now been re-attributed to the individual body. The body has come to signify Nature itself, the final frontier destined to be controlled by medical science, the

sign of a new, yet imminent God in self-help lingo. Where once Nature was seen to be the physical embodiment of God's Being, to what extent has the body now taken on that role? If these esoteric and intangible concepts are projected onto the objective form of the body, are they evident in the aestheticized medical image?

Does the beautiful image help us to deal with our current struggle to redefine society and humanity? In many ways, the body has become the focus of debates about the very nature of society and humanity. While resistant microbials, toxic foods, and plastic surgery beg difficult questions about the direction society is heading in, cloning and genetic engineering have significantly challenged the very definition of what it means to be "human". Have Nature and Beauty been called upon again, in different form, to contend with and ameliorate fears about the body and society itself at the close of the 20th century? A hypothetical question that, for the moment, must remain hypothetical.

Medical imaging today is also caught in a strange split—very similar to the enlightenment split of mind from body. By the very nature of their focus, medical images can be seen to promote the concept that illness is grounded in the specific tissues of the body that are visualizable (and thus in the realm of disembodied observation that can be addressed via rationalized science). However, illness itself is often experienced by the patient according to the irrational, the sensate, and the diffuse. It is possible that within

this differential, the aesthetic (or sensuous)¹⁷ rendering of the image helps to bridge the divide between what the patient feels and what the medical institution sees in the image. It's as if the rational—the numbers and charts and cells that accompany diagnosis and treatment—has been translated into a language that is understandable to us all and that seems closer to our experience of the sensuous body. Could there be a parallel between the use of aesthetics in the 19th century as a way to veil the discordance between abstract laws and lived experience, and the use of aesthetics by doctors and scientists trying to "communicate" with their patients?

Medical diagnosis, blood tests, statistical estimates of disease progression—none of these can touch the lived sensation of seeing one's own medical image. As the popular cliché goes, the image "speaks a thousand words." Of course, it is the fallacy of this cliché that pinpoints the fallacy of a universal language. The "words" spoken by any image are indeterminate: it is never clear what words are spoken or to whom or with what resultant meaning given that the reading of images are dependent upon context, social meanings and individual psychology. However, the image is seen as something that speaks to all, especially a "beautiful" image. Translate that indeterminacy into the

¹⁷It's important to re-emphasize that it is not always beauty that we are dealing with in medical images, but the image is more often a sensuous language than the language of numbers or graphs—and thus the image is easier for the patient to link fantasmically with the body.

medical image and it becomes evident that sometimes (though admittedly not all) it is entirely unclear what the image is saying or what meaning we impute to the image. But the image often looks readable and thus becomes the perfect tool for the medical establishment. The ideology through which we (or the doctors) read the image, an ideology that makes the image seem more determinate, is veiled by the signifier of universality, the signifier of image as self-evident. The divide between the rational world of medicine and the lived experience of the body also becomes veiled. The image speaks a thousand words, but those words were configured *before* the image was even made.

The aesthetic "attitude" discussed by Mortensen and other aestheticians, and the tendency to read aesthetics as functionless is the most slippery yet dangerous of hangovers from the 19th century. If this aesthetic attitude has indeed become ingrained in us to some degree, wouldn't it be possible that we might adopt it when we are struck by the Beauty of a medical image? And if struck, could this attitude somehow inhibit our ability to think critically, given that "functionlessness" implies that it has no relationship to the political unconscious? In other words, if Beauty is deemed functionless, the actual function of aesthetics—the desire to make the image believable, the need to convince the patient of a certain diagnosis or treatment, the positioning of medical technology as phallic signifier—becomes veiled. If the aesthetic is perceived as anti-commodity, then maybe the medical image's Beauty distracts consumers from its commodity status. And if

aesthetics are a signifier of the avant-garde and truth and the good, won't the beautiful medical image feed into the ideology of technology as progress? It appears that Beauty is not benign.

The Body Voyage

I'd like to return now to Tsiaras' images of the body. However, it will be important to focus not on the body itself, but everything that we project onto it. The body is a pliable medium that helps to develop and reflect back our thoughts and anxieties about the world.

In the Spring of 1997, Alexander Tsiaras published his images as part of a conglomerate publishing project put together by Time Warner and Learn Technologies Interactive—the project included a *Life Magazine* article, coffee table book, web site, CD-ROM, and a proposed television documentary and 3D-IMAX film. This project, titled *Body Voyage*, is firmly situated within the popular circulation of images, but it blurs the distinction between the medical/scientific, the technological, and the aesthetic and, simultaneously, oozes with the ideologies of all three. The most perplexing aspect of the project is how the images, which render the interior body visible, have managed to render ideology as invisible.

The starting point for all of this is the body of Joseph Paul Jernigan and what *Life* calls his "electronic afterlife." As *Life* reports (Dowling, 1997), Jernigan, from Waco, Texas, had not had a "good" life. After being kicked out of the army because of drug use, Jernigan got thrown into jail for killing a bystander that surprised him while he was stealing a microwave oven. In 1981, he was sentenced to death. He spent 12 years in prison, was denied final clemency, and was killed on August 5, 1993 at age 38 with a lethal dose of potassium chloride. His body was then shipped airfreight to the science labs to be immortalized in images for the Visible Human Project.

The Visible Human Project was first thought up in 1988 by the National Library of Medicine Director, Donald Lindberg, who decided that there was a need for a new reference tool: a computer model of the body. Victor Spitzer and David Whitlock won the competition for the \$1.4 million grant to build the model. The project took 5 years, consisted of "slicing" Jernigan's body into 1,871 one millimeter pieces, and imaging it. Slicing is the term that they used, but a more accurate description—though less palatable and less "smart" technology sounding—would be "grinding" down one millimeter at a time. The result is 15 gigabytes of data (23 CD-ROM discs). "These scans comprised over a raw terabyte of data—the equivalent of five million typewritten pages," accumulated from the "raw" data of photographs, CT scans, and MRIs, available over the net (at the time, it took two weeks to download it) for use by scientists, students, researchers, the public, and photo-journalists/artists like Alexander Tsiaras. The notion of

“raw” data recalls the days of early photographs when the photographer’s subjectivity was erased in the elevation of technology and science. Raw implies that the data has not been tampered with or changed by ideology, that it is somehow “factual” and “real”.

Tsiaras has taken this "raw" data, clocked in innumerable hours on the computer reformulating the data, and has created, as a result, a series of quite amazing images. The book form of his project, tells close to nothing about how the images were made, nor how much "creative license" was taken in the use of color, the cleaning-up of pixelation, and the drawing of outlines to make the images "readable." (Often, medical images are indecipherable to the untrained eye—it can be impossible to tell what one is looking at).

Body Voyage is a smooth modernist surface, printed on numberless pages, in an indexless book—I imagine you're just supposed to get lost in the Beauty of it all, not concerning yourself with chapters or sequence or knowledge, just endless, luscious black pages, with luminescent colors, configured in recognizable outlines of the body-beautiful.

The cumulative products of the collaboration between Tsiaras, Time Warner, and Learn Technologies Interactive™ is a frightening signal of what is happening to the production and distribution of knowledge in the public realm. Yes, we're dealing with a coffee table book here, banality at its best, so why get all excited? However, a closer examination of the words, the marketing, and the ideology that surround this project reveals how information (in this case, data from imaging technologies) is increasingly

packaged as consumable aesthetics and entertainment feigning to be a display of the advancement of knowledge. This confusion between information and knowledge was rampant in 19th century positivism, and interestingly, photography was the primary, enabling tool.¹⁸

These images can be viewed as simply a product of the desire for a money-making vehicle—in an attempt to capture a larger chunk of the market share, each aspect of the project has been made more "palatable" by irradicating its historical and critical grounding in the field of knowledge. The book is multiply positioned as an "anatomical travelogue," a "fine art" book, a peepshow of the wonders of technology and the body. The CD-ROM is marketed as both video game entertainment with "you at the controls" (quoted from press materials) and an informational kiosk (stripped of the concept of consequence). The 3D IMAX film will presumably be positioned as the 21st century fusion of the ultimate roller coaster ride and *The Fantastic Voyage*.

If purely entertainment or money machine, there wouldn't be any need to get excited. However, this is not purely entertainment; it cannot operate "simply" to make money given the culture in which it is situated. As each consumer takes in this product, it is filtered through their own understanding of the body and Beauty, their own experiences

¹⁸See Green (1986). This confusion of information and knowledge is also addressed by Leotard (1979).

with science, medicine, and technology, their own existential musings on the meaning of life, health, illness, and death. So the next time that consumer walks into the doctor's office, how will these images affect their decisions? Could it be that Tsiaras' images are so astounding and beautiful that it's hard not to believe that they (and implicitly medical sciences) aren't omniscient (and thus worth the price, both financial and physical) when facing illness? The next time that consumer reads about the privatization of the medical industry—rationalized as the maximization of high technologies such as MRIs and CT scan machines—will they think critically or cheer? And what role do these images play in the scientific worlds: the funding of big science (as NASA has discovered, cool pictures yield big bucks, no matter what the project is); the increasing tendency to "discover" that illness is genetic and not environmental (genes are easier to image, quantify, and "fix" than industrial effluents or social stress); and of course the feeding of the economy with high end medical equipment? Does the increasing use of the visual image to convey information transform the production and configuration of knowledge itself?

Tough questions to answer though the clue may be located in the disturbing ways in which aesthetics, information, and "wow" technologies are configured by the *Body Voyage* in order to avoid the questions altogether.

A Closer Look:

The Words:

Before you even get to the pictures, the words that surround and engulf this project clearly set the stage for its ideological consumption. A revealing example is in the *Life* article: filled with references to history, the words have lost their connection to historical meaning. The National Library of Medicine's project that these images are based on is titled "The Visible Human Project." *Life* took the liberty to have a nice literary and historical reference in their own title—the first article is called "The Visible Man." For some, this title will recall Ralph Ellison's classic work *The Invisible Man* that dealt so cogently with the ways in which the color of one's skin can render one invisible in the eyes of society. A lesser known reference could be H.G. Wells' book *The Invisible Man*, about a scientist who has discovered a method for turning himself invisible—a tale of science abused by a madman. Again, "The Visible Man" could be read as a latter day correction of this dangerous side of science. The title also recalls children's toys in the 1970s called The Visible Man and The Visible Woman, essentially educational toys that helped children to understand the various body parts.

What could *Life's* references possibly mean? Have the wonders of technology miraculously ameliorated the dilemmas of power, discrimination, and invisibility? Does the body beautiful transcend the details of difference, creating a world embodied by the "essential," universal human? Indeed, the article states that "Jernigan would become the digital Everyman." (p. 44)—Race, sex and class appear to be irradiated as images pierce beyond the signifier of the flesh. (Ironically, our visible man, who was white, was one of the invisibles—a death row inmate that was transformed from individual to symbol in the name of politics). Lingering somewhere in the background, one may find a trace of the desire, latent in aesthetic theories, to find an identificatory nexus—here the beautiful image of "Everyman"—through which we commune with our fellow humans on a very touchy subject, the mortal body.

Most likely, *Life's* title was used with the full knowledge that most readers will probably not remember (or know first hand) Ellison's book. However, the reader may recognize that it's a cultural reference: they'll know they've heard it before, but can't quite recall where, but that doesn't matter because it gives them that warm, fuzzy feeling—familiarity. And if they do remember the original signifiers, in this age still bound to the Enlightenment, the voyage from invisibility to visibility signifies progress. Familiarity plus Progress minus Politics: Hook number one.

Hook number two is the (unnerving) tone of the whole *Life* article—a kind of tongue-in-cheek, campy use of language and details that can't quite decide whether it's

humor, irony, or description of its rather morbid subject. The author talks about how a walk-in meat locker from a shopping mall auction, Liquid Nails, and "blocks of gelatin, bought in one-pound cans from the school's cafeteria," were all recruited by Dr. Spitzer to help image his specimen. The article also can't seem to decide whether the images are animate or inanimate: The photographs had "to be stacked like pieces of bread to form a loaf in three dimensions;" "Sliced, diced, digitized and pixelated, he could now be booted up;" "Jernigan started doing time in cyberspace." An uncanny vacillation between objectification and subjectification seems evident.

We've come to expect this kind of hooky language from mass media magazines. But the words that surround this project totter precariously on the cusp between the playful and a more murky form of politics. This cusp is elucidated by the first two commercial ads that are interlaced with the article, both dealing with the issue of "life," a subject crucial to the interpretation of the images.¹⁹ The first ad is from Nissan: "Life is a journey...Enjoy the ride," bringing to mind the recent (hilarious, though not ideologically

¹⁹Though these ads shouldn't be considered as "part" of the project—they weren't done by the artist, nor can one assume that the editorial staff had complete control over their copy and design—they clearly help to understand the cultural climate in which this project is situated. Readers, whether consciously or unconsciously, often tend to read articles "through" the ads—i.e. ads and articles should be seen as one text (see Williamson, 1978).

unencumbered) TV commercial of Ken, in a sporty red car, whisking Barbie off from her dreary life. A playful, harmless slogan amidst medical images of the body.

Yet it is the Olympus ad that follows that is disturbing [Plate 4]. A picture of two hands cupping what looks like a blue, digitized superball, labeled "digital image of live human embryo" (womb obliterated) accompanies a text that alternates between the flexing of the technological imaging muscle that Olympus produces (immersible endoscopes, cardiovascular fiberscopes, etc.) and statements such as: "Life is our calling...Life is what we're all about...your life...All in the name of life...Life has been put under your control." Somewhere between the conservative signifiers of religion ("calling") and right-to-lifers, and the statement that life is "under your control," the critical reader might remember that they were actually just reading about someone's death (Jernigan's) that became out of his control, utterly. So of course "your," which is positioned as a universal signifier, is not referring to "Everyman" but to a limited group of people. Who is not encompassed within "your" is invisible—there are no downsides to this (commercial) correlation between life and technology, according to this ad. The essence of being, here interpreted as the reproduction of life, is literally in the palm of "your" hands, thanks to Olympus and its products. The politics of who can afford and benefit from this technology and who is left out of the picture (Jernigan, the mother of the embryo, etc.), have been rendered invisible. The *Body Voyage* project as a whole, appears to mirror this de-politicized belief that "wow" technology puts life at our fingertips.

The Game:

While the *Body Voyage* web site is relatively uninteresting (basically an ad punctuated with the buttons "Try Me" and "Buy Me"), the CD-ROM is geared towards those hand-raised by their Atari™ or Playstation™. "It's an exciting and totally absorbing navigation of all the complexities of a *real* human body—with *you at the controls*;" "Unparalleled 3-D muscular and skeletal *fly-throughs*;" "*100% real data*" (cited from web site and press materials, emphasis added). "Real," is a somewhat tenuous term here, but it reflects the increasing prevalence of photographic resolution video games, and the attempt to hide the fabricated nature of these images. Fantasy is dependent on a barrier or gap that enables the viewer to separate fantasy from reality (the computer screen, a photographic image, an IMAX film), however, as is often the case with pornography, the more photographic or "real" the illusion is, the more intense the fantasy.

The positioning of the CD-ROM as adventure, game, and fantasy reflects the words Richard Robba, biomedical imager at Mayo cited in the *Life* article, uses to describe the new technologies: it's like "Spelunking in the body." No wonder these technologies look the way they do; Technologies are not "natural" developments of progress—they are produced by individuals and groups that are situated within particular cultures and ideologies. If these cultures are saturated with the adventure fantasies of

technological possibility (as ours is), the technologies that are produced will reflect and embody these fantasies.

More difficult to unravel is what exactly is the effect of positioning the interior of the body as a navigable video game. The majority of video games today are about that gut feeling of visual/manual dexterity and the pleasures of power over an elusive "other." The game has to do with playing out our fantasies of omnipotence over this other, on a more psychological level one might even say overcoming our anxieties about "the bad guy." The screen is a safe place to play out these fantasies—it's familiar, it responds within certain established rules, and if you don't win the first time, a quarter or press of the button always provides a second try. Like the fighter pilots in the Gulf War, many of us have become quite used to this lexicon of viewer and screen (see Virillio 1989, Skirrow 1990, Provenzo 1991). If we translate these ideas to the *Body Voyage* CD-ROM, as we move the little mouse around Tsiras' images, it's as if we're rehearsing the ability to map, control, and navigate our own body, the last frontier "with [me] at the controls." If the body is the final frontier and the new site of self-definition, this fantasy of control over the uncontrollable is crucial.

The creepy part of this project is the emphasis on Jernigan's head. In current social lore, the head supposedly houses the psychology, and here, the psychology of a "killer." (One can only imagine the psychological differential, for the viewer, if this had been a visual display of Jeffrey Dahmer instead of a one-time murderer who was just

trying to steal a microwave). The press materials for the CD-ROM highlight the creepiness of the situation: "If you choose to fly through the skull, don't worry that you'll be literally inside the head of a murderer: the skull used is that of our artist, Alexander Tsiaras." A good thing...the tendency to murder might be catchy! The marketers of this project are obviously capitalizing on the fact that we are not just looking at a body, but a meaningful body. The intent of this statement is not to highlight the political, but, as in video games, to highlight the voyeuristic. The marketers are banking on the fact that many viewers will experience a visceral fascination by being "inside" this "other," and, by explicitly raising the issue of the skull's owner, they are intentionally heightening the thrill of voyeurism.

The positive part of the CD-ROM, with its capacity to store information, is that it has 400 labels of specified body parts, including function and description—information that is totally lacking in the book. The drawback, however, is that other than these labels, the CD-ROM makes very little attempt to move beyond the Wow. What would this beyond look like? It's hard to say, but there are substantial issues that the *Body Voyage* project as a whole side steps, that the CD-ROM could have dealt with—for example, the shortcomings of science or the effects of stress or pollutants on the body. In those places that the project discusses disease, the emphasis is geared towards genetic etiology with almost no discussion of commercial effluents or social causation (the wording about lung cancer is very delicate—Phillip Morris' ad, not surprising, is on the inside back cover of

the *Life* issue). The only mention of an environmental pollutant that I could find is about Nitric Oxide—which, interestingly, is not highlighted for its integral relationship to acid rain but for its role in the male erection. Biology is on the forefront—"Scientists are intrigued by the possibility that subtle workings of the brain could distinguish a murderer from a saint"—the politics of social policy left in the dust. The project highlights the reigning metaphor of the body-as-machine—"where the wondrous engines, pumps, bellows and plumbing of the body are housed"—which fits in perfectly with the deification of technology's ability to keep it ticking.

The issue of invisibility arises again. The complexity of the body's relation to the social world is disavowed. Instead, we are presented with a science, suffused with the illusion of omnipotence, that becomes science fiction.

The Images

Where the *Life* issue is a kind of teasing-taster promo piece, and the CD-ROM caters to those who want to play with their new techno-toys, the book form of this project is the most mesmerizing. The words peppered through the pages are almost an afterthought, snippets of random quips posed as expositions of the wonders of science. The titles are filled with catchy clichés: "How the Nose Knows," "A Stomach Pain by Any Other Name," "Just say No" (about Nitric Oxide). The narratives tend to be

inspirational stories of medical technology's victories, such as Bo Jackson's "bionic hips" and 3 year old Brittany Eichelberger's rejuvenation from clinical death via "modern resuscitation techniques." But the text seems to be primarily filler, creating a context of pro-techno medicine—it's when one starts to examine the images themselves that the notion of Beauty comes to the forefront...and it *is* mesmerizing.

Tsiaras configures the images in a variety of ways—some images evoking the sense of science and medicine, others evoking the ghostly, the grizzly, and the voyeuristic. Some images look familiar given the history of medical images, others almost disorienting because unfamiliar.

The head is obviously the centerpiece of the project. On the cover of the book is a three-dimensional image of, presumably, Jernigan's head. It shifts from the creamy skin of a face peacefully asleep, to blood-infused skin, to a brain and stem, to a death-like skull: no one image fully excluding another, but inextricably blending and overlapping. The image establishes a process of seeing the body that is reiterated throughout the book: the juxtaposition of life and death, as if one could see the transition from life to death, or as if one could see both simultaneously, in an uncanny way (a term Freud used to describe that which appears familiar or homelike yet also unfamiliar).

The first image inside the book [Plate 5] is perhaps the most direct reference to Jernigan's death. It is a grid of 15 images, starting with a muted-color photograph of his head, alive, and then a subsequent series of images of the head that show his gradual

transition from portrait to an ashen, zombie-like structure of skin. This opening sequence establishes a couple of important processes. It is the only image in the book of Jernigan while still alive. While this image breaks the fantasy of image-as-“Everyman”, it does establish the signifier of truth—“this is a real human”—thus rendering the images a bit more visceral and less in the land of science fiction. The sequence also opens the door of the identification process and allows the viewer to make the conceptual transition from live person to dead, and to possibly imagine their own transition from life to death, or from surface skin to interior organs. This play between life and death, surface and interior, is the key to making these images strange and captivating for each viewer.

The second image in the book [Plate 6] immediately jumps to a menacing and haunting portrait. I use the term portrait because it does seem that the image is evoking a certain personality for its subject. The eyes seem to glare, the teeth seem to be grinding in determination, the hints of purple in the frontal lobe of the brain seem to be signifying blood activity—thoughts—that, when combined with the whole package, do not seem to be “happy” thoughts. Viewed in one way, one can see the skull that signifies death, while the gaunt face—essentially the contours of the skull—seems to be tilting towards the viewer in an aggressive manner. Looked at in another way, the gauze-like imaging of the skin around this skull shows a burly, thickset man. The signifiers of criminality and death combine effectively to push the ideological aspects of this image.

The emphasis on the head/brain (it is the subject of the first quarter of the book) also highlights the sensation that the head is the most important and intriguing part of the whole. We live in an age that posits the brain as the seat of the individual. (Can you imagine a brain transplant?) Indeed, in the history of medical imaging technologies, the skull was the most sought after, yet difficult, part of the body to penetrate—images of the brain not being adequately captured until three quarters of a century after the introduction of x-rays (Kevles, 1997). The fascination with the head, apparent in the book and the “fly-through” CD ROM—as well as the broader culture—, indicates that it still harbors a mystery that has yet to be unraveled, a realm of knowledge that remains outside our reach. The emphasis also keeps to the forefront that we are examining the criminal other.

Not all of the images are this haunting. To maintain that level of intensity might be too overwhelming, so Tsiaras jumps around a bit, playing with us in a way. Some images seem frivolous. In Plate 7, the head almost seems playful in its allusions to confetti and cheerful colors, but it also looks a bit like an alien with bug eyes and a strange mouth. Some of the images make a clear attempt to be “scientific.” Plate 8 shows each part of the brain, separated out from the whole and labeled. The images of isolated body parts are the only images in the book that use direct labels to help point out what we are looking at. While the labels definitely help to guide the viewer to understanding the image, they distract from the fantasy of identification. Plate 9 also somewhat hints at the scientific aspect of these images by using sketched in lines to show how the body is

oriented in three-dimensional space. However, besides being cool-looking images, they don't really seem to give much scientific information. They seem more like a body in a fun house, bringing to mind the TV show "The Six Million Dollar Man" more than a scientific lab.

There are two types of images in *Body Voyage* that are particularly noteworthy. The first type I would put into the category of the ghostly and the beautiful. There is something quite striking about Plate 10. The muted colors that range from cream to orange to red do not seem discordant with how one would imagine that the body could be colored, but they don't quite seem "natural", they are somehow "other". The image varies in light intensity between the gossamer, almost see-through quality of the skin to the bright, solid cream that represents the skull. The see-through skin paradoxically points towards the image of Jernigan alive—we can recall the contours of his facial features seen in the opening image of the book—at the same time that the skin has a ghostly pallor. There is a particularly unnerving transition between the eyeball, which seems to be staring robotically, and the nose that one can imagine is alive and breathing. Like all of the story and image pairs, the story that accompanies this image, "How the Nose Knows", doesn't have a direct relationship to the image. However, one can project onto the image; one can imagine that the orange-colored part in the skull is somehow connected to the activity of smelling, thus highlighting the sense that this is an image of someone alive—yet dead. When I look at the picture, my eye moves from the skull, to the

skin, to the organs and back again, never quite able to pinpoint the cusp between life and death, yet seduced to endlessly try.

The image that accompanies the story “Phantom Limbs” [Plate 11] also gives this life/death juxtaposition, though the image is a bit more ethereal. The leg bones are inexplicably colored differently. The right is a pastel peach that is very soothing, while the left is a deeper shade of blue and quite ghostly. The legs (and implicitly the body) aren’t grounded in space, but appear to be floating upwards, the toes gently relaxed as they hang. Of all the images in the book, it most closely resembles an x-ray, though the eerie glow of pastels replaces the deathly black and white of by-gone imaging eras. The image is best described as poetic and beautiful.

In contrast to these ghostly and aesthetic images, Tsiaras did a whole series of images that remind one of the slabs of meat that one might find at a butcher. In Plate 12, one can see a succession of cross-sections of the body. Looking down at the head and a foreshortened body, the images start with the intact, human-like form and then move to red and white interior shots that look like a leg of lamb or raw meat striated with fat. The other color that is used is a sickly-looking green that highlights the repulsive aspect of the image. Compared to the seductive and beautiful quality of the Phantom Limbs, this series becomes incredibly disturbing. Given that the process of identification with the image was established early on in the book, it is easy to slip into a visceral revulsion from one’s body while looking at the image. Plate 13 uses brighter colors and the image is a bit more

intriguing and beautiful given the details and textures, though I still fight with its correlation to meat, and I'm queasy at the juxtaposition of my sensate body and carnivorous habits.

I can't quite come to terms with these images. While we have read words before that are similar to these rather cliché texts, and we know how to categorize those words, the images, possibly because of their novelty, are inescapably seductive and disturbing. They're effective as a learning tool because of their layering of muscle, bone, organ, and translucence—a technique that helps us to align our various disjoints of knowledge. But this layering includes the occasional contour of Jernigan's face (something that is lacking in traditional MRIs, CT scans, or x-rays); the eyes and the teeth are often highlighted or added back in for a strange effect; and the saturated, "unnatural" colors infuse this project with the uncanny. The images are seductive at the same time that they are unnerving and this becomes the biggest stumbling block for the critical eye. Given that they are indeed positioned as both signifier and manifestation of knowledge and technological advancement, one needs to ask what position do Beauty and strangeness have in the production of knowledge.

The strangeness gives one the sensation that one is entering a different territory here—that the wonders of science and technology have indeed transported us to a "new era." To achieve that aura of newness, the images need to pull us in with recognizable references to identify with (the undulated texture of the brain matter or the creamy white

of the skeleton that looks like images we have seen before) and then hit us with the unrecognizable (the eerie layering of skin, organ, and bones; the surreal sensation of life in death).²⁰ This strangeness is particularly prevalent in Tsiaras' images of Jernigan's brain—the use of localized colors makes it look like Jernigan is thinking or seeing or breathing.²¹

As John Hockenberry's introduction to the book states: "We long for some complete grasp of our existence and yet contemporary civilization has subdivided time, space, soul, and body into smaller and diminishingly comprehensible units." The images attempt to simulate this ultimate goal of a "complete grasp of our existence." We're not used to seeing the brain, eyeballs, ear lobes, and gossamer skin simultaneously overlaid. Since the Enlightenment, western science has dissected and objectified while irradicating the notion of the soul, that for many people, is the glue that creates the human from disparate parts. "What was once revealed only through the cutting and removal of tissue is now seen intact, frozen, and *functionless*, a quiet cathedral, its congregation and clergy removed, but the *sacred* is there whispering and echoing through the miraculous

²⁰ The surrealists pursued this idea of the uncanny, especially in their use of manikins that were inanimate though made to look strangely alive.

²¹ MRIs of the brain seen in the popular media, use color to illustrate what parts of the brain people use when they are thinking or doing specific tasks. Therefore, this reading of Tsiaras' brain images is congruent with the way the popular media has taught us to read these images.

structure” (emphasis added). Hockenberry is stating that here lies the soul, the link to God that science has extracted. Behold these images and grasp "completeness", humanity, and essence through the traditional tool of aesthetics.

Is it merely a coincidence that this term *functionless*, so crucial to contemporary notions of aesthetics, has arisen in this context? As mentioned, the introduction to the book hits over and over on the seemingly ahistorical themes of aesthetics. The text contains very few negative ideas that might poison the purity of this body-art. The images do indeed exude an ethereal, sensuous art. It is interesting that Hockenberry does not make a concerted effort to put words around the grotesque part of these images. The violence implicit in the “meat” images remains unspoken, unreified, dangerous. They contradict the ideology of the functionless and they challenge the notion of Beauty, and therefore don't fit into his theory on the meaning of the images. The implicit violence becomes all the more alluring given its unspeakable nature.

While it is the stuff around the body that gives it meaning, it is this stuff that the ideology of *functionlessness* renders invisible. These technologies have the ability to abstract the body from reality—just as the Olympus ad has managed to render the mother invisible in its imaging of the fetus and "life," so too do Tsiaras' images help to render the social context of Jernigan's body, and medical imaging technologies in general, as separate and superfluous. Though his position as a criminal is evoked to some degree as discussed, when you look "inside" Jernigan, you don't see the other factors that could

affect the reading of these images—the legal system that put him to death, or the social system that may have led to his imprisonment, or the environmental factors that may have pocked the tissues of his body. You can't see the cultural factors that affect the production and interpretation of the images—the ideology of technology and adventure that constructed this particular "view" of the body; the idealization of Beauty, the belief in medicine, and the fear of death that make these images simultaneously irresistible and uncanny.

There seems to be no "function" here. The viewer is encouraged to take this cultural product at face value, to read the images as a product of "raw" data—i.e. as "natural"—and not as a product of a particular configuration of values and beliefs. Images that resemble the photographic, like Tsiaras', are particularly well suited to this sort of unquestioned acceptance given that they seem more "real" and "natural" looking than other forms of information. When one looks at the surface, it is often difficult to question another's construction of the truth—we are not encouraged to question the widespread use of medical images, just to sit in awe, to bathe in the utter functionlessness of their Beauty. It is for this reason, amongst others, that medical imaging technologies have spread like wildfire.

When a person goes to a doctor, they bring with them a load of cultural baggage that affects the doctor/patient and patient/body relationships. *The Body Voyage* is part of this baggage, invisibly lodged in the visual unconscious, and though medical science is

indeed being questioned from a variety of angles, there is little to counteract the cultural and psychological force of these images.

It can be said that the separation of thought from sensation is the nexus of many of our current troubles in the field of knowledge. This statement does not spring from a romantic lamentation over the loss of the sensate in the current world of reason. The statement refers more to the ways the separation allows for certain invisibilities to be lodged in the field of knowledge. Where one field fails (in the case of medical imaging technologies that field would be logic or "objective" knowledge), the other field can be ushered in to cover the failing (Beauty positioned as omniscience). "[The aesthetic] is a kind of prosthesis to reason, extending a reified Enlightenment rationality into vital regions which are otherwise beyond its reach" (Eagleton, p. 16). Beyond prosthesis, the separation allows each side, reason and aesthetics, to achieve their absurdist conclusions: the myths of absolute rationality and autonomous nothingness, respectively—myths that go unchecked by their opposite. Tsiaras' images encourage one to momentarily think that rationality and aesthetics have become miraculously united again to form a new lexicon of thought. However, what seems more likely is that reason and aesthetics remain separated, while symbiotically sustaining their facades.

CHAPTER 3:

Fantasies Of [Safety]

Breathe deep...and imagine all of your tension being released as you exhale. Eat five fruits and vegetables a day. Yoga, acupuncture, healing crystals...let go of your anger; whole grains, natural fibers, good cholesterol and heal thyself through daily affirmations: "Cuz I'm good enough, smart enough, and gosh darn, people like me." What makes Stuart Smally on Saturday Night Live funny is that we see a little bit of him in some of our friends...and maybe even in ourselves.

The alternative health and self-help¹ lingo has permeated American culture. As Andrew Ross states, "while most New Age practices today are still restricted to a minority culture, the influence of their ethical principles is quite mainstream and quite middle-class, permeating suburban life and corporate philosophy alike" (Ross, 1992, p. 533. Quoted by Naismith, 1998, p. 375). Amongst many social circles, it's hard to go out

¹ Alternative health and the self-help movements, though distinct, are intertwined in many ways. Here, it is significant that they share a role as the alternative to orthodox medical and health practices. Alternative health has also been termed holistic or wholistic medicine, indicating an interest in wholes or complete systems rather than the separate parts.

to dinner these days and order a meal without someone noting whether one's choice is "healthy" or "sinful." Conversations are often filled with Oprah-ish aphorisms. If you made it to the "health club" instead of pre-dinner cocktails: "oh, you're so good." If you've taken your handful of vitamins after dinner instead of that tempting chocolate cake, someone might say: "I wish I had your self-control."² Open any lifestyle magazine—*Vogue*, *Good Housekeeping*, etc.—and you'll find the definitions of rights and wrongs are repeated, ad nauseum.

The strange part of all of these rights and wrongs is that they are directed almost exclusively at the level of the individual body. You're not "good" if you've spent the dinner conversation debating the politics of Al Gore's national health care policy—you're good if you've ordered herb tea. The individual body is put on a pedestal, as in Mann's *The Magic Mountain*; society to some degree is merely a side course. However, at Mann's tubercular sanatorium, one gets the sense that the inhabitants at least respect the body's sensuous and desirous qualities, the disease highlights consumption and fever in the romantic sense—passion instead of control. Today, it is the controlled and controlling body, the one that has made the "right" choices instead of the pleasurable

² The mirror image of these comments is also widespread. Upon ordering a martini or ice cream sundae, I've been told "good for you," an approbation that—despite the intention of the speaker—replicates the moral imperatives of "health."

ones, that steers clear of illness. In today's mantra, personal control and responsibility—not, for example, universal healthcare or dumb luck—have become crucial for optimum good health. Although there are important advances being made by the alternative health/self-help movements—for example, a growing awareness of problems related to food production—some of the solutions that they promote—for example, changing individual consumption instead of stirring collective action for change—are troubling in the limitation of their scope. However, my point is not to say that the ideological position of these groups are “wrong” but to ask how and why we find ourselves in this particular position at this particular time in history.

Though Mann was describing the early 20th century, today the attitude towards illness revealed on Magic Mountain feels like it existed centuries ago. Americans seem more likely to associate incurable diseases and death not with beauty or sensuality or the inevitable, but with the shameful and the horrid, something to be disavowed instead of accepted or fantasmically revered. Illness has become a signifier of failure—failure to eat well or stay stress-free—not “life.” However, it is not 100% clear to me that the romantic tradition has been fully swept under the rug. One can see a trace of the romantic twist in Tsiaras' depictions of the body, especially in his images that look like meat from the butcher. In addition, when someone is labeled as sick today, there is still the sense that they become “more of a body” than they were in health—as Mann states. The endless diagnostic tests and subsequent treatments of both mainstream medicine and alternative

health highlight this prominence of the body. Although these tests and treatments speak more of control and action over an unruly body than the monitoring and treatments found on Magic Mountain, I still wonder to what degree they signify the *jouissance* of illness that Mann was uncovering.

Unlike during Castorp's era, there prevails today an optimism—some would say an American optimism—that diseases can be “cured”, that “health” can be achieved. It is an optimism that is tied to the advances of medical technology and prowess, an optimism that has waxed and waned through the course of this century. Arguably it exists today alongside a parallel pessimism and a realization that medicine still has a long way to go. This optimism, both its positive and negative effects, is one of the more important factors influencing a patient's initial encounter with grave illness. However, this optimism has not engendered a unified knowledge system for dealing with illness—the range of peoples' reactions to illness is by no means single-minded and it uncovers the anxiety, confusion, and pessimism that lurks behind optimism.

The example that follows from my own first encounter with being sick shows the variety of knowledge systems that people draw upon in order to understand and cope with a confusing illness. A month after my mother's death in 1994, I was diagnosed with rheumatoid arthritis, a disease that is incurable according to allopathic medicine, though it rarely leads to death. As the disease quickly escalated, the mental sensations of omnipotence that had guided me through the first 29 years of my life suddenly dissolved.

Unable to separate the mourning process from a body that no longer could turn door handles or the keys to a car, I was vulnerable to the ideas of the others that filled my world.

The allopathic doctors, who seemed intent on ignoring any correlation between illness and mourning, insisted it was an auto-immune disease, and showed me x-rays of my not yet deteriorated hands as a way to convince me that Methotrexate, a chemotherapy for breast cancer, was the only way to delay sure disability.³ The alternative health practitioner, who stated it was an infectious disease caused by mycoplasma buried in the joints, filled out a prescription for a year's worth of antibiotics and sent me home with a shopping bag full of vitamins and herbs, assuring me that diligence and patience would lead to a cure. My Lacanian psychoanalyst, emphasizing the psychosomatic, insisted on the correlation between the arthritis, my mother's death, and the divorce of my parents 20 years earlier, stating in no uncertain terms that there was a good chance the illness was a symptom of unconscious processes. The nutritionist propounded the theory of a "leaky gut" and bad diet. The masseuse confidently

³ Scientific studies published during this time period indicated that auto-immune diseases, more prevalent in women, were possibly caused by the immune system's rejection of maternal cells that remained in the child's body after birth—a resonant theory given my mother's recent death and my need to expel her presence on an emotional (and physical?) level.

proclaimed that my knees were swollen because I was afraid to move forward in my life. An older sister yelled that if I would just find “happiness” and acupuncture, my illness would disappear. Of course there were other relatives who were disappointed that I didn’t follow “the doctor’s orders,” friends who were annoyed that I didn’t heed their advice, and kind souls who sent along cures they had heard about in recent media reports—a copper bracelet; a shark cartilage and vitamin C regimen; an infusion of eight raisins soaked in vodka to be consumed twice a day. At times, the most frightening reactions were the silent ones—those close to me who would indulge my complaints if I started the subject, but otherwise pretended my world had not been changed.

If it were not so close to home, the variety of reactions that ensued when I stumbled upon this “incurable” disease would be quite humorous. If a disease is “incurable” it means that our current state of knowledge is insufficient—a frightening concept to a society that strives to establish usable knowledge in all fields. What becomes clear is that the signifier “incurable illness” triggers in some an entrenched rationalization that is coded in the security and safety of a previous knowledge system, in others, a silence that engenders fear and alienation between the ill and the healthy. Both reactions indicate that, like death, “incurable” is indeed some form of the Real⁴ —in the Lacanian

⁴Amongst Lacanian circles, there has been an extensive debate as to whether this term should be capitalized or not. My capitalization of the Real has nothing to do with this debate. By using a capital, I am simply attempting to distinguish this term as Lacanian.

sense, that which is so frightening to us that we dance around it, either unable to put words to it or eager to smother it in divergent theories. Interestingly, most of the reactions listed above (except for the reaction of allopathic medicine) claimed the possibility of a cure procured through individual effort to control an unruly mind and/or body. Like the nature/nurture debate, we may never *know* the etiology or cure of a particular disease, but looking at the debate that surrounds the unknowable reveals a wonderful array of ideologies.

My point is not that illness is wholly biological or social or psychosomatic. It is complex, and this complexity is not always reflected in the way that these fields of knowledge are constructing it. What interests me in this chapter is the possibility that the fundamental fantasy of “incurable” illness and death in America has changed in the last few decades. There is now a prevalent belief that if an individual “chooses” to take responsibility for their own health—with a hard work, protestant-ethic methodology—they will be cured, whatever the disease is. Crucial to this individual “health” is the need to separate from the social world on a number of levels. The social other is positioned as a danger that is outside of the self, a danger that can be potentially controlled or expelled. As we will see, the American concept of individualism and the medical image work symbiotically to promote and sustain this bizarre fantasy.

Understanding the historical development of this fantasy is crucial. Since the 1960s, there have been three central changes that must be taken into consideration: 1) the

increased proliferation and authority of the alternative health movement; 2) the rapid advances in the field of medical imaging and technology; and 3) the changed representation of death in the media since the televised deaths of John F. Kennedy et. al. There is no easy way to untangle the relation between these three. One explanation is that while medical imaging and technology have presented the possibility of and desire for a “cure”—in many ways the source of optimism—this possibility and desire is coupled with an anxiety evident in the rebellions of the alternative health movement and in the violently graphic bodily depictions of the mass media. Maybe the changes we are seeing in medical imaging, alternative health, and the media are the symptomatic reactions of a society that has somehow repressed fundamental anxieties about illness and death. It is my contention that these anxieties have been hidden by the illusory possibility of safety in an unsafe world.

Situating Alternative Health

In *The Whole Truth: The Myth of Alternative Health* (1989), Rosalind Coward addresses the emergence of the alternative health movement in relation to the developments in medicine. By the 1950s and early 1960s in the United States and Britain, there was a prevailing optimism with medicine in general. Many of the frightening diseases of the previous decades, such as tuberculosis and polio, had been controlled;

improved hygiene and surgical techniques transformed hospitals into healing institutions instead of death traps (as they were considered in the 19th century); positive predictions for “incurable” diseases like cancer were expounded by many. However, this wave of optimism could only last so long. Cancer wasn’t cured; infectious and chronic illnesses still abound. Technology seems to keep improving, but people still die. In addition, in the ‘50s and ‘60s hospitals became professionalized and bureaucratized in a way that was often alienating to the individual “patient.” Increasingly, the patient was supposed to follow doctor’s orders without having a real sense of control over their disease or treatment.

In a society that privileges self-control and a pull-oneself-up-by-the-bootstraps ideology, “doctor’s orders” has indeed been tough medicine to take. This became especially true amidst the growing fear that orthodox medicine is heading in the wrong direction. Today, many believe that with all of the specialists and scientific testing, that medicine now just treats the diseased part or worse, just the symptom, not the overall body.⁵ Hence the term “holistic medicine” has taken its place as an alternative. Given orthodox medicine’s interest in the symptom, it has been accused by the alternative health

⁵ An interesting comment by Kevles indicates another possibility: “Today’s whole-body scans may reflect a reconceptualization of disease as systemic, rather than located in a single organ or brought into the body from outside, and a subsequent realignment of physicians” (p. 299).

movement of not trying to find the source of an illness. Alternative health is very keen about locating, and thus implicitly treating, the source.

According to Stanley Reiser (1978), at the turn of the century with certain advances in technology, including the microscope, medicine shifted towards a concentration on microbiology. Many hospitals set up a separate “lab” for technicians and microbiologists to analyze samples. This compartmentalization led to a focus on outside microbes as the etiology of disease. This shift, combined with orthodox medicine’s wholesale rejection of Freud and his studies in the relationship between illness and individual psychology, contributed to an interesting absolution of the individual—gradually, the individual was no longer held responsible for their illness, outside microbes or mere chance were often the “cause”.

Conventional medicine carried a message that disease and illness were arbitrary, having no meaning in terms of the quality of an individual’s life. For the first time in Western history disease was firmly separated from any moral or religious discourse. It seems likely that this separation of disease from the ‘will of God’ or the ‘sins of humanity’ created a distinct unease for a society steeped in religious beliefs of disease. (Coward, p. 201)

After centuries of Christian philosophy that correlated illness with moral degeneracy, in some ways, medicine enabled the individual to be freed of a tremendous burden. However, this shifting explanation for disease simultaneously meant that individuals were not in control of their destiny—fate and medicine were. Amidst

bureaucratization and a shifting philosophy on the etiology of disease, the individual seemed to get lost in the shuffle. Even in Christianity, an individual has control, to some degree, over their fate. They can choose to be moral or immoral which will, implicitly, lead to sickness or health. During the '60s and '70s—when “choice” and individual power were being debated in the larger political arena—that “choice” for individual self-determination was temporarily taken away by medicine. For those who wanted to believe they could choose their individual fate, alternative health offered the more traditional, though (seemingly) secularized, route—a choice. By exhibiting self-control and taking matters into one’s own hands, one was exercising this choice.⁶

Recently, orthodox medicine has reintroduced the concept of personal responsibility for health: eat five fruits and vegetables a day, don’t smoke, get exercise, reduce stress—lectures that blare at us from every cereal box, TV show, and newspaper in the country. However, it is during that time between the '60s and the present that the alternative health movement grew strong roots in the American psyche. Medicine’s current lectures are seen by some as proof that alternative health was “right all along.”

⁶Of course there is a contradiction amongst the various theories. At the same time that there is a sense that one can change one’s world there is also an alternative health philosophy that claims there is a fixity to personality types and chance—certain personalities lead to cancer or rheumatoid arthritis; astrological positions and interpretations eradicate the concept of chance. One imagines that one has the power to change one’s world, but then again, like Christian philosophy, maybe not given the boundaries of a certain fixity and fate.

Alternative health today has become essentially a philosophy or religion that promotes more than simply “health”: its tenets reach into all aspects of life, including how to think, how to relate to others, and even how to breathe. The history of this movement is vast and unwieldy; it is fractured and often ideologically confused. It melds tenets drawn from a variety of popular, philosophical veins that range from psychotherapies to religions to healing practices to mass movements (such as the “recovery” movement). Although there is not one, monolithic set of ideas that can encompass all of alternative health, there are certain ideas that seem to pop up over and over again, whether one is talking to someone adhering to the “healing” practices of holistic medicine, alcoholics anonymous, or Christian Science.⁷

One overarching idea in alternative health is that if one fixes one’s mind, one’s body will follow. Alternative health supposedly re-humanizes the illness process—it is about a situated body and soul not simply microbes or fate. It is indeed a whole belief system—a religion—that tries to manage all aspects of one’s life. The religious aspect is evident in the demand to give up one’s old ways, to rid oneself of “bad” thoughts, to be purified, and to work hard. As organized religion continues to decline, it appears that it is being replaced by a new religion of the self. The elevation of the concept of self-

⁷ For compelling histories and critiques of these healing practices, see Kaminer (1992), Greenberg (1994), Meyer (1980), Coward (1989), Cushman (1995), and Fuller (1982).

determination is evident in the mantra that illness is not bad luck or the product of a social or physical world, but the product of individual bad thoughts or actions. As Cushman (1995) states, there is an “unquestioned assumption that the individual needs to, must be, improved. This taken-for-granted understanding about what it means to be human—that one must be fixed, adjusted, remade or healed—seems to be so central an aspect of the postwar clearing that it is never really noticed, let alone challenged” (p. 84). It used to be that only the soul could strive towards perfection, now in America the individual must constantly strive for perfection, achieved via health.

Three recurring ideas in alternative health are relevant to my discussion of medical images: 1) the way social and political problems increasingly became reconfigured as psychological and individual problems, 2) the notion that illness is preventable and curable with the right “attitude”, 3) the concept that each individual has a good interior that needs to be “liberated” to achieve health. The unifying theme in these three ideas is that *individual*, mental health is increasingly correlated with physical health. This feeds into the current tendency to locate the responsibility for illness almost solely on the shoulders of the individual and the tendency to believe that if the individual follows certain rules, he or she will be able to control their world and be safe from illness. Within this alternative health paradigm, the mind is the most powerful source of illness.

[SAFE]

Psychosomatic illness does exist, and one's mental state does have a significant affect on physical well-being, but the cure of a psychosomatic illness is not a simple mind over matter issue and illness is not always psychosomatic. The notion that the individual can fully control their health "if they choose to" is beautifully critiqued in Todd Haynes' 1995 allegorical drama, *[Safe]*. The following discussion will help to uncover some of the fundamental beliefs and fantasies about illness and safety in America.

[Safe] is the story of Carol White, a San Fernando Valley housewife who suddenly finds herself afflicted with a variety of inexplicable symptoms: She has an asthma attack while sitting in traffic, a dizzy spell in her home amidst painters and cleaning supplies, a nosebleed at the beauty salon, she vomits in the morning after a fight with her husband, and passes out at the dry cleaners. Her doctor, after seeing her a couple of times, declares that she is "perfectly healthy." The notion of perfect health is, in and of itself, a strange concept as if there is a clearly demarcated line between health and illness—as strange as the notion that one can be "safe"—but it is a notion that we seem to have accepted socially. The doctor indicates that he thinks this is a "stress-related condition" and suggests that she see a psychiatrist. The meeting with the psychiatrist, however, is clearly an alienating and unhelpful encounter.

After an aerobics class in which Carol has lost her pep, she sees a flyer on the gym bulletin board:

DO YOU SMELL FUMES?

Are you allergic to the 20th Century?

Do you have breathing problems?

Is your drinking water pure?

Do you suffer from skin irritations?

Are you always tired?

Of course, these are symptoms or fears that most of us have encountered at one point or another in advanced capitalist society. Carol attends the seminar that is being advertised and thus begins her journey into the alternative health world.

According to this seminar, “It’s the chemicals” that are making her sick.

Supposedly, she has certain sensitivities that have led to “environmental illness”: she’s sensitive to the fumes on the highway, the bug sprays at the dry cleaners, the inks in the newspaper. It is clear that her husband, doctor and best friend are quite dubious of this theory. However, the filmmaker is careful to leave the viewer in doubt as to whether this is a somatic or psychosomatic illness. It could be she is suffocating from her upper-middleclass, housewife life and that her illness is a psychosomatic rebellion from it—her asthma attacks a literal, bodily reaction to mental suffocation. At several points during the film, including the opening scene, it is evident that she has an unsatisfying sex-life—possibly illness enables her to escape unwanted physical encounters with her

husband. There also seems to be a lurking fear of technology in the culture around her—despite technology’s utopian promise of positive change—so maybe her illness is an unconscious rejection of this change. When the modern-looking sofas are being delivered to her house, one can hear the radio in the background: “...people are afraid of something that’s relatively new in society.” In the car, before her asthma attack, the radio becomes clear again: “if I told you the end of the world is coming....” However, her illness could be more than psychosomatic. Chemicals certainly surround her and she does seem to be sensitive.

As we watch Carol enter this new role of the “sick person,” we see that language is one of the keys to constructing and navigating the role. Being sick, or “not normal” as Carol says to her husband, requires adopting a language to discuss one’s illness with friends and family. Initially, she had described her illness in very recognizable clichés: “I guess I’m just stressed out lately and just tired from it” or “I’ve been so run down lately” or “I have not been feeling up to par” or “I’ve been under the weather.” Given that stress is the quintessential explanation for illness in the late 20th century, this is a language that helps those around her to categorize her new state of being. However, after attending the seminar, we see Carol’s language change dramatically. At lunch with her best friend, she spouts her new-found explanations for her illness—how she’s allergic to make-up, to the oranges that were rolled in newsprint, to her new, teal couches which are “totally toxic”—and it is clear from the expression on her friend’s face that this language is

entirely foreign. Her husband states in disbelief: “So you think this is why you’re getting sick, cuz of bug spray?...Who told you to go to this [seminar]?” Carol’s new language quickly puts her into the category of hysterical or misled woman.

Carol herself does not seem to be fully convinced of this language yet, but her symptoms, which fall through the cracks of conventional diagnostic systems, drive her to Wrenwood, an isolation camp that has tried desperately to keep the 20th century out. When she first arrives, her alienation is evident. The seemingly crazy woman who screamed at Carol’s incoming cab—“stop, not allowed, go back...you’re contaminating this entire area”—is just as strange as the friendly women on the staff that settle her in. A call home to her husband, however, shows an alienating divide that has developed with her past as well.

Later that night, after an orientation meeting that introduces her even further to the language of the self-help movement, Carol cries in her cabin. Though the viewer is not 100% sure why she is crying—is it because she’s sick, because she misses home or because this place is strange? —when the matronly director Claire shows up, it becomes evident. Claire starts telling her that her emotions are “just fine,” “so natural,” and when she moves to give Carol a hug, Carol jumps backwards, a last ditch attempt to repulse this new language and world. In a subsequent scene, Carol tells the head guru, Peter Dunning, “I’m still learning the words,” revealing the fabricated nature of the lingo. He replies, in

typical self-help fashion: “the words are just the way to get at what’s true,” as if there is some kind of essential truth hidden under all the artifice of social interaction.

After being at Wrenwood for awhile, it seems that Carol herself has made the jump. Upon being presented with a birthday cake, she gives a thank you speech that appears to adopt the language of her surroundings, though she’s still tentative in her delivery.

I don’t know what I’m saying...I just...um...[*change of tone*] just that I really hated myself before I came here and so I’m trying to see myself hopefully...um...as I am, more...positive, like seeing the pluses, like I think its slowly opening up now, people’s minds like...um...educating and AIDS and um and other types of diseases because...and it is a disease cuz its out there and we just have to be more aware of it...um...make people aware of it and even ourselves, reading labels and going into buildings....”

Her speech breaks off into self-consciousness and, after a few moments of uncomfortable silence, everyone toasts her. Her change of tone indicates a kind of demarcation between her former self, which is characterized by a lack of language-of-her-own (“I don’t know what I’m saying”), and this supposedly new self that is emerging. However, her speech is almost incoherent, filled with the contradicting ideologies that she has been surrounded by—that illness is grounded in self-hatred and psychosomatic issues, but also that it is “out there” in a troubled social world.

As Naismith (1998, p. 381) notes, Carol's statement that disease is "out there" indicates that she has somewhat resisted the rhetoric of personal responsibility that pervades the alternative health movement, but I would argue that the personal vs. out there is a contradiction embedded in the philosophy of the movement itself. Carol has fully accepted the strange notion that there are brackets of safety in the world—that "out there" indicates an "in here" that escapes harm. It is the classic Cartesian split of self and world that ultimately circles around and places all failure for success on the individual's shoulders. Although Carol sees the problems with the social world, she sees the social as separate from herself and she ultimately does come back to believing in her own culpability in the etiology of her disease.

The philosophy of this movement comes through at various points in the movie—the fear of technology and change, the myth that one can purify one's life, the linking of illness and individual responsibility. However, the movie shows the schizophrenic position enabled by the Cartesian split of self and world. It says that: "this is a disease that you catch from your environment," from the chemicals and impurities of society, but at Wrenwood, "a safe haven for troubled times," a very different etiology is exposed. Here "personal transformation" takes place because "we've left the judgement behind." "The only person who can make you sick is you, right? Whatever the sickness is. If our immune system is damaged it is because we have let it be"—through "negative,

destructive thought[s]” and our inability “to give up the rage.” It is not the chemicals or society, it is the individual’s mind.

In order to understand this conception of disease, one must step back and take a look at the history of the notion of the “self” in America. Cushman (1995) makes an interesting argument for the differing conceptions of the self in 19th century Europe and America. In Europe, as exemplified by the theories of Freud, there was a belief that the individual housed a dangerous interior, filled with dirty secrets that had been repressed, and unruly drives that needed to be controlled. In America, on the other hand, there was a belief that the interior of the individual was basically good, filled with a spirituality that, if adequately tapped into, could positively affect the self and the outside world. “To cure the patient, the European healer had to get him or her to reveal dangerous secrets and devise ways to more consciously, rationally, and creatively control and express the instincts. The American healer, in contrast, had to cure by building the patient’s naturally good self, expanding and strengthening it, replenishing and revitalizing its natural energy, ambition, will and competitiveness, and then helping the patient to express, and liberate those inner qualities” (p. 138). Mesmerism, an early form of psychotherapy initiated by Franz Anton Mesmer in the 19th century, strongly promoted this concept of individual, inner liberation as the path to “wellness”. One can see a direct parallel between this concept of an inherently “good” interior, and the alternative health belief in natural

immunology promoted at Wrenwood—that if exterior, “bad” forces are expelled from the body, the body’s “natural” immune system will serve to heal itself.

Phineas Quimby (d. 1866) added an important component to this idea of inner liberation. While Mesmer emphasized a theory that was rather difficult to carry over into 20th century thought—i.e. that unbalanced magnetic fluids were the source of individual problems—Quimby believed that it was an individual’s ideas that inhibited a person’s liberation. To Quimby, “the single most common cause of illness was the incorrect belief that the material conditions of the world controlled individual lives and that the opinions of others, such as the moral standards of a community or the rules of a religion, should determine or even influence individual behavior” (Cushman, p. 124). In other words, when one concerned oneself with the outside world, one could not unleash the power of the divine force within. In Quimby’s own words, “All good things are found within” (quoted in Cushman, p. 124).

This was a crucial shift towards the idea of the self-contained individual, the myth of an individual that had a deep core that was separated from the social and capable of mastering its world. It was also a belief system that blamed the victim for any and all problems—a belief that was easily adapted into American, capitalist ideology. Given that Quimby felt the external world doesn’t affect an individual’s life, if someone was having problems controlling their life, it was because their conscious mind was misdirected not because they lived in a troubled world. Quimby’s theory was the antecedent to mind cure

philosophy. “Before mind cure, the believer was accountable to an external God who had proclaimed an *external* standard of belief and behavior. With mind cure, the believer was accountable to an *interior* standard dictated by one’s own, *individual* spiritual wisdom” (Cushman, p. 125). Mind cure was further elaborated upon by Mary Baker Eddy, founder of Christian Science, who strongly promoted the concept of mind over matter, as well as Norman Vincent Peale, whose vastly popular book *The Power of Positive Thinking* (1952) designated all problems as “failures of attitude” (Kaminer, p. 21). Peale’s book is still in print today, indicating the legacy of a philosophy that is rampant in today’s self help movements: “In the self-help universe, anything is possible: anyone can be rich, thin, healthy, and spiritually centered with faith, discipline, and the willingness to take direction. This pragmatic optimism is supposed to be singularly American, and we tend to be as proud of the self-help tradition as we are enamored of the notion that we are a country of people forever inventing ourselves” (Kaminer, p. 46). The philosophy of Wrenwood is directly rooted in these politically troubling traditions of supposed self-determination that effectively ignore social realities.

The movie ends with Carol facing the mirror in her “safe” house, a separated house that no one else is allowed to enter. She rehearses Wrenwood’s key to redemption: “I love you”—she says to the mirror, chokingly at first. Then she whispers it, then louder: “I really love you”, trying to convince herself of the main tenet of the self-help

movement—that self-love will cure all (Kaminer, p. 92).⁸ As it was for many in the '60s, the solution to problems is “love,” but here a slightly transformed notion—it is not love of one’s fellow human or the social world, a concept with its roots in the 19th century idea of communing with nature, but love of one’s self. As Peter Dunning states in the movie:

Because when you look out from a place of love what you see outside is a reflection of what you feel inside...I see an environmental movement, sensitivity training in the workplace, multiculturalism, the men’s movement...what I’m seeing is a global transformation identical to the transformation I revel at within.

Here, the social becomes nothing but a reflection of the individual. One can also see in this statement remnants of the mind cure philosophy that believes that one can affect the cosmos by changing one’s ideas. Not coincidentally, photography is a primary metaphor for this externalization of one’s interior. “Once in spiritual contact with the cosmos, the mesmerists believed, one could also *influence* the cosmos. Quimby had referred to this as ‘daguerreotyping’ one’s spiritual thoughts onto the material world; that is, one could

⁸ Greenberg (1994, p. 13) questions this position towards self-love by stating that the recovery books “might be seen as prescribing the ‘pathogen’ as the ‘cure,’ and in so doing, be giving to their large audience a legitimization for practices that ought to be questioned, if not eschewed entirely. To investigate this possibility is to attempt to find out how a dominant form of public discourse which claims that we do not love ourselves sufficiently can arise in a culture that has been criticized as already too self-involved.”

imprint upon the material world one's innermost hopes and dreams as material images are imprinted on a photographic plate" (Cushman, 126). This idea is expounded upon in Henry Wood's book, *Ideal Suggestions Through Mental Photography* (1893).

Ironically, the closer Carol moves toward the ideal cure, according to Wrenwood, the further she moves from the social. The implication is that the individual is contained, and possibly controllable, but the social is impossible to control. Her "safe" house seems to have porcelain on the walls, to avoid dust and contaminates, the sheets appear to be made of "natural" fibers, the walls are bare except for the mirror in which she must confront herself. She has stripped her culture away—even her clothes and posture have become rather dumpy and de-sexualized. Though her safe house appears to be neo-Luddite, it is strangely futuristic in its stripped and clean appearance—a paradox that underlies its absurdity. This is where she'll "clear" and "reduce her load" of the chemicals that signify modernity. This is where she'll confront herself—not society. As Claire says, it is "perfectly safe as long as no one else sets foot inside." The leap of faith is that if one can control one's little world, maybe one has taken the first step towards controlling an unruly society. And yet, the last person to occupy this safe house died soon after Carol arrived at Wrenwood. Implicitly, the only way to be safe is to strip away the social and *that* leads to death—i.e. the social is an inextricable part of life.

Ultimately, this discourse is about the fantasy that one can separate the self from the Other of the social world, an other that signifies danger. As Joel Kovel states in *The Age of Desire* (1981):

We are deeply attached to the delusory idea that the self is a separate and detachable entity from other selves, as if it were a body in the world, with an envelope of time and space separating it from other bodies. We view the self this way for a number of interlocking reasons: because the felt experience of the “I” peremptorily excludes all others; because we look at the physical body we inhabit and observe that it is substantially different from other bodies and because we live in a civilization organized around the meeting of discrete individuals in the marketplace, the social ideal of which is the maximization and autonomy of the individual self. For all these reasons we conclude that the self is like a discrete body. (1981, p. 47; Quoted in Greenberg, p. 34)

In the following “confession,” the guru of Wrenwood illustrates how he claims to have separated his self from the dangerous social world:

I have a confession I’d like to make...I’ve stopped reading the papers; I’ve stopped watching the TV. I’ve heard the media gloom and doom and I’ve seen their fatalistic, negative attitude and I’ve finally realized once and for all, I don’t need it. And so I’ve transformed that negative stimulus into something that won’t do harm to me because if I really believe that life is that devastating, that destructive, I’m afraid my immune system will believe it too and I can’t afford to take that risk—neither can you.

Here, the reality of “life” and the social world needs to be controlled—or masked—and this can be achieved by individual will. In essence, only by lying to ourselves about the

dangers of life can we escape illness; only by bracketing out the real world can we find a [safe] place in which to construct an isolated self. To be cured, Carol must turn to a belief system that claims to have the answers and that places those answers firmly on the head of the individual. She must put her body and health first, leaving her social relationships and other life activities to the side—as if her relationships and life had no positive effects on her ability to navigate her illness. The viewer is left wondering whether this reification of the individual and denigration of all things social is the warped outcome of years of capitalist ideology.

...

Carol White, a forty-something year old, lives in an era that has intricately constructed the concept of safety. Fifty years after World War II—the last close threat to “our way of life”—and 20 plus years since Vietnam, it has been a long time since Carol’s view has been seriously threatened by the outside world. She lives in a white, middle-class, gated community; she has a new house with new furniture and landscaping—surrounded by nothing that signifies dilapidation. Her day is comprised of a trip to the health club, a luncheon date with a friend, and some suburban errands. Indeed, her world is the 1990s version of the 1950s housewife. Yet in the 1950s, WWII

was a recent memory, so one was always reminded of the possibility of danger lurking below the surface. For Carol's generation, memories of WWII or Vietnam seem to no longer threaten the fantasy of safety.

The key to Haynes' title is not in the word itself, "safe", but in the brackets, [], that surround the word. The rules of Carol's prescribed social role serve to keep her bound within the brackets. However, it is life outside the brackets that Carol is forced to explore because of her "illness". That breach to the world outside is first symbolically represented by her midnight-hour need to get out of the house—outside of the brackets—in order, she says, to breathe. Of course, when constructing a false ideology of safety, one also needs a system of authority to keep it in place. When the social rules of "housewife" cannot prevent this midnight scene, the presence of a police car driving by chases her back into the house. The other authorities that attempt to keep Carol in her circumscribed role are the medical doctor and the psychiatrist. While Carol has no built-in vocabulary for rebellion or rejection of her social situation, the alternative health world provides her with another language. The farce is that this alternative world offers a completely different definition of [safety], and so she travels from one set of constricting brackets to the next.

The cure prescribed by Wrenwood is not very different from Dr. S. Weir Mitchell's rest cure for hysterical women in the 19th century, a cure described in Charlotte Perkins Gilman's *The Yellow Wallpaper* (1892) and referenced, indirectly, by Carol in

the movie—in one of the healing exercises, when asked to describe a room from her childhood, Carol starts to describe a room with yellow wallpaper. As with hysterical women, Carol does not seem to have a language of her own that can express her sense of dissonance with the social world. Caught between and silenced by the ideological systems of patriarchy (class, sex, and race), the medical world, and the alternative health world, it is her body that speaks. At that moment that her discomfort with her social role is most intense—at a baby shower when a child climbs onto her lap—Carol's body rebels, for the first time in front of her friends, with a severe asthma attack. As in the 19th century, it is the woman's body that registers cultural pathology.

Given that Carol's shift towards a focus on her body parallels the current cultural obsession with health and the body, one also must ask the question: Is this current cultural obsession with the body somehow hysterical itself? If it is hysterical, what is the cultural pathology that it signifies? Cushman (1995) illustrates historically how social/political problems have registered, or "sedimented" in the body (to use Maurice Merleau-Ponty's term), affecting both the reigning definitions and illnesses of the self. In a related thought process, Coward makes the interesting connection between the alternative health movement and capitalism. In some ways, she claims, alternative health has a language filled with the metaphors of capitalism: energy flows (read capital flows), clearing blocks (read efficient transportation), individual self-determination (read unregulated and free markets). Within alternative health, the anxiety about the advances

of industrial society are registered at the level of the individual body to the point that the body itself has become the source of political power, the place for our “speech” to be heard. An interesting twist of the term “body politics”: fix the body and one has implicitly fixed the troubles of capitalism. In reality, this means fixing the symptom rather than the cause, an ironic repetition of that which western medicine is accused of.

This new concern with the body is a place where people can express dissatisfaction with contemporary society *and* feel they are doing something personally to resist the encroachments of that society. Indeed, so strong is the sense of social criticism in this health movement that many adherents proclaim they are the avant-garde of a quiet social revolution. (Coward, p. 197)

It is this belief in social revolution that one can see in Carol’s final speech in *[Safe]*—the linking of her problems with the problems of AIDS and “reading labels” and “going into buildings”. However, control of the individual—i.e. the production of efficient workers—and the dissolution of resistant political groups—achieved by reifying the ideology of individualism—has also been one of the main goals of capitalist expansion. They are goals that are in many ways perfectly served by the philosophies of alternative health revealed in the movie. Though positioned as social critique, the alternative health movement ultimately fragments the political power of dissidents.

One could also argue that the capitalist degradation of work and civil life in the United States has fostered the fetishization of the body as the remaining frontier for

identity formation. Clichés such as “you are what you eat” highlight this correlation between a healthy body and self-definition. New age ideologues and healers—preaching “wholeness”—encourage people to turn away from (what remains of) civic life and to focus on the body.⁹ In the case of a housewife, whose only creative relation to the world is picking out the teal sofas for her living room, a bodily illness that defies categories is one way of escaping society’s prescribed social roles. Interestingly, one of Coward’s main points is that health has replaced sex—as conceptualized in the ‘60s—as the “main area of personal self-determination.” Haynes seems to pick up on this shift—throughout the movie, Carol’s health issues increasingly displace her sexual identity.

In the end, the most interesting part of the movie is that the filmmaker denies the audience a concrete answer to the key question: why is Carol sick? We don’t know—as with many other incurable diseases—but we want desperately to *know*. In listening to people’s reactions to the movie, I often heard: “well, she was sick because of...” I can’t help but think that these are projections of the speaker’s thoughts given that Haynes certainly doesn’t articulate a concrete reason. What we are left with is a strange discomfort with the ways that each character has tried to control the unknowable. “What bothers and interests Haynes about the appeal of this approach for people with incurable

⁹Like the guru in [*Safe*], Weil (1995) encourages his readers to stop reading newspapers.

illnesses is that they would willingly accept “culpability over chaos” in order to maintain some sense of control, however illusory, over their situation” (Naismith, p. 378).

Haynes’s refusal to allow the audience to imagine that there is even a glimmer of a chance of redemption for Carol is extremely difficult to bear, and we are left trying to imagine different circumstances that could have saved her from such a tragic end. Yet in our desire to redeem Carol, we take it upon ourselves to come up with a means by which she can solve her dilemma, thus aligning ourselves with the structures in the film that also believe they know what is best for her. By highlighting our desire for a more satisfactory sense of closure in this way, Haynes reveals how difficult it is for us as humans to resist the appeal of discourses that purport to provide surefire answers. Yet *[Safe]* suggests that retreating to places that seemingly resolve the chaos that can arise around illness and identity can be more dangerous to the individual and to society than engaging fully with the messy contradictions of the late 20th century. (Naismith, pp. 384-5)

Whether Carol’s illness is somatic (resulting from chemicals in her environment) or psychosomatic (resulting from a distressed social situation), it appears to be caused by intangible and invisible factors. The invisible nature of the culprits creates an atmosphere in which danger may be pervasive: every breath, every bite of food, every social interaction is a potential threat to Carol’s well-being. Possibly, the lurking fear of danger produced by world catastrophes such as WWII becomes socially repressed, reappearing here in different form. The alternative health movement encourages its adherents to be perpetually on guard—danger lurks at every turn. This paranoid position forecloses the possibility of safety at the same time that its allure is [safety] itself. So while Carol,

during the course of the movie, lives in two different worlds that on the surface appear to be perfectly safe, they are everything but safe.

It is this contradiction—a world that appears safe on the visible surface, yet is potentially filled with invisible threats—that is relevant to the increased dependence on imaging technologies that reveal the invisible world of the body's interior.

Today's Medical Image

Is there a correlation between the renewed interest in the alternative health movement in the late '60s and early '70s and the simultaneous proliferation of high-resolution computer imaging of the interior of the body? The concepts of safety, visibility, and individual responsibility, as addressed by Haynes, seem to be the interesting links between alternative health and medical images and also crucially important, as we will see, to the plethora of dramatic events that occurred in the '60s.

One of the peculiar attributes of medical images is that they can be used to detect a symptomless illness, which in many ways seems miraculous in and of itself. However, the detection of a symptomless illness can wreak havoc with our accepted notions of "health" and "illness." Previously, when individuals didn't have any symptoms they often believed they were "healthy". With the increasing number of stories about medical images revealing symptomless illnesses, that notion of the possibility of health is

becoming more precarious. “Health” is now often felt to exist if it is deemed by the image, not a symptomless body. With the advent of images detecting “hidden” illnesses, a certain anxiety arises: the previous feeling of safety, of being “perfectly healthy” is no longer verified by how one feels, but by what the doctor or image says. This shifts the power for the determination of one’s state of being—now the medical realm and the medical image become crucial to our notion of safety. The problem knot in this situation is the notion of the possibility of safety. If as a culture we were able to accept that no body is safe or if we were able to eradicate the false dichotomy of health/illness, then the image and doctor would not have as powerful an authority over the body.

Often the detection of the symptomless illness is coupled with an inability to cure. As Kevles notes, one of the first examples of this is the use of x-rays to detect tuberculosis. In the first decade of the 20th century, the exposure time for chest x-rays had dropped to 30 seconds—a short enough time for a patient to hold their breath, and a long enough time to get a sharp image. A cure, however was not found until the ‘50s (Kevles, p. 79). So quite early on in the introduction of x-rays there was a strange split between what medicine could and could not do; between what they could see and what they could fix. Despite this shortcoming, the subsequent advances in microbiology between 1910 and 1950, which included cures for polio and tuberculosis, worked to infuse the public with the optimism towards allopathic medicine that was discussed above.

However the '60s, as Coward argues, was the turning point for this optimism towards medicine. Although the confluence of public events that occurred in the '60s make it impossible to hypothesize any cause-and-effect relationship between changes in the attitudes towards medicine and alternative health, a brief look at the decade does bring up two themes addressed by Haynes in *[Safe]*: 1) the vacillation between what is visible and what is invisible, and 2) a perceived safety (often signified by modernity or technology) threatened by a danger that lies beneath the surface.

The decade is bookended by the technological wonders of space exploration. In 1961, the USSR sent up the first manned space flight (of course this was considered a threat to United States world dominance at the same time that it signified growing human prowess over technology and the universe). In 1969, Neil Armstrong was the first man to walk on the moon and the Mariner space probe sent back pictures of Mars. The “final frontier” was one that we consumed visually, on the TV and through the eyes of our surrogates; a visible conquering linked to unthinkable progress. The world of medicine also had its technological wonders. In 1963 the first artificial heart was used, and in 1965 Lennart Nilsson published his amazing pictures of a human embryo in *Life Magazine*—two heroic forays into the interior confines of the body, what could be called the new “final frontier.”

Many of the decades' threats, however, were invisible on the surface, only manifesting in obvious ways once they were beyond our control. In Rachel Carson's

1962 book, *Silent Spring*, a study of the effects of insecticides and pesticides on bird populations in the United States, the intangible threat of pervasive chemical use only becomes apparent at a hypothetical moment when the songbirds cease to sing. In that same year, Thalidomide, a drug used to prevent nausea in pregnant women, revealed itself as an agent that grossly deformed the unborn. Explicit in both these events is the fact that chemicals had invisibly worked their way into our environment, food chain, and healing systems posing a continuous threat to the body from the moment of conception. The decade ended with important regulatory action—in 1969 the government took steps to ban the insecticide DDT, to remove cyclamates from the market, and to limit MSG in foods. This legislation, and the fact that the '70s saw the most vociferous environmental movement to ever exist in this country, testifies to the effect of these invisible threats on the national psyche.

The invisible threats of environmental damage were not the only ones to haunt the '60s however. Visible danger seemed to be erupting in all aspects of life—from the political system (with the deaths of John F. Kennedy in '63 and Robert F. Kennedy in '68); to the social system (with the deaths of Malcolm X in '65 and Martin Luther King Jr. in '68, along with the Watts riots in '65, and the race and student riots in '68); to the global scene (with the body bags from Vietnam and the publication of images such as Eddie Adams' photo of the execution of a Vietcong suspect in '68). This was an unprecedented level of visible violence against the individual and social body, seen in the

intimate confines of our living rooms. From the exhaustive repetition of the Zapruder film to the graphic nature of the Vietnam reportage¹⁰ to the frightening images of German Shepherds attacking United States citizens in the streets, the world seemed to be coming apart at the seams and revealing its gory interior.

From the vantage point of the '60s, the "Leave it to Beaver" '50s must have appeared to be just a superficial gloss, a façade painted over a brewing volcano. The "white flight" to the suburbs, which resulted in insulated suburbs like Carol White's, was an attempt to reconstruct a notion of safety that had indeed been shattered. One of the more interesting metaphors for this linking of danger and visibility can be found in Michelangelo Antonioni's 1967 film "Blow-Up", about a trendy fashion photographer who, upon closely examining (by "blowing-up") one of the pictures he has taken, discovers what looks like a murder taking place. Again, the implicit message being that beyond the surface one finds a world of danger.

Given this context in the '60s, it is understandable that the alternative health movement lodged itself securely in the minds of individuals. In a world of impoverished food chains, damaging chemicals and social stress, individuals understandably turned to a philosophy that encourages prevention and the constant fight against illness—whether it

¹⁰ Given changes in the approach to censorship, the images of the Vietnam war were far more descriptive and graphic than anything seen in the newspapers from either of the two world wars (Roeder, 1993).

is an illness that has manifested clinically or not. Perpetual vigilance towards health *at the individual level* appeared to be the key to having some control over one's world; it was also a way of making the perimeters of one's world smaller and more manageable. In this sense, the alternative health movement is not just about personal health but also the desire for social control.

The question remains—how did the appearance of the more advanced imaging processes in medicine relate to this strange conflux of dyads between the visible/invisible and safety/danger?

Outline of the Development of Recent Imaging Technologies

The astounding pictures by Lennart Nilsson that showed up in *Life Magazine* in April 1965, fueled the imagination of the public. Before the introduction of ultrasound, Nilsson used a miniaturized camera to capture beautiful and detailed images of a fetus that appeared to be alive.¹¹ The images were radically new; the 18-week-old fetus floating in the amniotic sac against a cosmic looking background signified the high-tech world of “life's” hidden beginnings. Eight years before the Roe v. Wade decision, these

¹¹ As Stabile (1992) points out, upon careful reading of the article, one discovers that the fetuses were removed from the uterus, i.e. aborted, before being shot by the camera.

images were not politically benign.¹² The accompanying article was laced with messages about life and medicine that couched the images in no uncertain terms. The preservation of life—both at its beginnings, and all along the way—was seen as the miraculous achievement of medicine. However, this latent ideological positioning of medicine indicates that there was a growing rift in the public's acceptance of orthodox medicine.

People were fascinated with this new, yet strange approach to the body. Nilsson's images set the psychological stage for the introduction of computerized medical images—images that represented the first substantial shift in the way the body is represented since the introduction of x-rays.

One of the big dilemmas of imaging processes before the introduction of computers was that shadows from layered tissues and bone can often muddle the image, rendering it difficult to read.¹³ The proliferation of powerful and relatively inexpensive computers enabled the radical shift in medical imaging practices that led to computed tomography (CT), magnetic resonance imaging (MRI) and positron emission tomography (PET). CT, sometimes called CAT scan, was the first of these to appear on the scene in 1971. CT resolved many of the problems caused by transforming a 3-d body into a 2-d

¹² In August 1990, amidst the political debates on abortion, *Life* did a follow-up article with an image that looked very similar, but the fetus on the cover was now 7 weeks old.

¹³ The majority of the following technical information came from Kevles (1997) and Wolbarst (1999). Thanx to Dr. Kathy Sullivan for her help in this section.

image. Using x-rays, a radiation detection system and a computer, CT creates an image that is a “transverse slice” of the body. This image, which represents approximately a 1/3-millimeter of the subject, eliminates overlapping bones and organs and is an excellent way to view difficult areas such as the abdominal and pelvic organs, the lungs and the brain. The computer essentially mathematically constructs this image from between 700 and 1,500 different x-ray images and creates an image that shows clear contrast between the various soft tissues, helping to detect tumors, organ trauma, fractures, internal bleeding, masses and swelling.

The remarkable part of these CT images, at least to the lay viewer, is that they’re radically different from the way that we have learned to imagine the body. Rarely does the transverse slice signify the skeleton that we have come to know, and without stacking the slices on top of each other to create a reconstructed 3-d image, it is nearly impossible to determine what part of the body we are looking at. Thirty years after their introduction, the general public could probably identify a CT of the brain given that examples of such images have shown up in a number of popular magazines and TV shows. But the ovary? If one sees an x-ray of a radical break in a femur, there is a good chance that the patient can find the break with little prompting. However, it takes a trained eye to differentiate the various shapes in a CT of the brain—in a class of mine that was composed of forty plus college students, not one could pick out which blob in a CT image represented a malignant tumor.

A decade after the CT, the MRI was introduced. The MRI is more useful than the CT image in certain situations given that it can often show better contrast between the organs and soft tissues. The images reveal structural details and anatomical change over time. For example, from one slice in time to another slice in time a doctor can see how a tumor or organ is changing. The images are made by measuring the movement of atoms that have been agitated by a magnetic field. More specifically, the nuclei of hydrogen atoms of water, which occur naturally within and around cells, are magnetic and thus line up when put within a magnetic field. Like a compass, when the magnetic field is turned off, the atoms go back to their original positions. The MRI maps the variations in these “relaxation times” of the atoms, times which vary according to the different tissues and their respective health.

The MRI process marked yet another significant shift in the way medical images appeared to the average viewer. MRI, and the subsequent technologies of PET and ultrasound, do not show the skeleton and thus were at last separated from the linkage to death via the white, ghastly bones. In an MRI, the bones show up as black, negative space, often making the images look more dramatic when colored. Of course, since there is no light source underneath the skin, there is no inherent color to the images produced. Like the CT and PET, MRI is usually shown in black and white for doctors’ use, but they’re almost always shown in color when used as illustrations in scientific or popular culture magazines. Thus color is added for dramatic reasons, or for “readability.”

MRI was originally called Nuclear Magnetic Resonance because the technique is based on the magnetic manipulation of the protons and neutrons inside the atomic nuclei. There is some indication that the name was changed in order to avoid the negative connotations of the word nuclear (Kevles, p. 184). In fact, the MRI is produced without radiation risk since x-ray or gamma-ray energy isn't used. This renaming, as well as the coloring of the image, indicates an attempt by the medical industry to refigure the medical image as being about life and color and beauty, thus possibly masking the underlying subtext of death that has dogged the medical image since the invention of x-rays. It also draws attention to the fact that imaging technologies are commercial products that are packaged and configured within a certain ideological framework that insures their ability to be sold to and consumed by a general public.

PET images are constructed from emissions instead of transmissions. In contrast to transmission technology, which works by recording the rays that go through the body, emission technology records the rays that emit from the body. By first putting radioactive tracers with very short half-lives into the body, the PET technology then records the position of these tracers in relationship to the targeted part being imaged. Essentially, PET images record the chemistry of the body: metabolic functions, flow rate of the blood or the way the heart processes oxygen. PET images help to diagnose heart disease, metastatic cancers, and the locations of seizures in the brain. They have also been used effectively to image the brain during mental activity [Plate 14].

The PET images do not appear to be three-dimensional, neither do they have the sharp outlines that one finds in the CT and the MRI. When colored, they look more like a painting, an impressionistic interpretation of color fields. Often the PET of the brain is combined with an MRI in order to make the image's correlation to anatomy more clear. The mystic and power of these PET images have to do with what they image. "Most people only care about diagnosing disease when they are ill. But almost everyone is interested in seeing the way their minds and bodies work" (Kevles, p. 224). At a time of overwhelming concern about depression, the image of "a sad thought" that appeared in *Time Magazine* (Lemonick, 1995) becomes particularly resonant.

Although there are other imaging processes that have developed in the past three decades, these three provide a good representation of the shift in visual language that has occurred.

Why This Visual Language Instead Of Another?

It is probably still too soon to tell how this radical reworking of the image of the body might have affected our own relationships to our bodies. However, it is by no means a unidirectional effect of the image changing our ideas—undoubtedly, our previous and current conceptions of the body actively shape the way that these images are being produced. For example, from the point of view of medicine, one of the main roles

of the computer is to render the image more “readable.” Anthony Brinton Wolbarst, a physicist formerly at Harvard Medical School and the National Cancer Institute, describes the process in this way:

Once it’s in digital form, any image can be mathematically massaged to improve its appearance and usefulness. Parts or all of it can be enlarged or reduced, rotated, inverted, stretched, or transformed from a positive image to a negative. The computer can adjust the gray scale, which relates pixel value to brightness, to optimize apparent contrast. It can draw a sharp edge where the shade of gray changes abruptly, so as to increase artificially the sharpness of a border, and thus help the eye to distinguish clinically relevant patterns. Digital filters can reduce some kinds of visual noise, compensate for certain inherent inadequacies of the imaging system, and in other ways improve perceived image quality. Such image processing can make the difference between a clinical study that is definitive and one that contributes nothing. (Wolbarst, 1999, pp. 84-85)

Clearly, readability is the main goal here. However, given a process that removes supposedly extraneous information, one must start with a hypothetical model of what one is looking for before one can decide what is “extraneous”. By drawing “a sharp edge where the shade of gray changes abruptly,” isn’t one also eliminating information of another kind? Of possibly a different knowledge system or hypothetical model that might contradict the one currently in use? It is hard to distinguish at what point the image is being made to conform to current concepts of “clinical” relevance, and at what point clinical relevance is obscuring others paths to new knowledge. This dilemma is phrased

slightly differently by the Kenneth Burke rule: ““A way of seeing is also a way of not seeing—a focus upon Object A involves a neglect of Object B”” (quoted in Kevles, p. 155).

The drawing of a sharp line inevitably brings us back to the notion of [safety], of a set of knowledge that is without conflict...that has clear boundaries. It is interesting to note that one of the strongest arguments of the alternative health movement is that medicine is using a model of the body that ignores other possible knowledge systems that may not be “imageable.” Kirilan photography, developed in the early ‘70s as well, was an attempt to photograph one’s “aura”, supposedly a subject’s invisible electrical emission. Often dismissed as quackery, this technique shows one attempt to use the authority of the image to support a knowledge system that is at odds with orthodox medicine. Aura is defined as “an invisible breath or emanation” in *The American Heritage Dictionary* (1981), a definition that highlights the importance of the struggle between visibility and invisibility.

When first introduced to the CT, doctors noted that the same information could be configured in numbers on computer printouts. Of course an image conveyed the information on much less paper, but one could argue that the form of the information (image vs. words) changed the nature of the information itself. As Kevles states: “As late as 1976 a scientist at the Mayo Clinic wondered if, in opting for an image over numbers,

they were losing valuable information about the nature of the tissues” (p. 161). Though an anomaly, in 1995 a doctor at the University of Michigan Medical School told Kevles that he and his colleagues were actually examining the numbers to search for different information.

So, although medical imaging appears to have been widely accepted by the medical establishment, it was by no means a forgone conclusion that the United States would embrace high-tech medical imaging the way they did. One of the reasons that medical imaging did take off was that there was a demand for these images that in essence drove the market. According to Kevles, from a financial point of view, America offered a favorable soil for these technologies to be tested and used. While other countries had state-controlled health budgets that steered towards already proven technologies, the American free-market system combined with the commercial expansion after WWII contributed to the ability to experiment and improve upon these imaging processes. As Kevles notes: “The size and structure of the American medical market shaped these technologies, which absorbed contributions from other countries without ever losing their American stamp” (Kevles, p. 6).

Of course, there were bumps in the road. The CT scanner, extremely expensive relative to other medical tools, started being used around the same time that worries over the costs of Medicare and escalating costs of medicine in general started to show up in the newspapers. Doctors, policy makers and the general public were concerned by the

growing dependence on these expensive procedures. However, despite budgetary problems, hospitals bought the scanners as a way to attract patients (Kevles, p. 167).

As noted with the popular acceptance of x-rays, patients have been one of the main driving forces of these technologies. Obviously, patients aren't desiring in the midst of an unwilling industry—the medical industry and culture are partially producing or encouraging this desire in a consumption-friendly environment. One crucial factor is that medical images are being produced in a medical culture that wants to believe that the root of illness is biological and not social or just accidental—it's much easier to blame cancer on genes or aberrant cells than commercial effluents; it's much easier to believe there is a treatable cause than to face uncontrollable chance. The visual has come to the rescue: the gene can be "imaged," pollution is often invisible; individual genes are "easier" to fix than social problems or fate. While the alternative health movement might put more emphasis on the effects of commercial effluents or individual psychology, as can be seen in the movie *[Safe]*, the push is still towards the individual not the social.

This emphasis on the individual begs the thinker to contemplate the individual psyche in order to understand the patient's demand for medical images. Clearly, the images are positioned as the latest in technology and thus implicitly the "best" medicine can offer. The pervasive lack of confidence in doctors' supposedly subjective diagnoses seems to be soothed by the production of a supposedly objective, technologically-driven "fact." (Of course, the subjectivities that produce and read the image are hidden by the

ideology of technology as they were with the beginnings of photography). It is the cutting-edge mystique of the computer image that remains.

But is there more to the patient's desire than the desire for the "best"?

Desire and the Image

A true exploration of a patient's desire for medical images can only be carried out on the analyst's couch, and in the next chapter, I'll try to present a few of the inroads to that type of psychoanalytic desire. However, the juxtaposition of the alternative health movement and orthodox medicine does provide a few insights to that desire on a cultural level.

When looking at the current state of medicine, two things come to mind: 1) we live in a dangerous world and 2) our knowledge about the human body and illness is insufficient; it does not match our desire to know, to cure, and to protect from danger. Because of this insufficient knowledge, when an individual is diagnosed with an "incurable" illness, he or she is confronted with a variety of healing systems that have conflicting ideologies and "cures." Often, because of our desire to believe that we can be "safe" and because of a certain American approach to the self, the most alluring system is sometimes the one that seems to have the surefire answer. Depending on their

philosophical position, some people are allured towards orthodox medicine, others towards alternative health.

Self-help and alternative health have undoubtedly become more than healing systems—they are moral discourses on how to live one’s life. That discourse is frighteningly similar to American capitalist ideology: the myth of the self-contained, self-determined individual, potentially able to completely control their own life. As we have seen, it is a myth that accompanies a Cartesian split between self and world, a split that pretends to eradicate the social-political matrix in a radical manner. Within this discourse, social and political problems are indeed configured as individual problems in the same way that the concept of safety is grounded in the individual in isolation. Here, the surefire answer lies on the shoulders of the individual.

How does this ideology relate to the proliferation of medical images? And how do these medical images affect our relationships to our bodies, our illnesses, and our sense of “self”? Again, one can only hypothesize.

Though it seems obvious and rather strange to even mention it, medical images do focus on the individual body. This is significant because the image doesn’t focus on the environmental, social or political factors that might have led to disease. It is the individual body that appears to house the disease, and it is the body that receives treatment. This focus is also revealed in the term “preventative medicine” which has come to mean improving individual diet and stress—not initiating environmental clean-

up or improved working conditions. In this sense, medical images are aligned with the philosophy of Wrenwood: though we often know that illness is caused by factors outside of the individual body, the images (and Wrenwood) encourage us to disavow this knowledge and focus on the body which can be, in fantasy, more easily controlled.

It is this illusion of control that is central. Given the cultural fear of invisible dangers, including the concept of the symptomless illness, the medical image is all about seeing the invisible, and thus fantasmically controlling the uncontrollable.

We can certainly see more now than we ever could before. As the physicist Karl Darrow said, ““One of the things which distinguishes ours from all earlier generations is that we have seen our atoms”” (Quoted by Kevles, p. 213). We learn in high school that “atoms are the building blocks.” In science class, many of us have scraped the cells from the inside of our mouths, looked at them through the microscope, and drawn them on a piece of paper like a “real” scientist would. To some degree, we understand the parts and functions of cells and atoms, though we realize there are still some mysteries to be tackled. Maybe years later, when faced with the more advanced PET image that maps the chemistry of some pathology hidden in our body, we remember that science class, and the connection gives the sense of some form of logic in operation. Maybe the image does more. Maybe being able to “see” our atoms, and to understand what that means, we can create the illusion that we can see all and implicitly, given vision’s perceived correlation

with knowledge, we can be closer to what we desire: knowing how to cure, how to stave off disease, how to be safe.

Potentially, we could know every action of every acid, enzyme and chemical on every organ, and their interrelation. This knowledge has, if nothing else, opened up a whole inner geography of the body, a much larger inner space than previously. (Coward, p. 146)

Every acid, enzyme and chemical may be more information than we actually want. To know how this acid interacts with that donut or that aspirin could render our every move subject to self-consciousness and potentially guilt. There has already been an indication in the United States that people are tired of being told what to eat and how to talk and how to act, evidenced by the “political correctness” backlash. But if the possibility is there for more information, more visibility, it will be hard to resist.

The medical image *appears* to codify and make visible something that ultimately evades codification: death and pain. A diagnostic image can name, map, and render the intangible. Although this mapping doesn't directly correlate to safety, it can provide the ground for control at a fantasmic level—a needed and important fantasy for those overwhelmed by disease, doctors and medicine. In some surgeries, patients can watch a video of themselves being operated on—the theory is that it can give the patient a sense of “control” during an intrinsically passive situation. Other patients have watched the video of an operation that is similar to the one they are about to have and the viewing of

the video educates at the same time that it can sometimes help to separate the action from their own body.¹⁴ The disturbing aspect of medical images gets stored away into the category of the already seen, known, understood, controlled. The signification of death embedded in the image can be objectified, or put outside ourselves—by viewing them, on one level, we seem to control that death. Even though the image and the culture may say that we are responsible for our own disease, a heavy responsibility to shoulder, at least we have been able to choose “culpability over chaos.”

As this chapter points out, there appears to be a symbiotic relationship between medical images and 1) the focus on the individual, separated self; 2) the disavowal of the social world; and 3) the fantasy of safety and knowledge in a complex and troubled world. The American philosophy of the individual, the alternative health movement and the construction of the medical image all serve to bracket the sensations of chaos that ensue with disease. [Safety] and “health”, as defined by the medical image and

¹⁴This separation is of course dependent on unconscious desire—sometimes the image causes identification, not separation. A study in 1983 tried to show how mothers who had seen an ultrasound of their fetus would be more likely to identify with the child, to link the image to the body, and thus less likely to get an abortion. Rosalind Petchesky links this study to the genesis of *The Silent Scream*, a “pro-life” propaganda film. Pro-life advocates tried to pass a law that made pregnant women wait 24 hours after seeing an ultrasound before they could abort (Petchesky, 1987, p. 265).

alternative health, take on a symbolic position, ultimately becoming signifiers of an individual's relationship to the outside world.

CHAPTER 4

Visual Discourse And The Repression Of Complexity¹

*Sight is an abstract invention,
an idea that has been cleaned up,
simplified, one of man's ideas.*

(Sartre 1949, p. 171)

The media is fascinated with these new, colorful photographs of the brain such as that seen in Plate 14. Actually, photographic is not correct—literally, photographic means “light writing,” but it is positron emissions that render this image, not “light.” Despite the non-visual origins of the image, it resembles the photographic, and photographic is the way that we think we *know* these types of images. No trace of the gray, mushy matter that was once so prevalent in our collective imagin(in)g of the brain remains—a bright, concise blue, green, yellow, and red dramatically map out the flow of blood, set against a jet black background with a white band that outlines the perimeter of the skull. The image

¹ Parts of this chapter were previously published (Lemmon, 1996).

is clean and ordered, without any of the “electronic noise” that might indicate we are dealing with a complex and convoluted phenomenon. Mysterious, yes, but it gives the semblance of the *already known*. This reconfiguring of the signifiers for a “brain” opens up the possibility for a new way of thinking about its function, role, and history. Indeed, often the articles that accompany these types of PET scans take on the tone of “look, a new brain order.” It is quite popular these days to draw a connection between the physical matter of the brain and behavior patterns. See that squiggle there? That indicates that the “patient” is depressed.

To us, the image may be beautiful. In a culture that lives and breathes the omnipresent ideology that embraces science and the body as “natural” wonders, we wouldn’t think of questioning the image as an aesthetic construct...it’s a part of nature and nature is “beautiful.” To the researchers and doctors, the image signifies pathology. But this reading, “pathology signified here,” is not a natural reading. The signifiers must be fabricated then identified and learned, the realm of technicians and specialists, something that needs to be translated for the rest of us. This paradoxical *double entendre*, “natural reading,” is the key. As mentioned in the first chapter, within the photographic paradigm, the concept of reading the image, or learning to read the image, is foreign. One doesn’t *read* it, i.e. decipher the signifiers, one *sees* it, i.e. the image is a transcription of reality not a language subject to interpretation. The ontology of the photographic

image—its technological rendering (read “objective”) and indexical connection to the real object (read “the thing itself”)—says this is not the construction of science but a window to the natural.

It is not by chance that the scientific community chose to render this information in a signifying system that most closely approximates the visible, or more accurately, the photographic.² It’s not by chance that the image totters on the cusp between science and aesthetics. Though there may be technical/scientific arguments for why the information was not put into words or graphs or numbers, one can’t ignore the ideological context of technology. Given the historical links between truth and photography, knowledge and vision, beauty and the body, this image sends out no red flags, exposes no seams that indicate science is anything more than the *uncovering* of what *is*. The result of this form of positivism? The prognosis stands.

The imaging of the brain has changed substantially since the introduction of PET images. Even when the “mushy” brain is depicted in popular culture, one is likely to see it in a reified, aestheticized manner. In Plate 15, the image is dramatically lit, with a black background and unknown light source. The brain seems to be lifted from a magical bowl, wafting with smoke as if it were just conjured by the scientist or doctor (signified by the

²On the distinction between these two, see (Snyder 1995).

white cloak of the faceless arm that cradles it). This new brain has indeed been reconjured. In Plate 16—again the black background with a man's head and white-gloved hand emerging like a magician—we see Peter Kramer, author of *Listening to Prozac* (1993), who is visually creating an equivalence between the brain and Prozac. *Listening to Prozac* popularized the belief that behavior is a biological product of brain neurotransmitters. His term “cosmetic psychopharmacology” reflects the belief that personality can be fine-tuned with the new “smart” technologies available at the pharmacy.

The parallel between the new techno-images and the new techno approach to psychology cannot be a coincidence. There has been an increasing tendency in science, and specifically medicine, to produce and render knowledge through the visual image. The difficulty with this epistemological shift is that knowledge itself can become limited to that which is visible or that which can be rendered through visual signifiers. A visual epistemology also tends to place emphasis on those realms of knowledge that can be mapped (the human genome or the physiology of the brain) while it simultaneously attempts to map those realms of knowledge that resist cartography (the psyche and the social).

As the dialectics between biology, psyche, society, and behavior are being replaced with mind=biology, being=gene, we increasingly hesitate to define ourselves in

relation to our childhood (the Freudian being), or how we think (the Cartesian being), or how we work (the Marxian being), or what we choose (the Sartrean being). We tend to accept *being* defined by that which we have little control over: our biology. Some say self-determination is possible, we do have a “choice,”—we can choose to go on Prozac or to have gene replacement therapy. But, as Evelyn Fox Keller notes, “these newly available choices, though ostensibly made by individuals, are in fairly obvious ways preconstructed by the categories of disease already presented to the decision maker, often on the basis of rather dubious evidence” (Keller, 1992, p. 297).

There are a multitude of interacting forces that create and sustain this curious convergence of biology and self-definition and that simultaneously erase the notion that the unconscious or the social have anything to do with the self or illness or complexity itself. What interests me here is *why* much of this discourse is taking place in the realm of visual language and what is it that the visual permits us to hide. What happens to the concept of the unconscious and the social when our knowledge system configures information as (and naturalizes it through) technologically produced visual representations? Why is there such a demand for medical images from patients themselves? We might begin to ferret out an answer if we apply psychoanalytic and philosophical theory to the confrontation between an individual and their own (medical) image.

The three theorists that I would like to focus on—Jacques Lacan, Michel Foucault, and Jean Paul Sartre—use three different metaphors to understand the relationship between vision, the individual, the other, and power. Lacan's metaphor of the mirror stage provides a compelling explanation for the initial role of the two-dimensional image in identity formation; Sartre's metaphorical construction of hell shows how the interpersonal exchange of gazes establishes an ever-shifting ground for self-definition; and Foucault's metaphor of the Panopticon elaborates on the institutional use of vision as power. Each theory will be useful in hypothesizing how our experience of vision outside of the medical establishment may be intricately connected to our experience inside the establishment.

Medical Image as formative of the function of the “I”?

*To everything which a man allows to become visible,
one is able to demand: what does he wish to hide?
(Nietzsche, quoted in Copjec 1995, p. 27)*

Some important questions are being asked about medical imaging technology: Does the medical image give the individual more or less agency? Is the proliferation of medical imaging technologies “Progress” or does it create an expanded definition of illness and consequent increase in diagnosis? Can the proliferation of medical imaging

technologies be checked given its integral relation to capitalist production? A crucial knot remains unquestioned however: how does *unconscious* desire and identification with the image combined with our fantasy that the image equals (self) knowledge function to disavow the Real and subsequently complicate our relationship to medical images?

The captivation with the medical image can be explained partially by visual and sociological theories which take into consideration issues raised in the previous chapters: 1) the ontological linking of photography and truth (given the image's indexical connection to the material and the ideological fantasy that technology is objective); 2) the social construction of the image as "self" (via the linkage between photographic images and self-definition during modernity and the use of the image as definitive of the cusp between "normal" and "pathological", "self" and "other" in medical and colonial discourses); and 3) the development of the medical image as a tool of enlightenment knowledge (embedded in the Foucauldian concepts of the gaze, power, and medical language). Ample material exists to explore these aspects of the image, yet the *psychological* dynamic involved in the captivation with the medical image needs further investigation here.

Lacan's theory of identity formation is thoroughly grounded in and inseparable from visual representation. According to his theory, there is no ontological "I." One's concept of self is but a fiction, one that can only be created in the space between self and

other—a representational and/or living other—both of which are embedded in the cultural definitions of identity. In order to grasp the psychological moment when a person views their own medical image, it's important to explore the parallels with Lacan's metaphor of the mirror-stage, to view the encounter with the medical image as a possible re-encounter with the mirror's gestalt image.

According to Lacan, the "I" is a layering of representational identifications that occurs throughout the course of an individual's life. In the child's initial encounter with an exteriorized image in the mirror (which hypothetically occurs between the ages of 6 and 18 months), the child fixes the reflected image onto himself, "assumes" the image as himself, and in fantasy, becomes the image. The problem with this assumption of the image is that the image looks like it all fits together smoothly while the child's experience of its own body is characterized by uncoordinated motor skills and dislocation. So this encounter with the mirror is a *meconnaissance*, a perception of totality and wholeness that is not only imaginary but also a misconception given the child's fractured motor skills. Nonetheless, this encounter results in the beginning of the (fictional) "I". It is also the first equation of the image with self and truth (and misreading).

Through the psychological actions of introjection and projection, identity becomes thoroughly grounded in the child's relationship with the outside world—a representational montage filled with contradictions but hidden behind the gestalt of

totality. The initial mirror image grounds the child's concept of self in alienation. Not only is the encounter with the image a *meconnaissance*, it constructs the self outside of the body proper, from that point on correlating self with that which is separated. Because of its externality, the image can be mapped, spatialized, and fantasmically controlled. Imaging, a form of naming or putting into language,³ inherently structures and fixes, rendering the subject object-like. Since this configuration, fixity, and totalization of the image of self conditions all consequent permutations of the *story* of self, the individual's psychic structure seems to beg for fixity, and totalization. These characteristics are implicit in the authority of the medical image. With fiction and representation already (mis)identified as reality, future constructions of fiction as reality (for example, the medical image) become all the easier.

The mirror image can be seen as the objectivization (*savoir*) of previously subjective knowledge (*connaissance*). Because we live inside our body, we can never experience it as whole except through the mirror image. In a similar manner, though we

³Lacan defined three interlinked psychic registers: the Real, the imaginary, and the symbolic. Simplified, the Real refers to that which cannot be symbolized or put into language, the imaginary refers to one's mental images that are initially established in the mirror stage, and the symbolic refers to language, culture, and the law. Though Lacan tends to place the image in the imaginary, and verbal/written language into the symbolic, it's important to recognize that, in the image, the divide between the two registers can become indistinct.

can sense the internal operations of our body, it is only through the medical image that it too is made to appear whole. However, this reading of the medical image is also a *meconnaissance*. It appears to be whole, it appears to show all, but inevitably there are functions in the body that are invisible to medical images. We misread the image as totality but something always escapes the possibility of "reading".

Once one is able to transform oneself into a whole, visible object, comparison to others is facilitated. Given that fixity and otherness are integral to the initial story of self, it is not surprising that the language of medicine, which is grounded in the fixed binary of the normal and pathological, is accepted so easily.

Meconnaissance, alienation, fixity, and object-ness are learned in that first encounter with the image and they subsequently pre-condition the encounter with all future images, including the medical image. The otherness of the medical image is not a problem, in fact, following Lacan's logic, it is a necessary part of recognizing the medical image as self. Given that the introjection and projection of the image renders the divide between the inner and outer, fantasy and reality, self and other blurred, it can be easily understood how the medical image can be misconstrued as truth-of-self. The problem is that this self is grounded in the materiality of the imaged body, a materiality that represses any knowledge of what might be un-imageable.

The medical image provides an interesting contradiction: the patient identifies with the image, which provides form and objectivity to the subjective knowledge of the interior body and possibly re-calls the originary (mis)conception of wholeness. However, the image exists in a medical discourse that signifies a rupture (or potential rupture) of that wholeness, pathology. A split occurs between identification with the illusion of functioning and the discourse that signifies a lack of functioning. The simultaneous illusion of and lack of wholeness creates Desire: the culturally embedded “pathological” image, signifying a break from the ideal of totality, begs for the possibility of cure.

Filtered through the psychic functions of fantasy, objectification, subjectification, introjection and projection, an individual’s encounter with the medical image can vary substantially. The image can expose one to the disturbing and inevitable ambiguities of illness:

I think I felt as I would if a doctor had held an x-ray to the light showing a star-shaped hole at the center of one of my vital organs. Death has entered. It is inside you. You are said to be dying, and yet are separate from the dying, can ponder it at your leisure, literally see on the x-ray photograph or computer screen the horrible alien logic of it all. It is when death is rendered graphically, is televised so to speak, that you sense an eerie separation between your condition and yourself. (Don DeLillo, *White Noise*, quoted by Kevles, 1997, p. 266)

DeLillo's quote points out the eerie strangeness that accompanies illness and medicine. He gives the sense that the image incubates an alienation from both the body and medicine's methods of treatment. Instead of separating from and objectifying the disease via the image (thus possibly obtaining a sense of control as some patients do by viewing videos prior to their own operation) or instead of identifying with and visualizing the disease in a way that leads to health (as proscribed in visualization techniques),⁴ one may identify too much with the image. Being able to visualize and/or objectify one's disease might be effective for some people but, at the same time, the medical image can render one's disease too tangible, too factual—seeing the image could trigger psychology in a way that leads to dread and a quickening of the disease. One's psychology can become engrossed in the notion of the image=self-as-pathology and, as in the tale of Narcissus, over-identification can lead to death. Of course alternatively, if one were to objectify the image as outside of oneself, one could fantasmically disavow the Real of the body; imagine the death is not one's own. Like a fetishistic structure, in this position one

⁴ For those that believe in the psychic powers of visualization—the concept that your mind can visualize and thus support your body's healing process—medical images can provide a tool. Some believe that seeing the image can fuel the individual's mental ability to visualize the atoms or organs that seem to house the disease, and thus start to imagine the healing process.

knows the Real exists but one turns to the visible and the objectifiable to hide what is painful to see.

When we experience another's illness or death—especially that of a relative—we have an opportunity to fantasize our own. In a culture that worships genetics, the illness of a relative fantasmically mirrors the ways that our own immune system will fight a similar disease, the way our own hearts will continue or not in their job. Illness becomes an identificatory process between relatives, the medical image upping the ante of identification. There is a humanist element to these medical images. As Elaine Scarry notes, pain is incommunicable (1985). But the image of the source of pain can simulate a communication about that pain, providing an identification that draws concerned parties closer.

This identificatory aspect of the medical image might also help to explain the proliferation of medical emergency shows on TV—we watch these shows as a way to imagine and live through vicariously, in a space outside of ourselves, the way our bodies will inevitably deteriorate. For the “healthy” who watch the shows, the identification process is also about the fact that it is not *our* body that is having the problems. “The chief reason why we can tolerate death in others, even in those near to us, is that it pushes it away from ourselves” (Tolstoy, 1886, p. 6).

While physical death is often denied and removed from our lives (people die in hospitals, dead bodies are scurried to the funeral home before they are cold, cryogenics staves death off indefinitely), representational and vicarious death abounds (from Rambo to ER to the media coverage of the crash of TWA flight #800). There is no doubt of *jouissance* in the consumption of representational violence and death: a vicarious rush of pleasure in which one is bombarded with violence only to discover at the end of the movie that one remains unscathed.⁵ This public representational death is probably a reaction to the removal or denial of death in the intimate realm, but I wonder if it is also something more. Maybe it is connected to the medical image's ability to objectify our body, to put the interior outside of ourselves, to render the invisible as representation. Like media representations, somehow the medical image provides us with a space in which to consider our own bodies' mortality.

Both the medical image and the mirror image can be posited as identificatory images, but the crucial difference between the two is this signifier of potential pathology or violence to the body and the consequent relationship to death and the death drive.

⁵J. G. Ballard's *Crash* (1973) is one of the most intriguing contemporary analyses of the correlation between *jouissance*, violence, and death.

The Medical Image and The Death Drive⁶

Whenever you isolate one of the subject's identifications, what you then need to do is find the fantasy (S<>a) that goes with it, the fantasy that brings him jouissance.

(Laurent 1995, p. 25)

Meaning is central to the subject. If we start from Ellie Ragland-Sullivan's summary that "meaning only exists at all because it can refer to perceptions already structured (ordered) in a realm of repressed (unconscious) representations (references)" (1987, p. xvi), in order to understand the meaning evoked from the medical image, we must look at the realm of the repressed, what we let the mirror and medical image hide, what already conditions our concepts of meaning.

Medical imaging technology provides a comforting illusion of knowledge—even if that knowledge reveals the worst, it at least gives the semblance of fixity. The frequent desire for easily comprehended meaning and closure could partially explain the seeming totality and fixity represented by medical imaging. The "imaginary chain of signifiers that lead to closure protect individuals from unconscious knowledge" (Ragland-Sullivan,

⁶There are a number of different kinds of medical images, many of which seem to have nothing to do with death. It is the medical context that inevitably produces the signifier of death. To Roland Barthes (1981), all images signify death.

p. xviii). What is this unconscious knowledge? Though one might think it is the knowledge of unavoidable death, Lacan hypothesizes that it is knowledge of the Real of the body. Following Freud's lead—"in the unconscious every one of us is convinced of his own immortality" (1915, p. 122)—Lacan states: "The fear of death, the 'absolute master'...is psychologically subordinate to the narcissistic fear of damage to one's own body" (1966, p. 28).

The fiction of the self as object or objectifiable is crucial to both the mirror-stage and medical imaging technology. Objectivity forecloses the possibility of the unconscious and the contradictory, attempting to render all things rational. However, according to Lacan's theory, not everything can be rationalized, not everything can be named. There is always something that escapes our attempts to symbolize or control and that something is the Real. The Real is an illusive concept, one that Lacan defined differently at different points in the elaboration of his theories. However, he does at one point define it as trauma and indeed, viewing an image that signifies damage to one's own body could be characterized as traumatic. According to Lacan's theories, the child experiences the originary trauma of a damaged body before the mirror stage.

This originary trauma is related to narcissism. Lacan describes narcissism as being crucial to how the individual deals with the inherent "lack" in being (a lack that is the result of a premature birth that leaves the child uncoordinated and dependent on

others; the feeling of lack continues through the course of the individual's life). Because of this lack, narcissism drives the subject towards the identification with a unitary ego in the mirror stage, a unitariness that hides the lack. To Lacan, the archaic *imago*, that precedes this unitary ego, is connected to the sense of lack and need for identification. The archaic *imago*, or *corps morcelé*, consists of mental representations “of castration, mutilation, dismemberment, dislocation, evisceration, devouring, bursting open of the body” (Lacan 1977, p. 11). The child’s sense of the *corps morcelé*, their internalized memory of the pre-mirror experience of the body as a fragmented and vulnerable entity, reappears in the dreams and fantasies of the adult. Any amount of time spent amidst today’s mass media images will highlight the societal fascination with the violation of the body. Parents, horrified by their own children’s violent tendencies—their fascination with gory fairy tales or their dismemberment of dolls—often blame their children’s aggressivity on movies and TV, hence the recent hoopla over the v-chip.⁷ Yet according to Lacan, the child’s originary sense of a *corps morcelé* is replayed within the fantasy of violence towards the body—a fantasy that implicates *jouissance*.

⁷I would argue that recent increases in juvenile violence has more to do with changes in the interpersonal socialization process, which helps to repress the desire to express fantasies, than with representation itself. These changes in the socialization process point towards the increasingly violent effects of capitalism on the social realm.

Lacan links aggressivity and the death drive to the gestalt of the body image. The imaginary form of the body established in the mirror stage represses some part of the Real of the body (something that is not represented), creating an internal conflict in the subject. The death drive is the return of this Real, an aggressive drive that aims to violate the limiting structure of representation, enabling a re-experiencing of the *corps morcelé*. “It is because aggressivity represents a will to rebellion against the imago that aggressivity is specifically linked in fantasy to violation of body integrity” (Boothby 1991, p. 39). Because this drive strives to deconstruct the integrity of the imaginary ego established in the mirror stage, the psychic construction of death is a death of the imaginary or a death of this image of wholeness, in other words, it can come in the form of violation to the body.

We can hypothesize a double reading of the medical image. Like the mirror stage, it can provide a gestalt image of interior wholeness otherwise inaccessible to the subject. However, the medical image—which inherently contains the signifier of pathology or potential pathology—can also recall the uncanny sensation of the *corps morcelé* and, given the psychic traces of the imaginary ego, can reenact a secondary death of that ego. Both readings of the image explain our fascination with it: The image as gestalt supports the narcissistic drive for wholeness; the image as *corps morcelé* spurs the death drive. Just as the recurrence of traumatic dreams can be an attempt to control a painful stimulus

retroactively, so too could our societal fascination with the medical image be an attempt to control the Real of the body. In many ways, the captivation with the (medical) image parallels the *jouissance* or pleasure of the psychoanalytic symptom—an unconscious repetition that always misses something of the Real (Miller 1995, p. 12).

A Visual Language

Looking at x-ray or computer-reconstructed images of our own bodies is like a Rorschach test: our responses mirror our general sense of ourselves at a particular time. When the medical problem that called for the image is under control, the reaction reflects the degree of optimism. But a long illness with many scans is more complicated. The repeated experience of being visually “flayed,” of seeing the painful reality of a desperate condition, is increasingly common as medical diagnosis races, by necessity, ahead of treatment. (Kevles, p. 268)

It is undoubtedly true that, to some degree, the image is a Rorschach test. However, individual responses to the images, even when not associated with a long illness, must be more complex than a simple projection of the interior state of mind.

The language that one uses to communicate, whether chirographic or visual, effects the production of meaning. “Language is not immaterial. It is a subtle body, but body it is. Words are trapped in all the corporeal images that captivate the subject....What is more, words themselves can undergo symbolic lesions and accomplish

imaginary acts of which the patient is the subject” (Lacan, 1966, p. 87). Images and words could be used interchangeably in the above quote. By saying that images or words have a material body implies that they are not value-free, that they carry a weight that sways their affect on the subject. According to Freud, “words were originally magic and to this day words have retained much of their ancient magical power. By words one person can make another blissfully happy or drive him into despair, by words the orator carries his audience with him and determines their judgements and decisions. Words provoke affects and are in general the means of mutual influence among men” (1933, p. 165).⁸ Language, whether words or images, is neither transparent description nor simple information; it is not without affect or power. Language is a material body that produces at the same time that it is produced and thus is not innocent of ideological construction nor is it a simple projection of the individual’s psyche.

One of the main forces of this ideological construction is the power implicit in the world of medicine. Lacan himself states that the imaginary register cannot exist outside of its symbolic (or cultural) determination, but the imaginary of the mirror and medical images are slightly different in reference to the symbolic. It would be a mistake to view medical images, inextricable as they are from medical discourse, as existing strictly in the

⁸ Many thanks to Laura Corbalán Szichman for these quotes.

imaginary register—often they stride the cusp between the imaginary and the symbolic.⁹

The medical image is clearly related to the imaginary—or at least those images that are recognizable to the subject either because they retain some trace of bodily form, or because the subject can situate the image within their own knowledge of anatomy. Yet often the medical image, unlike the mirror image, only can be read with the aid of a specialist. This is crucial—once the specialist helps us to interpret the image, we can link it to our own imaginary body. The symbolic, or here medical discourse, still operates to shatter the imaginary illusion of totality discussed earlier, but with the medical image the paternal metaphor—a Lacanian term that here would refer to the master signifiers of medical knowledge, scientific objectivity, technological wonders, and monetary expenditure (the more money spent for a specific test the seemingly more accurate the information produced)—is embedded *in* the image. Again, this embeddedness tends to be invisible—and thus more potent—since we are not conditioned to question the image as an ideological fabrication. Thus the medical image, because of its links to symbolic

⁹ As Boothby points out, linguistic signification plays a crucial role in the unbinding of the imaginary. The symbolic provides the third term between the subject and their image, moving the subject away from the unitary dyad of the imaginary towards the differentiated triad of the signifying chain (Boothby 1991, p. 151). The importance of moving away from the narcissistic dyad of subject and their image is highlighted by the story of Narcissus. Without the outside world, i.e. the symbolic or third term, Narcissus meets his death within the image.

power, operates on a more complex level than the mirror image or a normal photographic portrait.

Again, one must remember that visual signifiers and their relationship to a signified are culturally determined, not natural, and are linked to the shared meanings of the group as well as the totality of the signifying chain. A key difference between visual and verbal language is that we have become accustomed to assuming the visual is the natural, whereas the verbal is the conventionalized. Though it would be difficult to say that the signifiers of an image are arbitrary given their indexicality, the meanings that we assign them *are* arbitrary. Though Barthes starts out his essay on the photographic message by deeming the photograph a “message without a code” due to the denotative, he concludes that it can only be read through the historical, cultural, sociological and psychological matrix that binds and produces it (Barthes, 1961). Therefore, one can never analyze the meaning of a medical image outside of the culture in which it is seen.

Just as a child is born into a social realm preconfigured by language, so too is the medical image born into (and produced by) a social establishment preconfigured by a medical language. By entering into a doctor’s office, the patient is always already caught in this language. Medical language and ideology shift with time. Currently, given that medicine clings to the binary of health and illness, the image is situated in this binary. The result is often a belief in the possibility of totality (“health”) by overcoming one’s

lack (via a “cure”).¹⁰ The congruence between self as object and image works nicely with the hangover of the 19th century metaphor of the body as a machine, a metaphor adopted by the foundations of medical America (Rabinbach, 1990). The image often “shows” (i.e. is constructed and interpreted to show) a spatialized, locatable “part” that is broken and needs fixing. Foucault noted how in the 18th century, the medical profession shifted their question to the patient from “what is the matter with you?” to “where does it hurt?” (Foucault, 1963, p. xviii). While Foucault was trying to show a shift in power from patient to doctor, these questions also illuminate a shift in focus from the patient’s perception of their whole body to a specific locality to be analyzed by the doctor. This language, and its subsequent conception of illness, can radically affect diagnosis and treatment. Even if the diagnosis or disease is questionable, seeing is believing/knowledge (*voir* and *savoir*)—the image looks different from others that have become the standard and therefore must signify pathology. The delineation of difference in a culture that pathologizes difference often provides the doctor with a pliant patient.

As Freud states in *Group Psychology*: “[A Group] thinks in images...whose agreement with reality is never checked by any reasonable agency. The feelings of a

¹⁰Again, I’m speaking about a hypothetical doctor’s office in the United States. Obviously, not all doctors fit into this particular ideological position in this country, and I can only hope that the situation is better in other countries.

group are always very simple and exaggerated. So that a group knows neither doubt nor uncertainty” (Freud, 1921, pp. 13-14). To Lacan, the symbolic is key to moving away from the aggression and social control that can result when subjects are caught in the imaginary (like Narcissus). One might think that the image is less prone to being a tool of social control—we’ve come to think of power as being located in institutions or the hierarchy of professionals—but Lacan’s argument shows how the image, or the imaginary, might be a more dangerous tool. “For Lacan, the projection outward of the death drive in violence and aggression is to be attributed to its functioning on the level of the imaginary...The true threat to civilization stems not from the self-mutative drive itself but from the failure of its symbolic mediation” (Boothby 1991, p. 183). By moving information and knowledge into a visual language, the medical establishment is helping to elevate the role of the imaginary and to thus secure social control.

The following two examples show how the shift to a visual language can affect social control: 1) In 1991, PET scans were admitted into New York State courts to determine the sanity of a defendant. A psychiatrist’s intersubjective evaluation was no longer needed. 2) Currently, doctors can deem a patient mentally incompetent to make decisions about their own body—all that is need is a computerized electroencephalograph indicating “abnormal” activity in the temporal lobe. (Nelkin & Tancredi 1994, p. 62). Again, the image replaces the authority of the symbolic, or human, discourse. As

Foucault has pointed out, Freud broke with Charcot partially because he was using imaging processes to map the symptomatology of neurosis. "Psychoanalysis was established in opposition to a certain kind of psychiatry, the psychiatry of degeneracy, eugenic and heredity...in relation to that psychiatry...psychoanalysis played a liberating role." (Foucault, 1980, p. 60). As can be seen in these two examples, it appears that the authority of a visual discourse is rising again.

The Medical Image: Half-breed of Sartre's Hell and Foucault's Panopticon?

Imagine walking into a room in which there are no mirrors. No windows. No light switch (the lights are perpetually on). No eyelids, no tears, no sleep. Now imagine staying there—eternally.

Welcome to hell, or hell as configured by Jean-Paul Sartre in 1945 in a play called *Huis Clos* (problematically translated to English as *No Exit*).¹¹ This is a hell that is fabricated out of perpetual vision, what one of the characters, Garcin, calls "life without a break" (p. 5). However, when Garcin makes this comment, he has yet to realize the

¹¹In French, the phrase *Huis Clos* means behind closed doors, usually referring to a secret meeting. Translating this phrase into "no exit" exchanges the subtlety of this meaning for a more dramatic and stereotyped picture of hell that Sartre apparently tried to avoid.

primary ingredient of this hell: the gaze of other people. In walks Inez and Estelle, and the three together, looking at one another, constitute hell in its totality. Because there are no mirrors, they cannot see themselves—they are dependent upon the gaze of the other to determine what they look like (both physically and metaphysically). Given that there are no windows, the characters cannot avert their gaze, cannot escape into an outside and possibly fantasmic world, even momentarily. Without the possibility of the dark, nor the possibility of eyelids or sleep to shut out the light, they are condemned to perpetually encounter the other's gaze. Without tears, there is not even the slightest of reprieves.

These characters are caught in the web of the social, each connected to the other, each dependent upon the other to determine their own existence. As each character is initially introduced into the room, they assume that the others are the devil's helper, the classic torturer of hell. A moment of partial relief is achieved when they realize that the others are just ordinary people, like them, who have died. Possibly, they are even random people that have no logical connection to their own lives (though Inez insists that everything was pre-planned by the keepers of hell). But slowly another truth sets in: they *are* each other's torturers. To take notice of the other is to torture the other. Even when they try to ignore each other, to avoid this torture, it is impossible—knowledge of the other's existence cannot be erased once encountered.

Two forces drive them to look at each other: the desire to set their "life in order" and the need to "know" (it seems that life and hell share some similarities). To set their life in order appears to mean to put it into the various categories: this action was heroic, this one selfish; this personality trait angelic, this deserving of hell. The object of their knowledge is the answer to the question—why am I in hell? This answer can only be achieved through the retrospective analysis of their lives and it appears that they can't attain the answer except through the eyes of the others. To evaluate one's life, one must look to see how others see it.

Sartre goes so far as to question whether one's being can exist outside of the gaze.

This becomes clear when Estelle notices that there are no mirrors in the room:

Estelle: When I can't see myself I begin to wonder if I really and truly exist. I pat myself just to make sure, but it doesn't help much...When I [used to talk] to people I always made sure there was [a mirror] near by in which I could see myself. I watched myself talking. And somehow it kept me alert, seeing myself as the others saw me... (p. 19)

Inez offers to be Estelle's glass, to replace the mirrors that are absent in hell:

Inez: Look into my eyes. What do you see?

Estelle: Oh, I'm there! But so tiny I can't see myself properly.

Inez: But I can. Every inch of you. Now ask me questions. I'll be as candid as any looking glass.

Of course, seeing oneself through the eyes of another always means taking into account two subjectivities:

Inez: Am I not nicer than your glass?

Estelle: Oh, I don't know. You scare me rather. My reflection in the glass never did that; of course, I knew it so well. Like something I had tamed...I'm going to smile, and my smile will sink down into your pupils, and heaven knows what it will become.

Estelle's frustration arises out of the fact that she can't tame the other's subjectivity.

Before, in front of her mirror, she believed that she could fashion her image, create it for display to the other, and thus fashion "herself." In hell, there is no image to fashion. As one slowly forgets what one looks like, one slowly forgets how to fabricate the way one looks. In a hell without mirrors, these characters can only change their looks in reference to how the other reflects back their image. As an endless course of relativity ensues, hell becomes defined as losing control of one's own sense of self.

By removing the mirrors in Hell, Sartre emphasizes the fact that we can't see ourselves as the other sees us. Though in real life we do have mirrors to reflect back our image, it is never the same image that the other sees because we can never be outside of our own body and view it from the same perspective as the other. This is a crucial aspect of our ability to fashion ourselves in real time. When we speak, we can hear ourselves speaking as the other hears us, and we can modify our speech according to the reaction of

the other. Given the five senses, vision is the ultimate field of the other. With the other senses—taste, hearing, touch, and smell—the object or source of sensation is available to both the self and the other. For example, we can touch the same things that the other touches; we can smell ourselves as the other smells us, etc. But we can't see ourselves being seen. The visual is the field that the other controls.

Swamped amidst late 20th century image culture, I can't help but look at Sartre's play as a potent harbinger and metaphor for contemporary life. As in hell, today's knowledge about the self is absurdly ordered into the dichotomy of "good" and "bad" and is perpetually constructed as a visual self in relation to the other. Though there are many mirrors in our world that reflect back an image of us that we try to fashion, those mirrors have become inextricably entangled in the millions of images of others that swirl around us daily. Our own image is always fashioned in relation to the images of our friends, of the models on the film screen, of the random other people walking down the street—always in relation to how we imagine these others will see us. The mirror image becomes a relativity, a concatenation of *others'* desires. The self—no longer defined by action (Sartre, 1946)—becomes reductively visual. Though one might argue that these visual and relative characteristics are an ontological component of the construction of self (as Lacan seems to do), the current plethora of images and the mutability of one's own

self image is inextricably tied to the changes of modernity—a modernity linking self to
visuality in a way that Sartre would characterize as Hell.

It has always baffled me as to why *Huis Clos* is referenced so infrequently
amongst visual theorists—especially since Sartre's philosophy could add something to the
debate. Michel Foucault is the man, the pan-opticon the pan-referential harbinger. Maybe
Sartre's controversial relationship to Marxism, politics, and the concept of freedom
soured the prospects for this play, even though, unlike his other work, it provides no
shred of myopic optimism in the form of "freedom." Maybe Foucault's fashionability
centers on his concept of "power," that nodal notion of postmodernist theory. Though
Sartre doesn't overtly use this word, I would argue that the interpersonal element of his
theory renders his conceptualization of power more subtle, complex, and on the mark. In
order to dig a little deeper into the ramifications of these two theories for our current
visual paradigm, it'll be important to compare them.

The Panopticon that Foucault talks about is an architectural model of a prison
developed by the social theorist Jeremy Bentham. The prison is circular. In the center of
the circle is a tower and at the top of the tower is the warden's room. The prisoners' cells
surround this tower. Each cell has one wall made of glass that faces the tower. The
warden can therefore sit in the top of the tower and see all of the prisoners. The prisoners,
however, can never see inside the warden's room, so can never tell if they are being

watched or not. They must assume perpetual surveillance and consequently, perpetual imposition of power through the gaze—they thus internalize the gaze. This system of architecture catches both prisoner and warden in the matrix of the controlling social machine.

There are crucial similarities between Sartre's Hell and Foucault's ideas on the Panopticon. Both theorists focus on the issue of total visibility. As Foucault states, the Panopticon fulfilled the Rousseauist dream: "It was the dream of a transparent society, visible and legible in each of its parts, the dream of there no longer existing any zones of darkness, zones established by the privileges of royal power or the prerogatives of some corporation, zones of disorder" (1980, p. 152). To Foucault darkness provides the individual with a modicum of escape from the mechanism of power, to Sartre darkness provides the needed "break" that distinguishes life from Hell. With both theorists, the key to this total visibility is lodged in the space of architecture itself—Bentham's prisons and Sartre's room without windows or mirrors govern the trespasses of the gaze. Both theorists are careful to indicate that it is not visibility alone that dictates the relations of power. Visibility is primarily the medium for opinion or social rules: "This reign of 'opinion', so often invoked at this time, represents a mode of operation through which power will be exercised by virtue of the mere fact of things being known and people seen in a sort of immediate, collective and anonymous gaze" (Foucault, 1980, p. 154).

Similarly, Sartre is careful to pepper his text with many situations in which the characters demand the opinion of their hell-mates:

Estelle: "So really that was the right thing for me to do, don't you agree?...Do you think that could be called a sin?" (p. 16)

On the surface, it would seem as if the two theorists are coming from the same point of view—it would be hard to determine whether Foucault or Sartre had said the following: "One doesn't have here a power which is wholly in the hands of one person who can exercise it alone and totally over the others. It's a machine in which everyone is caught, those who exercise power just as much as those over whom it is exercised" (Foucault, p. 156). However, the metaphors they use to elaborate their theories reveal important differences in emphasis. Though Foucault emphasizes that power is diffused, not centralized, the Panopticon still provides the model of a form of centralization and institutionalization in a way that Sartre's hell does not.

In the Panopticon, one can't see the other seeing you—though one is aware of the gaze, its source is veiled, it is a "collective and anonymous gaze." Consequently, the Panopticon does not provide a model for the interpersonal exchange of gazes—the prisoner cannot confront the gaze emanating from the tower, however he or she must perpetually acknowledge and assume it exists. In Sartre's Hell, the gaze is accompanied

by the facial expression of the other that needs to be read, a subjectivity that needs to be interpreted, a social exchange that needs to be negotiated. The nuances of this exchange are infinite, the involvement of two or more subjectivities rendering the ability to determine the meaning of the gaze absolutely relative.

In Foucault's Panopticon, the subject imagines (within the parameters of various cues, such as the verbal commands of the overseer) what the gaze demands, what the opinion of the other is. In Sartre's Hell, one can imagine the other's gaze is embedded with a certain opinion, but the slightest of gesture can render the cues inconsistent and the interpretation of opinion questionable. The Panopticon represents the opinion of a generalized Other, rather than many individual others. Sartre suggests that the multiple opinions of individual others can be filled with contradictions: hell becomes the impossibility of satisfying the multiplicity of the other, and the impossibility of obtaining a knowable mirror image.

The personal becomes the crucial, though subtle, difference between Foucault and Sartre. In Sartre's Hell, the other takes on a double role: it can be a point of identification, a source of solace or friendship, yet *simultaneously*, this other is the root of power that exerts the ability to define, control, and torment. Thus for Sartre, power is more seductive—one is drawn towards the other for compassion, yet that vulnerability is the nexus of the other's power. The look of the other is both needed for and destructive of

one's concept of self—the look embodies contradiction, indeterminacy, the Sisyphean tragedy of non-resolution. Foucault's metaphor of power is more impersonal, distanced, institutional. One gets the sense that if the prisoner "behaves" he or she will be left alone: though always on guard, structural contradiction doesn't haunt Foucault's subject in the same way as Sartre's subject. One can imagine the prisoner finding a way towards a "break." Foucault states that power is diffused because the gaze of the other is internalized and thus becomes a part of the self's own policing system. However, with Sartre, one can never determine the other's desire, can never understand or internalize it appropriately, so the subject is thus condemned to a perpetual interchange in attempt to map the other's desire. What is slighted in Foucault's equation is the role of the other, the simple everyday other, and the way that other seems to have more control over us than possibly anything else. To some degree, Sartre uncovers an aggressivity in the interpersonal exchange of gazes that is similar to the aggressivity implicit in Lacan's mirror stage: a perpetual violence that is inextricable from the social.

What does all of this have to do with the medical image? Foucault has been one of the primary sources for theory relating to the clinical gaze and, in many respects, his theories are crucial to understanding today's medical culture of MRI's, PET Scans, and other visual expositions of the body. However, I would like to explore the nuances of his theory, adding the three components of visuality that Sartre emphasizes—the

interpersonal, the link between identification and torture, and the structural contradiction of desire (of the other, the self, the institution, and the social).

The seductive quality of Sartre's other is crucial to the medical scenario. The patient comes to the doctor seeking to "set their life in order"; seeking "knowledge" about their condition. Like Sartre's characters, the patient invests the other (here the doctor and the medical institution) with the capacity to reveal the truth. The patient, probably already in a position of emotional vulnerability because of their condition (doubly so if it is a life-threatening condition), seeks both interpersonal and professional support. Much to-do has been made about bedside manner in the changing world of healthcare professionals, the interpersonal is clearly a crucial aspect of the medical situation—often being the key factor in a patient's understanding of their medical condition and choice of treatment, but also in their “seduction” into a medical world.

Of course the doctor and Sartre's characters have different relationships to the power/knowledge signifier—the doctor is obviously positioned as authority in a way that Sartre's characters are not. This is the line of thought that Foucault has followed. However, it is dangerous to analyze the doctor as solely an authority figure while downplaying the doctor's simultaneous position as an individual, as an other subjectivity that encroaches upon the subject, as the other of hell. It is this individual that interests me.

When we hear the doctor say "you should take this medicine", there can be two reactions. In the first, the patient can view the doctor abstractly as someone who prescribes. The patient either accepts this authority or denounces it. Often, the harder it is to relate to the authority, the easier it is to ignore it. Doesn't the Internal Revenue Service's abstractness make it easier for us to cheat on our taxes? If the demand comes from an individual whom the patient relates to, an other that is similar, an intimate form of power can overlay the situation. The more one identifies with another, the more intimate and potent is the potentiality for shame and psychic torture. "You're being foolish if you don't take this medicine, why hurt yourself more?... You are not following the recommendations of the latest knowledge in the field—how irresponsible!" The doctor is just one in the myriad of others who will echo these shaming positions, these attempts to keep the patient within the boundaries of [safety].

Often, medical images are exchanged between doctors and professionals, a discourse behind closed doors with the patient only receiving the results. Sometimes however, the doctor will pull out the images to help explain to the patient what is going on. When a doctor and a patient look at the images together, there can be a strange feeling that everything is exposed. Information that we may have hidden from our friends and partners could be revealed in an instant by those images. That uncomfortable sensation of standing in front of the doctor naked is multiplied now that the skin no

longer serves to disguise the way one has "damaged one's own body" (given the prevalent cultural belief that illness is often caused by one's own negligence). Imagine the situation of a patient who has smoked all his/her life and is now faced with looking at the images of their lungs in front of their doctor. Now imagine the gut sensation the patient must feel in front of this doctor, surrounded by a culture that has condemned smoking both medically and socially. The position of "smoking for pleasure" is hard to hold at that moment of potential shame. The image, with its presumed connection to fact and objectivity, is transformed into a very powerful mirror, read within the context of the social other. The doctor holds power as both a medical authority and a witnessing other.

Just as with the mirror image, the medical image is structurally positioned in relation to other images. A system of comparing images to other images has been established in the medical field—the language of normality and abnormality infuses thought ranging from the Visible Human Project to the x-ray of a broken bone. The medical image can be seen as a way of mapping the Other's desire.¹² The generalized Other creates the divide between normal and pathological that Foucault (and his teacher Georges Canguillem) are concerned with. With Foucault, there is the possibility that if one is conforming to the generalized gaze, then one is normal. Foucault's model almost

¹²Other is capitalized here to indicate that it is not the intimate other of a single person, but the generalized other of social discourse, a distinction that Lacan made in his theories.

helps allow for the possibility of knowledge—the other may be capricious, but there is a possibility that they are knowable, the rules can be determined. With Sartre, that safety is denied. Sartre moves away from the binary into a multiplicity, an *impossibility of matching the other's desire*. Perfect medical image, perfect mirror image—how do we come up with the idea of what that is? Sartre is on target when he hints at the fact that it is never attainable, that the subject will perpetually come up against the ontological angst of not fulfilling the other's/Other's desire.

One interesting aside is that Sartre correlates eyelids (lacking in hell) with the shutter of a camera, with that momentary break that stops the world. Though he doesn't elaborate on this point in the play, one could say that the camera provides one constant moment, one moment that can be held onto, that is solid, that provides that modicum of knowledge that the subject is searching for. Possibly, it is that reference point that protects one from the perpetual relativity of other people's gazes. This is what life was like, I can see it here, point at it, grasp it. My eye blinks, and that moment is retained for a bit longer in my memory.

...

I opened this chapter with a perplexing quote from Sartre that deserves repeating:

*Sight is an abstract invention,
an idea that has been cleaned up,
simplified, one of man's ideas.*

How can sight be an invention? We are born with sight; it is something that simply *is*.

How can it be cleaned up or simplified? We can wear corrective glasses to sharpen our sight, but certainly can't substantially change what we see. Or can we?

The quote indicates that we actually produce what we see, that we allow ourselves to see some things, but "clean up" those other things that we choose not to see. We simplify. Instead of accepting that our mirror image doesn't reveal our true ontological situations, we accept the fiction: we like the unified, coherent image, and therefore choose only to see that. We like the idea that we are in control of our bodies, as the image indicates, we don't like the concept that something escapes the image—the Real. (It is not by chance that Lacan's concept of the Real has been heavily resisted and misinterpreted by American theorists). By investing in the power of the image, we have disavowed what might be invisible; we have chosen a knowledge system that is a simplified fiction instead of a complex and conflicted reality. However, as indicated by Lacan with his theory of the *corps morcelé* and Sartre with his theory of hell, that choice has its

price—at some level, aggressivity towards this limiting construction will arise. The reign of visual discourse has enabled us to hide or squash that which might not be rational or controllable—the unconscious, the social, and complexity itself—but undoubtedly such repression is dangerous.

CONCLUSION:

Fashioning Our Own Death

[T]he aim of all life is death. . . What we are left with is the fact that the organism wishes to die only in its own fashion.

--Sigmund Freud, *Beyond the Pleasure Principle*

What is that “fashion”? What are the desires, fears and ideologies that affect the way that we construct life and death? The medical image provides a crucial clue to these questions, but it is not an easy cultural object to read. It should be viewed as a form of language that has, over the years, been sedimented with layer after layer of social meanings, each layer containing threads of beliefs and metaphors that represent our changing approach to the body and its ultimate mortality. The history of these meanings is thick and entangled, contradictory and confusing, and sometimes invisible and unspeakable. They form an unconscious optics that the individual, in front of their own medical image, is barely aware of.

The medical image appears to be transparent—because of the learned conventions of reading the image, the unconscious optics are not perceived as ideology but as a “natural” part of the image. Due to its historical connection to science and truth and its

indexical connection to the real world, the image has the ability to transform unconscious optics into something that just looks like a fact. This perceived fact becomes a tool for social power. Therefore, when we analyze the moment an individual looks at their own medical image, we are not just dealing with that individual's needs and desires for a certain configuration of death but the needs and desires of the entire social system. If we can unravel the subtle and not so subtle meanings and implicit forms of power that are embedded in the image, we will be better equipped to deal with that moment in front of our own medical image.

Not all things can be unraveled though. There will always be a knot that remains repressed, invisible and unspoken, protecting us in the same way that psychological repression can protect us from overwhelming trauma. However, there is a balance that needs to be reached. Repression can often result in some form of violence and aggressivity that may be undesirable. Looking at the mass media today, it seems like this violence has been steadily increasing since the '60s, an increase that may be relevant to the increase in medical imaging technologies. As a society, our goal should be to unravel as much as is tolerable. Following Lacan's thought process, moving away from the grip of the image can help us to move away from the negative aspects of social control.

Visual Ground Rules

Social change is especially difficult when power has been naturalized into the very fabric of the language that we use to communicate with. Having learned to read the photographic image the way we did—through daguerreotype portraits and the x-rays of our bones—we unknowingly accepted certain ground rules that established the way meaning is produced in the image. As I pointed out in chapter one, it was the very form of the language used in these early images—the daguerreotype on a mirrored surface and the ghostly x-ray—that was crucial to these ground rules. Although the rules can't be changed, they can be exposed. The key is to understand these rules, to read the image critically, and then to apply this analysis to the form and subsequent meaning of medical images today.

In the 19th century, at a time when the rational and irrational were clashing in the popular mind, the daguerreotype melded these two realms into one coherent, beautiful object. The image signified objectivity, truth, and the metaphysical and thus helped to usher in an unparalleled acceptance of science in modernity. The rational and irrational are still battling today, and our fascination with the magic of the medical image can still entrance us.

When we become sick, we enter the doctor's office and then are often swept up into an alienating system of diagnostic testing, white antiseptic rooms, and a strange new

social world of nurses, technicians, pharmacists and doctors. An individual's first major encounter with the medical world—something beyond the x-rays of a broken bone—is often the first viewing of the interior of their own body via these astounding new technologies. Our own medical image, which echoes the familiar traces of medical images already viewed in popular culture, can be comforting, alienating, and/or frightening in this situation—but certainly compelling and more than simply science. Given the history of the visual, these medical images can be easily linked with their opposite—the science linked with the metaphysical; the signifier of death with the beauty of art; the medical “fact” with the seduction of a visual entertainment. But the most troublesome link is the one that we tend to make between seeing and believing as well as seeing and knowledge. Even though the image may signify radical pathology, we at least feel like we can see what is going on and thus there is the possibility to imagine that we, or the doctors, are in control. The hangover of magic and wonder helps to link the image with our desires and fantasies. With the help of the image, we've created a narrative with a coherent story, one that downplays contradictory signs.

The daguerreotype was also instrumental in the process of redefining the individual in relation to the changing social world. The daguerreotype portrait, with its aura of importance and its mirrored surface, served to reify the concept of the self and established a way for individuals to fantasize about the relationships between this self, the other, and the social realm. An enduring connection was made between the ways that

individuals constructed and read the image, and the ways that they defined their own being. This reification of the self and the normalizing of the self as visual, has been a corner stone to the reception of today's medical image. Especially in the United States, there are close links between the visuals of the body and the way we think about who we are. The encounter between an individual and their own medical image can embody an existential moment, whether on the conscious or unconscious level. Just as the daguerreotype was instrumental to the categorization of the social world of the 19th century, so too does the medical image help to categorize our place in the world. This encounter with the medical image affects how we define illness and how we determine the etiology and cure of a disease. The language and ideology of the image can preconstruct the field of knowledge and thus sway our choice between a variety of knowledge systems that serve to guide us through the difficult time of illness and death. In other words, the image does not just provide information; it effects the way we view ourselves—our fantasies and narratives of being. This aspect of the image becomes particularly significant if one accepts the thesis that there is no authentic concept of self, that the self is a concatenation of remembered representations.

The ground rules established in the popular reception of the first x-ray images also continue to affect the way we read today's medical images. The malleability of identity that was evident in the daguerreotype was less evident in the x-ray, which seemed to strip the body of its social signifiers. Yet despite the absence of these

signifiers, the x-ray played a powerful role in the construction of identity, membership and legitimation, as was seen in the sanitarium clinic of *The Magic Mountain* or the x-rays of Madame Rotengen's bejeweled hand. In popular culture, the x-ray was positioned as the tool that revealed a beauty or humanity that was more than skin deep. This positioning revealed anxieties over the commercialization of social status and the infringement of capitalism on "humanity". These anxieties about the status of "Truth" appear to have spilled over into the 20th century. Like the x-ray, contemporary medical images appear to reveal a new truth about the body, a truth that has granted a powerful authority to techno-vision and medical science in general. Beyond medicine, the Truth seems to also be lodged in the more perplexing heritage of the x-ray as a sensuous object, revealing the intimate interior of the body with a strange coupling of beauty, gruesomeness and death as can be seen in Tsiaras' pictures. The concept that illness and death can harbor a kernel of jouissance in the psyche of the patient is a concept that is so hard to accept—how or why would anyone ever get any pleasure out of such things? Yet one can't ignore the visceral pleasure of looking at mediated violence or the seductive allure of some (often gruesome) medical images. These pleasures connected to illness and death are not far afield from the ones that Thomas Mann revealed over 75 years ago, and they speak directly to the seductive allure of some medical images.

The Myth of the Autonomous Individual

Of course, the visual ground rules established by the daguerreotype and the x-ray are not the only hurdles to understanding today's image. Social power is enabled by the belief systems that we've grown up with, that we've incorporated into our own personal and collective philosophies, and that we use daily to navigate life. While these belief systems are naturalized and expressed through language, we won't be able to understand how they work in the image until we understand how they work in our own lives. In chapters two and three I focused on two specific belief systems: aesthetics and the alternative health movement, both of which helped to produce the myth of the "autonomous" individual. It is this myth that has significant political consequences in the reading of medical images.

The compelling link between the history of aesthetics and the alternative health movement is fear. The history of aesthetics deals with fears about progress, a changed social order, the rise of the rational at the expense of the irrational, the ascent of the individual over the social, the reign of the commodity, and the utter functionality of capitalism. The ideology of Beauty produces a privileged space in which to project and work out these fears—a space that orders chaos and veils contradiction, a space that signifies our humanity and a harmony between the social and natural worlds, a space that enables us to escape the petty subjecthood of everyday life. In a similar manner, the

alternative health movement deals with our fears of chaos and our lack of knowledge, of the loss of an authoritative moral discourse and the breakdown of boundaries between self and other, and with our general fear of capitalism, science and an unsafe world.

Alternative health produces an imagined world: a world with ordered boundaries of knowledge, filled with a language that appears to protest the problems of society and capitalism, a world in which those overwhelmed by disease welcome culpability over chaos. Both the ideologies of aesthetics and alternative health give us an individual, separated from the social, and in control of their world. It is this individual who walks into the doctor's office, this individual who is subjected to diagnostic imaging, and this individual who is treated. The medical image operates at this intersection between the individual, the social and fear: it defines a boundary of knowledge, it reifies the individual at the expense of the social, it appears to give us an answer.

“Individualism” is a powerful, revered concept in the United States. Like the pursuit of art or health, it just seems like a “natural” good and is thus hard to critique. It is the main foundation of our economic philosophy. It is the ideal product of a “functional” home. The “strong” ego is deemed the signifier of “health” in self-help philosophy and in many American psychotherapies. Despite the fashionability of “community” in the last few years, the individual is viewed as the driving force of our democracy and world. The fantasy that the individual is somehow separate from the social enables further fantasies: that the individual can “control” their world and eradicate contradictions, that illness is

confined to the body, that one can be [safe] if one plays by the rules. Although the individual is seen as crucial to the functioning of capitalism, strangely, individualism—like the ideologies of art and alternative health—harbors a critique of the dangers capitalism has wrought. It is the individual that allays our fears and fulfills our desires in a troubling world.

How does the medical image function here? Like the daguerreotype, the medical image seamlessly embodies an array of contradictions. Our fantasies—of totality, knowledge, safety, etc.—are eminent in the image, but so too are our fears. It seems to reveal all, and yet manages to hide the psyche, the social, the limitations of knowledge, the unmappable. It radically refigures the way the body is represented and yet old notions of the body cling tenaciously. The image confirms our being, at the same time that it signifies our mortality. It looks clean, ordered and truthful, and yet it simultaneously disavows and signifies the Real of the body. Like the daguerreotype, it doesn't resolve these contradictions, but it appears to.

New Directions

It is this ambiguity of the visual image—its ability to meld contradictory ideologies and meanings—that needs further exploration. To date, visuality and

photographic languages have been under-theorized in the field of sociology.¹

Semiologists in the fields of art and photographic history have outlined how the indexical aspect of the photo-based image differentiates a written language from a photographic language, but the index combined with the ambiguity of the image commands a power that is unparalleled, and to some degree, unanalyzed. Since at least the time of Freud, psychoanalysts have been unraveling the desire that is embedded in verbal and written language, in the symptoms of an hysterical body, and, more recently, in the broader culture and society itself.² Philosophers have shown how the visual is crucial to the definition of the subject, to the negotiation process between self and other, and to the assertion of power in a social system. But how does *social desire*—or what I have called the optical unconscious—operate in the realm of the image? I am not satisfied that this question has been fully answered.

The core of this book has been an attempt to figure out what fantasies and desires might be effecting the way medical images are produced, read and used. However, only the core has been addressed—there are many directions for future research which could

¹ See Woodiwiss (2001). Also see Foster (1988) for the distinction between vision and visuality. Additional discussions in Jay (1993), and Levin (1993).

bear fruit. These new images open up a different geography of the body as Coward suggests; they sometimes paint this geography sensuously and majestically as evidenced by Tsiaras' images; and they graph it tangibly, objectively, and technologically to the extent that, sometimes, we view our medical images voyeuristically—as if they do not represent our own body. Exploring the social and psychological effects of these radical transformations in medical imaging will be important for the future theorization of the body.

Death and violence was only tangentially dealt with in this book and yet the public fantasy concerning these two has clearly escalated since the introduction of high-tech medical imagery. A cross-cultural and historical exploration of the representations of death and violence in popular culture would help to further understand whether there is a symbiotic relationship between medical images of the interior of the body and our fantasies of death. Clearly, the transgression of boundaries—boundaries of [safety], knowledge, the body, etc.—is the fantasy that is being played out in the realm of the (medical) image, but this transgression is little understood. In the history of our relationship to illness and death, we live in a unique time. It appears that science can, with some certainty, tell us and show us and prove to us, tangibly, that we will die. We can look at an image that makes us believe. Though we hear miracle stories of people who have beaten the odds, in the background we will always see that picture.

Philosophically, the confrontation with death has gone through a radical, and rarely analyzed shift.

There has also been a clear philosophical shift in the definition of being: in popular culture, it is no long the mind that defines us as human, but the brain.

Neuropsychology is an exploding field in the United States that is relying heavily on medical imaging to determine how the physical matter of the brain effects behavior and subjectivity. There are a score of new books that use imaging as a primary methodological tool, including: *Brave New Brain: Conquering Mental Illness in the Era of the Genome* (Andreasen, 2001); *The Executive Brain: Frontal Lobes and the Civilized Mind* (Goldberg, 2001; the image on the front cover is a take-off of Michelangelo's Sistine Chapel—except God is reaching out to touch a brain); and, the most perplexing research, *Why God Won't Go Away: Brain Science and the Biology of Belief* (Newberg & D'Aquili, 2001). If the image is integral to our new definition and fantasy of the self (as distinct from the social), and the brain is seen as the seat of this self, then an exploration of the shifting representations of the brain would be crucial to understanding how medical imaging has transformed the social definition of selfhood.

• • •

In the end, I am still left with the patient looking at their own medical image. That moment still represents a knot that can't be unraveled or understood—but it is very clear that the image is not just a function of objective science.

Our habit is to lay stress on the fortuitous causations of the death—accident, disease, infection, advanced age; in this way we betray our endeavor to modify the significance of death from a necessity to an accident. (Freud 1963, 122)

Our fundamental anxiety about that moment in front of the image may be the inevitability it can represent. By linking death with fortuitous causations, and reducing the complexity of illness to the material boundaries of visibility, we are able to imagine that there is no necessity. Maybe it is compelling because through the image we can disavow what we don't want to see—the medical image enables us to fashion our own death.



Plate 1: Georg Desmarées, *Portrait of the Court Painter Fanz Joachim Beich*, 1744



Plate 2: Wilhelm Conrad Roentgen, x-ray of Madame Roentgen's hand, 1895



“Whether stout or thin, the x-ray makes the whole world kin”

Plate 3: Cartoon, 1897



Plate 4: Olympus Ad from *Life Magazine*, February 1997

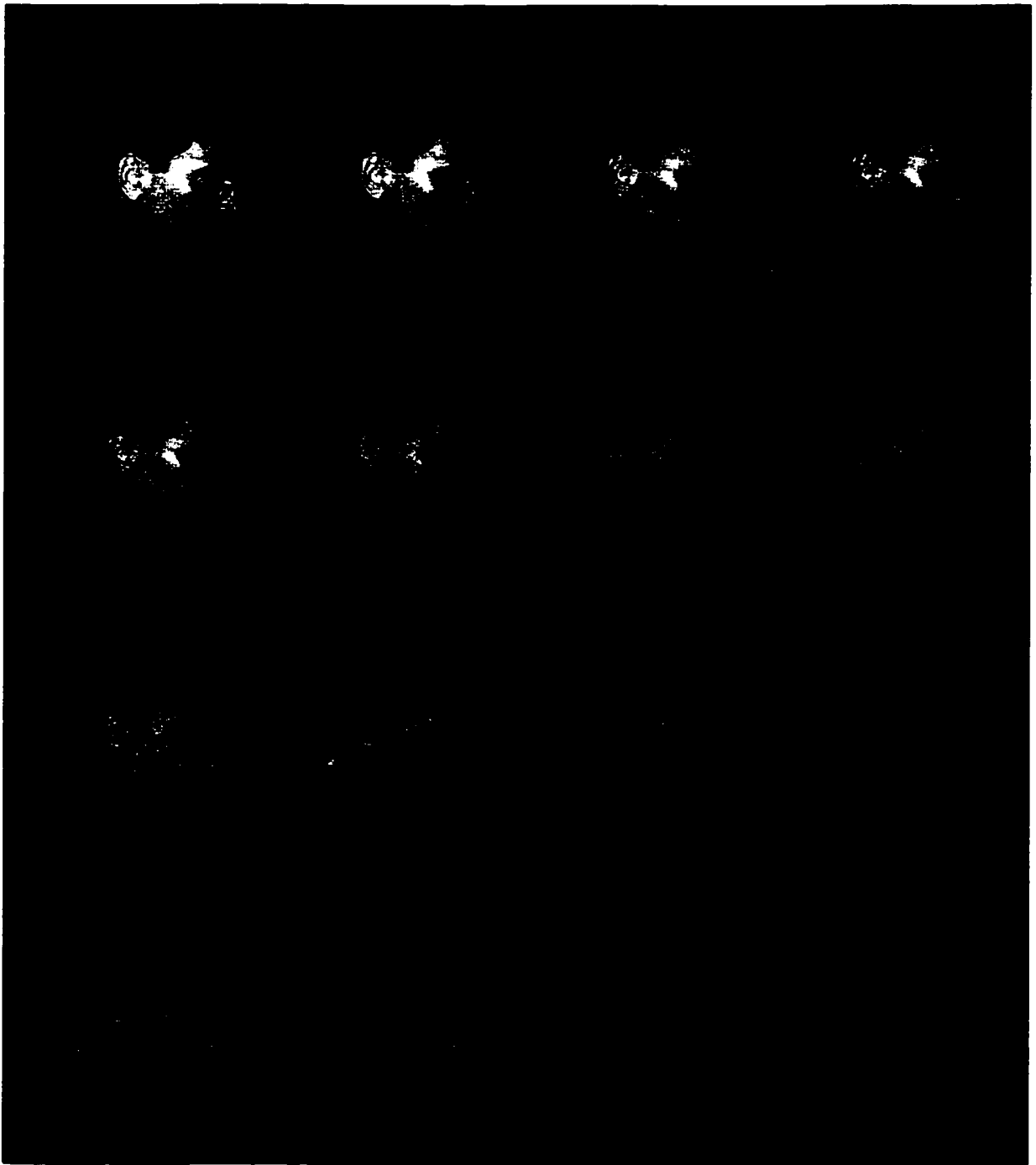


Plate 5: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997

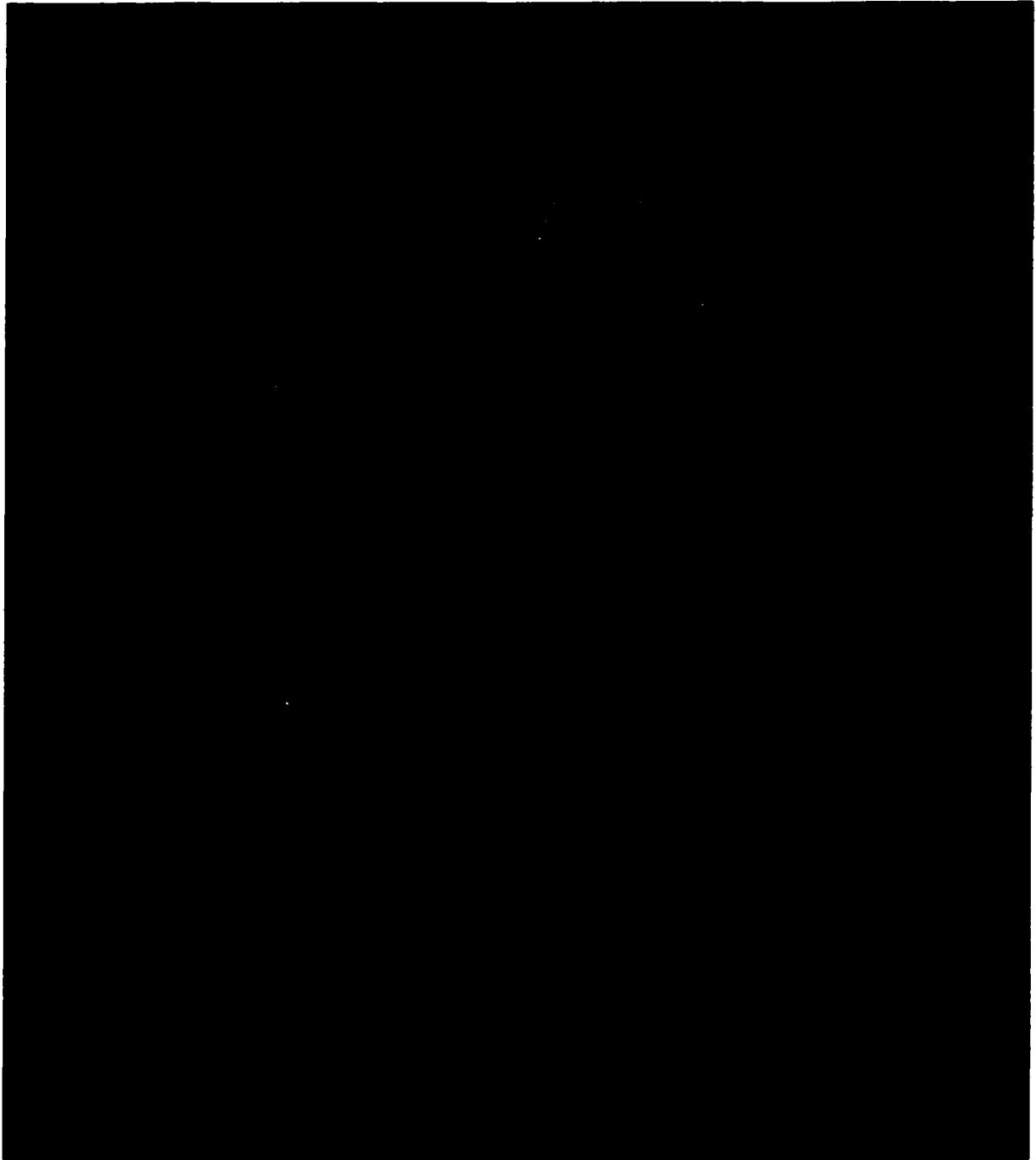


Plate 6: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997

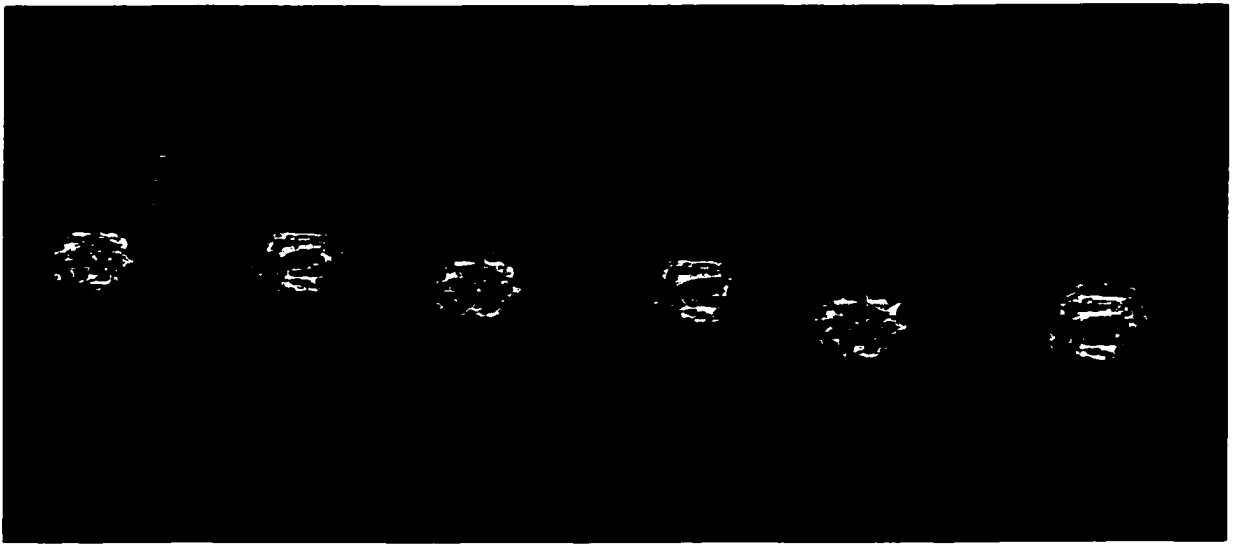


Plate 7: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997

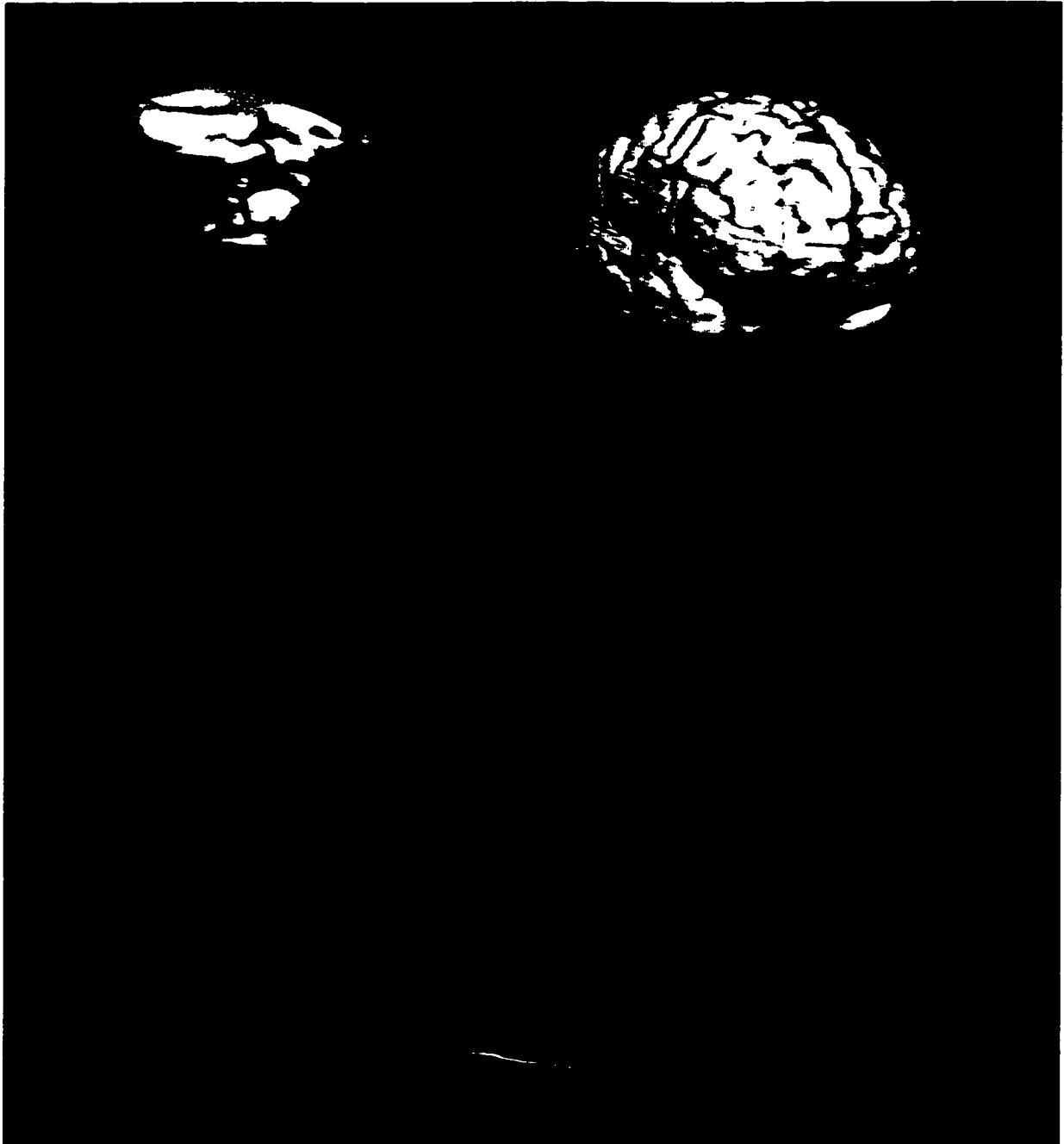


Plate 8: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997

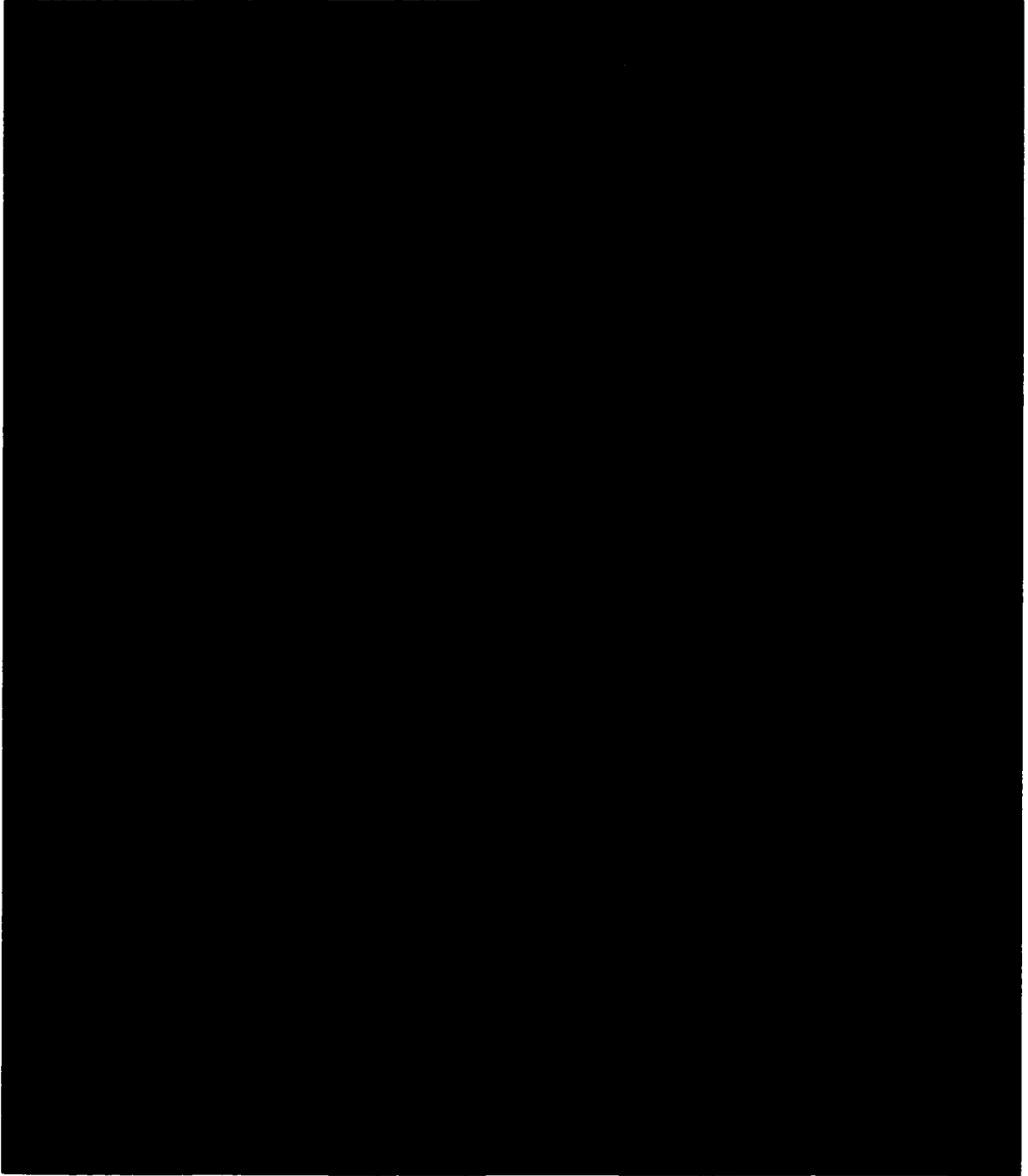


Plate 9: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997



Plate 10: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997



Plate 11: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997

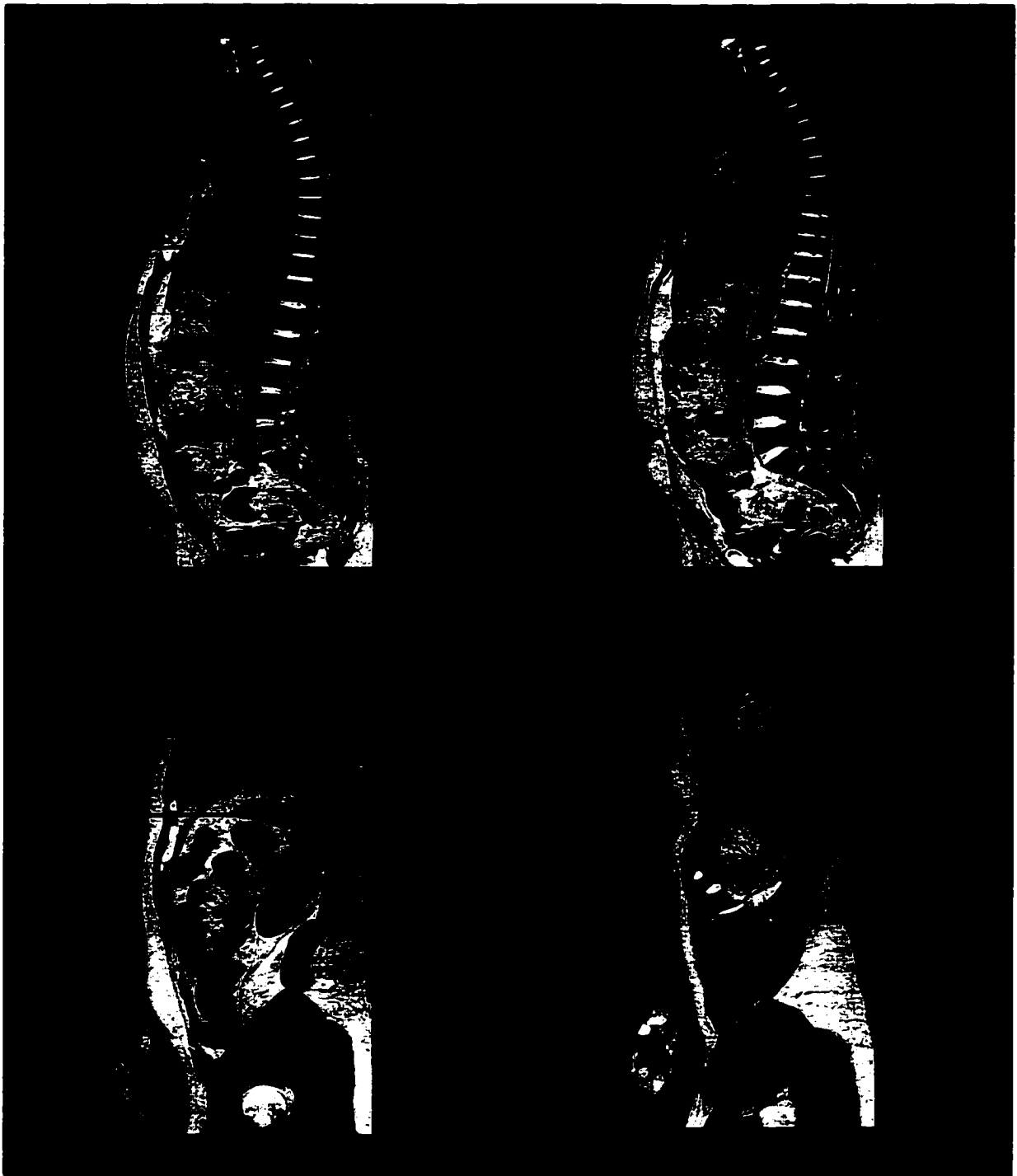


Plate 12: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997



Plate 13: Computer image by Alexander Tsiaras from *The Body Voyage*, 1997

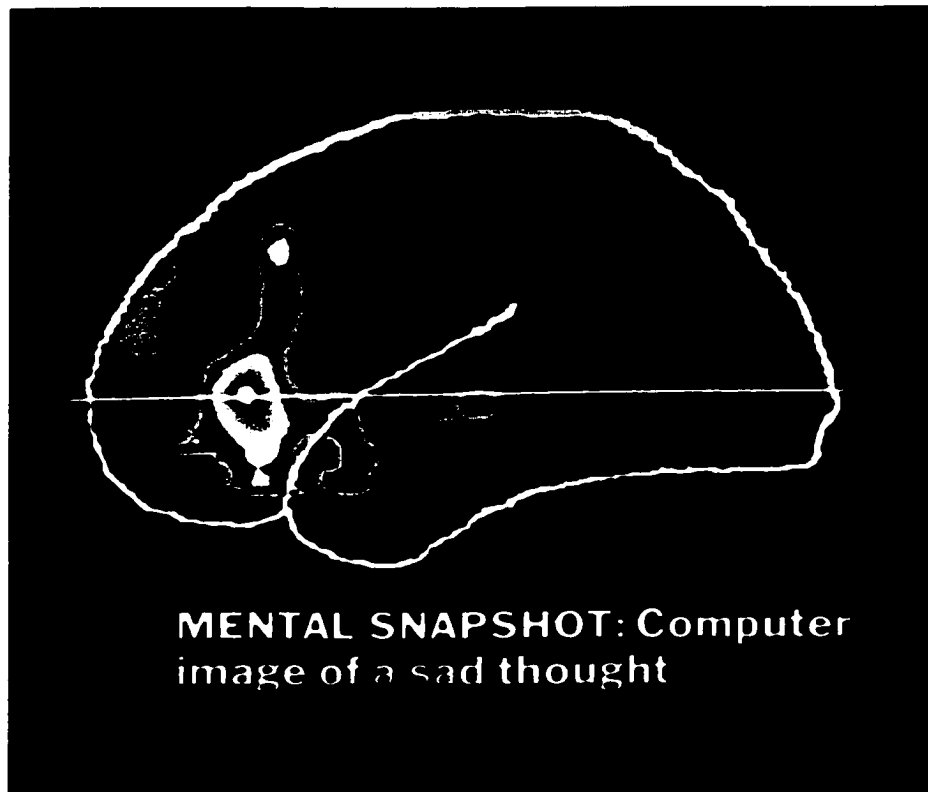


Plate 14: Pet image of "Sad Thoughts," *Time*, July 17, 1995

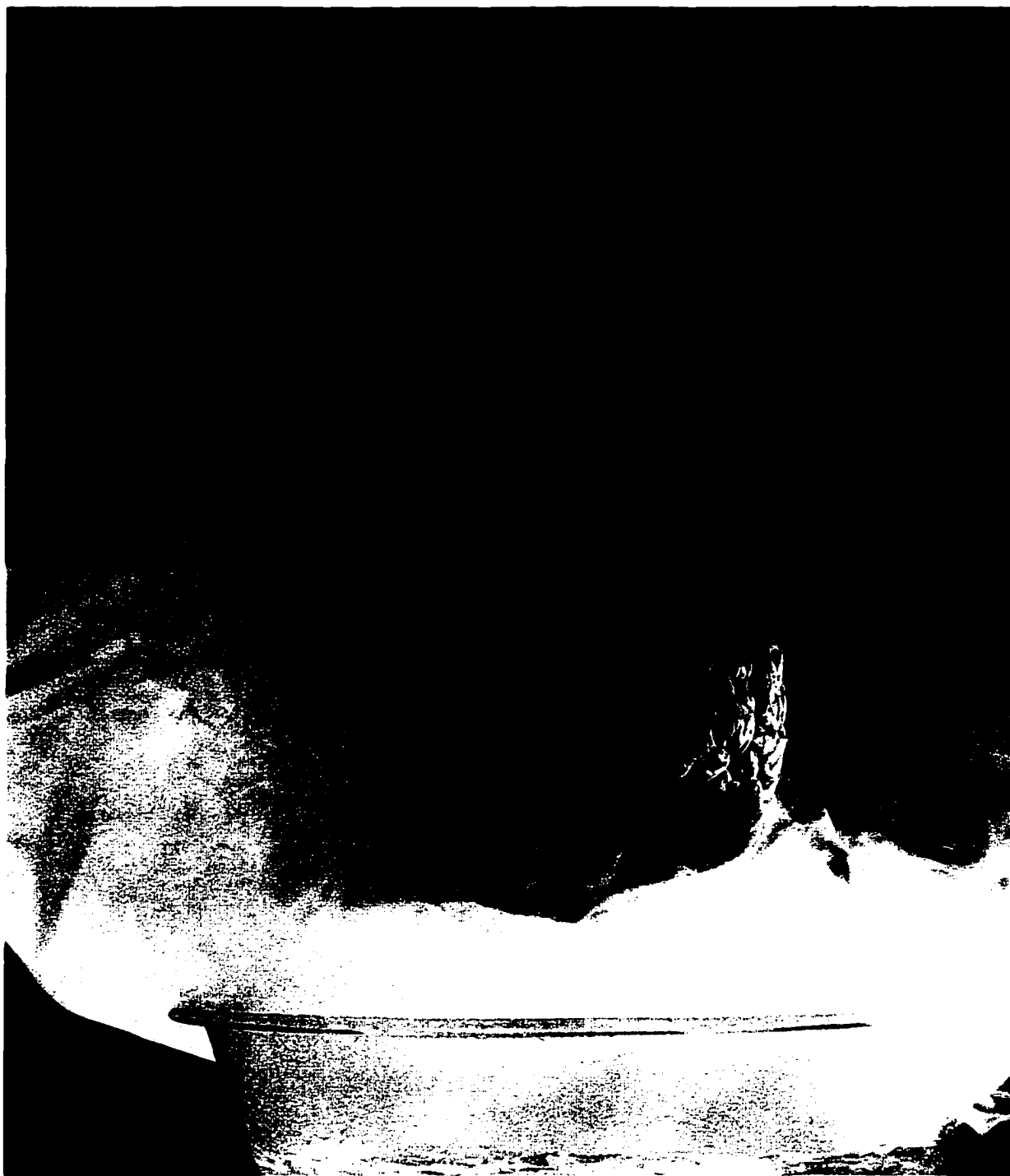


Plate 15: A technician holding a brain, by James Balog, *Life Magazine*, July 1994

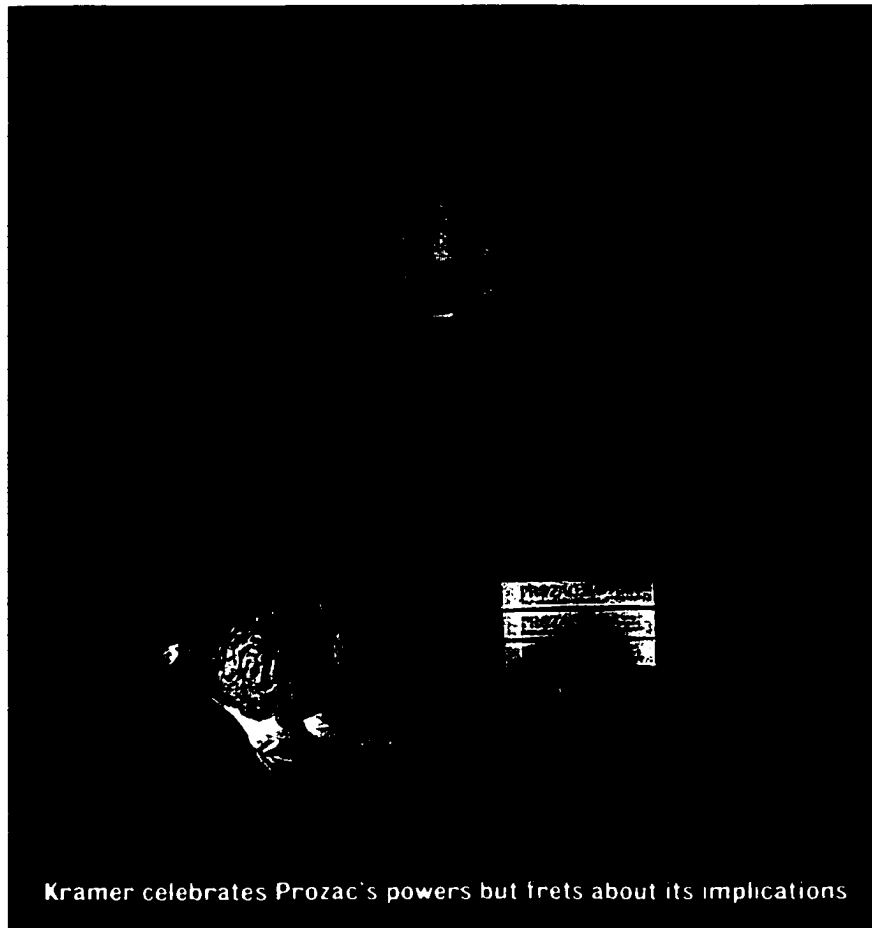


Plate 16: Portrait of Peter Kramer, by Jeffrey Lowe, *Newsweek*, February 7, 1994

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