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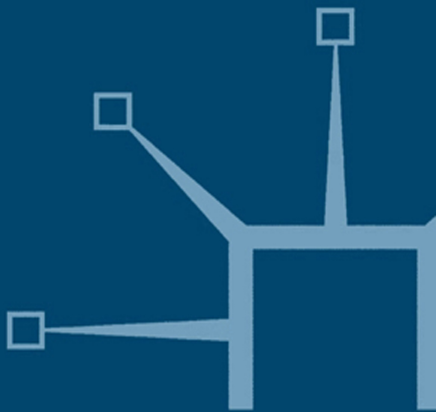
Tokyo Cyberpunk

Posthumanism in Japanese Visual Culture

Steven T. Brown



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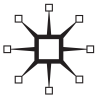

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To my family, especially Katya, Gabriel, and Guinness, I owe a debt of gratitude for tolerating my rhizomatic engagements more than they should!

This book is dedicated to all the students who have taken my Tokyo Cyberpunk seminar at the University of Oregon over the years.

Note on Japanese Names and Words. In the text, Japanese names are typically given in Japanese word order (unless they have been Anglicized)—that is, surname first and given name second. All Japanese words have been transliterated according to the modified Hepburn system of romanization used in *Kenkyūsha's New Japanese-English Dictionary*, except in cases in which there are already accepted English spellings.

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Introduction

Posthumanism after *AKIRA*

Despite an initially lukewarm reception by critics and audiences when it was first released in June 1982, Ridley Scott's *Blade Runner* has gone on to become one of the most influential cyberpunk films of all time. It is no exaggeration to say that *Blade Runner* has come to serve as a sort of touchstone for what has come to be associated with the terms "cyberpunk" and "posthumanism," anticipating to an uncanny degree the numerous issues explored by science fiction novels, films, manga, and anime that have followed in its wake. Halfway around the world, roughly contemporaneous with *Blade Runner*'s release, was the debut of another cyberpunk classic, a Japanese manga that was serialized in *Young Magazine* (*Yangu Magajin*) from December 20, 1982, until June 25, 1990: Ōtomo Katsuhiro's manga powerhouse, *AKIRA*. Long before the animated *AKIRA* was released in 1988, the manga version held sway as one of the most complex cyberpunk visual narratives ever created. More than two thousand pages in length, the *AKIRA* manga is a prodigious work truly worthy of the term "graphic novel," and its achievement many would say has yet to be surpassed. That its impact continues to be felt today is suggested by the fanfare surrounding Warner Brothers' signing and development of a two-film live-action adaptation of the manga that is slated to be produced by Leonardo DiCaprio and released in the near future.

Although the *AKIRA* manga does not lend itself to brief synopsis due to its complex, parallel narratives and subplots, and vast cast of characters, the overall arc of its story is by now familiar to most students of Japanese popular culture. The story's prologue begins on December 6, 1982, when a new type of bomb resembling a nuclear device explodes over the Kantō region of Japan, which includes the highly developed and industrialized cities of Tokyo and Yokohama. On the title page, with *AKIRA* written vertically in katakana down the center of a two-page spread, the hypocenter of the explosion and its ensuing mass destruction is visualized most forcefully.

AKIRA functions as both the title of the manga series and the name of the mutant child who caused this Hiroshima-like apocalypse. The explosion triggers the onset of World War III, which envelops cities all over the world, from Moscow to New York, from Paris to Berlin, from Washington to Warsaw, from London to New Delhi. The story proper begins a few pages and thirty-eight years later, in the year 2019 in the city of Neo-Tokyo, which was rebuilt out of the ashes of Old Tokyo on an artificial island in Tokyo Bay.

Although the translators of the English-language editions of *AKIRA* mistranslate the onset of World War III as "1992," thereby shifting the date of Neo-Tokyo to 2030, Ōtomo's original serialized version and the current Japanese edition of the paperback collection use 1982 as the start date for World War III and 2019 as the beginning of the story proper in Neo-Tokyo, respectively.[1] Both dates are significant and should not be overlooked or mistranslated. In addition to being the same month and year in which *AKIRA* started to be serialized in *Young Magazine*, the first date, December 6, 1982, is also significant because it references the attack on Pearl Harbor on December 7, 1941, which precipitated the United States' entry into World War II. That a devastating attack on Tokyo would be imagined as occurring almost forty-one years to the day after Pearl Harbor makes the moment of nuclear-like apocalypse appearing in the opening pages of *AKIRA* highly charged to say the least. The second date, 2019, is equally significant. That Ōtomo chose to situate the postapocalyptic time of Neo-Tokyo in the same year as the opening of *Blade Runner* suggests that *AKIRA* is, in some sense, Ōtomo's response to *Blade Runner*. Indeed, I would argue that the mutant children inhabiting Neo-Tokyo in *AKIRA* possess more than a distant family resemblance to the replicants from Los Angeles in *Blade Runner*, insofar as both groups struggle to come to terms with their uncertain ontological status as posthuman entities created by science and commodified by the mechanisms of advanced capitalism.

AKIRA shows what happens when the interests of politicians, scientists, revolutionaries, religious fanatics, the military, and *bōsōzoku* (lit., "violent running tribe") biker gangs collide in and around the megalopolis Neo-Tokyo in an attempt to control the power embodied by a group of mutant children, who display paranormal abilities ranging from telekinesis to telepathy to teleportation after being subjected to extensive scientific experimentation by a covert government agency. Two mutant children in particular are important to the story. One is a small, innocent-looking boy named Akira, whose psychic energies unleashed by state-sponsored scientific experiments brought about the apocalyptic destruction of Old Tokyo

thirty-eight years earlier.[2] The other is a teenager named Tetsuo, originally a member of the unruly biker gang known as The Capsules. Tetsuo's psychokinetic powers are awakened after he nearly runs down another mutant child named Takashi during a high-speed motorcycle race through the old city near the crater that was ground zero for the explosion that destroyed Old Tokyo. Akira and Tetsuo are the focus of increasingly intense struggles by the aforementioned groups to gain control of their atomic-like powers and either destroy Neo-Tokyo or prevent it from being destroyed. As the story progresses, destruction on a massive scale is inevitable, the result both of struggles by others to control the powers of Akira and Tetsuo and their inability to fully control their own powers. As many readers have noted, what makes *AKIRA* so difficult to put down is how meticulously detailed the scenes of cataclysm are, scenes that show the impact upon the city, its architecture, and the human inhabitants and material objects populating the ruined spaces. Skyscrapers and an Olympic stadium[3] crumble like sand castles; streets, highways, and bridges are torn to shreds; jet fighters, aircraft carriers, and laser satellites are disintegrated; and human bodies are blown to bits. Very few manga artists or graphic novelists come close to Ōtomo's ability to create panels that show disturbing scenes of annihilation visualized in such beautifully cinematic detail that they evoke a fully developed aesthetics of catastrophe and ruin.[4] However, rather than simply fetishizing destruction for destruction's sake, Ōtomo's ambitious work of cyberpunk dystopia also engages issues of technological addiction, social isolation, political corruption, scientific hubris, evolutionary adaptation, religious fanaticism, juvenile delinquency, the disintegration of the family, and the power of the individual to resist the status quo.

Reading Rhizomatically

When I think back to the first time I laid eyes on the pages of the *AKIRA* manga as a graduate student studying in Japan in the early 1990s, I am haunted by a single panel (see bottom of Figure I.1) that first appeared in episode ninety-three of the original run in *Young Magazine* (later republished in volume five of the paperback collection). The panel, which is one of the most captivating scenes in *AKIRA*, shows Tetsuo's metamorphosis into a cybernetic organism out of an assortment of technological detritus, including bits of wire and cable, pieces of machinery, and other debris, as the Colonel, who represents the older generation, looks on in disbelief.

Figure I.1 As the Colonel stares in disbelief, Tetsuo emerges rhizomatically from a tangle of cords and technological debris in a constant state of becoming (*AKIRA*; ©MASH•ROOM 1990).[5]

In his production notes, Ōtomo has indicated that he struggled with the drawing of this particular panel. In a preliminary sketch, he complained that Tetsuo "looks more like he's being swallowed up [*nomikomareteiru*] by the cords or he's struggling [*mogaiteiru*] with the cords."[6] Rather than suggesting that Tetsuo is drowning in biotechnological entanglements, Ōtomo wanted to show Tetsuo "emerg[ing] [*arawareru*]" from the nest of cables and odd bits of machinery amid tendrils of fire and clouds of smoke as if he were a new type of posthuman being. For me, this single panel evokes not only the incredibly complex world created by Ōtomo but also the rhizomatic network of reception it has spawned. On an allegorical level, this image of Tetsuo's ongoing transformation, in a constant state of becoming out of a haphazard web of cables and debris, a monstrous hybridity that is "part animal, part vegetable, part metal,"[7] might be construed as visualizing how both *AKIRA* and its interpreters make connections with diverse smaller narratives, codes, and memes.[8] Instead of privileging a single grand narrative, *AKIRA* accomodates numerous "petits récits," as Jean-François Lyotard calls them in *The Postmodern Condition: A Report on Knowledge*, which are more modest and localized than the totalizing metanarratives offered by modernity.[9] Indeed, *AKIRA* consistently eludes (and even seems to actively resist) the hermeneutic impulse to settle on a definitive interpretation or grand metanarrative. The array of "small narratives" engaged by *AKIRA* include but are not limited to the following:

1. *Coming-of-age narrative*. *AKIRA* is a story about the radical changes that take place during adolescence when one's body and identity are transitional, volatile, and fluid—in a constant state of metamorphosis—as epitomized by the figure of Tetsuo.[10] According to this view, while struggling with the liminal state of adolescence, Tetsuo resists attempts by the institutions of society to mould him into something acceptable, useful, or docile, his monstrous body becoming a site of mutation that resists and transgresses the social classifications and categories to which it is subjected by the abstract machines of society for the purposes of normalization, regulation, and manipulation. In other words, the mutating adolescent body of Tetsuo refuses to be manipulated by anyone or anything. As Susan Napier so aptly puts it, "Tetsuo's awesome transformative powers as well as those of the other mutants in *Akira* suggest a subverting of all boundaries, especially the hierarchical ones that still characterize contemporary Japanese society."[11]

2. *Bōsōzoku*[12] *narrative*. Although it is tempting to interpret the "young bikers as they roar violently through Neo-Tokyo" as an "image of aimless motion" that "parodies the whole notion of a quest for meaning or intensity in life,"[13] *AKIRA* offers something more subversive. As Isolde Standish has argued, *AKIRA* "uses *bōsōzoku* style to reflect a youth culture of resistance," which "poses a direct challenge to the traditional 'work ethic' and achievement-oriented ideology of the previous generation," as well as to "the ideals of Japanese social and cultural homogeneity."[14] Through the lens of Tetsuo and his friends and rivals in The Capsules biker gang, especially Kaneda (the gang's leader), who stand in opposition to the military-industrial complex depicted in the police state of Neo-Tokyo, *AKIRA* reimagines *bōsōzoku* as lines of flight that attempt to elude, escape, disrupt, and resist the lines of segmentarity (in the form of the municipal and national government, the scientific and medical apparatus, the military, the police, and the school system) subjectifying the citizens of Neo-Tokyo with mechanisms of social control that channel, classify, compartmentalize, and exclude.[15]
3. *Generational struggle narrative*. *AKIRA* urges resistance to the oppressive, corrupt, adult male authority structure that holds sway in Japanese society with its "hierarchical, careerist, and consumerist ideology."[16] The struggle for power in *AKIRA* is largely a conflict between generations in the vacuum left by the disappearance of the family: namely, the older generation that constitutes the status quo and remembers the dangers of war versus the younger generation that distrusts their elders' deployment of power and has little or no memory of war.[17] This generational struggle is also reflected in the anti-American sentiment that appears in book six, in which the American carpet bombing of Neo-Tokyo and unflattering portrayal of English-speaking United Nations (UN) peacekeeping forces as invaders prompts a strong counterinsurgency from Kaneda and his surviving biker friends. In contrast, there is a lack of response from characters of the older generation, such as the Colonel, who questions whether Kaneda and his friends can beat back the foreign occupiers. Near the end of the story, under the banner of "Great Tokyo Empire AKIRA,"[18] Kaneda confronts the UN troops with the following anti-imperialist warning: "This is a sovereign nation! If you come again without an invitation, we're gonna treat you as invaders, got it?!"[19]

4. *Postapocalyptic narrative*. *AKIRA* is a postapocalyptic story thrice over. After the explosion at the beginning that decimates Old Tokyo, the first half of the narrative takes place in a rebuilt, postapocalyptic Neo-Tokyo, which is itself destroyed at the end of book three in the collected paperback edition and again in book six. This eternal recurrence of (post)apocalypse is linked to the reiteration of the question of control in *AKIRA*: who will or can control the atomic-like power symbolized by Akira and Tetsuo?[20] From this perspective, *AKIRA* has been read as a sort of coming-of-age allegory for Japan as a nation-state in the postapocalyptic age following Hiroshima and Nagasaki. Although some readers have invoked the "nuclear sublime" in discussing *AKIRA*, the destructive force of Akira and Tetsuo's telekinetic powers functions more as an expression of Japanese ambivalence about nuclear power in any form than its elevation to sublimity.[21]
5. *Economic narrative*. *AKIRA* is an allegory for sociopolitical struggles within postwar Japan. Although the 1980s were boom years for Japan's economy—with Japan frequently described during this era by Western journalists and politicians as an economic juggernaut or "terminator"[22] that could not be stopped—the recession throughout the 1990s proved such fears false. Nevertheless, there was quite a lot of debate during the 1980s about what Japan should do with its newfound economic power: should it use its economic muscle to separate itself from the United States and stand on its own politically and militarily as a superpower, or would such self-assertion risk a return to the days of wartime nationalism?[23] *AKIRA* was produced during the time of such debates concerning Japan's role in the world on the threshold of the twenty-first century—debates that, although having lessened somewhat after the collapse of the Japanese asset price bubble economy in the 1990s, are still taking place today.
6. *Revolutionary narrative*. *AKIRA* is a meditation on the mechanisms of authoritarian power and how to resist it. However one defines the power exercised by Akira and Tetsuo, if all humans have it, then even those who seem to be shut out from the political process may be able to usurp the powers that be. Numerous characters attempt to call forth this latent power, ranging from the underground resistance movement led by Nezu, Ryū, and Kei to the respective followers of Akira, Tetsuo, and Lady Miyako. According to this reading, *AKIRA* is a narrative about the potential for even the most humble of citizens living in a police state to empower themselves and disrupt the status quo. In this sense, *AKIRA* is liberatory rather than nihilistic; that is,

the future is not fixed but open to contingency and change. On the other hand, the destructive force that Tetsuo becomes suggests that, even in the hands of those who were previously powerless, absolute power corrupts absolutely.

7. *Evolutionary narrative*. *AKIRA* deals with the potential production of a new form of posthuman being, a new mutation of human DNA. Looking like a giant fetus-like amoeba, devouring anything that is a potential food source, Tetsuo represents the power of life incorporating life through the unavoidable evolutionary processes of natural selection, mutation, and adaptation. The future does not fly in only one direction—one must learn to choose one's own posthuman evolutionary path.
8. *Cosmic narrative*. Although *AKIRA* evokes a Shintoist animism of the spirit, in which all beings, whether animate or inanimate, are composed of life's energy, some beings are able to channel life's energy more constructively than others. In the Great Tokyo Empire, Akira is worshiped as a god by overly zealous followers. As his powers develop, Tetsuo, too, attains godlike status. As the powers of Akira and Tetsuo collide and resonate with one another, creating the conditions for the occurrence of a miniature Big Bang, *AKIRA* visualizes not only the apocalyptic destruction of Neo-Tokyo but also the birth of a new universe (and, by implication, the rebirth of society).[24]

As the image of Tetsuo's emergence from the tangle of wires and technodebris suggests, one way to comprehend this network of small narratives constituting a work of Japanese popular culture such as *AKIRA* is in terms of the rhizome, a key concept in the philosophy of Gilles Deleuze and Félix Guattari, which is used to describe an interconnected, nonhierarchical heterogeneity in a state of constant becoming. According to Deleuze and Guattari, the rhizome is distinguished by the following traits[25]:

1. Any point can be connected to any other point at any other level, such that an intersection of heterogeneous elements, things, states, or forms of organization gives rise to a new assemblage of life or "becoming-other," thereby resisting the ontology of grounds and foundations. Opposed to the binary logic of mimicry and resemblance, which always subordinates copy to model, the rhizome offers instead an aparallel evolution of heterogeneous forces forming rhizomes with the outside (viral, animal, vegetable, chemical, meteorological, technological, political, economic, cultural, etc.), cutting across different genealogical lines.

2. The rhizome describes a multiplicity without unity, which is decentered and nonhierarchical (systems without stable ontological anchor or treelike structure) and nonteleological (no built-in endpoint or goal). The rhizome has no stable units, points, or positions, only multiplicities and directions in motion, lines of stratification (reterritorialization) and flight (deterritorialization), and changes in dimension (i.e., constant metamorphosis, circulation, and flows).
3. Rather than tracing a history or genealogy, the rhizome offers a cartography that overturns the notion of a stable model (or species) and outlines a map with multiple entryways, resisting mimetic totalizations that attempt to obstruct the rhizome's potential for connection and becoming-other. Instead of invoking a vertical metaphorics of depth, the rhizome offers a horizontal image of thought where anything may be linked to anything else.

As I suggested previously, *AKIRA* encourages rhizomatic reading by evoking the processes of nonhierarchical connection in the sense that both *AKIRA* and its interpreters make decentered linkages with diverse smaller narratives, codes, and memes, offering a horizontal image of thought where anything may be linked to anything else without requiring vertical notions of a metanarrative, or some other "deep inner layer" from which to draw (or download) information. In this study, instead of analyzing works of Japanese visual culture for deep meaning or as expressions of some "inner layer of the world,"[26] I practice rhizomatic reading, which views such works tangentially through their rhizomatic connections with other anime, other films, other works of art, and other discursive formations. In what follows, by situating works of Japanese visual culture dealing with posthumanism in relation to their rhizomatic connections, the lines of flight that they set into motion in response to the mechanisms of advanced capitalism, globalization, and emerging imaging and telecommunication technologies thereby come into clearer view.

In the wake of *AKIRA*, I argue that works of Japanese visual culture dealing with posthumanism offer a defamiliarization[27] of contemporary society (both Japanese and non-Japanese) and its most acute cultural anxieties and sociopolitical problems. *Tokyo Cyberpunk* engages some of the most thought-provoking anime and films in the history of Japanese science fiction as transnational sites of contestation for competing discourses, philosophical crises, and socioeconomic fault lines. In a series of extended readings, I investigate how the questions and issues of posthumanism are frequently broached in works of Japanese visual culture to explore new

possibilities of becoming at the rhizomatic intersection of different forms of intelligence, corporeality, and data processing.

Machinic Desires, Desiring Machines, and Consensual Hallucinations

In Part I, "Machinic Desires: Hans Bellmer's Dolls and the Technological Uncanny in *Ghost in the Shell 2: Innocence*," I explore Oshii Mamoru's engagement with the uncanniness of *ningyō* (literally, "human-shaped figures") in his 2004 sequel to the highly acclaimed feature-length animation *Ghost in the Shell* (1995). The film's obsession with the uncanniness of dolls, puppets, automata, androids, and cyborgs is one that the sequel shares with the first movie, but *Ghost in the Shell 2* goes well beyond the earlier film in the scope of its engagement. During the course of my analysis, I explore *Ghost in the Shell 2*'s intermedial play with various *ningyō* and how such engagements enter into the film's complex evocations of the uncanny at the limits of the human. Oshii's female androids, which are explicitly modeled on the erotic grotesque dolls constructed and photographed by German surrealist Hans Bellmer (1902–75), evoke the uncanny on many levels, such as the repetition of déjà vu, the blurring of boundaries between life and death, animate and inanimate, and the doubling of the self in the figure of the doppelgänger. The defamiliarizations produced by the uncanny in *Ghost in the Shell 2* work to destabilize our assumptions about what it means to be human in a posthuman world and how we might relate to all the intelligent machines with which we increasingly share the world.

In Part II, "Desiring Machines: Biomechanoid Eros and Other Techno-Fetishes in *Tetsuo: The Iron Man* and Its Precursors," I analyze the savage mixture of cinematic surrealism, body horror, and industrial noise punk in Tsukamoto Shin'ya's notorious cyberpunk film classic. By situating *Tetsuo* (1989) in relation to its many complex connections with other films and works of art, from the birth of the sexy robot in *Metropolis* (1927) to the unsettling surrealism of *Un chien andalou* (1929), from the machine cities of the Italian Futurists and the biomechanoid art of H. R. Giger to the posthuman mutations and pleasures of *Matango* (1963), *The Fly* (1986), and *Videodrome* (1983), the transnationality of Tsukamoto's erotomechanical filmmaking thereby comes into full view. I argue that *Tetsuo* deconstructs the essentializing identification of masculinity with phallic dominance and violence by means of a bitingly transgressive parody that subverts the

status quo of heteronormative state capitalism and the mechanisms of social domination that maintain it.

In Part III, "Consensual Hallucinations and the Phantoms of Electronic Presence in *Kairo* and *Avalon*," I analyze Japanese posthumanism in relation to the concept of "electronic presence." "Electronic presence" was introduced by Jeffrey Sconce in his study *Haunted Media: Electronic Presence from Telegraphy to Television*[28] to describe a whole range of paranormal metaphors and beliefs, from transcorporeal simultaneity to electronic transmutation, enframing the history of telecommunications in relation to the development of telegraphy, wireless communication, radio, television, and cyberspace. I consider expressions of electronic presence in relation to two live-action films—Kurosawa Kiyoshi's *Kairo* (2001) and Oshii Mamoru's *Avalon* (2001)—each of which offers representations of cyberspace and virtual reality filtered through the lenses of spectrality, uncanniness, and technological addiction. With the advent of cyberspace, although the material technologies and sociohistorical conditions have changed considerably since the age of the telegraph, the metaphors and discourses utilized remain strikingly similar to previous articulations of electronic presence. What has changed is the way in which the fictions of electronic presence have come to be inflected by issues such as absent presence, social withdrawal (*hikikomori*), and echoes of the historical trauma associated with Hiroshima.

In my Conclusion, "Software in a Body: Critical Posthumanism and *Serial Experiments Lain*," after considering the status of posthumanism's complicated relationship to "humanism" whose founding ontological principles and privileged dualisms it problematizes, I review the lessons learned during the course of this study about the status and limits of posthumanism in the context of Japanese visual culture by way of a rhizomatic analysis of the acclaimed thirteen-episode anime series titled *Serial Experiments Lain* (1998), which serves as a touchstone for much that has come to be associated with cyberpunk and posthumanism in Japan in the wake of *AKIRA*. *Serial Experiments Lain*'s engagement with issues surrounding the emergence of the Internet, as well as the posthuman transformation it has brought about in the technologies of subjectivity that govern human forms of self-reference, categories of perception, and forms of communication, make it an ideal lens through which to revisit many of the issues discussed throughout this book. More specifically, I use *Serial Experiments Lain* to amplify and further unpack the broad range of issues animating this entire study, from the status of electronic presence to addiction to technology; from the ontological status of subjectivity to posthuman (and transhuman)

forms of "post-bodied" yet still gendered existence; from the uncanny figure of the doppelgänger to the slippery question of political agency and the status of resistance. Most importantly, in its critical eschewal of the fictions of electronic presence and the technological sublime, *Serial Experiments Lain* underscores the posthuman self as a hybrid work-in-progress that is contingent, fluid, and somewhere in between human, animal, and machine.

Part I

Machinic Desires

Hans Bellmer's Dolls and the Technological Uncanny in *Ghost in the Shell 2: Innocence*

> There are no human beings in *Ghost in the Shell 2: Innocence*. The characters are all human-shaped dolls.
>
> —Oshii Mamoru

One of the most distinctive aspects of *Ghost in the Shell 2: Innocence*, Oshii Mamoru's 2004 sequel to the highly acclaimed feature-length animation *Ghost in the Shell* (1995), is the film's obsession with the uncanniness of *ningyō* (literally, "human-shaped figures") in the form of dolls, puppets, automata, androids, and cyborgs. In interviews, Oshii has acknowledged the importance of the concept of the uncanny (*das Unheimliche* in German; *bukimi* in Japanese) and its relation to *ningyō* for an understanding of *Ghost in the Shell 2*.[1] This concern is one that the sequel shares with the first movie, but *Ghost in the Shell 2* goes well beyond the earlier anime in the scope of its engagement. Of particular interest is *Ghost in the Shell 2*'s repeated references to the erotic grotesque dolls constructed and photographed by German surrealist Hans Bellmer (1902–75). In my reading of *Ghost in the Shell 2*, I explore the anime's intermedial play with various *ningyō* and how such rhizomatic engagements evoke the complexity of the uncanny at the limits of the human.

Any study of the uncanny must acknowledge at the outset how much it owes to the pioneering efforts of not only Sigmund Freud but also Ernst Jentsch,[2] the earliest writers to analyze the variety of complex phenomena associated with the uncanny and attempt to account for it in psychological and psychoanalytic terms. In addition, an enormous amount of critical attention has been given to Freud's essay on "The 'Uncanny'" (1919) by contemporary philosophers, literary theorists, and cultural critics such

as Jacques Derrida, Hélène Cixous, Sander Gilman, Neil Hertz, Samuel Weber, and Nicholas Royle.[3] In most cases, such post-Freudian readers of the uncanny have focused their analysis on deconstructing Freud's reading of E. T. A. Hoffmann's "The Sandman" (1816).[4] In what follows, I am more concerned with discussing the uncanny as a literary and artistic motif with philosophical implications than I am in the explanatory power of Freudian discourse to account for the psychosexual etiology of the uncanny. In other words, I am less interested in rereading Freud's (mis)reading of "The Sandman," or in critiquing psychoanalytic metanarratives such as the "castration complex" or "death drive," than I am in unpacking the function of the trope of the uncanny in *Ghost in the Shell 2*. Indeed, I argue that engagements with the uncanny appearing in *Ghost in the Shell 2* should be regarded not so much as Freudian gestures on the part of Oshii as they are byproducts of Oshii's remediation[5] of the dolls of Hans Bellmer, which were explicitly designed to evoke the uncanny on many levels: for example, in terms of the repetition of déjà vu, the blurring of boundaries between life and death, animate and inanimate, and the doubling of the self in the figure of the doppelgänger. What binds together all of these instances of the uncanny is that in each case, the uncanny evokes a sense of unfamiliarity at the heart of the familiar, a feeling of unhomeliness in the home, and an estrangement of the everyday. The defamiliarizations produced by the uncanny in *Ghost in the Shell 2* work to destabilize our assumptions about what it means to be human in a posthuman world and how we might relate to all the *ningyō* with whom we increasingly share the world. Before delving into such matters, an overview of the film as a whole and the issues it engages is in order.

An Overview of *Innocence*

Ghost in the Shell 2 is a police procedural set in the year 2032, three years after Major Kusanagi merged with a self-aware computer program known as the Puppet Master at the end of the first *Ghost in the Shell* film and entered the Net, disappearing into cyberspace. Whereas the first *Ghost in the Shell* focused mostly on the female cyborg Kusanagi and her existential crisis, the sequel shifts the focus from Kusanagi to her partner Batou while continuing to engage the problem of identity and the limits of humanity in a posthuman world in the context of a detective story. Batou, "an agent of the elite Section 9 Security Force and a being so artificially modified as to be essentially cyborg," as he is described in the prologue to *Ghost in the Shell 2*, is called in to investigate a series of gruesome crimes committed by

female androids called gynoids.[6] These gynoids—"hyper-realistic female robot[s] created specifically for sexual companionship"[7]—have murdered their owners (and anyone else who has gotten in their way) after apparent malfunctions and then self-destructed. In the opening scene of *Ghost in the Shell 2*, set in an unnamed multiethnic city with an architectural style that the director has described as "Chinese Gothic,"[8] which looks like a cross between Hong Kong, Tokyo, and Manhattan,[9] where the dominant spoken languages are Japanese and Cantonese, Batou comes face to face in a dark alley with a gynoid who has just murdered her owner and two police officers. After he engages her in hand-to-hand combat, the gynoid pleads for help. Just as the gynoid tears open her own chest in an apparent suicide attempt, Batou terminates her with multiple shotgun blasts.

We cut to the opening credits, where we witness the manufacturing process involved in making a gynoid, from the division of artificial cells to the construction and assemblage of robotic body parts. This artificial birth of the gynoid is a reinscription of the opening credits of the first *Ghost in the Shell*, in which we were shown Major Kusanagi's high-tech cybernetic body as it was manufactured by a government contractor called Megatech Body, a biomechanical birth from an artificial womb, which blurred the boundaries between birth and manufacturing. In the first film, we learned not only that most of Kusanagi's cyborg body had been manufactured (everything except for her brain) but also that it was thoroughly commodified: since the government owns all of Kusanagi's cyborg parts and memories, if she were ever to quit her job, all her parts and memories would either have to be returned or bought back, since she is, quite literally, "government property."[10] The same applies to Batou. Although Batou's cyborg body boasts capabilities similar to those of Kusanagi, including enhanced sensory perception, improved reflexes and muscle capacity, and direct access to data on the Internet, such capabilities also make him vulnerable in ways that an entirely organic human would not be.

Following the opening credits, Aramaki, the head of Section 9, orders Batou and his new partner Togusa to investigate the murders, which were committed by the Hadaly-model gynoid manufactured by a company called Locus Solus (literally, "solitary place"), a reference to the 1914 French novel of the same name by Raymond Roussel.[11] The name "Hadaly"[12] invokes not only the female android of the same name that appears in the nineteenth-century science fiction novel *L'Eve future* (*Future Eve*, 1886) by French symbolist writer Auguste Villiers de l'Isle-Adam (1838–89), who first coined the word "android" and whose work is quoted in the epigraph at the outset of *Ghost in the Shell 2*, but also the humanoid robot bearing that name

developed in 1995 at the Humanoid Robotics Institute at Waseda University in Tokyo to investigate human-robot interaction and communication. This robot had the capability to speak and listen in Japanese and make meaningful gestures with its arms in order to give directions.[13]

Batou and Togusa discuss the case with Police Coroner Haraway, a character named after Donna Haraway, author of the famed "Cyborg Manifesto."[14] Coroner Haraway's lab contains not only the gynoid that was blown apart by Batou but also others similar to it suspended like meat in a butcher's freezer, including some that have been sealed in clear amber body bags. It is Coroner Haraway's opinion that the gynoids intentionally malfunctioned in order to release them from Isaac Asimov's "Three Laws of Robotics,"[15] which would prohibit a robot from injuring a human being. It is her theory that by means of such strategic malfunction, the gynoids were "capable of self-authorizing attacks against humans." Haraway also speculates that "it's because humans discard robots once they're redundant" or outmoded that some of the abandoned gynoids become "vagrants and degenerate" as "a protest against their own obsolescence." She questions why humans are so obsessed with recreating themselves, with producing dolls and androids modeled after idealized human images, and engages Batou and Togusa in an interesting philosophical dialogue about how raising human children, whom she compares to dolls, is "the simplest way to achieve the ancient dream of artificial life"—topics to which I will return later in my discussion of Hans Bellmer's dolls.

After leaving Coroner Haraway's office, Batou and Togusa are called to investigate a crime scene at a boathouse in another area of the city. A shipping inspector for Locus Solus named Jack Volkerson has been gruesomely murdered in what appears to be a revenge killing by a local *yakuza* crime syndicate. Batou and Togusa, along with Ishikawa, the head of intelligence gathering for Secton 9, analyze the crime scene before the local police arrive in order to determine whether there is any link between Volkerson's murder and the gynoids. In the process, Batou comes across a strange book—possibly belonging to Volkerson—titled *The Doll* by Hans Bellmer, into which a holographic photo of an adolescent girl has been inserted. This is not the first reference to the work of Bellmer, but it signals very clearly that Oshii's engagement with Bellmer is integral to the story.

After exiting the crime scene, Batou returns home, where he is greeted by his pet basset hound, one of many cameos of Oshii's beloved pet Gabriel in the film. In addition to modeling the animated basset hound after the likeness of the real Gabriel, Oshii recorded his dog's barks and other sounds for added authenticity. As Batou affectionately attends to his dog's needs in

this scene, a mechanical version of the dog with the name Gabriel engraved on its stand also comes into view. As we later learn, both the living dog and the mechanical one are simulacra of an earlier dog owned by Batou that had passed away—the living dog being a clone of the original. The scene ends with the cloned Gabriel resting on his owner's lap while Batou studies another simulacrum—the holographic photo of an adolescent girl, which he lifted from the Hans Bellmer book discovered at the boathouse crime scene.

After discussing the evidence collected at the boathouse with their colleagues and boss, Batou and Togusa pay a visit to the Kōjinkai gang, the local *yakuza* crime syndicate suspected in the murder. Since the mob boss of the Kōjinkai was decapitated by one of the berserk gynoids, it is suspected that the gang wished to exact revenge for their boss's murder by killing a Locus Solus representative. Forensic evidence at the Volkerson crime scene suggested that a cyborg member of the gang, outfitted with an illegal Chinese prosthetic limb called "the claw," was responsible for the grisly dismemberment and evisceration of Volkerson. Batou and Togusa pay the Kōjinkai a visit and, predictably, all hell breaks loose. Batou subdues the cyborg that killed Volkerson and extracts a confession from another gang member that Volkerson was murdered as a favor to Locus Solus without knowing the precise rationale behind the hit. Later, in a subplot that *Ghost in the Shell 2* derives from episode 6 of the *Ghost in the Shell* manga by Shirow Masamune, titled "Robot Rondo,"[16] we learn that the Kōjinkai gang kidnapped and supplied adolescent girls to Locus Solus for the purpose of "ghost dubbing"—a process by which the mind or spirit of a human is transferred to a gynoid in order to make it more desirable.[17]

On his way back home, Batou stops at a local convenience store to purchase dog food when he appears to be ambushed after hearing a voice in his head (resembling that of Kusanagi) forewarn him that he is "in the kill zone." I say "appears" because it turns out that the entire ambush was a simulacrum implanted in his consciousness by a cyberbrain hacker. In reality, Batou was never in physical danger, and most of the shots that he fired to defend himself were unloaded into his own arm. Ishikawa, who had been trailing Batou at the request of Aramaki, appears on the scene just in time to prevent Batou from killing the store owner by rendering Batou unconscious with a zap to his cyberbrain implants. Batou then awakens with a new replacement arm and a better understanding of his own cybernetic vulnerability. Ishikawa speculates that someone wanted Batou to go berserk in order to disgrace himself (and Section 9) after extracting the confession from the *yakuza* gang.

The convenience store shoot-out scene, like many others in *Ghost in the Shell 2*, is a spectacular blend of three-dimensional computer-generated backgrounds and two-dimensional cel-style characters, melded together into a hybrid form that astonishes with its sheer complexity of visual detail. Eschewing the limited animation for which traditional anime has become famous, Oshii has said that, with the convenience store scene, he "got to fulfill one of [his] longtime wishes," which was "to depict a gunfight set in a space crowded with information," with scattering merchandise depicted "as meticulously as possible."[18] Whereas limited animation was first adopted in anime as a way to cut corners on a tight budget, Oshii pushes the complexity of contemporary animation (and the animators whom he employs) to the limit in scenes such as this, which reportedly required two to three thousand background drawings.

After the convenience store shoot-out, Batou and Togusa are dispatched to investigate Locus Solus, which is located on Etorofu, the largest and northernmost island in the South Kuril Islands, territories that were forcibly reclaimed by the former Soviet Union at the end of World War II and are still very much in dispute today. In the context of *Ghost in the Shell 2*, this disputed island has been reconceived as an information-technology (IT) metropolis once intended "to spur East Asian economic development" but that now has fallen on hard times and functions more as a lawless zone and haven for multinational corporations "and the criminal elements that feed off their spoils."[19] As Batou and Togusa fly over this decaying IT metropolis, the enormous techno-towers that punctuate the orange-hued horizon pay homage to the urban skyline of Ridley Scott's influential cyberpunk film *Blade Runner* (1982) with its industrial spires, oil refinery burn-off flames, and polluted orange haze. Referencing evolutionary theorist Richard Dawkins's claim that "what the body creates is as much an expression of DNA as the body itself," Batou concludes that "if the essence of life is information carried in DNA, then society and civilization are just colossal memory systems and a metropolis like this one, simply a sprawling external memory." It is in this liminal place, situated amid the ruins of a once great metropolis, that Locus Solus makes its home in an enormous cathedral-like structure that is an architectural citation of the world's second-largest Gothic cathedral located in Milan, Italy.[20]

Batou and Togusa continue their tour of the city in the midst of a festival modeled after the annual Dajia Mazu Festival in Taiwan, which celebrates the eight-day pilgrimage of Mazu, the Taoist goddess of the sea who protects sailors and fishermen. Among the scenes that audiences typically find most moving in Oshii films are the lyrical tableaus and travel tours that

appear at key moments in the narrative. Perhaps related to his affection for stray dogs and their roving peregrinations, Oshii seems particularly fond of visualizing the wanderings of his protagonists. For example, in the first *Ghost in the Shell*, in scene 8, titled "Wandering the City," we are presented with an evocative montage of urban images from Kusanagi's boat tour through the metropolis, including sequences in which Kusanagi makes eye contact with another city dweller sitting in a coffee shop who has the same cyborg body that she does, thereby creating the uncanny effect of gazing into the eyes of her doppelgänger.[21] In the context of the first *Ghost in the Shell*, this montage sequence is used to evoke reflections upon the status of Kusanagi's cyborg body and her existence in a city where her double also resides. Such scenes succeed in placing the audience in a reflective mood by evoking the recognition of the uncanniness of life through the estrangement of the everyday.

Such evocative montage sequences are reminiscent of the travel songs called *michiyuki* that are used in noh drama and puppet theater but that may also be found in earlier poetry and literature ranging from the *Man'yōshū* to *Tale of the Heike*. *Michiyuki* typically provide a condensed travelogue rich with poetic associations of a traveler's journey to a particular place. Like the *michiyuki* used in noh, the travel montage of Batou and Togusa through the city of the Northern Frontier is accompanied by music that evokes the feeling of passing time.[22] Where the travel sequences of Oshii differ from the *michiyuki* used in theater is that Oshii's versions tend to unfold mostly through a montage of visual images evoking season, time, and place, rather than the largely poetic associations sung on the noh stage, which evoke mental images but not visual ones.[23]

Commenting on the visual hybridity of the festival scene, Oshii remarks, "We incorporated many aspects of [the Dajia Mazu Festival], magnifying the scope of the procession, while transplanting it to Etorofu, which we envisioned as a great, Gothic city, as New York. Given a Chinese look, the main avenues become canals. The carnival proceeds down the feet of these buildings like temples. . . . The dogs howl sadly and the birds turn above and the flower petals scatter, yet the city sits as still as a stupa."[24] What is perhaps most noteworthy about Oshii's comments on the festival scene, besides his comparison of buildings to temples and the city to a Buddhist stupa, is his embrace of transnational hybridity in the form of what he has called "Chinese Gothic." In other words, the hybridity of Oshii's anime style, which is characterized by its melding of techniques borrowed from traditional cel animation for character drawings and computer-generated

animation for the environments, is paralleled by the hybridity of Oshii's urban landscapes, which are difficult to pinpoint geographically.

The incredible attention to visual detail and dynamic multilayeredness of the computer-generated environments in the world of *Ghost in the Shell 2*, which employ sophisticated lighting techniques, multiple moving planes, and advanced particle effects, give such scenes a feeling of overwhelming complexity that makes it impossible to process everything that is occurring within a given frame. Oshii is notorious for constantly demanding from his animators that the scenes be made to look as complex as possible. With such copious specificity, one might assume that it would be easy to pinpoint the locations of the urban landscapes that appear on screen, but as I have suggested, the opposite is true. It often seems that the more visual detail Oshii adds to a given scene, the more difficult it becomes to determine the exact location, geographically speaking. For example, the complex mise-en-scène of Batou and Togusa's travel tour, especially the settings for the parade inspired by the Taiwanese Dajia Mazu Festival that Oshii observed firsthand during preproduction research, contains an extraordinary amount of visual detail and movement given that it is entirely animated. But as if to dislocate the Taiwanese genealogy of the scene, Oshii mixes giant puppets modeled after ones used in Taiwan to represent ancestral spirits with automata inspired by the Japanese tradition of *dashi karakuri ningyō*, the mechanical dolls used in large processional floats at festivals in Nagoya and Takayama.[25]

One might wonder whether such transnational hybridity and geographic indeterminacy reinforces rather than resists the dreams of the techno-orientalist by offering an illusion of Asia or Japan, such as is critiqued by Ueno Toshiya in his influential essay "Japanimation and Techno-Orientalism."[26] According to Ueno, Japanese animation functions "as a cultural and ideological apparatus to cover and disavow the reality of global capitalism," which he sees as inextricably linked to the exploitation of labor forces in Asia in a post-Fordist economy.[27] In response, Oshii has suggested that he is not interested in representing real nations such as Japan so much as he is in exploring the liminality of borderlines. In an interview conducted around the time that his live-action film *Avalon* was released, Oshii reflected on his engagement with "borderline cinema" as follows:

> The subject of borders is not something I obsess over, but I have always had an interest in them in an inherent way. I always feel as if I'm living on a borderline. Although I actually live in Japan, I always feel slightly removed from myself. I find more inspiration in imaginary space-time continuums. In my opinion, cinema is essentially linked to these space-time continuums, and in this way, one creates a "borderline cinema." Of course, I realize that some directors are only interested in real life, but

> the opposite is true for me. My motivation as a director is rooted in these imaginary space-time continuums—somewhere that is not here, sometime that is not now [*koko ja nai dokoka, ima de nai itsuka*]. I want to make films that explore these spaces in time and these characters who are nowhere and somewhere at the same time. By taking this approach, my films always end up dealing with a borderline place and with characters coming and going from this place. I want to repeat that I am neither obsessed nor consciously interested in the subject of borders. It is simply and intrinsically my primary motivation as a director.[28]

In other words, to try to determine precisely where the festival scene takes place misses the point of such scenes. The polymorphous geographical marking of Oshii's animated spaces, which include elements that could be described as Chinese, Japanese, Taiwanese, European, and American, resists the viewer's attempts to pinpoint their precise locations because they are borderline places—"somewhere that is not here, sometime that is not now." It is the liminality of such space-time continuums and the characters who inhabit them, who are "nowhere and somewhere at the same time," that interest Oshii.[29] Nowhere is the uncanny force of such borderline places more obvious than in the neobaroque mansion visited in the next scene by Batou and Togusa. It is in such space-time continuums that Batou and Togusa encounter the limits of the human.

Navigating the different zones of the frontier city like Dante and Virgil, Batou and Togusa seek the whereabouts of a computer criminal named Kim, who is linked to the Locus Solus Corporation and its manufacture of the murderous gynoids. Described in the *Ghost in the Shell 2* ani-manga as "a disgraced former military officer and electronic warfare specialist" who "transferred between various special-forces units before tarnishing his record through involvement with the black market for illegal arms,"[30] Kim is presently employed by Locus Solus as a professional hacker. On a tip from an informant, Batou and Togusa visit Kim at his mansion, which is filled with a wide assortment of simulacra, ranging from trompe l'oeil paintings to holographs,[31] including a holograph of Batou's basset hound sitting next to Major Kusanagi in the young girl's body to which she was transferred after her merger with the Puppet Master at the end of the first *Ghost in the Shell*. During a series of feedback loops with slight differences each time they are experienced, Batou and Togusa are compelled to repeat their tour of the mansion and rediscovery of the apparently dead body of Kim in his study. Kusanagi signals to Batou through the holograph of herself that all that he sees before him is an illusion by invoking the myth of the Golem, as told by Jakob Grimm (1785–1863). As Batou remarks to Togusa, "Jakob Grimm wrote that by inscribing '*aemaeth*' upon Golem's brow, the clay man lived by drawing energy from the word for 'truth.' But

simply removing '*ae*' to form '*maeth*' or 'death' returned the Golem back to inanimate clay. That prophecy told me that no truth would be found within these walls."[32]

Merely pretending to be dead and looking more like an automaton than an android or cyborg, Kim is coaxed into talking by Batou. Sounding more like a philosopher than a hacker, Kim expostulates at length about the nature of being human, the perfection of dolls, the relationship of the human and the mechanical, the evolutionary striving to overcome the human condition, the blurring of boundaries between the real and the virtual, and other issues that I will analyze in greater detail a little later when I discuss the role of *karakuri ningyō*, or mechanical dolls, in the film. Meanwhile, Togusa has nightmarish visions that both he and Batou have turned into automata like Kim. The feedback loop is interrupted when Batou zaps Togusa's cyberbrain implants and Togusa awakens to discover that, as Batou puts it, "a tangle of virtual experience hacked into [his] e-brain." With Kim now in their custody, Togusa uses Kim's e-brain to hack into Locus Solus's computer system, bypass security, and forward to Batou data on the offshore factory ship where the gynoids are being manufactured in order to better assess suitable assault points.

Once Batou has gained access to the production area for Hadaly-model gynoids, an army of gynoids is released to seize the intruder. Batou initially keeps the gynoids at bay but is soon outnumbered. Suddenly, Batou's so-called guardian angel, Kusanagi, downloads herself into one of the gynoids in order to protect him. After defeating the gynoids and shutting down Locus Solus's operating system, Kusanagi and Batou uncover the secrets behind Locus Solus's gynoid-production technology and the reason for the gynoids' apparent malfunction. What they learn is that Locus Solus was using adolescent girls, supplied by the Kōjinkai *yakuza* gang, for the purpose of ghost dubbing. They discover a girl who is still alive and conscious—the same one whose photo Batou discovered in the Bellmer book at the boathouse where Volkerson was murdered. Releasing the girl from the coffin-like capsule in which she had been held prisoner, Batou and Kusanagi learn that Volkerson tried to help the girls by revising the ethics code of the gynoids so that they would malfunction and attract police attention. Volkerson was murdered by the *yakuza* as a favor to Locus Solus, who sought to get rid of the instigator of the gynoid's malfunction. The girl is grateful to be rescued and thinks the gynoid rebellion was justified in order to get help. Batou responds with consternation at the girl's lack of concern for the victims—not the human victims, but the gynoids themselves whose "innocence" was, in some sense, violated by the technology

of ghost dubbing, which forcibly infused them with human spirits. After exchanging parting words with Batou, Kusanagi leaves the gynoid shell that she inhabited and returns to the Net, where she promises to look out for Batou. The last scene of the film shows Batou and Togusa, having just returned to Togusa's house, where Batou is greeted by his basset hound and Togusa by his daughter. As Togusa's daughter embraces the doll that her father brought back for her, the last shot shows Batou holding his canine companion, staring back at Togusa's daughter and her doll in a way that suggests a more profound understanding of the complex relations between humans and dolls than he had previously.

Let us turn now to a more in-depth analysis of *Ghost in the Shell 2*'s engagement with puppets, automata, gynoids, cyborgs, and the dolls of Hans Bellmer.

"Once their strings are cut, they easily crumble"

As Christopher Bolton has pointed out in his essay "From Wooden Cyborgs to Celluloid Souls: Mechanical Bodies in Anime and Japanese Puppet Theater," the representation of dolls in the world of *Ghost in the Shell* harkens back to the long tradition of Japanese puppet performance known as *ningyō jōruri* (or *bunraku*). Bolton argues that we can better understand the performative aspects of anime—that is, "the virtual or artificial nature of animated 'actors,' who are always already technological bodies"—if we situate such anime bodies in relation to earlier forms of the artificial body appearing in the Japanese puppet theater.[33] Toward that end, Bolton discusses the first *Ghost in the Shell* in relation to the treatises and plays of early modern Japanese playwright Chikamatsu Monzaemon (1653–1724) with special reference to how "the dramatic quality of the puppets . . . depends on their being both dead and alive . . . on the uncanny ability of these inanimate actors to simulate life."[34] Bolton sees in the puppet theater a strong analogy with cyborgs in cyberpunk anime such as *Ghost in the Shell*, particularly with respect to what he describes as "the divide between body and voice" that is "foregrounded by the ventriloquistic medium of animation."[35] According to Bolton, each time in *Ghost in the Shell* that the puppet-like qualities of characters are emphasized, the performativity of the animation itself is made explicit. This emphasis on puppet-like qualities happens, Bolton notes, when there is a mismatch between "bodies and voices, so that a character will sometimes speak without moving her lips, or one character's voice will issue from another's mouth." Further, as Bolton suggests, there is an "interconnectedness of characters linked by the network and

other surveillance technologies who can listen from a distance, transmit without speaking, or (in the case of the Puppet Master) speak through others' mouths." [36] "Just as we are becoming wrapped up in the characters and their story," writes Bolton, "the animated quality of the bodies will come to the fore in a way that reminds us momentarily of the illusion."[37]

There is no question that puppet-like characters and the foregrounding of animated performativity are also important to *Ghost in the Shell 2*. During the course of their investigations into the gruesome murders committed by gynoids, as they encounter numerous figures who are likened to puppets, Batou and Togusa are confronted with their lack of control over their own actions and identity. This concern with puppets is announced to us in the soundtrack that plays as the opening credits roll in a choral melody composed by Kawai Kenji (with three variations repeated during the course of the film), titled "Song of Puppets" (*Kugutsu uta*), which tells of a legendary Japanese creature called a *nue*, with a monkey's head, a raccoon dog's body, a tiger's legs, and a snake's tail, who sings in grief about the inanimate spirits of flowers, which lament "their being in this world of life, / Their dreams having faded away," awaiting the dawn of a new world in which the "gods will descend."[38] The *nue* is a chimera, able to turn itself into a black cloud, that brings misfortune and malady to those it visits, such as in the famous episode from the *Tale of the Heike*, where it is said to have made Emperor Konoe (r. 1141–55) sick before being vanquished by Minamoto no Yorimasa (1106–80). In the context of *Ghost in the Shell 2*, as the *nue*'s "Song of Puppets" is played over the opening credits, we witness the manufacture and assembly of a gynoid. Insofar as the ontological status of puppets (and their close cousins, dolls, automata, robots, cyborgs) and their relation to humans haunts the entire film, the elegiac "Song of Puppets" seems to announce not only the disappearance of completely organic human beings, whose "dreams having faded away" grieve and fall like the flowers mentioned in the song, but also perhaps the corruption of innocence that Oshii associates with the anthropomorphization of dolls and robots. But even as it nostalgically mourns the loss of beauty and innocence, the *nue* also announces the dawn of a new world. What that new world entails is the subject of *Ghost in the Shell 2*.

Visually, the puppet motif appears repeatedly in conjunction with scenes in which one character literally or metaphorically "pulls the strings" of another via cyberbrain hacking and manipulation. In the world of *Ghost in the Shell 2*, cyberbrain hacking is associated with "the implantation of virtual experiences, including false memories, in order to steal information or control the victim."[39] In the futuristic setting of the story, most human

beings have cyberbrain implants, which are electronic components that facilitate direct access to massive information networks and memory storage in cyberspace, as well as other functions such as silent communication transmissions. For example, Batou and most of his colleagues in Section 9 use their cyberbrain implants for direct network access, data transfer, and silent communication transmissions. To aid Batou's assault on the Locus Solus offshore factory ship, Togusa downloads the ship's blueprints into Batou's cyberbrain, while Batou gives Togusa a live video feed of the assault itself. Although clearly augmenting human capability, such implants also make one vulnerable to hackers, despite the existence of attack barriers that are supposed to help prevent infiltration. In the first *Ghost in the Shell*, the self-aware program and phantom hacker known as the Puppet Master is able to break into almost any terminal or cyberbrain hooked up to the network for purposes of data and stock manipulation, industrial and political espionage, and various violations of cyberbrain privacy. When infiltrating cyberbrains by means of computer viruses, the Puppet Master can compel humans to behave like programmed assassins and military puppets—"puppet 'borgs," as they are referred to by Kusanagi in the manga.[40]

Similar scenes of puppet-like cyberbrain manipulation are also foregrounded throughout *Ghost in the Shell 2*. For example, when Batou and Togusa pay a visit to the Kōjinkai *yakuza* gang, Batou defeats his opponents in the gun battle that ensues by hacking into their cyberbrains and infiltrating their technologically augmented vision centers so that they shoot at a holograph of Batou rather than at Batou himself. In the process, Batou also subdues the *yakuza* cyborg outfitted with the illegal Chinese prosthetic limb, "the claw," and manipulates him like a marionette. In the convenience store scene, it is Batou who becomes the object of "ghost hacking" and is manipulated like a puppet, probably by Kim. In order to protect Batou from himself, as well as other patrons in the store, Ishikawa zaps Batou's cyberbrain implants. Batou later does the same to Togusa during the visit to Kim's mansion when Togusa's cyberbrain is hacked by Kim and subjected to the previously mentioned series of hallucinations. Although Togusa is the least cybernetic member of the Section 9 team, he is nonetheless vulnerable to ghost hacking due to his cyberbrain implants.

The uncanny blurring of boundaries between the animate and the inanimate, and the living and the dead, is clearly exemplified by puppet-like characters, but the uncanny is also evoked in scenes involving cyberbrain hacking and e-brain communication. In recent years, there has been quite a bit of debate in the United States about the constitutionality (or lack thereof) of warrantless wiretapping performed by the National Security

Agency for purposes of domestic spying on suspected terrorist subjects. What *Ghost in the Shell 2* offers is a meditation on ontological wiretapping or electronic telepathy. If warrantless wiretapping violates free speech and privacy rights, ontological wiretapping (or electronic telepathy) undercuts the very existence of the stable subject to which such rights supposedly accrue.[41] What makes such instances of electronic telepathy profoundly uncanny is that, as Andrew Bennett and Nicholas Royle have suggested, they involve "the thought that your thoughts are perhaps not your own, however private or concealed you might have assumed them to be."[42]

Of course, this also raises serious questions about the status and authenticity of memory. If one's memories are not entirely one's own, and if virtual memories are as vivid and realistic as actual memories, then how does one know whether one's memories are real or simply fake memories that have been implanted like those of the replicants in *Blade Runner*? In the first *Ghost in the Shell*, Batou expresses a thoroughgoing skepticism about the possibility of distinguishing the real from the virtual: "Virtual experiences, dreams. . . . All data that exists is both reality and fantasy," says Batou to Kusanagi. He articulates similar views in *Ghost in the Shell 2*, where he affirms that "there is no way to distinguish reminiscence from true memory" and asks Togusa, "Do your wife and daughter, waiting for you at home, really exist? . . . Your family exists only in your mind." In so doing, Batou draws an implicit comparison between Togusa and a ghost-hacked trash collector who appeared in the first *Ghost in the Shell*, whose implanted memories led him to believe that he was living with his wife and daughter, when, in fact, he was living alone.[43] On this matter at least, Batou is in agreement with the philosophically inclined hacker Kim in *Ghost in the Shell 2*, who explicitly questions how one can distinguish between physical reality and "an extension of false illusions generated by virtual signals." "Humans," argues Kim, "are nothing but the thread from which the dream of life is woven."

With memory and subjectivity destabilized in this way, it is no wonder that characters in the world of *Ghost in the Shell* and its sequel are frequently subjected to acts of ventriloquism, in which one is used as the mouthpiece for another. This ventriloquism is perhaps most pronounced in *Ghost in the Shell 2* in terms of the unbridled intertexuality of its screenplay. The dialogue of *Ghost in the Shell 2* is replete with layer upon layer of literary, religious, philosophical, and scientific citations, ranging from the Buddha ("Let one walk alone, committing no sin, with few wishes, like an elephant in the forest"[44]) to Confucius ("Without knowing life, how can we know death?"[45]), from the Bible ("How great is the sum of my thoughts.

If I should count them, they are more in number than the sand"[46]) to Milton ("His legions, angel forms, who lay entranced, thick as autumnal leaves that strow the brooks"[47]), from Zeami ("Life and death come and go like marionettes dancing on a table. Once their strings are cut, they easily crumble"[48]) to Gogol ("It is no use to blame the looking glass if your face is askew"[49]), from Julien Offray de La Mettrie ("The human body is a machine which winds its own springs. It is the living image of perpetual motion"[50]) to Richard Dawkins ("What the body creates is as much an expression of DNA as the body itself"[51]).

Among the many quotations appearing in the film is one that is repeated time and time again. After the spectacular festival scene, as Batou interrogates an informant in an effort to determine the whereabouts of Kim, Togusa spots a stone plaque on the wall of a mausoleum in ruins, on which is inscribed the following verse: "Life and death come and go like marionettes dancing on a table. Once their strings are cut, they easily crumble [*seishi no kyorai suru wa hōtō no kairaitari issen tayuru toki raku raku rai rai*]."[52] Oshii underscores the importance of language in his animated cinema not only by the tissue of quotations he interweaves throughout but also by visually foregrounding specific quotations such as this as texts on the screen. The same poem appears again as Kim's "dying message"[53] in the form of a hologram that is triggered when the automaton-like Kim expires as Togusa hacks into Kim's cyberbrain in order to gain access to the computer mainframe of the Locus Solus Corporation and assist Batou in retiring the remaining gynoids. Later, it shows up yet again painted on a wall inside the offshore factory ship belonging to Locus Solus. Although *Ghost in the Shell 2* is replete with quotations, this is the only one that is repeated multiple times and linked either directly or indirectly to Locus Solus and its manufacture of gynoids. Clearly, it is significant to the animated world that Oshii has constructed. So how are we to interpret it?

First, it should be noted that this quotation was taken from a treatise by the Muromachi-period noh playwright and actor, Zeami (c.1363–c.1443), titled "Mirror of the Flower" (*Kakyō*, 1424).[54] Although Oshii has indicated that he was quoting Zeami, in fact, this verse is a quotation of a quotation, since Zeami was actually quoting someone else, namely, the fourteenth-century Rinzai Zen Priest Gettan Sōkō (1326–86).[55] Even if the verse cannot be attributed to Zeami himself, it is clear that Zeami regarded it as an important illustration of the performative methodology of the noh actor. Taking into consideration the Buddhist connotations and genealogy of the poem, a more literal translation might be "Cycles of birth and death come and go, a puppet dances on the stage. When one string is cut,

it collapses and crumbles." In his treatise, Zeami applies Gettan's verse to noh performance as follows: "This is a comparison with the situation of a person trapped in the karmic cycle of life and death. The manipulation of a marionette on a stage may produce various visual effects, but the puppet doesn't actually move on its own. It functions because of the strings used to manipulate it. The sense, then, is that if a string should break, it all will collapse into a heap. In *sarugaku* [noh] as well, dramatic imitation is a kind of puppetry."[56]

In the context of this treatise on noh performance, Zeami cites Gettan in order to advise the actor that he must "make his mind [function] like [these] strings, and without its being perceived by anyone."[57] In other words, when playing a particular role, the noh actor must learn to create the illusion that a character has come to life on the noh stage, just like a marionette manipulated by a puppeteer. Noh relies upon forms of artifice not unlike the strings of a puppet. In order for the dramatic illusion to be effective, the "strings" holding up the noh performance must not become visible to the audience but must remain invisible or at least unnoticed. In the context of *Ghost in the Shell 2*, this quotation from Zeami's treatise underscores the function of citationality throughout the film, as well as the performative aspect of animation itself.

At the formal level, the technique of interspersing quotations with dialogue is one that Oshii openly borrows from French New Wave director Jean-Luc Godard (born 1930), who has made great use of such citationality in his films. Godard is well known for rejecting the continuity editing of classical Hollywood cinema and offering instead "a discontinuous and fragmentary narrative style that breaks up time and space, thereby forming a collage of letters, words, images, sounds, music, voices, paintings, quotations, and references to art and cinema."[58] Godard's employment of quotation, in particular, adds a distinctive dimension to his films that foregrounds the status of language in cinema, with "words and images intermingl[ing] constantly,"[59] "infusing the image with language,"[60] thereby creating a sort of "cinematic essay"[61] that constantly reminds us that we are viewing the product of the director's arbitrary choices. "People in life quote as they please," explains Godard, "so we have the right to quote as we please. Therefore I show people quoting, merely making sure that they quote what pleases me."[62]

On his debt to Godard, Oshii has commented, "This desire to include quotes by other authors came from Godard. The text is very important for a film; that I learned from him. It gives a certain richness to cinema because the visual is not all there is. Thanks to Godard, the spectator can

concoct his own interpretation. . . . The image associated with the text corresponds to a unifying act that aims at renewing cinema, that lets it take on new dimensions."[63] However, in addition to being an obvious homage to Godard,[64] I would argue that Oshii's use of citation in *Ghost in the Shell 2* also serves a larger philosophical purpose in relation to the ventriloquism of the puppet theater. Such citationality foregrounds not simply the ventriloquism of the director or screenplay writer but, more importantly, the ventriloquism of the flows of transnational cultural production, as has been discussed by numerous contemporary critical theorists. "Who speaks and acts?" asks philosopher Gilles Deleuze. "It is always a multiplicity, even within the person who speaks and acts."[65] In a similar vein, Roland Barthes writes that the "'I' which approaches the text is already itself a plurality of other texts, of codes which are infinite or, more precisely, lost (whose origin is lost)."[66] In short, the subject becomes a tissue of citations.

The numerous literary, poetic, philosophical, and scientific quotations in *Ghost in the Shell 2* underscore the extent to which its characters are akin to talking dolls—mouthpieces for the sociocultural machinery and transnational flows that intersect them. By foregrounding the transnational intertextuality of human subjectivity, Oshii underscores the extent to which we are thoroughly mediated animals, with no authentic thoughts or intentions but only with already-mediated thoughts and intentions. This citationality at the narrative level is paralleled at the visual level by a city that is overflowing with signs, advertisements, and data flows, a thoroughly commodified urban space not unlike what one finds in the shopping districts of Tokyo, Osaka, or Hong Kong today. In his director's notes for the film, Oshii has commented on the ubiquity and importance of signs (especially those using Chinese characters) to the visual appearance of the urban landscapes in *Ghost in the Shell 2*.[67] This ubiquity of signs and the unavoidability of mass media suggest that the city itself and almost everyone in it is subject to the mechanisms of commodification: "reality" dissolves into the virtuality of mass media.[68] In such a world, human beings start to resemble automata, as is visualized in the nightmarish scenes from Kim's mansion when Togusa, caught in a feedback loop, sees himself and Batou transformed into *karakuri ningyō*. It is to the topic of automata and *karakuri ningyō* that I now turn.

From Puppets to Automata

Although there is no question that a significant proportion of imagery in *Ghost in the Shell 2* resonates with the history of the puppet theater

in Japan, the Japanese puppet theater does not go far enough to account for the appearance in the film of the plethora of doll-like figures of varying types, which extend far beyond that of traditional puppets. In particular, *Ghost in the Shell 2* also places great emphasis on two types of dolls that are quite distinct from the dolls of the Japanese puppet theater: mechanical dolls or automata, called *karakuri ningyō*, on the one hand, and the gynoids inspired by the dolls photographed by Hans Bellmer, on the other. Before turning to the gynoids and their relation to the dolls of Bellmer, it is worth spending some time to unpack the role played by *karakuri ningyō* and their relation to the uncanny.

Japan has a long history of mechanical dolls, stretching back as far as the seventh century, when a doll that could indicate directions by means of an internal compass was presented to Empress Saimei (r. 655–61) in the year 658 by the Buddhist priest Chiyu.[69] Perhaps the most famous ancient Japanese mechanical doll is one that was developed during the ninth century by Prince Kaya (794–871) in response to a terrible drought that was choking the rice fields throughout the land. Prince Kaya, who, in addition to being the son of Emperor Kanmu (r. 781–806), was known as a skilled craftsman, devised a mechanical doll to aid a local temple that was particularly affected by the drought, as recounted in the *Konjaku monogatari* (Tales of times now past) from the twelfth century:

> He made a doll in the shape of a boy about four feet tall, holding a jug upraised in both hands. It was devised so that when it was filled with water the water would instantly pour down over the boy's face. Those who saw it brought ladles full of water so that they could fill the jug and watch the boy's face get wet. It was a great curiosity; the news spread, and soon all the capital was there, pouring water and loudly enjoying the fun. And all the while, naturally, the water was collecting in the fields. When the fields were fully inundated, the Prince took the doll and hid it. And when the water dried up, he took the doll out and set it up again. Just as before, people gathered to pour water, and the fields were inundated. In this manner the fields were kept safe from harm.[70]

Like many other dolls that were later developed in medieval and early modern Japan, Prince Kaya's mechanical doll, which is known as the *mizuogi ningyō*, or "water-splashing doll," combined practical technology with entertainment. Another famous early example dates back to the Muromachi period (1392–1573), when Gosukōin (1372–1456), the father of Emperor Gohanazono (r. 1428–64), describes in his diary an "elaborate mechanical doll tableaux reenacting famous battle scenes such as Yoshitsune's perilous cliff descent at the Battle of Ichinotani or the great hunt on Mount Fuji of the Soga Brothers."[71] Insofar as early Japanese

mechanical dolls seem to have been inspired by even earlier Chinese examples, the etymology of the term *karakuri ningyō* is said to reflect this genealogy with the "*kara*" of *karakuri* phonetically connoting its Chinese origin or derivation.[72]

The development of *karakuri ningyō* and their popularity peaked during the Edo period under the guidance of Takeda Ōmi (d. 1727), who incorporated and adapted clockwork technology, which had been recently imported from the West, and established the first mechanical puppet theater in the Dōtombori entertainment district of Osaka to compete with kabuki and *ningyō jōruri*, Japan's traditional puppet theater. Takeda specialized in *karakuri ningyō* based on technology involving wooden cogwheel and string mechanisms; weight-driven mechanisms based on the displacement of sand, water, or mercury; and a new spring mechanism (*zenmai*), which he had developed out of whalebone. A wide range of *karakuri ningyō* were created for Takeda's theater, including exhibits and performances that illustrated "the development of a fetus within the womb," "a neck-wrestling figure in which members of the audience were invited to match their strength against a life-sized mechanical doll, and calligraphy demonstrations based on the characters for 'plum,' 'cherry,' and 'pine,' in which a mechanical doll simultaneously executed these figures using a brush in both hands and his mouth."[73] In an effort to compete with kabuki and traditional puppet theater, the *karakuri ningyō* displays became even more complex and spectacular; however, this was not enough to prevent Takeda's *karakuri ningyō* theater from being eclipsed by the more popular kabuki and *ningyō jōruri*.

What sharply distinguishes automata such as *karakuri ningyō* from the dolls employed in the Japanese puppet theater is the former's mechanism of self-animation, their ability to move (or at least appear to move) by themselves. Although especially complex *karakuri* tableaux sometimes required the employment of operators, the *karakuri* performances were more mechanically driven than puppeteer controlled. In contrast, the dolls of traditional Japanese puppet theater were animated, but they were not automated. It is this automation—the very mechanism denoted by the word "*karakuri*"—that also distinguishes automata from puppets in *Ghost in the Shell 2*.

In the context of *Ghost in the Shell 2*, we see three types of *karakuri ningyō* in action:

1. Enormous *dashi karakuri* (parade-float mechanical dolls) created for processional floats used in festival parades, such as the giant automated elephant and other large-scale creatures appearing in

the religious festival witnessed by Batou and Togusa on their way to investigating Locus Solus, which were traditionally intended not only to entertain the gods but also to serve as vessels into which the gods were thought to descend
2. Much smaller *zashiki karakuri* (parlor mechanical dolls) produced for home use and enjoyment, such as the tea-serving *karakuri ningyō* encountered in Kim's mansion (see Figure 1.1)
3. Life-sized *butai karakuri* (stage mechanical dolls) designed for public performance, such as in Takeda Ōmi's theater (see Figure 1.2)

The figure of Kim, the professional hacker working for Locus Solus, as well as the automaton-like doubles of Togusa and Batou that are hallucinated by Togusa in Kim's neobaroque mansion, are reminiscent of the sort of life-sized mechanical dolls used in *butai karakuri*. Although all three types of *karakuri ningyō* are relevant to the film's diegetic world, it is the last type that becomes the focus of Oshii's engagements with the uncanny in *Ghost in the Shell 2*.

The Uncanny Mansion

In Batou and Togusa's encounter with Kim in his surrealistic mansion, it is Kim's mechanical movements and gestures that make him more akin to a *karakuri ningyō* than to an android or cyborg. This is not to say that androids and cyborgs are not also capable of inhuman movements lacking smooth transitions, but in the case of Kim, he is represented in a way that

Figure 1.1 A tea-serving *karakuri ningyō* encountered in Kim's mansion (*Ghost in the Shell 2: Innocence*).

Figure 1.2 Kim's mechanical body, which is reminiscent of the life-sized *butai karakuri* designed for Takeda Ōmi's theater (*Ghost in the Shell 2: Innocence*).

repeatedly evokes the automaton-like appearance and cogwheel-driven mechanisms of other *karakuri ningyō*, such as the tea-serving doll (*chahakobi ningyō*) that also appears in Kim's mansion. In her study of Edo-period aesthetics and culture, Morishita Misako has suggested that it is the strangeness of *karakuri* movements that underscores their liminality:

> The *karakuri* puppet appears on the border where man and puppet make precarious contact. The figure of the [*karakuri*] puppet resembles the human figure. However, the moment that it starts to move, it reveals a decisive divergence from human movement; it makes rapid shifts difficult to capture with the naked eye, while simultaneously exposing its clumsiness. Each moment that its naive movement is inscribed, the expected modes of everyday performance and standard narrative patterns are dislocated. This disillusion is compensated for by our attraction to the movements and changes which that strange body, distinct from the human body, enacts to a greater or lesser degree than normal.[74]

It is at this intersection between attraction and repulsion, between simulation of the human and its estrangement, between the organic and the mechanical, that Togusa and Batou encounter the uncanny in all its multifariousness.

In the scenes that unfold at Kim's mansion, the uncanny is evoked in four ways. First, the uncanny enters Kim's mansion in the form of déjà vu. Each feedback loop in which Batou and Togusa find themselves caught, as they are compelled to repeat their tour of Kim's mansion again and again and again, produces the repetition associated with déjà vu. Such repetition has the effect of evoking uncertainty as to which realities are truly real

and which are simulacra—uncertainty that is further heightened by the numerous trompe l'oeil paintings and holographs found throughout Kim's mansion. It is only with the help of Batou's guardian angel, Kusanagi, who functions on more than one occasion as a sort of deus ex machina, that Batou is finally able to discern the illusoriness of the déjà vu experience.

The second way the uncanny becomes an issue is in terms of the blurring of boundaries between life and death evoked by the confusion as to whether Kim is dead or alive. Here it is worth noting that the character design for Kim is said to have been inspired by the work of artist Yotsuya Simon, particularly his life-sized, ball-jointed dolls.[75] Since Yotsuya's dolls frequently blur the boundary between the living and the dead, the human and the mechanical, it is easy to see why his work lent itself to Oshii's vision in *Ghost in the Shell 2*. Indeed, Oshii was so taken by Yotsuya's work and its resemblance to the dolls of Hans Bellmer, who is also one of Yotsuya's principal inspirations, that he collaborated with Yotsuya on an exhibition, supervised by Oshii, titled "Dolls of Innocence," which was held at the Museum of Contemporary Art in Tokyo from February 7 through March 21, 2004. The exhibit included many disturbing works of doll-related art by artists including Yotsuya, Bellmer, Akiyama Mahoko, Igeta Hiroko, Amano Katan, and Miura Etsuko.[76]

Returning to the scene under consideration, not only Batou's reflections on the myth of the Golem, as prompted by Kusanagi's holographic messages concerning the Hebrew words for "truth" (*aemaeth*) and "death" (*maeth*), but also Kim's own philosophical meditations are relevant here. "The doubt," asserts Kim in a guise that makes him look like an automaton version of Togusa, "is whether a creature that certainly appears to be alive, really is." Kim continues, "Alternatively, the doubt that a lifeless object might actually live. That's why dolls haunt us. They are modeled on humans. They are, in fact, nothing but human. They make us face the terror of being reduced to simple mechanisms and matter. In other words, the fear that, fundamentally, all humans belong to the void." Kim's mode of embodiment provokes such boundary confusion precisely insofar as he is an automaton, which brings us to the third form of the uncanny. Although Freud suggests that the uncanny may be summoned when "what is human is perceived as merely mechanical," such as in the case of epileptic fits, sleepwalking, and other trancelike states, the opposite is also true: automata are also potentially uncanny because "what is perceived as human is in fact mechanical."[77] In his dialogue with Batou, Kim (still wearing the guise of the automaton-like Togusa) offers an explanation for why this confusion between human and machine especially resonates with this

era: "In this age, the twin technologies of robotics and electronic neurology resurrected the eighteenth-century theory of man as machine. And now that computers have enabled externalized memory, humans have pursued self-mechanization aggressively, to expand the limits of their own functions. Determined to leave behind Darwinian natural selection, this human determination to beat evolutionary odds also reveals the very quest for perfection that gave it birth. The mirage of life equipped with perfect hardware engendered this nightmare." After Kim offers this explanation, Batou's head turns toward Togusa with a clicking sound and opens up to reveal the sort of mechanisms that were first shown in the opening scene when a gynoid attempted to commit suicide in an alleyway. In Kim's mansion, after Togusa reacts with horror to the mechanization of Batou, the feedback loop begins again with another scene of déjà vu. This brings us to the fourth form of the uncanny: the doppelgänger, or double.

In the last instance of déjà vu, the structure of repetition enters into the scene of the uncanny in the form of the doppelgänger as Togusa has nightmarish visions that both he himself and Batou have automata doubles, which blur the boundaries between self and other. After the appearance of the automaton double of Togusa, whose voice was that of Kim, in the next sequence the automaton double of Batou is substituted for Kim. After these multiple scenes of doubling, Togusa, hallucinating that he has been injured by an attack on Kim's mansion launched by the offshore factory ship of Locus Solus, witnesses his chest bursting open to reveal that he himself is an automaton with a metal rib cage. As Michael Bennet and Nicholas Royle have argued, "The double is paradoxically both a promise of immortality (look, there's my double, I can be reproduced, I can live forever) and a harbinger of death (look, there I am, no longer me here, but there: I am about to die, or else I must be dead already)."[78] Although Kim sought perfection and immortality by transferring his consciousness to an automaton-like shell, the proliferation of doubles—Kim's double, Togusa's double, and Batou's double—ends up undermining the very logic of identity.[79]

Each instance of the uncanny that unfolds at Kim's mansion (the repetition of déjà vu, the blurring of boundaries between life and death, animate and inanimate, and the doppelgänger) evokes a feeling of unhomeliness in the home, a defamiliarization of the everyday that destabilizes our assumptions about what it means to be human in a posthuman world and how we are to relate to all the *ningyō* (dolls, puppets, automata, and androids) that inhabit the world with us. It is to the last type of uncanny *ningyō*—referred to as gynoids—and their relationship to the work of Hans Bellmer that I now turn.

The Dolls of Hans Bellmer

Oshii has made it very clear in his production notes to *Ghost in the Shell 2* and related interviews that his conception of the gynoid owes much to the work of Hans Bellmer, whose female dolls are referenced both visually and narratively throughout the film. According to the production notes, Oshii "has wanted to explore the theme of dolls" for thirty years, since he first "fell in love" as a student "with photographs of Hans Bellmer's ball-jointed doll."[80] "Each body part of Bellmer's ball-jointed doll is crafted so beautifully," comments Oshii, "you never get bored looking at it."[81] During preproduction research, Oshii made a special trip, which is said to have had "a profound impact on his vision for *Ghost in the Shell 2*," to the International Center of Photography in New York to study a special exhibition of Bellmer's doll photos.[82] This was followed by a trip to Berlin, where Oshii was introduced to the dolls that inspired Bellmer's creation. After Berlin, Oshii went to La Specola in Florence, Italy, where he viewed the museum's famous collection of wax anatomical models that were modeled after actual corpses and that have sometimes been compared to Bellmer's work.[83] Each of these research trips confirmed for Oshii the importance of Bellmer for his conception and visualization of the gynoids in *Ghost in the Shell 2*. Bellmer's influence can be seen throughout the film, from the design of the gynoids themselves to recreations of specific poses from Bellmer's art. In the remainder of Part I, I would like to explore the history and significance of Bellmer's work, review some of the relevant scenes from *Ghost in the Shell 2* in which Bellmer's work is clearly cited, and then discuss how Oshii's gynoids reiterate issues raised by Bellmer in relation to the question of machinic desire.

That it has taken me this long to get to one of the focal points of my analysis, whose name is singled out in the subtitle to Part I, perhaps has as much to do with a desire to avoid dealing with the work of Hans Bellmer as it does with a need to lay the necessary groundwork so that we will be in a better position to make sense of Bellmer's art in the context of its citation in *Ghost in the Shell 2*. What is perhaps most unsettling about Oshii Mamoru's gynoids is that they are clearly inspired by the scandalous dolls of Hans Bellmer, which are both attractive and repulsive, erotic and grotesque. Long after the work of most Dadaists and surrealists has lost its initial shock value—who could still be appalled by turning a urinal into a work of art in the age of *Piss Christ*?[84]—Bellmer's photographs of dolls from the 1930s continue to disturb viewers. "If the origin of my work is scandalous," remarked Bellmer, "it is because, for me, the world is a scandal."[85] From the mouths of some artists, such claims might be taken with a

grain of salt and interpreted as a form of sensationalized self-promotion, but with respect to Bellmer's work, this is probably an understatement. Bellmer's work *is* scandalous and its scandalous quality cannot be understood without situating it within the context of the scandalous world from which it emerged. At the heart of *Ghost in the Shell 2*, there is also a scandal, but we will need to look through the lens provided by Bellmer's art in order to see it.

Given the nature of Bellmer's work with its peculiar mixture of eroticism and the grotesque, it is perhaps not surprising that the artist has been endlessly psychoanalyzed by art historians seeking a psychosexual explanation for the disturbing quality of his work. But what I find particularly unsatisfying in many such attempts is the tendentious way in which such explanations typically reduce the complexity and ambiguity of Bellmer's art to its psychosexual origins. Speculating about Bellmer's work in terms of his obsession with his attractive teenage cousin, Ursula, his rebellion against his dictatorial father, or a host of other neuroses, perversions, and infantilisms achieves less in explication than it does in containment. Indeed, all too often such interpretive maneuvers function as strategies to contain and domesticate the power of Bellmer's art to disturb us and, in the process, to destabilize our conception of the limits of the human. In order to avoid such domestication, let us consider more closely the dolls of Hans Bellmer and his reflections on them.

Hans Bellmer constructed his first life-sized female doll (which he dubbed *Die Puppe*—German for "doll" or "puppet") in 1933 out of papier-mâché and plaster covering a framework made of wood and metal. Bellmer stated his goals for the doll as follows: "I am going to construct an artificial girl with anatomical possibilities which are capable of re-creating the heights of passion, even of inventing new desires."[86] This doll was the subject of Bellmer's first book of photographs also titled *The Doll* (*Die Puppe*), published privately in Germany in 1934, featuring ten black-and-white photographs of the doll situated in a variety of tableaux.[87] These photos, along with eight additional, were then published at the end of the year in the sixth issue of the famous surrealist magazine *Minotaure* with the following header: "Doll. Hans Bellmer, variations on the assembling of an articulated female minor."[88] Bellmer's biographers have speculated that his devotion to the creation of an "artificial girl" was prompted by his viewing of Max Reinhardt's production of Jacques Offenbach's final opera *Tales of Hoffman: The Sandman* in the autumn of 1932, which featured a retelling of E. T. A. Hoffman's Pygmalionesque story of a narcissistic student named Nathaniel and his obsession with a mechanical doll called Olympia.[89]

Whether Bellmer's conceptual work on the first doll preceded or succeeded his viewing of Offenbach's opera is open to debate,[90] but it is clear that Bellmer's doll photographs resonate with issues in "The Sandman"-inspired opera, including engagements with the figure of the automaton, the doppelgänger, and the fetishization of the female body.

Perhaps borne out of his frustration with the limited range of movement of the first doll, Bellmer created a second female doll (which he called *La Poupée*—French for "doll" or "puppet"), fabricated in 1935 out of glue and tissue paper painted to resemble flesh over a structure of "wooden ball joints and appendages pivoting around a central ball joint."[91] "Inspired by a pair of sixteenth-century articulated wooden dolls in the Kaiser Friedrich Museum," according to specialist Sue Taylor, Bellmer "produced a spherical belly for the new doll, around which could be arranged a number of parts in various combinations: four legs, four round stylized breasts, an upper torso, three pelvises, a pair of arms, and the recycled head and hand from the first doll."[92] This second doll was the subject of over one hundred photographs taken between 1935 and 1938, many of them hand-colored with monochromatic yellow, green, blue, or pink, or combinations of fluorescent colors that anticipated the Psychedelic Art movement of the 1960s by twenty-five years.

The gender politics associated with Bellmer's dolls are complicated to say the least. Therese Lichtenstein and others have critiqued Bellmer's dolls for "linking his fantasies of adolescent girls as passive victim and powerful seductress with the themes of nostalgia and eroticism, and t[ying] his work to the French Surrealists' ambivalent desire for and revulsion at the female body."[93] Although stopping short of confirming Lichtenstein's conclusion about "revulsion at the female body," in his essay "Memories of the Doll Theme," which is a revised version of the foreword to his book *The Doll*, Bellmer does admit to the importance of masculine fantasy in the creation of the doll: "And didn't the doll, which lived solely through the thoughts projected into it, and which despite its unlimited pliancy could be maddeningly stand-offish, didn't the very creation of its dollishness contain the desire and intensity sought in it by the imagination?"[94] And yet, such gender politics are also complicated by the fact that Bellmer views the dolls as exposing the foundations of such embodied fantasies and bringing to light the "anatomy of the physical unconscious" (*anatomie de l'inconscient physique*), as he referred to it.[95] To illustrate the mechanisms of interiority and their link to exteriority, Bellmer conceived of a doll with a rotating panorama mechanism installed in its stomach, an illustration of which was included in the publication of his book *The Doll*.

By pressing the button located in the doll's left breast,[96] the panorama was set into motion and one could gaze upon a jumble of "small objects, different materials and colour pictures in bad taste" that were supposed to display "a girl's thoughts and dreams"[97] but that more likely displayed what the artist projected onto them.

In his study *Bellmer, Le Principe De Perversion*, Pierre Dourthe suggests a disturbing link between Bellmer's practice of rearranging body parts and the following passage from E. T. A. Hoffman's short story "The Hypnotist" (1814): "On another occasion, did not a demonic anatomist amuse himself taking me apart like an articulated doll and torturing my limbs with all sorts of diabolical experiments: trying to see, for example, the effect produced by setting one of my feet in the middle of my back, or making my right arm an extension of my left leg?"[98] Given his appreciation for the work of E. T. A. Hoffmann, it would not be surprising if Bellmer had been familiar with this story, perhaps even inspired by it. In any case, Bellmer's practice of reconfiguring the doll in grotesque ways, including doubling and multiplying sections of the doll to create what he acknowledged were "monstrous" additions—"a second pair of legs and arms, another torso with four breasts,"[99] and so forth—pushed the limits of what might be construed as human through a grammar of infinite combination and recombination. "I am talking about the possibilities of decomposing and then recomposing the body and its limbs 'against nature,'" wrote Bellmer in his unpublished notes from January 1946, "to give them a place and coherence that is as unexpected as it is believable. I want it to be so surprising that the reality will overtake, as it were, the imaginable."[100] What Bellmer was attempting to do with his doll experiments was to construct corporeal anagrams: "The body resembles a sentence," wrote Bellmer, "that seems to invite us to dismantle it into its component letters, so that its true meanings may be revealed ever anew through an endless stream of anagrams."[101]

Although it is tempting to critique Bellmer's anagrammatic deformation of the female body as sadistic and misogynistic, numerous Bellmer scholars have pointed out that "neither of the Dolls was ever conceived of as a truly humanoid representation."[102] Sigrid Schade, for example, argues that Bellmer's doll photos "neither represent a particular or an ideal woman, nor reflect perverse wishes of a pathological nature. Images with an erotic effect can be, but do not have to be, based on depictions of real people. . . . Bellmer's pictures do not involve the 'depersonalization' of woman because this is not the level involved in his work."[103] Also complicating the gender politics of Bellmer's photos is the fact that the gender marking of the dolls is often unstable—displaying an almost hermaphroditic mixing of sexes,

such as in the famous photo of male and female limbs joined at the waist. This androgynous mixing of the sexes is even more pronounced in his drawings, many of which "fuse male and female forms to create ambiguous, fluid organisms."[104] As far as Bellmer was concerned, "masculine and feminine images are interchangeable."[105] In his essay "A Brief Anatomy of the Physical Unconscious, or The Anatomy of the Image," Bellmer argues that the sexes tend "towards their amalgam, the hermaphrodite."[106] In short, it would be a mistake to confuse Bellmer's pubescent dolls with real adolescent girls. Indeed, I would suggest that Bellmer's dolls have more in common with automata than they do with biological women.

Although Bellmer's dolls are not functioning automata, their quasi-mechanical internal workings, which are frequently exposed, seem designed to underscore their resemblance to automata.[107] As art historians Therese Lichtenstein and Sidra Stich have remarked, insofar as "the entire body could be assembled and reassembled like a machine,"[108] Bellmer's dolls seem to embody the surrealist "nightmare of mechanization"[109] that haunted many artists in the wake of World War I.[110] And like the automaton Olympia in E. T. A. Hoffman's short story, the dolls evoke the uncanny in their blurring of boundaries between the living and the dead, the animate and the inanimate. Whether in relation to the panorama mechanism, which Bellmer conceived for the first doll, or the mechanical mobility of the ball joint utilized in the second doll, which Bellmer considered "a perfect cog around which endless bodily contortions could pivot and out of which he devised a vast operating system,"[111] the uncanny automaton is central to an understanding of Bellmer's work. As Wieland Schmied has pointed out in an essay titled "The Engineer of Eros," during the course of its development and redesign, Bellmer's doll "became increasingly mechanical, artificial and sophisticated."[112] Perhaps Bellmer's most automaton-like variation of the doll is one that most resembles the figure of the praying mantis that so fascinated his fellow surrealists, a sculpture titled *The Machine-Gunneress in a State of Grace* (*Mitrailleuse en état de grâce*, 1937, remade 1961) that was included in the International Surrealist Exhibition held in Tokyo, Japan, in 1937. In its mechanical abstraction, *The Machine-Gunneress* approaches Roger Caillois's description of the praying mantis, which he likens to "an artificial, mechanical, inanimate, and unconscious machine-woman," the automaton as femme fatale.[113]

However, what is perhaps most disturbing about Bellmer's dolls is not simply their erotic grotesque dismemberment and reassemblage or resemblance to automata, but rather that such monstrous machinic hybridities are set against the most banal of everyday settings and tableaux, conveying

"gruesome scenes of 'everyday life,'"[114] as Bellmer puts it, in which "'domestic' space is transformed into a space for debauchery."[115] We see dolls in various poses—usually sitting, standing, reclining, or descending—in the kitchen, bedroom, stairway, garden, or forest, juxtaposed with everyday furniture, such as a chair, table, or bed, and everyday objects, such as shoes, jugs, rope, tools, or a washbasin.[116] Some critics have suggested that given "the arbitrary, violently erotic positions of the disjointed body, the layout of limbs and objects against constantly changing backdrops, and the raw artificial lighting,"[117] Bellmer's photographs conjure up a unique mix of death and banality frequently evoked by crime scene photos. For Bellmer, however, such "*mises en scène* in familiar 'environments'" were the "necessary means of merging objective and subjective realities,"[118] as he perceived them, and of developing an artistic practice that mapped out the landscape of the "physical unconscious," the boundaries between the physical and psychological worlds. All of the concepts that he employs to describe his work—such as "anatomy of the image" (*anatomie de l'image*), "anatomy of the physical unconscious" (*anatomie de l'inconscient physique*), and "anatomy of love" (*anatomie de l'amour*)[119]—emphasize the links between interiority and exteriority, between psychology and physiology, that are part and parcel of Bellmer's ongoing attempts to make visible the "desire apparatus" of our unconscious with its mechanisms both real and virtual.[120] As Bellmer scholar Agnès de la Beaumelle has suggested, "As a visionary of physical bodily mechanisms, Bellmer sought to trace the unconscious transfers and displacements of sensations and underground forces at work in the body. . . . By following the subliminal movements of desire, the slippages of a lusting imagination, the superimpositions and conflations of sensations, his drawings gave life to the ambiguities that constitute our physical and sexual identities."[121]

Of particular interest to an interpretation of Bellmer's art are the equivalences he suggests between different body parts, such as foot and hand, leg and arm, breasts and buttocks, and vagina and armpit. Here the notion of the "part-object," first introduced by psychoanalyst Melanie Klein, is particularly helpful: "part-objects" are defined as a "type of object towards which the component instincts are directed without this implying that a person as a whole is taken as love-object. In the main part-objects are parts of the body, real or phantasied (breast, faeces, penis), and their symbolic equivalents."[122] Bellmer discusses the importance of object relationships in his essay "A Brief Anatomy of the Physical Unconscious, or The Anatomy of the Image," where he argues that when "the sex organ projects itself on to the armpit, the leg . . . on to the arm, the foot on to the hand, and

the toes on to the fingers," the result is "a curious mixture of the real and the virtual, the permissible and the forbidden, in which one of the two components gains in relevance what the other forfeits," creating "an ambiguous amalgam" whose "virtual and real arousal intermingl[e] by means of their superimposition."[123]

However, what sharply distinguishes Bellmer's engagement from Klein's is that for Bellmer, the goal was not "to make part objects into the agents of intersubjective relations," as it was for Kleinian psychoanalysis, nor was it to show how the infant "splits the breast into a good and bad object, ingesting one and rejecting the other."[124] For Bellmer, the body is "a series of shifting, interchangeable erogenous zones,"[125] across which transferences and equivalences make connections that are not simply reducible to representations of one's parents in the Oedipal family drama but are more akin to the "desiring-machines" introduced by philosophers Gilles Deleuze and Félix Guattari in *Anti-Oedipus*. Deleuze and Guattari argue that, for an infant, the part-object of the breast, for example, does not represent anything for the baby: "It exists, rather, as a part of a desiring-machine connected to the baby's mouth, and is experienced as an object providing a nonpersonal flow of milk."[126] In other words, "the breast is a machine that produces milk"—a production machine, if you will—while the baby's mouth is "a machine coupled to it"—a consumption machine, as it were. The important point for Deleuze and Guattari is that everywhere there are machines connecting with other machines, and that the function of a specific part-object can change depending upon its connections with other machines: "machines driving other machines, machines being driven by other machines, with all the necessary couplings and connections. An organ-machine is plugged into an energy-source-machine: the one produces a flow that the other interrupts."[127] Similarly, for Bellmer, the function and significance of a given part-object depends on its connection to other part-objects, the coupling between part-objects constituting a circuit of relations that gives rise to a desiring-machine. Moreover, for Bellmer, there is an axis of reversibility "between real and virtual centres of arousal," making it possible for such transferences to occur in the opposite direction.[128] "The essential point taught us by the monstrous dictionary of analogies and antagonisms that is the dictionary of the image," writes Bellmer, "is that every detail, every leg, [for example] is only perceived and stored in the memory (and thus made available for use), in short, is only *real* if desire does not insist on regarding it as just a leg."[129] In this sense, by exploring all the possible connections and recombinations between bodily part-objects involved in turning the body into an anagram, Bellmer's

project is to make visible "the relationships between the 'anatomy of the image' and the images of our anatomy"[130] in all their complexity.

The crime "against nature" that Bellmer enthusiastically choreographed in the erotic scenographies of his doll photos was perpetrated not against actual human beings but rather against the fascistic conception of beauty and the perfect body proffered by Nazi ideologues. After Hitler came to power on January 30, 1933, Bellmer was determined "to avoid any work that might in any way be of service to the state."[131] Bellmer writes that what he was doing was "a gesture of rejection of German fascism and the prospect of war: cessation of all socially useful activity."[132] Since his father was a member of the recently victorious Nazi party, Bellmer's art also marked a dramatic break with his father, who never approved of his son's work. As Michael Semff and Anthony Spira have suggested, Bellmer employed the doll "as a powerful tool for social critique, and a violent attack on stereotypes and the promotion of an idealised Aryan race."[133] By photographing his dolls in a way that underscored their grotesque and uncanny aspects, Bellmer offered acts of artistic resistance against the Nazi regime and its cult of the perfect body. In her study *Behind Closed Doors: The Art of Hans Bellmer*, Therese Lichtenstein has argued that

> Bellmer's images symbolically intervene in both the glorification of youth and stereotypical construction of female sexuality in Nazi Germany. By inverting Nazi representations of healthy, blossoming youth, Bellmer used the tradition of adolescence against the ruling class. . . . In the representational context of Nazi Germany, which enforced the most stringent taboos against unhealthy, disabled, or nonprocreative bodies, Bellmer's images of adolescence as deathly and ruined became symbols . . . of a transgression of the youth cult. But even more than that, Bellmer's conception of his dolls deliberately violated the conventional image of women assigned by the Nazis. For the Nazis, procreation was the basis of femininity. Childbearing signified one's dedication to the family and assured the continuation of the Aryan race. Bellmer's corpselike, fragmented, hysterical dolls represented the female body in revolt against such restrictions and against the normative standards propagated by the Third Reich. The ambiguous and shocking bodily construction of the dolls opposes the complacent illusion of anatomical order and wholeness in Nazi figurative art. . . . By shattering the body's wholeness, Bellmer's images subvert the corporeal logic underlying Nazi representations of moral purity. Frozen and immobilized, as though caught in a sudden disaster, the dolls register the traumatic return of the repressed.[134]

Although Bellmer's art was not singled out for the Nazi-sponsored *Degenerate Art* (*Entartete Kunst*) exhibit, which opened in Munich in 1937 before traveling to Berlin in 1938,[135] nevertheless, Bellmer was well aware that his style of art and its subject matter were highly transgressive and that he was becoming "increasingly isolated"[136] in the political

atmosphere of Nazi Germany. Therefore, in March of 1938, Bellmer fled Berlin for Paris with a host of other German artists and intellectuals.

Bellmer/Oshii

Bellmer's influence can be seen throughout *Ghost in the Shell 2*. Every scene in which a ball-jointed gynoid appears may be construed as a reference to and remediation of Bellmer's doll photos. One of the strongest citations is the manufacturing scene in the opening credits, which shows us the assembly and doubling of the gynoid's ball-jointed body (see Figures 1.3 and 1.4). As I noted in my discussion of Bellmer's doll photos, when manipulating and deforming the integrity of the body, Bellmer had many tools at his disposal, including anatomical division, subtraction, addition, and multiplication.[137] By utilizing two of those techniques, division and multiplication, the opening credits of *Ghost in the Shell 2* offer a poignant remediation of Bellmer's corporeal anagrams in the service of posthuman capitalism and its fetishistic obsession with what Walter Benjamin has described as "the sex appeal of the inorganic."[138] However, it is also noteworthy that Oshii omits from his remediation the interchangeability of the sexes that appears in some of Bellmer's monstrous mutations. In *Ghost in the Shell 2*, the gynoids are unmistakably gender-marked feminine.

Perhaps the most significant scene for understanding Oshii's remediation of Bellmer occurs at the film's outset when Batou comes face to face in a dark alley with a gynoid. The gynoid repeatedly asks for help before tearing open her chest with her own hands in an apparent suicide attempt

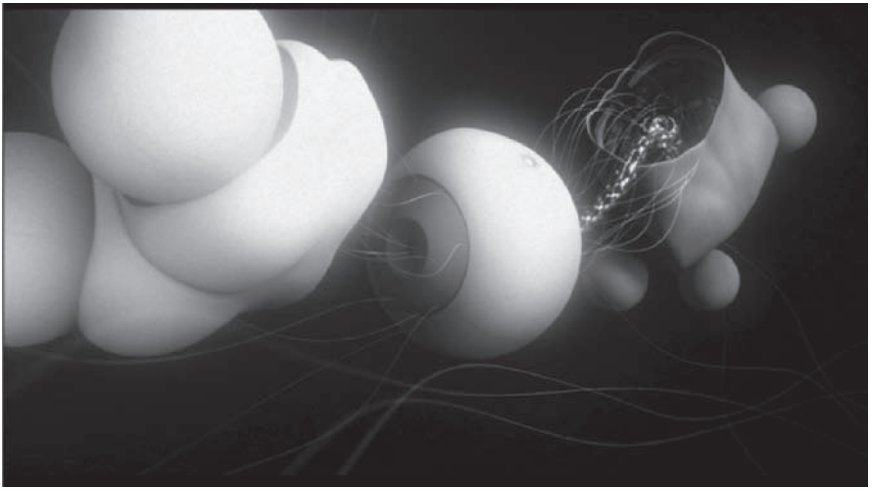

Figure 1.3 The assembly of a ball-jointed gynoid (*Ghost in the Shell 2: Innocence*).

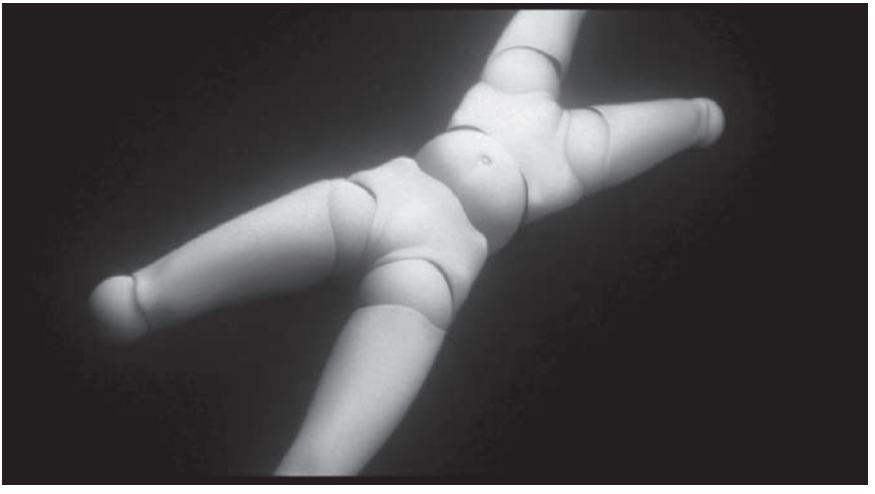

Figure 1.4 The doubling of the gynoid's body (*Ghost in the Shell 2: Innocence*).

and is then dispatched with multiple shotgun blasts by Batou. As Oshii confirms in his production notes,[139] this scene of self-mutilation is a direct citation of an illustration by Bellmer titled *Rose ouverte la nuit* (Rose open at night)[140] from 1934, produced contemporaneously with his doll photos. In addition to being a photographer, it is worth noting that Bellmer created numerous drawings, paintings, etchings, and sculptures "in an obsessive quest for a 'monstrous dictionary,'" as he called it, "dedicated to the ambivalence of the body."[141] Rather than pigeonholing Bellmer as a surrealist photographer, it is probably more apt, as Michael Semff and Anthony Spira have suggested, to describe him as "an anatomist, an engineer, even a geographer or cartographer of the body."[142] Executed in pencil and white gouache on paper, *Rose ouverte la nuit* is considered by many Bellmer scholars to be "the most overtly transgressive" of all the monochrome drawings from this period, since the girl exposes her "internal organs and . . . ushers in the theme of 'undressing'—of interiority."[143] A number of Bellmer's doll photos reveal a similar interest in the disclosure of the doll's interior spaces and mechanisms. As I have already suggested in my discussion of his "anatomy of the physical unconscious," Bellmer was intensely interested in the reversibility of inside and outside, in turning the inside out and the outside in.[144]

Standing in sharp contrast to the grotesque scene depicted in *Rose ouverte la nuit* is the delicate ornamental pattern appearing to the left of the girl, "undulating like a lacy curtain."[145] In her study *Hans Bellmer: The Anatomy of Anxiety*, Sue Taylor has interpreted this pattern as "suggesting carrion odors emanating from the girl's entrails,"[146] but this completely

ignores the function of such patterns in Bellmer's other work. As Agnès de la Beaumelle has pointed out, Bellmer's "graphic work became cartographic: mapping out the trajectories of desire as energy lines, virtual dotted lines, contours, axes of circulation, crossroads of tensions, lines of escape or coagulation to express a kind of 'body landscape'. . . . These quasi-abstract 'dynamogrammes' translated a capricious, pulsating flux with a succession of mnemic, centripetal or centrifugal waves. . . . He traced a line, not of movement but *in movement*, with its rhythm and plasticity stretched through the space of the paper with an intensified Dionysian energy."[147] The interlaced ornamental design in *Rose ouverte la nuit* shows us such pulsating lines of energy, tension, and desire as emitted from the girl's body in a violent act of self-investigation and disclosure in which curiously no sign of pain is registered on the girl's face. In a later illustration from 1945, titled *Rose ou verte la nuit* (Pink or green at night), which puns on the title of the earlier work, Bellmer depicts a similar scene but represents the flesh of the girl with bricks, thereby recalling the brick buildings in which he was interned in France along with fellow surrealist Max Ernst (1891–1976) during the war, as well as the spaces "that imprisoned his doll in earlier drawings."[148] Of course, it may also be a reference to Nazi concentration camps, the extent of which was starting to become known by the time Bellmer created this illustration.

In comparing Oshii's gynoid with Bellmer's self-rending girl, it is noteworthy that the gynoid also wears a similarly impassive look on her face even as she tears open the skin on her torso and reveals the rib cage and machinic innards beneath (see Figure 1.5)—an expression that the gynoid also shares with the wax anatomical figures modeled after actual corpses that Oshii studied during preproduction at La Specola in Italy, which, as I noted earlier, have sometimes been compared to Bellmer's work.[149] The brick wall behind the gynoid, whose distorted lines are the result of the gynoid's impact against the wall during her combat with Batou, appear to undulate in the low-key lighting much like the lines of energy, tension, and desire emitted from the girl's body in *Rose ouverte la nuit*. However, whereas Bellmer's self-rending girl peers into the interior spaces of her abdomen, Oshii's gynoid looks directly at the camera at the precise moment of self-mutilation, appealing not only to Batou for help but also to the audience. In addition to sharing Bellmer's interest in the reversal of inside and outside—the exteriorization of the inside and the interiorization of the outside—Oshii may also have borrowed the disturbing low-key lighting of his remediation from Bellmer, who frequently uses the lighting techniques of German Expressionist cinema to cast the doll photos "in

Figure 1.5 A gynoid attempting to commit suicide (*Ghost in the Shell 2: Innocence*).

a strange atmosphere (like a Fritz Lang or Georg Pabst film)."[150] More important, just as Bellmer's dolls (many of which reveal a similar interest in and disclosure of the body's interior spaces and mechanisms) function as an artistic protest against the Nazi regime's cult of youth and the perfect body, so too the scene of gynoid self-mutilation at the outset of *Ghost in the Shell 2* seems to function as an act of resistance against the ideal of beauty to which the kidnapped adolescent girls are being held captive. The gynoids engage in acts of destruction and self-mutilation in order to draw attention to the plight and exploitation of adolescent girls who have been ghost dubbed to make the gynoids appear more desirable.

The key to understanding the scene of self-mutilation and others that follow is a detail that appears in the crime scene where Jack Volkerson, the shipping inspector for Locus Solus, was gruesomely murdered. Afterward, during the course of investigation, Batou comes across a copy of Bellmer's book *The Doll* (see Figure 1.6) and the holographic photo of an adolescent girl. What we are shown in this scene is the front cover of a Japanese edition of *The Doll*, first published in 1995, featuring one of the hand-colored photos of Bellmer's ball-jointed doll. Although the text inside the book has been changed to Korean, the front cover is an exact reproduction of a Japanese edition that is cited in the credits to *Ghost in the Shell 2*.[151] That the camera dwells on the cover of the book long enough to make out the title and even the author's name leaves no doubt that Bellmer's work is crucial to understanding *Ghost in the Shell 2*. But it is what is inside the book that provides the most important clue to the significance of Bellmer's art to the story as a whole. As Batou looks through the

Figure 1.6 Batou holds a copy of Hans Bellmer's *The Doll* (*Ghost in the Shell 2: Innocence*).

book, he comes upon the holographic photo of the adolescent girl, which he studies at the crime scene and then again at his house. By situating the holographic image of the missing girl inside *The Doll*, Oshii provides us with a visual metaphor that anticipates Batou's eventual discovery of the kidnapped girls held captive by Locus Solus. In effect, just as Bellmer's book on artificial dolls contains the simulacrum of the captive girl inside of it, so, too, have the Locus Solus gynoids been instilled with the simulacrum of the adolescent girls held captive. In this way, the reversibility of inside and outside that so deeply interested Bellmer is reenvisioned by Oshii as a critique of the anthropomorphization of gynoids and other robots.[152] Why is it necessary to make robots in our own image? Is it possible to coexist with forms of artificial intelligence without forcing them into the human mold? These are the sorts of questions raised by *Ghost in the Shell 2* during the course of the anime's engagement with uncanny *ningyō*.

However, Oshii does not stop there. Just as important as the critique of the anthropomorphization of robots is the questioning of the human as such. As Coroner Haraway remarks, in a scene that features disassembled and suspended gynoids that strongly resemble Bellmer's photos showing dolls that are hanging in midair from a door frame or tree,[153] "The dolls that little girls mother are not surrogates for real babies. Little girls aren't so much imitating child rearing, as they are experiencing something deeply akin to child rearing. . . . Raising children is the simplest way to achieve the ancient dream of artificial life." It is not only that dolls or gynoids are modeled after humans, but also, it is that humans model themselves after the

ideals embodied by artificial dolls such as gynoids. In other words, what we consider "human" is not simply a natural phenomenon but a complex sociocultural and philosophical construction. In response to Haraway's philosophizing, Togusa exclaims in protest, "Children aren't dolls!" However, Batou acknowledges Haraway's point by remarking that "Descartes didn't differentiate man from machine, animate from inanimate. He lost his beloved five-year-old daughter and then named a doll after her, Francine." By invoking the oft-told anecdotal story that Descartes had created a mechanical doll named Francine "out of pieces of metal and clockwork"[154] and then doted upon it as if it were his own daughter, Oshii not only blurs the boundaries between human and machine, animate and inanimate, in order to evoke the uncanny, but also shows us the chiasmic intertwinement between the human and the machinic—the machinic *in* the human and the human *in* the machine.

In the penultimate shot of the film, Oshii brings to the fore the machinic nature of the human by showing Togusa's daughter happily embracing the blonde-haired-and-blue-eyed doll that she has just received as a gift from her father. This simple image of a Japanese girl hugging her Anglo-American doll resonates with new meanings in the wake of all that has preceded. At the very least, it offers not merely an imitation of human rearing but, more pointedly, a circuit of relations—that is, a machine—connecting humans and artificial figures made to look human in a relationship of coexistence that modifies each other in unforeseen ways. As Oshii has remarked in interviews, "to ask what the difference is between an adult raising a child and a girl playing with her doll" is "not an immoral question, nor does it indicate some kind of regression." Rather, it is quite simply "the only way we can understand the nature of human existence."[155]

In the end, *Ghost in the Shell 2* offers something more profound than simply another lesson in compassionate humanism, since it places into question the very foundations of humanism. When the cybernetically enhanced human subject looks into the mirror in *Ghost in the Shell 2*, what it sees is nothing more or less than what it has already projected as human. In other words, at the limits of the human, Batou discovers that human nature is itself synthetic—human "nature" is itself an artificial construct and desiring-machine.[156] As Togusa remarks to Batou in the elevator on the way to Coroner Haraway's lab, quoting Meiji-period satirist Saitō Ryokuu (1867–1904), "The mirror is not a tool of enlightenment, it is a tool of illusion [*kagami wa satori no gu ni arazu, mayoi no gu nari*]."[157] However, in the midst of demystifying such anthropocentric illusions and projections—just as it seems that, as philosopher Friedrich Nietzsche

argues, "the human intellect cannot avoid seeing itself in its own perspectives, and *only* in these," since "we cannot look around our own corner"[158]—Oshii suggests a way outside of ourselves that is not conceived metaphysically or in terms of transcendence but rather in relation to the "innocence" of our symbiotic relationships with animals.

On the Innocence of Dolls, Angels, and Becoming-Animal

Although the anime is known internationally as *Ghost in the Shell 2: Innocence*, in Japan it was originally released as simply *Inosensu*, the Japanese phoneticization of the English word "innocence." Oshii's stress on the word "innocence" begs the question as to whom or what the word applies in the film. During a discussion held at the Japanese premiere of *Ghost in the Shell 2*, Oshii offered the following reflections on the problem of innocence in relation to humans and dolls: "What would it mean for a human to 'become more than human'? One answer would be to discard the actual human body, and embrace becoming a doll. People try to adjust their natural bodies, evolved for something very different, to the modern urban environment. Instead of following that trajectory, we're better off turning into dolls, into intended artifice."[159] In a sense, this is what happens when the adolescent girls are ghost hacked in order to breathe life into the gynoids and make them more animated and desirable, metaphorically transforming the girls into dolls themselves. However, Oshii goes to great lengths to undercut the innocence of the young women. Even as the self-destructing gynoids demystify the cultural constructedness (and artificiality) of the ideal of beauty in which the figure of the adolescent girl is quite literally trapped, *Ghost in the Shell 2* underscores the complicity of young women in the construction and perpetuation of such ideals. Although the girl released by Batou and Kusanagi proclaims loudly that she "didn't want to become a doll," Kusanagi criticizes the girl's self-pity, saying that "if the dolls could speak, no doubt they'd scream, 'I didn't want to become human.'" In other words, the girl-gynoid interface evokes the loss of innocence rather than its positive assertion. If innocence is to be found here, it is not in the adolescent girls but rather in the gynoids before they have been imprinted by the girls. As suggested by science fiction writer Yamada Masaki, who wrote the prequel novelization to *Ghost in the Shell 2*, titled *Innocence: After the Long Goodbye*, "An empty doll is much more innocent than people attached to the illusion of 'human-ness.'"[160]

On another level, innocence may be suggested by Batou's ethereal relationship with his "guardian angel," Kusanagi, who exists largely in

cyberspace after merging with the Puppet Master at the end of the first movie. In his discussion with Oshii at *Ghost in the Shell 2*'s premiere, Yamada Masaki offered the following interpretation: "The reason Batou goes into enemy territory isn't really because he wants to rescue someone, nor is it really because he wants to solve the case. He just wants to meet his angel, [Kusanagi] Motoko. It doesn't really matter whether their relationship is a conventional romance or not. You see, their love might seem cold to humans, but what is between them is no longer human, and now very innocent."[161] However, what is all too often lost in discussions of the innocence of Batou's relationship with Kusanagi is the significance of Kusanagi's name, which is rich with cultural connotations in Japanese history and mythology. According to Japanese mythology, the Kusanagi Sword (or *Kusanagi no Tsurugi*) was one of the legendary imperial treasures once given as a gift to the warrior Yamato Takeru to help him defeat his enemies—a weapon comparable in importance to the sword Excalibur in the history of Britain. It was thought that any warrior who brandished the Kusanagi Sword could defeat an entire army. It is said that in one particular battle, when he was trapped in an expanse of grassland ignited by his enemy, Yamato Takeru employed the sword both to cut the grass and control the direction of the wind, thereby protecting himself and blowing the grass fire toward his enemy, who was soon vanquished. To commemorate his victory, Yamato Takeru renamed the sword "Kusanagi," which means "grasscutter."[162]

In the context of *Ghost in the Shell 2*, as soon as Batou has gained access to the production area for Hadaly-model gynoids, an army of gynoids is released to seize the intruder. Batou initially keeps the gynoids at bay but is soon outnumbered. Suddenly, Batou's guardian angel Kusanagi downloads herself into one of the gynoids in order to protect Batou and assist him in defeating the gynoid army. In this sense, however innocent Batou's relationship to Kusanagi may seem, by turning Kusanagi into a weapon for Batou's protection, her character is reduced to little more than a supplement to aid him in defeating the army of gynoids. Indeed, even Kusanagi remarks on the limitations placed on her agency and powers of expression when downloaded into the body of a gynoid: "To be precise, it's just a fragment of me downloaded via satellite. This gynoid's e-brain lacks capacity. It can only handle the combat robotics control system. This is the best I can do for facial and vocal expression." As soon as she has fulfilled her mission, Kusanagi disappears again into the ether of cyberspace, leaving the viewer to wonder if this representation of the vanishing woman with its erasure of the female body is really so innocent after all.[163]

However, there is one more example of innocence, and it is one that Oshii has raised repeatedly in interviews about *Ghost in the Shell 2*. In response to the question that was considered earlier—What would it mean for a human to become more than human?—Oshii offers a second possible answer: "Another option is to communicate with dogs. Once you discard anthrocentrism, you have to take animals into consideration. Dogs provide a much better contrast against robots or dolls than humans do. . . . Dogs became unique creatures by interacting and living with humans. . . . By communicating with dogs, I thought humans might realize something about themselves. So I wanted to contrast humans against dogs, rather than simply against artificial intelligence."[164]

Oshii is well known for inserting cameos of his beloved basset hound Gabriel in most of his anime and a few of his live-action films, but *Ghost in the Shell 2* provides the most extended homage to basset hounds thus far. In addition to modeling the animated basset hound after the likeness of the real Gabriel, Oshii recorded his dog's barks and other sounds for added authenticity. From Batou's affectionate relationship with his dog to the basset hound posters and imagery sprinkled throughout the film (including a mechanical basset hound in the likeness of Gabriel at Batou's house and images of a basset on the spinning globe inside Kim's mansion), the dog motif plays a significant role in *Ghost in the Shell 2*.[165] Indeed, the importance of dogs is signaled in the very first scene when we are shown a neon sign situated on top of a large skyscraper displaying the Chinese character for small dog or puppy (狗). Likewise, in the last scene of the film, after we see Togusa hug his daughter and his daughter hug the new doll that he has just given to her as an *omiyage*, the camera cuts to a close-up of the doll's face, followed by a head-and-shoulders close-up shot of Batou hugging his dog with city skyscrapers looming in the distance. Batou's basset hound emits a low murmur and stares pensively at the girl and her new doll, while Batou looks directly at the camera through his opaque cyborg eyes. Insofar as the dog motif appears in both the first and last shots of the film, it effectively enframes the film as a whole, underscoring the importance of the dog to *Ghost in the Shell 2*. To understand why Oshii has "gone to the dogs," it helps to consider the concept of "becoming-animal" elaborated by philosophers Gilles Deleuze and Félix Guattari in *A Thousand Plateaus*.[166]

Rather than reduce the animal to "a representative of the drives, or a representation of the parents," which is, according to Deleuze and Guattari, what psychoanalysis does every time it encounters the question of the becoming-animal in humans, *Ghost in the Shell 2* shows us a cybernetic human (Batou) who is becoming-animal by entering into composition

with a dog, thereby forming a new assemblage with one another, an assemblage in which relations of movement and rest, speed and slowness, as well as zones of proximity and intensity, are shared. Batou's becoming-animal does not involve imitation of his dog—he does not try to represent the dog as human; rather, he enters into composition with it, thereby releasing nonhuman possibilities into the human "outside the programmed body."[167] Becoming-animal is not simply the reproducton of an animal image, much less the metamorphosis into that animal, but rather a deterritorialization of the human and the animal in which both the human and animal become something else—involving new intensities, affects, speeds, and modes of being—as a result of the new assemblage formed by their circuit of relations such that it becomes "impossible to say where the boundary between the human and animal lies."[168]

At the very end of *Ghost in the Shell 2*, as Batou and his basset appear in the last shot in a mutual embrace, the becoming-animal of Batou approaches cyborg theorist Donna Haraway's reflections on "companion species" as an attempt to find "non-anthropomorphic ways" to conceive of agencies and actors and the coevolutionary networks that constitute them.[169] It is not simply, as Lisa Bode argues, that "the unconditional love and animal innocence of our pets is one of the few things that keeps us from becoming truly dehumanised while living and working in dehumanising systems."[170] Rather, it is that as we enter into coevolutionary networks with dogs, and as we learn to coexist with nonhuman entities in the most intimate of spaces—our homes—we are altered by dogs as much as dogs are altered by us. In the context of *Ghost in the Shell 2*'s engagement with posthuman becoming-animal, which resists the fundamental anthropology that is at the heart of humanism's ontological distinction between human/animal and human/machine, remaining "human" is beside the point.[171] This is not to say that posthuman subjectivity becomes affectless, but rather that new affects, new intensities, and new modes of being emerge that are no longer simply "human" or "nonhuman."[172] In the end, Oshii suggests that our relations with dogs may be a possible way out of our anthropocentric obsession with uncanny *ningyō*, a way outside of ourselves. As Deleuze and Guattari put it, "There is no longer man or animal, since each deterritorializes the other, in a conjunction of flux, in a continuum of reversible intensities."[173]

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Part II

Desiring Machines

Biomechanoid Eros and Other Techno-Fetishes in *Tetsuo: The Iron Man* and Its Precursors

I am one of Cronenberg's disciples.

—Tsukamoto Shin'ya

I tried to make an erotic film by way of science fiction, to express eroticism through iron.

—Tsukamoto Shin'ya

As the city grows bigger, it seems that people re-evolve, lose touch with their bodies, become disembodied almost, live only through their brains. I'm interested in how we learn to survive in the city. At times I find it beautiful to ponder destruction. It's strange. Part of me loves a city like Tokyo, but part of me would quite happily destroy it.

—Tsukamoto Shin'ya

It is no exaggeration to say that Tsukamoto Shin'ya is one of the quintessential experimentalists of contemporary Japanese cinema. Other directors might also be added to this list, including veterans such as Suzuki Seijun, Ishii Sōgo, and Miike Takashi, as well as relative newcomers Aoyama Shinji, Sono Sion, and Toyoda Toshiaki, but few can match the energy, inventiveness, and sheer audacity of Tsukamoto's fiercely independent filmmaking. His work pushes the boundaries of contemporary Japanese film, not only transgressing the conventions of genre and investigating the limits of cinematic form, but also offering biting social commentary on some of the most pressing issues confronting Japan both before and after the collapse of the bubble economy, including the breakdown of the family

system, the alienation of Japanese youth, and the increasing disillusionment with urban life and the mechanisms of advanced capitalism.

Tsukamoto has made a name for himself as one of the most innovative independent directors in Japan today with such films as *Tokyo Fist* (1995), *Bullet Ballet* (1998), *Gemini* (*Sōseiji*, 1999), *A Snake of June* (*Rokugatsu no hebi*, 2002), *Vital* (2004), and *Nightmare Detective* (*Akumu tantei*, 2006), but his reputation was already sealed with the notorious *Tetsuo: The Iron Man*, which became a cyberpunk cult classic soon after it was first released in 1989 and won the Grand Prize at the ninth annual Fantafestival in Rome. Tsukamoto's early work of guerilla filmmaking marked a turning point in Japanese cinema with its savage mixture of cinematic surrealism and industrial noise punk. No less a cyberpunk guru than William Gibson has described Tsukamoto as "a genuinely visionary filmmaker" and *Tetsuo* as "primal 21st Century cinema, a pure manga sensibility transferred to the screen with gorgeously deranged energy."[1]

In what follows, instead of analyzing *Tetsuo* for deep meaning, I continue my practice of reading rhizomatically. By situating *Tetsuo* in relation to its many complex connections with other films and works of art, from the birth of the sexy robot in *Metropolis* (1927) to the unsettling surrealism of *Un chien andalou* (1929), from the machine cities of the Italian Futurists and the biomechanoid art of H. R. Giger (1940–) to the posthuman mutations and pleasures of *Matango* (1963), *The Fly* (1986), and *Videodrome* (1983), the transnationality of Tsukamoto's erotomechanical filmmaking thereby comes into full view. I argue that *Tetsuo* deconstructs the essentializing identification of masculinity with phallic dominance and violence by means of a bitingly transgressive parody that subverts the status quo of heteronormative state capitalism and the mechanisms of social domination that maintain it.

The Birth of Sexy Robots

Are robots sexy? In the wake of Fritz Lang's visionary Weimar-era silent film *Metropolis*, scores of science fiction films and anime have offered affirmative responses to this question. In Lang's *Metropolis*, the inventor Rotwang (played by Rudolf Klein-Rogge), who embodies the film's tension between the Gothic and the modern, mixing traits of the medieval magician with those of the Faustian-Frankensteinian mad scientist,[2] creates a female robot, or gynoid, to serve not simply as a suitable replacement for human workers that would never tire or make mistakes, but more importantly for Rotwang, who is also a modern Pygmalion, as a substitute for his

former lover, Hel, who jilted Rotwang in favor of the capitalist Joh Fredersen and died while giving birth to Fredersen's son.[3] However, at the behest of Fredersen, the robot is reprogrammed to act and look like a young woman named Maria, who has taken up the cause of the exploited workers in *Metropolis* and is the love interest of Fredersen's son, Freder. Rotwang yields to the request of his old rival and holds the human Maria captive in his house in an attempt to create a robot that will disrupt Fredersen's plans and deprive him of his beloved son.

In one of the most famous scenes involving robot Maria, she performs an erotic dance staged by Rotwang at the Yoshiwara Nightclub in an effort to corrupt and sow discord among the affluent white men who inhabit the upper echelon of the Metropolis.[4] Fights break out among men in the audience, who are unable to control their desire for robot Maria. Although sick in bed at his father's house and unable to attend the performance, Freder deliriously reimagines this erotic dance as a sign of the apocalypse, with the eroticized robot Maria functioning as the modern equivalent of the Whore of Babylon and the multiplied eyes of her aroused male audience evoking the gaze of the Beast (see Figure 2.1), images drawn from the Book of Revelation, which we see Freder reading in the scene that follows. By mixing parallel editing and shot reverse shot, Lang both distinguishes

Figure 2.1 The multiplied male gaze of the audience focusing on robot Maria's erotic dance, as reimagined by Freder (*Metropolis*).

the sequence of robot Maria's dance from that of Freder's fevered hallucination and blurs the spatial boundaries between the two. At times, one cannot tell whether Freder is witnessing the erotic dance of the sexy robot or imagining it in his own head.[5]

The subversive connnotations of disembodied and multiplied eyes have been explored to great effect by surrealist filmmakers and artists, from Luis Buñuel to Salvador Dalí, from Guillermo Meza to René Magritte.[6] French writer Georges Bataille, who shared the surrealists' obsession with eye imagery even if he did not always get along with the surrealists themselves, has suggested that what we find most captivating about eyes is that their "extreme seductiveness is probably at the boundary of horror."[7] This suggestion, that at the very moment when eyes are at their most seductive (i.e., when we can least turn away from their captivating gaze) is also when they are on the threshold of horror, is an apt description of so much surrealist art in which disembodied, violated, and frequently multiplied eyes play such an important role. There is an uneasy ambivalence in the surrealist representation of eyes that is both compelling and deeply unsettling.

In *Metropolis*, the subversive potential of multiplied eyes is contained by the editing choices made, which situate such images within a sequence of parallel editing that suggests they may be the nightmarish hallucinations (or sexual fantasies) of Freder, who is at home sick in bed while the performance occurs. Nevertheless, this foregrounding of eye imagery, which is linked to the voyeuristic male gaze and the problem of cinema spectatorship, remains one of the most influential moments in the history of science fiction film, one whose impact can be felt right up to the present in films ranging from *A Clockwork Orange* (1971) to *Blade Runner*, from *Videodrome* to *Tetsuo: The Iron Man*.

In addition to performing night after night at the Yoshiwara, robot Maria also spends time in the subterranean level inhabited by the workers in imitation of the human Maria, where she offers a different type of performance—one with a political purpose—that manipulates desire in a different way. Whereas at Yoshiwara, robot Maria appeared in eroticized guise in order to elicit the sexual desire of rich men and stimulate competition for her attention, in the subterranean level of the workers, she dons the desexualized guise of the human Maria, playing up the religious associations with the figure of the madonna, and evangelically appeals to the desire of the workers for social and economic justice, inciting them to commit violent acts in the name of revolution. Whether manipulating the desires of men in the guise of the Whore of Babylon or as an evangelical Trotskyite, robot Maria functions in both cases as a mechanical femme

fatale who causes the affluent men of Metropolis to lose their minds and social mores while tempting the workers below to mobilize toward revolution. In this way, the capitalist boss Fredersen uses robot Maria as a tool both to distract the economically empowered citizens of Metropolis and disorganize the workers' movement in order to justify the violent suppression of their nascent rebellion.

"Destroy the machines!" may sound like the stereotyped slogan of Luddite anarchy,[8] but it is uttered (via intertitle) by the robot Maria as a tool of Fredersen, the capitalist. Why would the owner of the means of production and primary beneficiary of the workers' productivity incite violent acts that disrupt production rather than doing everything possible to maintain peace and order and the smooth functioning of the capitalist machine? On one level, Rotwang's eroticized gynoid functions as a fetishized substitute both for his beloved Hel and for the human Maria, thereby placing female sexuality under the control of the male gaze.[9] On another level, robot Maria's incitement of the workers to violence places the labor of the workers under the control of the capitalist gaze of Fredersen in an effort to consolidate his power over them. Fredersen's reactionary strategy ultimately backfires, but not before the workers' subterranean city becomes flooded after they cut electric power in an act of revolt and the workers lose their homes as a result, thus making them even more dependent upon Fredersen. By destroying the machines of the capitalist, the workers risk destroying themselves. In their rage, the workers also turn against the robot Maria and burn her at the stake à la Joan of Arc. Before the society of Metropolis collapses entirely, Freder reappears to save the day, assuming the role of the messianic Mediator, who functions in the ideologically charged imagery set forth by the film as the "heart" that mediates between the "brain" of the capitalist master and the "hand" of the proletarian worker, resolving the age-old conflict between management and labor. However, as Tom Gunning has suggested, this forced mediation, which also attempts to resolve the deeper conflict evoked by the film between the Gothic and the modern, raises more questions than it answers.[10] As Gunning points out, *Metropolis* seems incapable "of a truly feminist critique any more than of a Marxist, Freudian or Christian resolution. Instead, we have a text whose allegorical energies seem unable to coalesce into a single grand narrative, but rather ceaselessly generates references to nearly all narratives—political, religious, occult, aesthetic, sexual—that circulated through Weimar culture."[11]

Perhaps it is due to the fact that the film eschews such metanarratives that its influence can still be felt today. Indeed, it is a testament to the

transnational power of *Metropolis* that, decades later and halfway around the world, numerous reinscriptions of the techno-fetishized automaton Maria have reappeared in Japanese science fiction across different media. For example, one encounters the figure of the sexy robot (or cyborg) in science fiction anime ranging from *Video Girl Ai* (*Denei shōjo Ai*, 1992) to *Battle Angel* (*Gunnm*, 1993), from *Ghost Sweeper Mikami* (*Gōsuto Suīpā Mikami*, 1993) to *Ghost in the Shell* (*Kōkaku kidōtai*, 1995), from *My Dear Marie* (*Boku no Marie*, 1996) to *A.Li.Ce* (1999), from *Malice@Doll* (2001) to Rintaro's *Metropolis* (*Metoroporisu*, 2001), from *Chobits* (2002) to *Ghost in the Shell 2: Innocence* (2004). Likewise, Japanese illustrator Sorayama Hajime (*Sexy Robot* [1983], *The Gynoids* [1993], *Metallicon Sorayama* [2001], *Latex Galatea* [2003], and *Relativision* [2007]) and manga authors Shirow Masamune (*Appleseed* [1985–89], *Ghost in the Shell* [1989–1991], *Ghost in the Shell 1.5: Human Error Processor* [1991–2003], and *Ghost in the Shell 2: Man-Machine Interface* [1991–2001]) and Mihara Mitsukazu (*Doll*, 2000–2002) have practically created a cottage industry devoted to such sexy robots.[12] However, the goal here is not to recount all the sexy robots (and cyborgs) that populate Japanese visual culture in the wake of *Metropolis*, but rather to show that there is more to the narratives of cyberpunk sexuality in Japan than such post-*Metropolis* robot pinups might suggest. Although it goes without saying that posthumanism is not necessarily postpatriarchy, the female android or cyborg serving masculinist strategies to contain the perceived threat of unbridled female sexuality is not all there is to cyberpunk sexuality. Just as important to Japanese engagements with the techno-fetish is the eroticization of the male android or cyborg body, which sometimes functions as a techno-fetish that subverts the male gaze, fetishizing the fetishist and deconstructing the logic of the fetish in the process. It is this alternative take on the question of cyberpunk sexuality and the status of the techno-fetish, which functions as a sort of cinematic foil or counterpoint to *Metropolis*'s robot Maria, that makes Tsukamoto Shinya's cult film *Tetsuo: The Iron Man* so challenging and controversial.

After *Metropolis*, Before *Tetsuo*: *Un chien andalou*

Tsukamoto Shin'ya has remarked that he considers *Blade Runner* and *Videodrome* to be the parents of his groundbreaking underground film *Tetsuo: The Iron Man*.[13] There is no question that the impact of these two films—particularly *Videodrome*—can be felt and seen throughout *Tetsuo* and its connections with them deserve critical attention; however, there are numerous other parents whose celluloid DNA runs through the

metal veins of *Tetsuo*. Moreover, although Tsukamoto uses a genealogical metaphor to describe the relations between *Tetsuo* and its precursors, I would argue that the connections are more rhizomatic than genealogical. In his review of *Tetsuo* for MidnightEye.com, one of the most respected Web sites devoted to Japanese cinema, Tom Mes lists connections as diverse as David Lynch's *Eraserhead* (1977), Ishii Sōgo's *Crazy Thunder Road* (*Kuruizaki sandaa rōdō*, 1980) and *Burst City* (*Bakuretsu toshi*, 1982), Honda Ishirō's *Godzilla* (*Gojira*, 1954), Kobayashi Masaki's *Kwaidan* (*Kaidan*, 1964), and the stop-motion animations of Jan Švankmajer.[14] Without underplaying the importance of such films to the genesis of *Tetsuo*, one signficant precursor that remains largely unexplored in the reviews and scholarly literature on *Tetsuo* is Luis Buñuel and Salvador Dalí's quintessentially surrealist film *Un chien andalou* (An Andalusian dog).[15]

Despite its brevity—only sixteen minutes in length—*Un chien andalou* quickly became one of the most influential films to come out of surrealism when it was first released in Paris in 1929, sending a shockwave through the French avant-garde film movement. Buñuel and Dalí's short film has practically become identified with its opening scene—one of the most grotesque moments of body horror in the history of cinema—in which a woman's eye is slit open by a razor that is being wielded by Buñuel himself, juxtaposed with a thin streak of cloud passing across the face of the moon. In surrealist film history, no scene better evokes the transgressive power of film sought by playwright and poet Antonin Artaud, who famously described his "search for a film with purely visual sensations in which the force would come from a collision exacted on the eyes."[16] Art critic Sidra Stich, who curated a major exhibition on surrealist art titled "Anxious Visions," concisely summarizes the impact of this notorious scene as "an attack on vision, the viewer, and the medium itself, [which] has lent itself to a multitude of psychosexual interpretations including birth, rape, castration, and murder."[17]

However, perhaps even more notable than the scene itself, which was clearly intended to shock and alienate the middle-class sensibilities of bourgeois viewers, are the discontinuous editing jumps and seemingly irrational connections between the imagery from one shot to the next, which owe much more to the indecipherable logic of dreams and the "conscious psychic automatism" practiced by the surrealists, "through which they attempted to tap the imaginative wealth of their subconscious,"[18] than to the continuity editing and coherent narrative causality associated with classical Hollywood cinema. From the outset, Buñuel and Dalí set out to create a film that would be "a succession of surrealist images" and "oneiric

scenarios."[19] Indeed, as Buñuel later recounted, *Un chien andalou* was born "from an encounter between two dreams":

> When I arrived to spend a few days at Dalí's house in Figueras, I told him about a dream I'd had in which a long, tapering cloud sliced the moon in half, like a razor blade slicing through an eye. Dalí immediately told me that he'd seen a hand crawling with ants in a dream he'd had the previous night.
>
> "And what if we started right there and made a film?" he wondered aloud.
>
> Despite my hesitation, we soon found ourselves hard at work, and in less than a week we had a script. Our only rule was simple: no idea or image that might lend itself to a rational explanation of any kind would be accepted. We had to open all doors to the irrational and keep only those images that surprised us, without trying to explain why.[20]

Although intertitles are employed to indicate shifts in time ("Eight years later," "About three in the morning," "Sixteen years before"), the lack of correlation between what the intertitles convey and what is being visualized on screen simply disorients the viewer further.[21] As Robert Short points out, although "the signs of narrative logic and continuity that we are used to are present: shot/reverse shot alternation, eyeline matches, cuts on action, and so forth," the way in which the film has been edited, with "mutually inconsistent images montaged together" in such a way that the integrity of both time and space are disrupted, makes it impossible to read the film as a continuous narrative.[22] In sharp contrast to the continuity editing of Hollywood cinema, the surrealist cut relies upon the arbitrariness of free association and what Jean Goudal calls the "illogicality of details" to create a sense of conscious hallucination.[23] Toward this end, in its parody of a classic Hollywood love story between an unnamed man and woman, *Un chien andalou* frequently privileges the fragmentation of the body into fetishized parts, including female breasts that dissolve into buttocks, a man's mouth that contracts into the shape of an anus and is later covered over with skin, a woman's armpit hair that reappears as pubic hair on a man's mouth, and so forth. As Robert Short explains, "The fetishist substitutes as the object of his desire a part of the thing for the whole. Fragmentation therefore reigns in *Un Chien Andalou* because the film deconstructs the sexual subject and opens up contradictions within desiring in the exchange of looks, the circulation of fetishised objects and body parts."[24] In short, the discontinuity of *Un chien andalou*'s imagery and its "illogicality of details" are indissociable from the fetishized fragmentation of the body within the film.[25]

For surrealists such as Buñuel and Dalí, the blurring of boundaries between dream and reality was "not about a flight from the real—not a wishful escape into some Never-neverland of the imagination."[26] On the

contrary, the goal of such techniques was simultaneously an "intensification of our experience of the real" and a demystification of the absurdity of everyday life.[27] Dream logic was used expressly "to interrupt the realism"[28] of film and the supposed rationality of our waking lives. By presenting a hallucinatory antinarrative, *Un chien andalou* manages to resist attempts by generations of viewers to construct a unifying narrative that would finally make sense of all the fractured imagery. Rather than settle for a reductive reading of the film that tries to resolve the film's fractured and frequently contradictory symbolism as "either the dream of a unified subject (the hypothetical hero) or as the allegory of the hero's sexual development," contemporary critics have sought instead to emphasize "the ways in which the film opens up possibilities of meaning" and the unconscious associations between images, and, thereby, undermines the techniques of classical Hollywood storytelling.[29]

Although *Tetsuo* does not offer explicit homage to *Un chien andalou*, what it does owe to Buñuel and Dalí's experimental film is an oneiric structure that frequently undermines the audience's ability to differentiate reality from dream, as well as the employment of perversely black humor, especially at its most horrifically surrealist moments. The flashing "GAME OVER" sign that appears after the end credits underscores the ludic nature of the film but does not provide any greater insight into what it all means. Reviewers of *Tetsuo* have often expressed frustration when trying to construct a plot synopsis for the film due to its resistance to narratival coherence and insistent frustration of attempts to make sense of it. As one reviewer put it, *Tetsuo* "makes no sense whatsoever on a narrative level, but exists entirely as a series of surreal images of genuinely outlandish intensity."[30] In his review of the film for the *New York Times*, Stephen Holden does his best to summarize the story of *Tetsuo*, while acknowledging that it "makes little sense as a story":

> Early in Shinya Tsukamoto's film "Tetsuo: The Iron Man," a character identified only as a metals fetishist (Mr. Tsukamoto) scours a junkyard, slices open his thigh and sticks a piece of scrap metal into the wound. Gasping in ecstatic agony, he lurches into the street where he is nearly run over by a car driven by a white-collar worker called the Salaryman (Tomoroh Taguchi).
>
> While shaving the next morning, the Salaryman notices a metal spike growing in one cheek. It is the first sign of his gradual transformation from a human being into a walking metal scrapheap of rusty metal plates, dangling cables and a rotating metal drill that extends from his groin. . . .
>
> "Iron Man" makes little sense as a story, but it is driven by a perverse sense of humor. As the Salaryman's transformation proceeds, it becomes increasingly hard for him to differentiate between his waking state and nightmares in which he is attacked by machinery. The more metallic he grows, the more his mind becomes a

> tape loop that keeps rewinding the same fragment of soft-core pornography being played on his television set. In the film's funniest sequence, he tries to protect his live-in girlfriend from his metallicized lust by barricading himself in the bathroom.
>
> Eventually, the fetishist and the Salaryman face off against each other in an abandoned factory in which the two merge into a two-headed metal creature determined to transform the rest of human race into a creaking, rusty metallic monster.[31]

Holden recognizes the film's attempts to resist making sense of it yet fulfills his obligation as a reviewer to provide a synopsis that does make sense. The problem is that in reducing *Tetsuo* to a linear plot line, the film's explosive power to shock is all but denuded. Tsukamoto wields a wide range of cinematographic and sound design techniques to disrupt the narrative impulse, including sudden flashbacks, flashforwards, hyperaccelerated handheld and montage sequences, stop-motion acrobatics, unusual angles and twisted perspectives, fast editing, and jarring auditory explosions and annoyances. The entire film may be interpreted as an extended nightmare sequence, or more precisely, a stream-of-consciousness dream-within-a-dream-within-a-dream. Many viewers simply give up trying to make sense of it all and either yield to the visceral experience of watching it or leave the theater altogether (or turn off the DVD player). However, the film is more than just "a tale / Told by an idiot, full of sound and fury, / Signifying nothing."[32] *Tetsuo* may, indeed, "signify nothing," but its lack of transcendental signifieds does not mean that it has no intellectual import or that it was simply an exercise in surrealist automatism.

Giger's Biomechanoids, Erotomechanics, and Metal Fetishists

In the prologue to *Tetsuo*, after the series title "Regular-Size Phantom Series" (*Futsū saizu no kaijin shirīzū*)[33] has appeared but before the title sequence, we are introduced to the character played by Tsukamoto himself, who is identified in the film's closing credits simply as "*yatsu*" (guy), but is often referred to as the "metal fetishist." We first see the metal fetishist walking across the grounds of a dilapidated factory yard. Although no one else appears in the opening scene, machine sounds can be heard in the background suggesting that the factory is still in use. The metal fetishist, wearing a cap and jacket that marks him as a blue-collar worker, returns home, perhaps after a long day's work at the factory. The metal fetishist's rundown apartment, situated either on the grounds of an abandoned factory or just a short distance away, is itself factory-like: a plethora of hoses, tubes, ducts, cables, pipes, and wires of various lengths hang all around, and used metal parts and equipment are strewn everywhere.[34] The only

human points of reference in this postindustrial wasteland are the numerous cutout photos of black track stars and Olympic runners who adorn the walls. In particular, Carl Lewis, considered one of the greatest track stars in the world at the time *Tetsuo* was made and later named Olympian of the Century by *Sports Illustrated*, is clearly recognizable. As the metal fetishist removes his worker's garb and prepares himself for the act of self-mutation that he is about to perform, his reflection in the mirror is juxtaposed with the photo of a black runner.

The metal fetishist examines a rigid, ribbed metal tube (perhaps a discarded piece of rebar) and confirms its hardness by pulling the tube sideways through his teeth—the first of many dental sound effects that will complement the film's heavy metal mise-en-scène with the aid of jarring metallic scraping sounds. Using a crude makeshift knife, he makes a long incision along his inner thigh and inserts the metal tube into the incision with blood spraying everywhere, an act symbolizing both self-castration and self-penetration. The scene then cuts to a series of quick shots showing the photos of Carl Lewis and other track stars bursting into flames with an explosive noise, as if to suggest that the introduction of metal into the body (an act of overcoming the flesh) has catalyzed a transformation with explosive power. Steam (or smoke) is emitted from the metal fetishist's body and he is dripping with sweat. Even more notably, after this act of self-penetration, the metal fetishist's skin color appears darker, perhaps in emulation of the black track stars who adorn his walls.[35] Just as world-class athletes harden and augment their bodies through assiduous training and, in some cases, performance-enhancing drugs (thus inviting a comparison with cyborgs[36]), so too, the metal fetishist hardens and augments his own body's form, albeit through the incorporation of actual metal.[37] Later in the film, when the metal fetishist confronts the salaryman, the former appears dressed like a runner, wearing the sort of runner's tank top and shorts that might be worn by an Olympic runner.[38] In place of a race number on the front of his tank top, there is the letter "X." In sharp contrast, the salaryman wears the standard uniform of the white-collar employee of a large Japanese corporation or government bureaucracy: a business suit.

As he removes the bandages from his wound, the metal fetishist discovers that it has become infected with maggots. He runs out into the street screaming uncontrollably and is hit by a car driven by the salaryman. Cut to a close-up of the automobile's grill and flashing headlights, followed by an overexposed sign with the Cronenbergian term "NEW WORLD" emblazoned in English across a chicken wire mesh fence (which we learn later is in the metal fetishist's apartment).[39] As if to underscore the meaning

of this first encounter between metal fetishist and salaryman, the camera provides an extreme close-up as it moves from letter to letter, spelling out "NEW WORLD" with romantic 1940s-style saxophone-and-piano swing jazz music playing in the background (in sharp contrast to the rest of the soundtrack composed by Ishikawa Chū, which is predominantly Einstürzende Neubauten–inspired industrial noise music).

With his opening act of self-mutilation, the metal fetishist establishes himself as the first example of a "regular-size" monster in *Tetsuo*, albeit one who chooses self-transformation rather than having it involuntarily imposed upon him. The metal fetishist's act is also distinguished by the question of style, the particular way in which it has been visualized. Without denying *Tetsuo*'s originality, it is no exaggeration to say that both the style of metamorphosis in *Tetsuo* and the design of the film's mise-en-scène are profoundly related to the art of Swiss surrealist H. R. Giger, invoking not only Giger's nightmarish techno-erotic designs for Ridley Scott's *Alien* (1979) but also many other figures and landscapes populating the Swiss surrealist's dark fantastic art.[40]

Perhaps best known for his monochromatic biomechanoid-style airbrush paintings and Oscar-winning designs for *Alien*,[41] Giger's work blurs the boundaries between biology and technology, between the organic and the mechanical, in powerfully transgressive ways. Noted science fiction author Harlan Ellison, winner of numerous Hugo and Nebula awards, has described Giger as a surrealist who is a "direct lineal descendant of Dalí and Ernst": "[Giger] is our latter-day Hieronymous Bosch, the Dutch fabulist come again, demonic and erotic, exalting the more Baudelairean elements of the dark human psyche and affirming our now almost totally committed embrace with rust, stainless steel, the malevolent servo-mechanism, and the inescapability of clockwork destiny. He is Bosch adamantine. . . . This man *knows* what we fear. And he shows it to us again and again."[42] Ellison's emphasis on "rust, stainless steel, the malevolent servo-mechanism, and the inescapability of clockwork destiny" aptly evokes the phantasmagoric fascination with the cyborgic symbiosis of technology and the human body and "the recurring themes of human machines, city machines, sex machines, war machines, and dream machines in Giger's oeuvre."[43] As art historian Carlos Arenas has suggested, Giger's art provides "a virtual catalogue of human desperation in the twentieth century": "Humanoids screaming in claustrophobia; monsters without eyes, transformed creatures threatening the viewer with their jaws; bodies that dissolve in anger. Giger's tortured subjects find themselves in places with no way out, in tunnels and claustrophobic chambers, also

in architectural structures built of bones, their physical intimacy violated by the penetration of machines; condemned to live their desperate existence in a grotesque theater."[44] However, it should also be pointed out that in the case of Giger's biomechanoids, without the "strange tubes and devices which penetrate them," they "would be unable to exist in their hostile environment," as Giger specialist Fritz Billeter remarks, making it "hard to say where the line is drawn between degeneracy and mutation for the sake of survival."[45]

So what does *Tetsuo* owe to the "grotesque theater" of H. R. Giger? A major exhibition of Giger's art staged in Tokyo in 1987,[46] followed soon thereafter by the publication of Japanese-language editions of a number of Giger's art books, including *Giger's Alien* and *Necronomicon I* and *II*, caused a "Giger Boom" in Japan.[47] Two tons of materials were sent to Tokyo for the exhibit, including the *Alien* monster, designs for *Alien* and *Poltergeist II*, a special commission created specially for the exhibit, titled *Japanese Excursion* (1986), and many other paintings and drawings (fifty pictures total).[48] The Giger exhibit was so popular that approximately two thousand people attended the Tokyo exhibition each day, and the H. R. Giger Fan Club was created to capitalize on the burgeoning interest in all things Giger.[49] "In Japan I found my audience and my first fan club," commented Giger. "The movie *Alien* has made me famous in this country."[50]

Although Giger laments the emergence of Giger copycats, who create "Gigeresque piles of bones, biomechanized through tubes surrounded by transparent worm larvae,"[51] Tsukamoto's take on Giger in *Tetsuo* is derived more from respectful inspiration than crass imitation.[52] Tsukamoto has acknowledged being influenced by Giger's art around the time that he made *Tetsuo*, emphasizing in particular Giger's "organic combination of flesh and metal [*nikutai to kinzoku no yūkiteki ketsugō*]" that expressed one symbol of cyberpunk from that period.[53] There is no question that Tsukamoto engages many of the issues that have preoccupied Giger throughout much of his career. In addition to Giger's entire *Biomechanoid* (*Biomechanoiden*, 1969–83) series, earlier works such as *Atomkinder* (Atomic Children, 1967–68), *Frau mit Kind* (Woman and Child, 1967), *Alpha (Zwei Frauen I)* (Alpha, Two Women I, 1967), and *Unter der Erde* (Under the Earth, 1968)[54] also show human-machine hybrids whose mutated bodies are frequently covered with just the sort of ribbed metal tubing that the metal fetishist inserts into his thigh in the prologue to *Tetsuo*. And ribbed metal tubing is just the tip of the biomechanoid iceberg, as it were. In *Tetsuo*, in addition to metal tubes inserted into the body or protruding from it like exhaust pipes to augment the human body and equip it for survival in the

hostile environment of a postapocalyptic world (quoting Giger's biomechanoid *Necronom IV* [1976] and numerous other *Alien*-related designs and paintings), we encounter assorted phallic appendages (perhaps inspired by the phallic head and limbs of Giger's *Necronom IV* and *Totem* [1983] or the long phallic tongue with teeth that thrusts out of the mouth of the creature in *Alien* to kill its victims), mutant human war machines setting out to destroy the world, as well as womb-like chambers and claustrophobic shafts and tunnels replete with mechanical hoses, tubes, ducts, cables, pipes, and wires, such as appear in Giger's *Biomechanische Landschaft* (Biomechanical Landscape, 1976–87) series.[55] Tsukamoto's use of handheld shots and avoidance of long shots, as well as prominent use of confined spaces, helps to recreate the sense of claustrophobia that many viewers find so disturbing in Giger's art, as well as the films inspired by Giger.

At the formal level, Tsukamoto shares Giger's monochrome palette of black, white, and multiple gradations in between, employing chiaroscuro effects of light and shadow reminiscent of classic German Expressionist films, such as *The Golem* (*Der Golem*, 1915) and *The Cabinet of Dr. Caligari* (*Das Cabinet des Dr. Caligari*, 1920).[56] However, like Ridley Scott's Giger-designed *Alien*, *Tetsuo* goes well beyond the play of light and shadow by spraying the film's mise-en-scène with a "flood of bodily fluids" that recalls *Alien*. Scott Bukatman writes, "More than anything else, it is this flood of bodily fluids that separates *Alien* from the antiseptic and virginal spaces of the science fiction cinema, so brilliantly epitomized and parodied in *2001*. . . . The pronounced, indeed hyperbolic, transition from science fiction to horror actually marks a profound moment in the history of the genre: *Alien* is the film in which *the body* invades the pristine and sexless rational spaces of the science fiction film. The genre hasn't been the same since."[57] Following the path blazed by *Alien*, *Tetsuo* similarly blurs the boundaries between science fiction and horror by confronting science fiction's denial of the body with horror's return of the repressed. However, even more so than in *Alien*, the repressed body comes to the surface in *Tetsuo* not only in the form of a flood of bodily fluids but also by making sexuality an issue in the film, by mixing flesh and metal in disturbingly erotomechanical ways (see Figure 2.2).

Tsukamoto has remarked that with *Tetsuo*, he "tried to make an erotic film by way of science fiction, to express eroticism through iron."[58] There is no question not only that *Tetsuo* succeeds in expressing "eroticism through iron" but also that its style of techno-eroticism is profoundly indebted to Giger's erotomechanical aesthetic. As in Giger's *Biomechanoid* and *Erotomechanics* (1979) series of paintings, the mixing of flesh and metal

Figure 2.2 The salaryman's erotomechanical girlfriend in *Tetsuo*.

in *Tetsuo* is not only intensely violent but also darkly erotomechanical and techno-fetishistic, evoking sadomasochistic sexual practices and pleasures, as well as fears of both male and female sexuality out of control. The most infamous scene in *Tetsuo* of male sexuality out of control is, of course, when the salaryman screws his girlfriend to death with his drill-penis, which I will analyze in greater detail later in relation to the tentacle motif. However, fears of female sexuality out of control are also quite prominent: before the salaryman's nightmare about being sodomized by his girlfriend, he encounters a strange biomechanoid-like woman (referred to in the credits as the "woman in glasses") after he steps off a commuter train on his way home from work. The woman metamorphoses into a cyborg after touching a grotesque metal-organic assemblage lying on the train platform, which is being controlled by the metal fetishist. At first, the editing of the scene seems to suggest that the metal fetishist is crouched in a fetal position inside of the assemblage observing the woman in glasses (as suggested by repeated low-angle point-of-view shots from the object's perspective), but the size of the assemblage is clearly too small to accommodate the entire body of the fetishist. Later, it becomes obvious that the fetishist is controlling the assemblage from his apartment, positioned inside a womb-like biomechanical chamber. After touching the strange assemblage on the train platform with her pencil (accompanied by a sudden flash and

gunshot sound), the entire demeanor of the woman in glasses changes, and her hand sprouts metal cables and wires as she is controlled puppet-like by the metal fetishist.

The fetishist-controlled woman pursues the salaryman as if to exact revenge for the hit-and-run accident, chasing the salaryman through labyrinthine corridors of the train station and into the men's bathroom, where she assaults him. He manages to escape, defending himself with the only weapon a salaryman possesses—his pen—and moves swiftly through urban streets with newly sprouted jet-propelled feet, which produce jet fighter plane flyby sounds, eventually taking refuge in an auto repair garage. When the biomechanoid woman, who has now shed her glasses and is looking more and more like the bride of Frankenstein, catches up to him, it becomes clear that, in addition to desiring bodily violence, she is interested in having sex with the salaryman, as suggested by her vampish stance—she stops to fix her makeup before attacking him in the subway bathroom and squeezes her breast in an enticing manner in the repair garage—and her attempts to kiss him. When the fetishist-controlled woman attacks a second time, (s)he asserts repeatedly "Come now!" with the masculine voice of the metal fetishist, thus making clear that this is a cross-gendered act of ventriloquism that we are witnessing. As the salaryman strikes back, the sequence repeatedly cuts to reaction shots of the metal fetishist recoiling in pain inside of the biomechanical chamber back in his apartment. Their violent embrace ends in the death of the biomechanoid woman, as the salaryman struggles to break free. The salaryman's horrified reaction may be interpreted either as expressing a masculine fear of assertive female sexuality or a latent form of homophobia (or both), depending upon how aware the salaryman is that the woman is a puppet of the metal fetishist. Either way, biomechanoid sex in *Tetsuo* shares some of the same fears and anxieties that are present in Giger's nightmarish art, underscoring "the mechanistic quality of never-ending sexual copulation in their seamless interface between human and machine" and "a refusal to view sexuality in utilitarian, reproductive terms."[59] However, as Kathleen Bühler points out, in Giger's work, it is almost exclusively the female body that is penetrated and "it is the machines, or their male creator, that penetrates."[60] In contrast, in *Tetsuo*, both male and female bodies are penetrated by biomechanoids that are both male and female.

If Giger is heir to artists stretching from Hieronymous Bosch (1450–1516) to Giovanni Battista Piranesi (1720–78), from Francisco José de Goya (1746–1828) to Salvador Dalí (1904–89), from Hans Bellmer (1902–75) to Francis Bacon (1902–92), who seek to evoke the dark, macabre, absurd,

and grotesque side of life, then perhaps Tsukamoto should be viewed as a Japanese branch of this transnational genealogy of fantastic art.[61] However, Tsukamoto's conception of monstrosity owes just as much to fellow filmmakers who explore the dark side, such as Honda Ishirō and David Cronenberg, as it does to Giger.

The "Regular-Size" Monsters of *Matango*

In contrast to Japan's well-established "*kaijū eiga*" (monster movie) genre that was inaugurated by Honda Ishirō's *Gojira* (*Godzilla*, 1954), in which a gigantic creature (whose size is typically the result of mutation from nuclear technology) wreaks apocalyptic destruction on a post-MacArthur Tokyo that "represents simultaneously American imperialism and the Japanese spirit,"[62] *Tetsuo* offers a series of "regular-size" monsters, as indicated in the series title preceding the opening shot. In its downsizing of the monster figure, *Testuo* has more in common with a later film by Honda Ishirō, *Matango* (a.k.a. *Attack of the Mushroom People*), than it does with *Godzilla*.[63]

Matango tells the story of a small yacht carrying five passengers and two crewmen that is blown off course and stranded on an apparently deserted tropical island close to the equator. The passengers discover and take refuge in a deserted, fungus-covered wreck on shore that was once a research vessel whose purpose was to investigate the impact of nuclear radiation on plants and animals. They learn from the ship's journal that the crew of the research vessel discovered a poisonous mushroom called "matango," which drives one mad if ingested. The passengers and crew of the yacht do their best to avoid eating the mushrooms; however, as food becomes more and more scarce, they begin to surrender to the matango's strange lure and start to mutate into giant human-shaped mushrooms themselves, albeit mushrooms with a strong libido and violent tendencies. One of the passengers, a college professor specializing in psychology, manages to escape the island and return to Tokyo, where he is quarantined behind bars and interrogated by men in white lab coats because of his contact with the poisonous fungi. Now that he has started to mutate into a mushroom person himself and is being treated like an inhuman other, he realizes that he would have been better off if he had remained on the island where he could at least have roamed freely with other mutants, since the inhumanity of city residents toward a mushroom mutant in Tokyo is no different from the inhumanity of mushroom people toward humans on that strange island.

Like *Matango*, *Tetsuo* tells the story of mutation on a smaller, more human scale and shows the effects of mutation on one's interpersonal relations, especially its lowering of social inhibitions and enhancement of sexual desires. Both films also deal with the anxiety toward mutation in others and about becoming-other oneself. Moreover, as in *Matango*, mutation in *Tetsuo* is caused when a foreign substance enters the body, infecting the body with otherness. However, unlike *Matango*, in which ingestion of fungal otherness is driven by the instinct to survive, mutation in *Tetsuo* has more to do with posthuman evolution than mere survival. To better understand the ramifications of this evolution, it helps to situate *Tetsuo* in relation to two other films that deal with personal transformation: David Cronenberg's *The Fly* and *Videodrome*.

Mutating from the Inside Out: *The Fly*

Tsukamoto has never been shy about his admiration for the work of Canadian filmmaker David Cronenberg, whose films explore the pain and difficulties of personal transformation. Describing himself as "one of Cronenberg's disciples,"[64] Tsukamoto references many of Cronenberg's early films, including *Shivers* (1975), *Rabid* (1977), *The Brood* (1979), and *Scanners* (1981); however, two films in particular, *The Fly* and *Videodrome*, are of special importance to Tsukamoto and *Tetsuo*. Like *Tetsuo* (and *Alien* before it), these two Cronenberg films mix conventions from the genres of both cyberpunk and body horror.

David Cronenberg's 1986 remake of the 1958 science fiction horror classic *The Fly* tells the story of an eccentric scientist named Seth Brundle (played by Jeff Goldblum), who has invented "telepods" that enable the teleportation of inanimate objects from one telepod to another located across the room. Seth's love interest in the film is Veronica Quaife (a.k.a. Ronnie), played by Geena Davis, whom he invites to his loft apartment (which doubles as his laboratory) after encountering her at a meet-the-press party sponsored by Bartok Science Industries, which funds Brundle's research. Ronnie is a writer for *Particle* magazine looking for the subject of her next article. Seth demonstrates the power of his teleportation technology, which he boasts will change the world, with one of Ronnie's stockings. The only shortcoming that Seth has not worked out is the telepod's inability to transport living beings. When Seth attempts to teleport a baboon, the consequences are disastrous: the baboon is transported from one telepod to the other, but has to be put out of its misery after it arrives turned inside out.

Inspired by his blossoming sexual relationship with Ronnie, who seems more experienced and at ease with her sexuality than her somewhat reclusive, nerdy partner, Seth comes to the realization that the computer controlling the telepods needs to be reprogrammed to account for living flesh. After programming the computer to "interpret" the problem of flesh correctly, Seth successfully teleports another baboon and is elated by his breakthrough. However, before he can celebrate with Ronnie, she departs, triggering jealous paranoia in Seth that she is more interested in reviving relations with her editor and ex-boyfriend Stathis Borans (played by John Getz). Seth drowns his sorrows and in his drunkenness decides to test the improved teleportation system on himself. Unbeknownst to Seth, a housefly enters the same telepod as Seth just before the door seals shut. Although Seth emerges from the other telepod apparently normal, in fact, his DNA has been recombined with that of the fly, thus triggering the start of a slow metamorphosis that Seth will undergo into "Brundlefly" over the remainder of the movie.

The first signs of transformation are apparently positive: Seth feels rejuvenated and displays enhanced strength and sexual potency. He concludes that his teleported self is a more improved, more purified version of his old self. Renewing his relationship with Ronnie, Seth's newly intensified libido exhausts his partner. However, when Seth tries to persuade Ronnie to teleport herself in order to gain similar benefits, negative aspects of his transformation begin to emerge. When Ronnie declines Seth's invitation to try teleportation, citing concerns that the experiment has produced unintended consequences, Seth responds arrogantly and criticizes her for her inability to "keep up" with him.

Seth abandons Ronnie and looks for new sexual conquests at a local bar, where he "wins" a date with a libidinous woman named Tawny. Ronnie returns to Seth's apartment the next day just as Seth is attempting to compel Tawny to teleport herself. Ronnie scares away Tawny with one of the most famous lines in film history: "Be afraid, be very afraid." She also expresses concerns about Seth's condition. Outraged, Seth kicks Ronnie out and instructs her never to come back. Soon after Ronnie departs, Seth begins to take greater notice of some of the strange changes that are occurring to his body. In an extended mirror scene that takes place in his bathroom, Seth has trouble shaving the inhuman whiskers growing on his face and notices that his fingernails have begun to fall off, his fingers squirting pus like inflamed pimples when squeezed. Concerned that Ronnie was right, Seth reviews the telepod's computer data and learns that the teleportation sequence that transferred him from one telepod to another was corrupted by the

inclusion of a second form of life: a common housefly. When Seth asks the computer if he absorbed the fly, the computer responds that there was a "FUSION OF BRUNDLE AND FLY AT THE MOLECULAR-GENETIC LEVEL." Confronted with his human-insect hybridity, Seth starts to refer to himself as "Brundlefly."

During the course of the next month, Seth has no contact with Ronnie, and his metamorphosis into Brundlefly starts to kick into high gear. Initially, Seth's face looks like he has a bad rash, and he sprouts small insect-like hair on his back and face. Then, he enters a stage where he appears similar to an adolescent with a bad case of acne. As time passes, warts and lesions also start to appear, his entire face and body become discolored and lumpy, and his fingers appear swollen and pus-filled. As his hair, eyebrows, fingernails (and later other body parts, such as his teeth and an ear) begin to drop off, Seth collects the body parts and stores them in his medical cabinet, which he amusingly calls "The Brundle Museum of Natural History." His eating habits also change dramatically, as he must now digest solid food externally like a fly by vomiting onto his food so that it is dissolved by digestive enzymes before being slurped up in liquid form. Although Seth goes through a brief period of limited mobility when he must walk with the aid of canes, as soon as his internal skeletal structure has modified, he begins to display unusual flylike capabilities—the by-product of his technologically assisted evolutionary mutation, such as clinging to walls and ceilings and walking upside down. Seth's body language changes in other ways as well as Brundlefly emerges, displaying unnerving tics and twitches. Since the transformation into Brundlefly is not yet complete, there is still enough of Seth left to recognize that he is losing his human sense of compassion and being driven by more insect-like impulses and drives.

After learning that she is pregnant, Ronnie returns to the warehouse with the intention of informing Seth about her pregnancy and her plan to have an abortion. Although uncertain whether the baby was conceived before or after Seth underwent teleportation, she is unwilling to risk the chance of giving birth to a mutated child (she has one nightmare in which she miscarries the baby at a hospital and what emerges is a "hideous, squirming giant fly-maggot"[65]). After seeing Seth and the terrible state he is in, she is unable to go through with her disclosure. Seth orders her to leave and never return, lest he hurt her. In one of the most poignant speeches in the entire film, Seth asks Ronnie, "Have you ever heard of insect politics?" He offers his own response with reference to ancient Chinese philosopher Chuang Tzu's famous dream, in which he couldn't tell "if he was Chuang Tzu who had dreamt he was a butterfly, or a butterfly dreaming he was

Chuang Tzu"[66]: "Neither have I. Insects don't have politics. They're very brutal. No compassion. No compromise. We can't trust the insect. I'd like to become the first insect politician. You see I'd like to, but I'm afraid. . . . I'm saying I'm an insect who dreamt he was a man, and loved it, but now the dream is over, and the insect is awake."

After Ronnie leaves the warehouse, Seth, who is filmed from a low angle perched high atop the warehouse roof like a hideous, yet misunderstood Gothic monster lifted from the pages of Victor Hugo's *The Hunchback of Notre Dame* (1831), observes and overhears Ronnie persuading Stathis to take her to an abortion clinic. Seth bursts into the clinic and abducts Ronnie, begging her not to have an abortion: "The baby will be all that's left of the real Brundle. Please don't kill me." Seth then returns with Ronnie to the warehouse where he hopes to carry out a new plan to splice Ronnie's DNA with his own in an attempt to reduce the percentage of fly DNA and produce a new evolutionary adaptation. Stathis breaks into the warehouse and discovers Seth's plan, but before he can destroy the teleportation devices with his shotgun, he is subdued by a mostly metamorphosed Brundlefly, who vomits on Stathis' left hand and right foot, dissolving them on the spot with digestive enzymes and leaving nothing but bloody stumps. Ronnie begs Seth to spare Stathis' life and Seth complies. Seth then discloses his gene-splicing plan, utlizing all three telepods. "We'll be the ultimate family," explains Seth, "A family of three . . . joined together in one body . . . more human than I am alone!" That the telepods look like giant, mechanized eggs reinforces the suggestion that a new family will be born.[67]

Despite Ronnie's obvious horror, Seth tries to force her into one of the telepods. As Ronnie resists, Seth's jaw is torn off and his entire, decaying human shell is sloughed off like a caterpillar's cocoon to reveal the insect monstrosity underneath: Brundlefly. Brundlefly flings Ronnie into telepod 1, closes the door, and then enters telepod 2. As Cronenberg's screenplay notes, "Brundle is now a completely non-human *thing*—yet he seems bent on completing his fusion project. Whether this is out of a still-living desire to regain some kind of humanity, or out of mere insect momentum, we can't tell."[68] As the computer's countdown gets close to activating the fusion experiment, Stathis somehow manages to blast with his shotgun the thick cluster of cables connecting Ronnie's telepod to the computer and the laboratory's power supply, enabling her to escape. Just as Brundefly is on the verge of breaking out of telepod 2, the fusion sequence begins, splicing Brundlefly with a third of the telepod itself. What emerges from telepod 3 is, as Cronenberg describes in the screenplay, "a confused mass

of insect and human flesh, metal, circuit boards, wires and glass—the result of the fusion of Brundle and telepod 2."[69] As William Beard has suggested, the Brundlefly-telepod fusion, "the triple 'impurity' of a man crossed with a fly, and then a man-fly crossed with a thing of metal and glass . . . demonstrates with ultimate force the horror of boundarylessness, the intolerable awfulness ensuing from the transgression of categories and structures. 'Brundleflytelepod,' trailing flesh-cables, with hairs and unrecognizable organs growing next to clunking masses of metal, is a creature too abject to live—an 'abortion.'"[70] The fused Brundlefly-telepod monster emerges from telepod 3 and crawls toward Ronnie, grabbing hold of the end of the shotgun with its claw as if pleading with Ronnie to put it out of its misery. Ronnie hesitates briefly, but then pulls the trigger, taking pity on the monstrosity that is both her former lover and the father of her child.

I have gone into such detail in my synopsis of *The Fly* because of its notable similarities to *Tetsuo*. The scene from *Tetsuo* that perhaps best sums up why Tsukamoto considers himself "one of Cronenberg's disciples"[71] is the mirror scene that occurs after the hit-and-run accident involving the metal fetishist. Just as Seth Brundle began to suspect that the inhuman whiskers growing on his face may be a symptom of his molecular-genetic mutation, so too, the salaryman in *Tetsuo* begins to realize, as he peers self-reflexively into the mirror, that all is not right with his body, since his shaver stumbles over what appears to be a metal whisker (see Figures 2.3 and 2.4). That the initial tool used in Seth and the salaryman's diagnosis is something as common as an electric shaver underscores the everydayness

Figure 2.3. Seth Brundle discovers an enlarged fly hair growing out of his cheek while shaving (*The Fly*).

Figure 2.4 The salaryman discovers a metal whisker sticking out of his cheek in a scene that pays homage to *The Fly* (*Tetsuo*).

of horror discovered in the privacy of their bathrooms, when they realize that a small detail of their bodies is not right. As Cronenberg remarks in his commentary track to *The Fly*, "This scene . . . is really a classic moment in the history of anybody's individual disease. That is, that you're innocently looking in the mirror, you're innocently cutting your toenails or taking a shower, and you feel something, you see something, and even though it's a small thing, it's a very, very wrong thing. And so, this has great reverberations for anybody healthy or not in terms of the fear of diseases of all kinds."[72] The "very, very wrong thing" that Seth discovers in *The Fly* is a nonhuman whisker; in the case of the salaryman in *Tetsuo*, it is a shard of metal. Although it is unclear whether the shard of metal is literally growing out of the salaryman's cheek, like the fly whisker that Seth discovers, or is the result of injury from the recent hit-and-run accident, at the very least, it is symptomatic of profound changes that the protagonist is starting to undergo.[73] In the case of both Seth and the salaryman, the "very, very wrong thing" that they discover on the surface of their own bodies in a private moment is a metaphor for the inhuman otherness that is growing underneath the surface. In short, they learn that the body itself cannot be trusted. In this connection, the visceral horrors offered by *The Fly* and *Tetsuo* have sometimes been construed as allegories about AIDS[74];

however, Cronenberg's appellation as the "King of Venereal Horror" and the contemporaneity of the two films with the emergence of AIDS notwithstanding, such scenes have more to do with disease, the viral transmission of technology, and mortality in general than they do with AIDS per se. Infection, virus, and disease are all agents of profound personal and corporeal transformation in these films, especially posthuman evolutionary change, rather than signs of any particular disease.[75]

In other words, just as the merger of Seth Brundle and a common housefly creates an evolutionary mutation called Brundlefly (and, later, the merger of Brundlefly and the telepod creates Brundlefly-telepod), so too, the merger of the salaryman and metal fetishist creates a posthuman mutation called "Tetsuo." "Tetsuo" (Iron Man) is the name given to the "organic combination of flesh and metal [*nikutai to kinzoku no yūkiteki ketsugō*]" that Tsukamoto acknowledged was inspired by the art of H. R. Giger, as discussed earlier.[76] Tetsuo is the posthuman, machine-flesh mutation created by the fusion of the salaryman and the metal fetishist. Rather than offering a merger that is akin to the mediation of management and labor that serves as the artificial denouement of *Metropolis*, the union of salaryman and metal fetishist in *Tetsuo* forms a monstrous, postindustrial hybridity, which the film identifies with the posthuman "NEW WORLD." Although there are positive aspects to the evolutionary mutations of Seth and the salaryman, such as increased speed, better reflexes, keener senses, and greater strength and endurance, it is the negative ramifications that are foregrounded, particularly with respect to the hypermasculinity that comes to be displayed by each.[77] In the early stages of their transformations, Seth and the salaryman each feel acute shame and embarrassment over their condition (the salaryman hides in the bathroom away from the prying eyes of his girlfriend because he is too embarrassed to come out after his penis has turned into a giant drill).[78] However, the shame is short-lived and metamorphosis soon makes both Seth and the salaryman more predatory, more violent, hypersexual, less compassionate, and more addictive. Such transformation is marked by the release of dark forces, desires, and fears, the abjection of the body (both the protagonist's own and others with whom he comes into contact), as well as the loss of identity in which the self becomes other as the body undergoes radical changes.

The relationship between the male protagonist's monstrosity and female sexuality in *Tetsuo* also bears comparison with *The Fly*. William Beard has argued that insofar as Ronnie "initiates Seth into the domain of sexuality and 'the flesh,'" in a sense, it is the female body that serves as "the catalyst in the production of monstrosity," even if "she is not monstrous herself."[79]

Insofar as the salaryman's transformation in *Tetsuo* kicks into second gear after his encounter with the biomechanoid woman in glasses, and seems to be accelerated further by his nightmare about being sodomized by his girlfriend, the female body also serves as a catalyst in *Tetsuo*, albeit not the only one. Whether the homoerotic relationship between the salaryman and metal fetishist reinscribes elements of the love story between Seth and Ronnie from *The Fly* is something that will be explored later in relation to the film's denouement.

"Long Live the New Flesh": *Videodrome*

Since the explosion of interest in Japanese horror cinema in the mid-1990s, many film viewers have come to associate cursed video with Nakata Hideo's much-lauded film *Ringu* (*Ring*), released in 1998. This is the film that kick-started the latest renaissance of Japanese horror and established "J-horror" as a marketing buzzword. However, *Ringu* was not the first horror film to explore the viral aspects of video—that honor goes to *Videodrome*, the boundary-pushing 1983 body-horror film, written and directed by David Cronenberg, which Andy Warhol lauded as "*A Clockwork Orange* of the 1980s." *Videodrome* broke new ground by problematizing modernity and visualizing technology in the space of horror, making technology an issue for horror in ways that go well beyond previous science fiction horror films. Like *Ringu*, *Videodrome* is most effective at instilling a profound sense of existential dread in its viewers while offering trenchant social critique of emerging technologies.

James Woods plays Max Renn, president of CIVIC-TV ("Civic TV, the One You Take to Bed with You"), a Toronto-based, cable-broadcasting television station that specializes in sleazy material for an attention-deficited audience craving stimulation of all sorts. In his search for something new and edgy, he meets with representatives of a Japanese distributor called Hiroshima Video, who are marketing Orientalist soft-porn fantasies under the title *Samurai Dreams*. However, after viewing a sample, Max turns it down, saying that it is too "soft" and that he is "looking for something that will break through"—"something tough." With the help of his tech assistant, Harlan (Peter Dvorsky), Max is introduced to a pirated transmission of "Videodrome"[80] (meaning "video circus" or "video arena"), a snuff television program that offers nothing but the sadistic (and sexually charged) torture, bondage, and murder of "contestants" (mostly women) carried out by masked men in a brightly lit, rust-colored[81] room with walls of electrified wet clay. Although Max is originally under the impression

that Videodrome is being broadcast from somewhere in Malaysia, he later learns that it is coming out of Pittsburgh. Max assumes that the performances are not real, but he needs to do more research before he can broadcast it. Videodrome's low production costs and edgy material are just what Max is looking for: "It's brilliant. There's almost no production costs. You can't take your eyes off it. It's so realistic. Where do they get actors who can do this?" We learn later that every contestant who has appeared on Videodrome has been killed on film.

Max makes a guest television appearance on *The Rena King Show*, where he is interviewed about the social impact of erotic and violent television shows (with self-reflexive connotations for the viewing of techno-horrors such as the movie *Videodrome*). There he participates in a dialogue with two other guests, radio psychotherapist Nicki Brand (Deborah Harry), host of the *Emotional Rescue Show*, and media prophet Professor Brian O'Blivion (Jack Creley), who only appears in videotaped recordings of himself. Max defends the mission of CIVIC-TV by arguing that, rather than contributing "to a social climate of violence and sexual malaise," his channel's programming gives viewers "a harmless outlet for their fantasies and their frustrations." As far as Max is concerned, "that's a socially positive act." Nicki acknowledges that "we live in overstimulated times" and "crave stimulation . . . always want[ing] more, whether it's tactile, emotional or sexual," but is doubtful of its social purpose. However, Professor O'Blivion offers the most interesting response, one that seems radical in its thorough embrace of media simulacra:

> *Rena King*: Professor O'Blivion, do you think erotic and violent TV shows lead to desensitization? To dehumanization? Is the microphone on?
> *Professor O'Blivion*: The television screen has become the retina of the mind's eye.
> *Rena King*: Yes.
> *Professor O'Blivion*: That's why I refuse to appear on television, except on television. O'Blivion is not the name I was born with. It's my television name. Soon, all of us will have special names, names designed to cause the cathode-ray tube to resonate.

Later, Max brings Nicki back to his apartment, where he shows her the pirated tape of Videodrome. Max is worried that Videodrome's extreme violence will be a turnoff, but, on the contrary, Nicki is turned on. Aroused by Videodrome, Nicki asks Max to cut her on the shoulder with his Swiss Army knife, to which Max responds jokingly that someone already beat him to it. Although we do not see Max nick Nicki (a deliberate pun on her name by the screenplay writer and director, David Cronenberg), Max does satisfy Nicki's desire for body modification by piercing her ears. As they

make love, Max glances over at his television set and hallucinates that he and Nicki are having sex in the Videodrome torture chamber appearing on his television with a soundtrack of sensual breaths and sighs. In this hallucination and others that follow, Cronenberg and cinematographer Mark Irwin, who has worked with Cronenberg on six films, resist the use of special effects, such as color shift or optical distortion, which might telegraph the fact that Max is having a hallucination, since Cronenberg thought that such scenes should feel real to the person who is experiencing them rather than bracketed or demystified in any way. In this connection, in addition to being a reference to Rennmax motorcycles, of which the director is an enormous fan, Max Renn's name may also be a pun on REM, the rapid eye movements that are associated with the phase of sleep in which one typically experiences vividly recalled dreams. As the hallucinations become more and more frequent, it becomes more obvious that *Videodrome* is "a first-person film,"[82] as Cronenberg has acknowledged, since "we get no information that Max doesn't get himself."[83] The fact that *Videodrome* is told from Max's perspective makes it impossible for the viewer to distinguish reality from simulacrum.

In a later scene, when Max and Nicki get together for another date, she confides in him her plan to go to Pittsburgh to audition for Videodrome. He urges her not to go, but Nicki Brand considers Videodrome a challenge—she thinks she "was made for that show." As far as Max is concerned, "nobody on earth was made for that show." He issues a stern warning intended to frighten her: "You know, in Brazil, Central America, making underground videos is considered a subversive act. They execute people for it. In Pittsburgh, who knows?" However, it is to no avail: Nicki Brand responds by taking a lit cigarette and "branding" her breast with it, as if to show she means business, as well as offering a pun on her name.

In the next scene, Max meets with his colleague Masha Borowczyk, an agent he has hired to investigate the possibility of purchasing episodes of Videodrome. Masha reports that Videodrome is too dangerous and political to handle and not fit for public consumption. She tells Max that the show is for real ("It's snuff TV") and that it has something that he does not: "It has a philosophy and that is what makes it dangerous." Max finally persuades Masha to disclose the name of the person behind Videodrome, the name behind the dangerous philosophy of Videodrome: Professor O'Blivion. Max pays a visit to the "Cathode Ray Mission," a Salvation Army–like soup kitchen run by the Marshall McLuhan caricature, Professor O'Blivion, where television is offered instead of soup. According to O'Blivion's philosophy, in order to cure the homeless of their malady, which his daughter

claims is "caused by their lack of access to the cathode-ray tube," they are given large doses of television programming to "help patch them back into the world's mixing board." Such a view prophetically anticipates by over ten years the now commonplace position that providing computers to developing countries and establishing access to the Internet are important tools for social development.[84] However, Cronenberg's vision in *Videodrome* is much more bleak in its suggestion that such technologies will be used for social control and domination rather than empowerment and liberation.

At the Cathode Ray Mission, Max meets the professor's daughter, Bianca O'Blivion (Sonja Smits), who tells Max that, her father's recent videotaped appearance on *The Rena King Show* notwithstanding, her father has not engaged in conversation for at least twenty years (we later learn that Professor O'Blivion passed away almost a year earlier). Given that "monologue is his preferred mode of discourse," the only contact Max can expect to receive from Professor O'Blivion is in the form of a videotape. When asked for his preferred format, rather than responding "VHS" or "Betamax," Max requests Videodrome. Bianca feigns ignorance, but the message has been received.

The next morning, Max's assistant, Bridey James (Julie Khaner), drops by his apartment to wake him up and deliver a videotape from Professor O'Blivion. While Bridey is at his apartment, Max suddenly slaps her in the face and then apologizes for hitting her. However, he comes to the realization that it was all just a hallucination when Bridey responds, "You didn't hit me." After Bridey departs, Max removes the videotape from its box and immediately drops it on the floor when it undulates in his hands, as if taking a breath, while emitting a woman's aroused murmur. Max puts in the tape and listens to Professor O'Blivion's videotaped sermon, sounding like a pastiche of Marshall McLuhan combined with Jean Baudrillard: "The battle for the mind of North America will be fought in the video arena, the Videodrome. The television screen is the retina of the mind's eye. Therefore the screen is part of the physical structure of the brain. Therefore, whatever appears on the television screen emerges as raw experience for those who watch it. Therefore, television is reality and reality is less than television." The audio mixing then shifts so that Professor O'Blivion's voice becomes much clearer and more proximate, as if he were in the room with Max. Max hallucinates that Professor O'Blivion is addressing him personally: "Max, I'm so glad you came to me. I've been through it all myself, you see. Your reality is already half video hallucination. If you're not careful, it will become total hallucination. You'll have to learn to live in a very strange new world. I had a brain tumor. And I had visions. I believe the visions

caused the tumor, and not the reverse. I could feel the visions coalesce and become flesh, uncontrollable flesh. But when they removed the tumor, it was called Videodrome. I was the . . . I . . . I . . . was . . . Videodrome's . . . first victim." As Steven Shaviro has suggested, "the brutally hilarious strategy of *Videodrome* is to take media theorists such as Marshall McLuhan and Jean Baudrillard completely at their word, to overliteralize their claims for the ubiquitous mediatization of the world."[85] After Professor O'Blivion utters these final words while being strangled to death, his executioner reveals herself: Nicki Brand. Nicki beckons from the television as a virtual reality temptress and masculinist fantasy, probably the hallucinatory construct of Max's Videodrome-stimulated psyche: "I want you, Max. . . . Come to Nicki. Come on. Don't make me wait. . . . I want you, Max." Max obliges, tenderly caressing and fondling the television (see Figure 2.5), which shows first a close-up of Nicki's face, followed by an extreme close-up of her lips and teeth. Like the breathing, eroticized videotape, the television set itself becomes a breathing, sexually aroused entity—a giant, undulating techno-erogenous zone, billowing forth "from the console frame like a swelling breast"[86] or the masticating vagina dentata of a devouring lover (or mother). As if his entire body were being transformed into a figurative phallus, Max pushes his head into Nicki's magnified lips and mouth displayed on the elastic, bulging television screen until it looks as if his entire

Figure 2.5 Max fondles his television's erogenous zones (*Videodrome*).

head will be devoured by Nicki's Videodrome mouth and the tele-image will burst out of its frame into the world outside.[87]

The next day, Max visits Bianca O'Blivion again and tells her that he watched her father's tape and that it caused hallucinations. Bianca discloses that "the tone of the hallucinations is determined by the tone of the tape's imagery. But the Videodrome signal, the one that does the damage . . . can be delivered under a test pattern, anything." The Videodrome signal causes a brain tumor, which stimulates the hallucinations. Bianca also confesses that her father died almost a year ago on an operating table, but remains alive in the form of thousands of videotapes, which he recorded before his death in the belief "that public life on television was more real than private life in the flesh." Although Professor O'Blivion helped create Videodrome, viewing it "as part of the evolution of man as a technological animal," he soon realized that his partners wanted to use it for nefarious purposes. Bianca blames her father's ex-partners for his death.

Max returns to his apartment to continue his Videodrome tutelage under Professor O'Blivion, who explains that the growth in his head is not a tumor, but rather "a new organ, a new part of the brain," which will "produce and control hallucination to the point that it will change human reality." As if echoing philosopher Friedrich Nietzsche's well-known perspectivism, which presupposes that "facts are just what there aren't, there are only interpretations," since "we cannot determine any fact 'in itself.'"[88] Professor O'Blivion suggests that "there is nothing real outside our perception of reality." As Max listens to Professor O'Blivion's lecture, he holds a gun in his right hand and scratches at a scar on his stomach until he realizes that the scar has metamorphosed into a gaping vagina-like opening. This vaginal slit marks the effeminization of Max—the invagination of a phallic male—suggesting masculine anxieties about the feminization of both technology and the male body in contact with technology. By inserting his phallic gun into his pulsating vaginal slit, Max penetrates himself in an autoerotic moment in which he, hermaphrodite-like, plays the role of both male and female, both agent of control and object of control, both phallic male sadist and abject female victim. While his entire hand is inside, he momentarily encounters difficulty pulling it out, but then does finally withdraw it only to discover that the gun he just inserted has been lost and the vaginal slit has disappeared. As he frantically looks around his apartment for the gun to no avail, Max receives a phone call from someone who invites him downstairs, where there is a car that will take him to see Barry Convex (Leslie Carlson), chief of special programs at Spectacular Optical, a corporation whose logo is a stylized panoptic eye and whose motto is

"Keeping an eye on the world." Spectacular Optical produces "inexpensive glasses for the Third World and missile guidance systems for NATO," as well as Videodrome. Convex describes Videodrome as "a giant hallucination machine and much, much more" but warns Max that it is not yet ready for the marketplace.

Inside the eyewear department of Spectacular Optical, Max tries on different glasses to amuse himself, some of which are prototypes for the new season. Convex asks Max to wear special headgear with built-in virtual reality goggles and a self-contained taping mechanism (referred to as the "Accumicon helmet" in Cronenberg's original script) in order to record his hallucinations for further analysis. Convex advises Max that this is in his best interests, since "none of our test subjects has returned to . . . normality." He also recommends "a little S&M [sadism and masochism] . . . to trigger a good healthy series of hallucinations." Convex explains that in order for the Videodrome signal to sink in, exposure to violent media is necessary, since violent imagery "opens receptors in the brain."[89] Convex leaves and Max proceeds to have a series of vivid hallucinations, including one in which he is administering torture to Nicki Brand inside of the Videodrome room. However, instead of making contact with Nicki's body, Max whips a breathing television that displays Nicki's virtual bound body on the screen. Nicki encourages Max to perform in order to "open those neural floodgates." After moving to a medium shot of Max (without virtual reality helmet) performing his role with some discomfort, the camera pulls back to reveal that the whipped body on television is now that of his colleague, Masha, rather than Nicki. As Max starts to get into the act of whipping, there is a close-up shot of the bound Masha screaming in agony each time the whip makes contact with the television. To his utter horror, Max then awakens in his own bed next to the gagged and bound body of Masha, who is dead. He invites Harlan to his apartment to take photos of what is in his bed, but Harlan does not see anything unusual.

Later, Max meets Harlan back at the lab and learns that his trusted tech assistant is actually working for Convex. Convex and Harlan disclose their fascistic purpose, which is to make North America morally tough, pure, and strong in preparation for "savage new times." Toward that end, they exposed Max to Videodrome and intend to send transmissions to all of the viewers of CIVIC-TV in order to stop "rotting us away from the inside." The next phase of the Videodrome project requires taking over CIVIC-TV by having Max assassinate his business partners. To reprogram Max for this mission, Convex aggressively shoves a videotape into the vaginal orifice on

Max's stomach in a scene of figurative rape, turning Max into a human videocassette recorder (VCR). As William Beard has noted, just as Max has perpetrated acts of violence against women in the service of his sadistic desires, so too is he "invaginated, raped, manipulated, and programmed by sadistic males" in a sort of surreal "retribution for transgressive masculinity."[90] Carrying out his new programming, Max kills his partners at CIVIC-TV using a phallic flesh-gun that he has pulled out of his abdomen, which has literally become an extension of Max's hand, grafting itself onto his hand and wrist with piercing, ribbed metal cords in a way that makes it difficult to say whether technology is an extension of the human or vice versa.[91]

Next, Max is sent to kill Bianca O'Blivion. However, Bianca recognizes that Max has transformed into an assassin for Videodrome, that he is being played "like a videotape recorder" by the corporation Spectacular Optical. She tells Max that Convex and his partners killed Nicki Brand on Videodrome, using "her image to seduce" him when "she was already dead." As Bianca asserts that "Videodrome is death," the footage of Nicki's execution in the Videodrome room that was just playing on the screen is changed to an elastic sheet of television noise forming the shape of Max's flesh-gun. As the television screen projects outward under the pressure of the flesh-gun, the texture switches from television noise to a flesh-colored sheet marbled with veins, which some commentators have suggested resembles "an engorged penis."[92] The television's phallic flesh-gun shoots (ejaculates?) Max in the chest and stomach multiple times, then cuts to a close-up of the Videodrome television, whose screen now mimics the chest of Max, complete with bleeding bullet holes. Co-opting the tools of Videodrome (and its corporate sponsor, Spectacular Optical) in order to destroy it, Bianca counterprograms Max with the parodic Gospel of O'Blivion so that he becomes the apotheosized "video word made flesh." As if in response to Convex's invagination of Max, which transformed him into a hysterically abject female victim, Bianca's counterprogramming rephallicizes Max, as if to reinstate his status as a phallically violent male sadist. As a sign of his redemption via television, Max repeats after Bianca his new directive: "Death to Videodrome. Long live the new flesh."

Ready to carry out his new mission, Max returns to Spectacular Optical's eyewear store and confronts Harlan in the back room. When Harlan inserts another undulating videotape into Max's vaginal-VCR slit, he is unable to remove his hand until it has metamorphosed into a World War II–style "potato masher" stick grenade, which explodes and kills him. That Harlan is now hallucinating as well suggests that Max is quite effectively

turning the tools of Videodrome against its masters. Max exits the store via the hole created by Harlan's blast and proceeds to a Spectacular Optical tradeshow, where Barry Convex is master of ceremonies, organized around the twin Renaissance themes of "love comes in at the eye" and "the eye is the window of the soul." Max uses his flesh-gun to assassinate Convex, shouting, "Death to Videodrome! Long live the new flesh!" As he writhes in pain, Convex undergoes a radical Videodrome-induced hallucination and metamorphosis in which his chest and head split open and a variety of misshapen tumors and intestines spill out.

Originally, an epilogue to the film was planned in which Max, Nicki, and Bianca all appear on the set of Videodrome, each with vagina-like slits on their abdomens, from which emerge bizarrely mutated sexual organs.[93] However, that ending was never filmed due to cost overruns, scheduling problems, and the complexity of the special effects required. Instead, following the dramatic death scene of Barry Convex, Max heads to a deserted boatyard and hides out in the hold of a condemned, decaying tugboat. As Cronenberg acknowledges in his commentary on the film, *Videodrome* has influenced numerous contemporary Japanese techno-horror directors, from Tsukamoto to Nakata Hideo (*Ringu*) to Kurosawa Kiyoshi (*Kairo*). Not only the self-referential narrative about a television program that causes people to commit suicide but also the imagery of rust and atmosphere of industrial decay have had a strong influence on these directors.[94] Looking quite weary from his long, sadomasochistic journey of personal transformation, Max rests on a stained old mattress on the floor of the tugboat's hold, perhaps left behind by another transient like himself. Max looks up to see Nicki appearing on the Videodrome television, preparing to guide him to the underworld like Virgil did for Dante in the *Divine Comedy* (1308–21) after he had lost his way in midlife. However, rather than trying to persuade Max not to kill himself, as it is allegorically implied Virgil did for Dante, Nicki does just the opposite:

Max: I was hoping you'd be back.
Nicki: I'm here to guide you, Max. I've learned a lot since I last saw you. I've learned that death is not the end. I can help you.
Max: I don't know where I am now. I'm having trouble . . . finding my way around.
Nicki: That's because you've gone as far as you can with the way things are. Videodrome still exists. It's very big, very complex. You've hurt them but you haven't destroyed them. To do that you have to go on to the next phase.
Max: What phase is that?
Nicki: Your body has already done a lot of changing, but that's only the beginning—the beginning of the new flesh. You have to go all the way now. Total transformation. Do you think you're ready?
Max: I guess I am. How do we do it?

> *Nicki*: To become the new flesh you first have to kill the old flesh. Don't be afraid. Don't be afraid to let your body die. Just come to me, Max. Come to Nicki. Watch. I'll show you how. It's easy.

After Max has been counterprogrammed by Bianca O'Blivion, Nicki's Videodrome role is transformed into that of a priestess of the New Flesh, who "seems to show the way out of the hell of transgression as she has previously showed the way into it."[95] The camera cuts to a reaction shot of Max followed by a return to the Videodrome television, where the image on the screen has changed from a close-up of Nicki's face to a long shot of Max standing in the tugboat hold. With Howard Shore's haunting, sinister score playing in the background, the camera slowly zooms in on Max's face on the television screen as he utters the words, "Long live the new flesh," and then blows his brains out with his flesh-gun just as a faint smile appears across his face. As the on-screen Max shoots himself, the Videodrome television explodes, shattering the screen and spewing unimaginable amounts of viscera, organs, and chunks of flesh onto the floor of the derelict tugboat's "belly." This is followed by the real Max imitating exactly what he has just seen as if in replay, including the final words, "Long live the new flesh." As the flesh-gun's shot rings out, the film screen goes black. Like so many of Cronenberg's protagonists who have undergone profound transformation, such as those in *The Fly*, *Dead Ringers* (1988), and *Naked Lunch* (1991), Max chooses to die rather than continue to live in his present body. Whether suicide offers a liberatory escape from Videodrome or is merely its final, inexorably tragic outcome is left profoundly ambiguous.

Tsukamoto's reasons for considering *Videodrome* one of "the parents" of *Tetsuo*, as I mentioned earlier, should by now be obvious. First and foremost, *Videodrome* and *Tetsuo* share an interest in consciousness mediated by television and identity altered by exposure to media. In both films, the television functions as a device that both stimulates and visualizes unconscious fantasies that take over their protagonists' consciousness and push them into altered states of consciousness, in which the everyday becomes strangely surreal. The "New World" that appears as a sign in the metal fetishist's dwelling evokes the "New Flesh" of *Videodrome*. Like the "New Flesh" of *Videodrome* and its apotheosized "video word made flesh," the "New World" of *Tetsuo* is one in which consciousness is thoroughly mediated by televisual technology, suggesting not only an identification between the male gaze and the gaze of the television camera but also the extent to which vision and memory have become thoroughly infused by televisual simulacra. For example, the salaryman and metal fetishist have both assimilated the television apparatus so profoundly in *Tetsuo* that their

vision and memories appear to be mediated by it even when they are not watching television or reviewing its video playback, as suggested by the frequent intercuts of television scanlines and noise and scenes from their memories appearing on televisions in the salaryman's or metal fetishist's respective apartments. Later in the film, when the struggle of the salaryman and metal fetishist moves to the former's apartment, their battle is simulcast on a television belonging to the salaryman. At one point in their fight, the metal fetishist even slams the television onto the salaryman's head, not decapitating the salaryman but rather crowning him with a television-head. Likewise, as if to echo Professor O'Blivion's assertions in *Videodrome* that "the television screen is the retina of the mind's eye" and "the screen is part of the physical structure of the brain," the television in *Tetsuo* seems to function in many shots as a screen not only for the unconscious of the salaryman and the metal fetishist but also for the unconscious of the film itself by showing scenes from Tsukamoto's earlier films, such as *Adventures of the Electric Pole Kid* (*Denchū kozō no bōken*, 1987), thereby creating a mise en abyme effect.

Whose unconscious is being displayed on the salaryman's television is often quite ambiguous. For example, the hit-and-run accident and its aftermath are replayed again and again on the salaryman's television apparently from the metal fetishist's point of view. In the latter shot, which is marked by scanlines and noise to underscore its televisual status, we see from the metal fetishist's perspective that the salaryman and his girlfriend become sexually aroused and make love in response not only to the scene of the automobile accident itself but also to the voyeurism of the metal fetishist, who watches the couple make love as he lies injured. However, the editing of the shot suggests that the subject position is ambiguous, since it is first inserted into a scene in which the salaryman daydreams while talking to his girlfriend on the phone. In one of the most peculiar scenes in the film, while the salaryman nonchalantly reads the morning newspaper over breakfast, he gets locked into a surreal feedback loop at the outset of a telephone conversation with his girlfriend through the simple repetition of "*moshimoshi*" (hello). *Moshimoshi* is a phatic interjection whose function is not to convey information but merely to connect a speaker to a listener: "Hello, is anyone there? I'm here and am ready to participate in a conversation." Through repetition of this phatic expression, everyday communication is thereby estranged and a surreal space is created in which the salaryman can fantasize about making love with his girlfriend at the scene of the hit-and-run accident in full view of the injured metal fetishist, viewing the scene from the metal fetishist's perspective.

Although the metal fetishist is the victim of the hit and run, it is suggested again and again that he is also the orchestrator (after the hit and run) of the salaryman's subsequent hallucinations by exposing the latter to the virus of metal, just as Max Renn in *Videodrome* is, in effect, controlled by Barry Convex (and, later, Bianca O'Blivion) by means of the virus of Videodrome. As cultural critic Gary Indiana notes, "anyone exposed to the Videodrome signal gets sucked into a never-ending hallucination controlled by someone else's will": "Whoever it goes into, goes into it; it can bend the subject's perceptions so drastically that the body itself alters form; its flesh melts into globs, sprouts machine parts, splits apart."[96] *Tetsuo* does not reiterate exactly *Videodrome*'s "paranoid model of manipulation of helpless private individuals by predatory corporate forces," but it does share the anxieties expressed in Cronenberg's film concerning "technological penetration and colonization"[97] and the voyeuristic objectification of the body through technologies of surveillance and remote control. In *Tetsuo*, anxieties about being controlled are not linked to any specific corporation, but rather to a specific individual, the metal fetishist, and his telekinetic powers—a topic to which I will return in greater detail in the next section in relation to the tentacle motif. Furthermore, as is the case in *Videodrome*, such anxieties over external control are placed in tension with the salaryman's internal sense of guilt over his transgressive desires, which, like Max Renn's, are sadomasochistic in nature. It is this unresolved tension between "external organs of power," as William Beard puts it, and "internal transgressive urges" that propels the paranoid, hallucinatory aspects of both *Videodrome* and *Tetsuo* and creates a sense of uneasiness in the viewer.[98] When the salaryman discovers the transgressive nature of his sexuality, it renders him "disoriented, desubjectified, at last utterly abject and pitiable,"[99] just as it does to Max Renn.

Although *Tetsuo* was released three years before J. G. Ballard's controversial novel *Crash* (1973) was first translated into Japanese,[100] and seven years before *Crash* was adapted into a feature-length film by David Cronenberg, the scene of the hit-and-run accident and the voyeuristic lovemaking that follows bears an uncanny resemblance to scenes from Ballard's novel (and Cronenberg's cinematic adaptation) involving characters who are sexually stimulated by the spectacle of automobile accidents (giving new meaning to the term "autoeroticism"), even (or especially) when they themselves are involved (or are being observed by others who were also victims). Like *Crash*, *Tetsuo* engages issues of technological addiction, voyeurism, fetishism, and mechanical eroticism, presenting a dystopic world in which technology functions not simply as an augmentation of human capacity or an

extension of the body, but, more importantly, as the means by which the human animal destroys itself *and* derives sexual pleasure in the process. What Jean Baudrillard has said of *Crash* could equally be applied to *Tetsuo*:

> *Crash* is our world, nothing is really "invented" therein, everything is hyper-functional: traffic and accidents, technology and death, sex and the camera eye. Everything is like a huge simulated and synchronous machine; an acceleration of our own models, of all the models which surround us, all mixed together and hyper-operationalized in the void. What distinguishes *Crash* from almost all other SF [science fiction], which still seem to revolve around the old (mechanical/mechanistic) duo of function vs. dysfunction, is that it projects into the future along the same lines of force and the same finalities as those of the "normal" universe. Fiction can go beyond reality (or inversely, which is more subtle), but according to the same rules of the game. But in *Crash*, there is neither fiction nor reality—a kind of hyperreality has abolished both.[101]

Hyperreality—or surreality—is also the effect created by the intersection of desiring machines in *Tetsuo*, which, like *Crash*, mix "technology and death, sex and simulation" into "one single, huge synchronous machine"[102] that transcends the tired dichotomy of function versus dysfunction. As Baudrillard argues, "There is no possibility of dysfunction in the universe of the accident; thus no perversion either. The Accident, like death, is no longer of the order of the neurotic, of the repressed, of the residual, or of the transgressive; it is the initiator of a new manner of non-perverted pleasure."[103] In Tsukamoto's attempt "to make an erotic film by way of science fiction, to express eroticism through iron,"[104] *Tetsuo* explores the limits of such "non-perverted pleasure." In this sense, when the cinematography of *Tetsuo* shows the crumpling and breaking-down of metal and machine during the grappling of the metal fetishist and salaryman, it is not due to dysfunction but rather to the hyperfunctional operations of the synchronous machine constituted by the salaryman and metal fetishist's techno-erotic commingling. However, given *Tetsuo*'s profound connection to *Videodrome*, it is difficult to say whether this techno-erotic fusion is to be interpreted in a realist or surrealist way. In *Videodrome*, a surrealist alternation of subjective and objective shots prevents the viewer from getting a foothold in what is really happening. In fact, Max Renn's hallucinations slowly engulf the entire film so that "everything in the film after Max's first viewing of the Videodrome signal is hallucinated."[105] *Videodrome* thereby undermines "the conventions of 'classical realist' cinematic narrative."[106] In the wake of *Videodrome*, one possible interpretation of *Tetsuo*'s ending, which shows us a fusion of bodies and subjectivities that radically reconceives the status of corporeality and "identity" in Tsukamoto's "New World," is that it is entirely the hallucination of the salaryman, perhaps induced by the

metal fetishist. Indeed, it may be that everything we see after the salaryman has been infected by the metal fetishist's virus (i.e., from the moment the salaryman discovers the metal whisker sticking out of his cheek) is nothing more than a series of surreal hallucinations.[107]

Moreover, as is the case with *Videodrome*'s "New Flesh," in which, as Steven Shaviro suggests, "the extremities of agony cannot finally be distinguished from those of pleasure,"[108] *Tetsuo*'s "New World" presents a sadomasochistic mixture of pleasure and pain. After they have fused into a new assemblage, the head of the salaryman, which is positioned on top of the phallus-like structure, remarks to the head of the metal fetishist, positioned on the shaft, "How about turning the whole world into metal? You and me. And we can rust the whole world and scatter it into the dust of the universe." To which the salaryman responds, "Sounds like fun." It is clear from the pained expression on the metal fetishist's face and the silver bodily fluids emerging from his mouth that, despite his assertion that he "feels great," the jouissance experienced takes place "where the body's abjection in pleasure or in pain is the site of a new and transformed kind of identity and experience."[109]

Perhaps the most striking association between *Videodrome* and *Tetsuo* is in their recognition of the convergence of evolution and technology. When Professor O'Blivion lectures Max, explaining that the growth in his head is not a tumor, but rather "a new organ, a new part of the brain," which will "produce and control hallucination to the point that it will change human reality," he is not simply suggesting that to experience Videodrome is to enter a state of "post-bodied" immortality. "Long live the new flesh" does not mean postcorporeal life after death, but rather adopting new technological bodies in this life, bodies that incorporate technology in such a way as to mutate the human form on the way toward becoming a new species. As Cronenberg argues in his commentary track,

> Technology isn't really effective, it doesn't really expose its true meaning, I feel, until it has been incorporated into the human body. And most of it does, one way or another. Electronics. People wear glasses. They wear hearing aids that are really little computers. They wear pacemakers. They have their intestines modified. It's really quite incredible what we've been able to do to the human body and really to take it some place that evolution on its own could not take it. Technology has really taken over evolution. We've seized control of evolution ourselves without really quite being conscious of it. It's no longer the environment that affects changes in the human body, it's our minds, it's our concepts, our technology that are doing that.[110]

Just as the slit that opens in Max's stomach is more than simply a displaced vagina, since it is a VCR-vagina, so too the salaryman's drilling phallus

in *Tetsuo* is more than simply a monstrous penis, since it is a drill-penis. Likewise, complementing Max Renn's flesh-gun in *Videodrome* is the metal fetishist's flamethrower-arm in *Tetsuo*.[111] What is crucial here is the way in which the biomechanical hybridity signified by the hyphen brings together biology and the mechanical in a way that not only eroticizes technology—turning technology into an erogenous zone, as well as technologizing a sexual organ—but also opens an avenue for a new path toward posthuman evolution, one in which technology is organicized and organs are technologized. This new path, in its combination of incongruous categories, may come across as perversely monstrous, but such monstrosity also holds the promise of transformed identity and new modes and possibilities of experience.

The Tentacle Motif from Hokusai to *Tetsuo*

In addition to the work of Giger and Cronenberg, reviews and interpretations of *Tetsuo* frequently mention Tsukamoto's indebtedness to the animation of Czech surrealist artist Jan Švankmajer. Although it is unclear how familiar Tsukamoto was with Švankmajer's work when he made *Tetsuo*, there is no question that the stop-motion animated effects in *Tetsuo* are akin to Švankmajer's stop-motion experiments in groundbreaking animated films such as *The Ossuary* (*Kostnice*, 1970), *Dimensions of Dialogue* (*Moznosti dialogu*, 1982), and *Alice* (*Neco z Alenky*, 1988), in which inanimate objects (especially food) become animate and take on the qualities of the living. In the hands of Švankmajer and Tsukamoto, the stop-motion technique not only produces an effect of the uncanny by blurring the boundaries between the animate and the inanimate but also exposes the very origins of cinema in the stillness of a single frame. As Enrico Ghezzi has remarked, the stop-motion technique is "one of the few photographic techniques which is able to maintain the essence of the 'original cinema'" by carrying out "a sort of 'descent' into the interior fissure of cinema," halting "the train of synthetic and automatic movement of film, stopping time and entering in the space of the frame."[112]

However, in addition to entering into "the space of the frame," I would argue that Tsukamoto's use of the stop-motion technique, especially as it is applied to the frequently animated cords, cables, and ligatures in *Tetsuo*, also functions as a citation of the history of the tentacle motif in Japan—a citation that suggests not simply phallic aggression but also the rhizomatic connection between heterogeneous elements and forms of organization. Since Tsukamoto's use of the stop-motion technique invokes the history of

the tentacle motif, it is worth reviewing that tradition and then exploring its sexual politics and alternative applications in *Tetsuo*.

It borders on a truism to say that tentacular appendages, whether organic or biomechanical, constitute one of the dominant images of monstrosity in Japanese science fiction and horror anime. The tentacle motif is not the invention of anime, but rather the latest reiteration of a well-established aesthetic image repertoire in Japanese art that dates back at least to the eighteenth century. The tentacle motif makes its earliest appearance in Japanese wood block prints (*ukiyoe*) of the late Edo (1603–1868) period. The most famous print of all from this subgenre is an erotic picture (*shunga*) by Hokusai (1760–1849) titled *Octopi and Pearl Diver* (*Tako to ama*), which was created in 1814 for a three-volume album of erotic tales, *Young Pine Shoots* (*Kinoe no komatsu*). Borrowing its subject matter from a late eighteenth-century work by his teacher Katsukawa Shunshō (1726–92), Hokusai's macabre work shows an unclad pearl diver whose body is enveloped by the tentacles of two octopi, one large and the other small. While the small octopus appears to caress the woman's left breast, the large octopus performs what looks like an act of cunnilingus.[113] Hokusai's ambiguous depiction makes it difficult to tell whether the woman is writhing in ecstasy or pain, whether the octopi are performing acts of sexual pleasure or committing acts of violence. The playful ambiguity and transgressive sexuality depicted in the print were not unusual for the period. Indeed, the depiction of women engaging in sexual intercourse with marine life can also be found on Japanese *netsuke* (miniature sculptures) dating back to the seventeenth century. However, what is distinctive about the Hokusai print (and the many imitators that followed) is that the tentacle motif clearly functions as a phallic substitute, the multiplication of which is used to suggest polymorphous masculine perversity.

Perhaps more than any other anime to date, the notorious supernatural erotic horror *Urotsukidōji: Legend of the Overfiend* (*Chōjin densetsu Urotsukidōji*, 1987) makes explicit the phallocentric presuppositions of the tentacle motif while paying homage to artistic precursors such as Hokusai.[114] Scores of science fiction anime, including those that were released contemporaneously with *Urotsukidoji*, such as *Bubblegum Crisis* (*Baburugamu kuraishisu*, 1987), or that followed in its wake, such as *AKIRA* (1988) and *Final Fantasy: The Spirits Within* (2001), to name but a few, also make use of the tentacle motif, offering disturbing glimpses into the gender-marked politics of bodily mutation, transformation, and violation (see Figure 2.6).[115] Even when the object of the tentacled embrace is not the female body, the aesthetic coding of the tentacle motif as phallic never

Figure 2.6 The tentacle motif in *Final Fantasy: The Spirits Within*.

quite disappears. In those anime and films in which the object of the tentacle motif is the male body, homoeroticism and the fear of sodomy are often intertwined, as is the case in *Tetsuo*.[116]

Given that the historical distance separating *Tetsuo* from Hokusai's pearl diver is immense, does the metaphorical import of the tentacle motif, including its connotations of sexual violence, remain unchanged? It is clear that such connotations are still quite active in pornographic anime such as *Urotsukidōji*, but what about in a live-action cyberpunk film such as *Tetsuo*? Do such citations of the tentacle motif strip it of its original sexual content? Does *Tetsuo* valorize or devalorize such acts of tentacled violence? To assist in coming to grips with such questions, I will consider more closely one of the most controversial scenes in the entire film: the salaryman's sodomy by his cross-gendered girlfriend. At the outset, it should be noted that the nightmarish vision that the salaryman has of his girlfriend performing an erotic dance seems to reference the dance of robot Maria at the Yoshiwara Nightclub in *Metropolis* that I considered at the outset, but with some important differences. Like Freder, the salaryman in *Tetsuo* views the erotic dance of his girlfriend in a dream-like state; however, in *Tetsuo*, the dance seems to be performed for the salaryman alone, whereas in *Metropolis* the dance is performed for a multitude of men. What seems to horrify Freder most of all is the multiplication of the male gaze that turns the body of robot Maria, whom he believes to be the real Maria, into the object of desire for many. In contrast, the salaryman in *Tetsuo* seems most disturbed by the thought that he has become the object of desire of his girlfriend, who sodomizes him with a long, tentacle-like phallic appendage

(see Figure 2.7). The gender marking of this scene is complicated in a number of ways. First, in addition to the cross-gendered performance of the salaryman's phallic girlfriend, an element of homoeroticism is introduced by implying that the she-male body of the girlfriend has been possessed in some way by the metal fetishist, as suggested by the darkened skin tone of the girlfriend in the dream. As I noted earlier, the metal fetishist's darkened skin functions as a metaphor for his attempt to transform himself into his objects of desire, including famous African American track stars, such as Carl Lewis and others, whose photos appear all over the walls of his dwelling place. Through the dream logic of displacement, the salaryman's girlfriend functions as a substitute for the metal fetishist. When the salaryman dreams of being sodomized by his girlfriend, the girlfriend comes to serve as a channel or medium through which the salaryman has sex with the metal fetishist.[117]

After the salaryman awakens from his nightmare, he and his girlfriend engage in passionate kissing and fondling, but their foreplay is cut short when she screams, "Ouch!" Following a brief cessation, the salaryman gets turned on by the sensual way in which his girlfriend eats her breakfast, and the two resume their lovemaking. However, their activities are again cut short when both discover to their horror that the salaryman has developed

Figure 2.7 The salaryman's vision of his she-male girlfriend during a nightmare sequence (*Tetsuo*).

a drill-penis. Struggling with his inability to control it, the salaryman proceeds to drill a hole through the breakfast table, destroying whatever crosses the path of his mechanical phallus. The salaryman is so embarrassed by his biomechanical appendage that he hides in the bathroom away from the prying eyes of his girlfriend. However, after overcoming her initial fear, the girlfriend coaxes him out, reassuring him that she can handle it. When he emerges, not only have his head and other parts of his body mutated further, but his personality has undergone dramatic changes as well, just as it did with Seth in *The Fly*, making him more aggressive and violent. The monstrous salaryman attempts to rape his girlfriend, but she defends herself by stabbing him repeatedly with a knife in the groin, arm, and neck. Despite such struggles, the salaryman's girlfriend is eventually aroused by the knifeplay (a number of critics have interpreted the girlfriend's repeated stabbing of the salaryman in the neck as a "sex scene"[118]), and mutually consensual activities resume until the salaryman is finally rendered unconscious from loss of blood. When the salaryman awakens, he discovers to his horror that he has screwed to death his girlfriend with his drill-penis. Reaction shots of the metal fetishist in his biomechanical chamber laughing uncontrollably suggest that he has exerted some control over the horrific scene from his remote location.

As Elisabeth Bronfen has argued in her study *Over Her Dead Body: Death, Femininity, and the Aesthetic*, the death of the seductive or dangerous woman typically functions to reconfirm the cultural norms that she has destabilized:

> As the outsider per se, Woman can also come to stand for a complete negation of the ruling norm, for the element which disrupts the bonds of normal conventions and the passage through which that threat to the norm is articulated. The construction of Woman-as-Other serves rhetorically to dynamise a social order, while her death marks the end of this period of change. Over her dead body, cultural norms are reconfirmed and secured, whether because the sacrifice of the virtuous, innocent woman serves a social critique and transformation or because a sacrifice of the dangerous woman reestablishes an order that was momentarily suspended due to her presence.[119]

However, it would be hasty to conclude that the death of the salaryman's "dangerous" girlfriend in *Tetsuo* results in the reinforcement of social norms, since her body is later reanimated apparently by the metal fetishist. Greatly complicating any interpretation of this scene is that the editing makes it look as if the metal fetishist is inside of the girlfriend's dead body—inhabiting her body—as if the girlfriend had been turned into a sort of cross-gendered biomechanoid mecha with the metal fetishist as

pilot. The surrealist nonlinearity of the narrative makes it difficult to sort out cause and effect, but the metal fetishist is most likely remotely controlling the girlfriend's body telekinetically from his own dwelling place.[120]

Telekinesis, literally "movement or motion at a distance," is a common leitmotif in cyberpunk anime from *AKIRA* to *Silent Möbius* (*Sairento Mebiusu*, 1991–92), which often functions as a metaphor for adolescent fantasies about the "omnipotence of thought."[121] In other words, telekinesis is remote control writ large. However, in addition to expressing fantasies of control, it also evokes anxieties about *being controlled*. In other words, cyberpunk's use of telekinesis needs to be situated in relation to larger contemporary discussions of telesurveillance, telepresence, telematics, and so forth, all of which involve technologies that attempt to control things or events from a distance, and the negative ramifications when such power is abused. The metal fetishist's remote control of both the salaryman and his girlfriend visualizes cyberpunk's obsession with (and anxiety about) emerging teletechnologies and powers that aim to control life from a distance. In this connection, the tentacle motif helps visualize such issues of remote control in *Tetsuo* yet also expresses anxieties about becoming the pawn of someone else's (the metal fetishist's) remote control. I would suggest that such a motif tells us quite a lot not only about cultural representations of sexual violence but also about masculine anxieties of disempowerment and the compensatory response of hypermasculinity that manifests itself in the form of sexual violence.

However, the tentacle motif functions in other ways as well in *Tetsuo*. The plethora of stop-motion animated cords, cables, and assorted ligatures that frequently interrupts the narratival flow in *Tetsuo* also visualizes the concept of the rhizome (see Figure 2.8), a key term in the philosophy of Gilles Deleuze and Félix Guattari that I outlined in my Introduction, which describes an interconnected heterogeneity in a state of constant becoming, "any network of things [and bodies, whether concrete, abstract, or virtual] brought into contact with one another, functioning as an assemblage machine for new affects, new concepts, new bodies, new thoughts."[122] From this perspective, the new assemblage formed by the salaryman and metal fetishist exemplifies a rhizome by creating a multiplicity defined by its relation to other multiplicities or microevents with which it connects and becomes transformed and whose transformation it incites in turn. The frequent appearance of stop-motion-animated cords, cables, and ligatures not only interrupts the diegetic flow of *Tetsuo* but also visualizes the connections being formed between heterogeneous elements and forms of organization. To better understand how such a rhizomatic assemblage

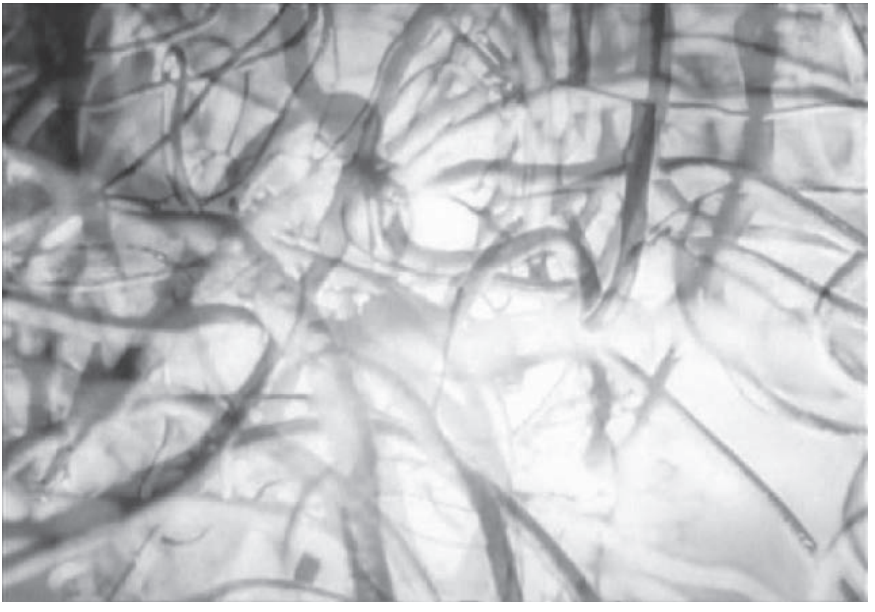

Figure 2.8 Stop-motion animated cords, cables, and assorted ligatures visualizing the rhizome in *Tetsuo*.

engages larger questions posed by the film in relation to species, class, and gender, we need to consider the urban landscape that serves as the backdrop for the film.

Envisioning the Machine-City after *Blade Runner*

Earlier, I noted that Tsukamoto Shin'ya considers *Blade Runner* and *Videodrome* to be the parents of *Tetsuo*. We have already considered *Tetsuo*'s relations to *Videodrome*, but what about *Blade Runner*? The key to understanding why *Blade Runner* is one of the parents of *Tetsuo* is the former's distinctive configuration of the city and its powerful influence on the history of science fiction film and anime that have followed in its wake. Analyzing how the city has been represented in cyberpunk films such as *Blade Runner* and its imitators will put us in a better position from which to interpret what occurs when the salaryman and metal fetishist merge into a new assemblage and threaten to destroy the very city that enframes their struggle.

Much has been written about the importance of the city in cyberpunk in the wake of *Blade Runner*. Cyberpunk film and anime are practically

indissociable from urban spaces, even if they often display a profound ambivalence toward the city. As with films from the future noir genre, such as *Brazil* (1985) and *Dark City* (1998), cyberpunk films and anime often critique social and political institutions via the architecture that houses them. Modernist architecture, for example, is shown to house corrupt institutions and an elitist class system.[123] The dystopic city in future noir and cyberpunk films and anime is also marked by the disappearance of nature: its ecology is ruined by acid rain, garbage is strewn everywhere, and the orange haze of oil refinery burnoff flames hangs over the city like a shroud.

In cyberpunk cinema,[124] the city is characterized by its vertical, centralized orientation, with institutions of power distributed radially around the city center (or a decentered center, such as the Tyrell Corporation in *Blade Runner*) and rundown older sections and polluted ghettoes on the outskirts. Multinational megacorporations and *zaibatsu*-type conglomerates displace the power of the state, becoming ruling territories with their own laws and ways of exacting justice. However, what distinguishes the city of cyberpunk cinema from that of future noir is that the former typically overlays the modernist spaces of future noir with digitized geometric grids and simulated topographies used to navigate and control labyrinthine urban spaces. The urban architecture and programmed spaces in *Blade Runner* and its successors are shown to channel human behavior, social interaction, thoughts, and feelings by regulating the number, motion, speed, and flow of information, money, and bodies in space across a virtual grid of power. Such a shift toward portraying the city as digitally controlled marks the emergence of what Gilles Deleuze has described as the new "control society."[125] Satellite surveillance, low-flying helicopters, and strafing searchlights are all metonymies for this web of control that envelops the cybermetropolis, blurring the boundaries between public and private spaces.

Drowning in advertisements, the cyberpunk city in the wake of *Blade Runner* is also visualized as a thoroughly commodified urban space. As I suggested in my reading of *Ghost in the Shell 2* in Part I, the ubiquity of commercialized media suggests that the city itself and almost everyone in it is subject to the mechanisms of commodification: "reality" dissolves into the virtuality of mass media.[126] Besides commenting on the commodified city, the proliferation of advertisements within cyberpunk cinema also underscores the status of cinema itself as a commodity supported by an elaborate marketing and merchandising apparatus.

One concept that brings together the many attributes of the cyberpunk city depicted in *Blade Runner* and its epigones is that of the "urban machine"

or "machine-city." Renowned visual Futurist and concept designer Syd Mead, who was responsible for the architectural designs of the buildings depicted in *Blade Runner*'s 2019 Los Angeles, has commented extensively on how architecture defines the city of *Blade Runner*:

> The street sets were going to show this accumulated progress. The buildings would just become surfaces on which you'd mount retrofitted electrical conduits, air conditioning ducts and all kinds of things. Additional power would come from a generator sitting on the street—which might be there for years, but initially it was a temporary idea. And then these big cables would be running up the sides of all the buildings. But essentially it was an industrial design approach, because there had to be a very solid, mechanical logic behind it. It had to look like what it was. And what it was was *a city whose discrete individual structures had been enveloped into sort of an urban machine, with people living inside*.[127]

In other words, the visualization of architecture in the city of *Blade Runner* through the accumulated nest of conduits, ducts, cables, pipes, and wiring hanging on the buildings' exteriors serves as a metonymy for the city as machine. However, as influential as *Blade Runner*'s representation and conception of the urban machine has been, it was not the first to represent the machine-city. A few years before *Blade Runner*, H. R. Giger's New York City series of paintings, as well as his biomechanical landscapes and illustrations for *Alien* (and much else that would have been exhibited at the Tokyo show in 1987), also displayed a keen interest in the urban machine. According to Giger, when working on his New York City paintings, he "tried to get a grip on the deep abyss, the soulless machine of New York."[128] And long before *Blade Runner* and Giger's New York City paintings, the visualization of the machine-city was made famous in Fritz Lang's *Metropolis*. Tom Gunning writes that, in *Metropolis*, "the city operates as a demonic machine using and releasing energy . . . either in an orderly manner (the steam whistle, the clock) or in an explosive one (the 'accident' Freder witnesses in the machine room which immolates the workers). But in fact, in this demonic system of production, order and explosion are not opposed to each other, but simply different parts of the one cycle."[129] Indeed, Thea von Harbou, the author of the screenplay for *Metropolis*, uses the term "machine-city" to describe the Metropolis in her novel of the same name: "As long as the man over there, who was nothing but work, despising sleep, eating and drinking mechanically, pressed his fingers on the blue metal plate, which apart from himself, no man had ever touched, so long would the voice of the *machine-city* of Metropolis roar for food, for food, for food. . . . She wanted living men for food. . . . The open gates of the New Tower of Babel, the machine center of Metropolis, gulped the masses down."[130]

However, even Thea von Harbou did not invent the conception of the machine-city, since its genealogy stretches back years earlier, almost two decades before *Metropolis*, to the Italian Futurists, especially Filippo Tommaso Marinetti (1876–1944) and Antonio Sant'Elia (1888–1916), who viewed the city as "an efficient, fast-moving machine,"[131] as well as to other critics, architects, and artists of the 1910s, such as the prominent Viennese critic and actor Egon Friedell, who described the city of Berlin in 1912 as "a wonderful modern engine-room, a giant electrical motor . . . which executes with incredible precision, speed and energy a plethora of complicated, mechanical tasks. True, so far the machine lacks a soul. The life of Berlin is the life of a cinematograph theatre, the life of a brilliantly constructed homonculus-machine."[132] Although such machine-cities may be lacking a soul (as Giger also asserts almost seventy years later in his description of "the soulless machine of New York"), that does not mean that there is no place for the human. On the contrary, as Sharalyn Orbaugh has suggested, "if the cities were now figured as huge machines filled with interconnecting networks (of communication and transportation) . . . then the humans that inhabited the cities were now the organic force inside the machines, interfacing with them at specific points (the telephone, telegraph, train, cinema), thereby animating them."[133]

Such human interfacing with the machine-city was not only characterized in terms of the network of technological nodal points mentioned by Orbaugh but also inflected by the Futurists' adoration of speed, which celebrated the human overcoming of nature through technology. If the "new mechanical sense" of "man multiplied by the machine" exemplified "a fusion of instinct with the efficiency of motors and conquered forces,"[134] as Marinetti proclaimed, this fusion of human instinct and machinic efficiency was also viewed by the Futurists as an affirmation of "the beauty of speed": "A racing car, its bonnet decked out with exhaust pipes like serpents with galvanic breath . . . a roaring motorcar, which seems to race on like machine-gun fire, is more beautiful than the Winged Victory of Samothrace."[135]

Complementing the Futurists' celebration of "the beauty of speed" was an aestheticization of politics that, as noted by Walter Benjamin in his essay on "The Work of Art in the Age of Mechanical Reproduction" (1936), dangerously flirted with fascism's desire for social domination and control: "War is beautiful," wrote Marinetti, "because it establishes man's dominion over the subjugated machinery by means of gas masks, terrifying megaphones, flame throwers, and small tanks":

> War is beautiful because it initiates the dreamt-of metallization of the human body. War is beautiful because it enriches a flowering meadow with the fiery orchids of machine guns. War is beautiful because it combines the gunfire, the cannonades, the cease-fire, the scents, and the stench of putrefaction into a symphony. War is beautiful because it creates new architecture, like that of the big tanks, the geometrical formation flights, the smoke spirals from burning villages, and many others. . . . Poets and artists of Futurism! . . . remember these principles of an aesthetics of war so that your struggle for a new literature and a new graphic art . . . may be illumined by them![136]

Speed, technology, virility, and war form a quartet of concepts that animate the goals and practices outlined by Marinetti in his founding manifesto of Futurism in 1909,[137] not only exerting influence over numerous art movements of the twentieth century (including art deco, constructivism, surrealism, and Dadaism), but also anticipating the emergence of the punk and cyberpunk movements and associated subcultures.

Returning to our analysis of *Tetsuo* with such genealogies of the machine-city in mind, one might say that if *Blade Runner* is one of the parents of *Tetsuo*'s conceptualization of the city as machine, then *Metropolis* is *Tetsuo*'s grandparent and critics such as the Italian Futurists and Egon Friedell are *Tetsuo*'s great grandparents.[138] However, more important than simply acknowledging the cinematic genealogy of the machine-city in *Tetsuo* is determining how Tsukamoto rhizomatically connects with it. What role is played by the machine-city called Tokyo in *Tetsuo*?

The machine-city is introduced quite dramatically and unmistakably in *Tetsuo*'s title sequence (immediately preceding the mirror scene homage to *The Fly*), in which the name "TETSUO" (meaning "iron man") is spelled out in English, each letter textured with television noise and scanlines, as the salaryman is shown dancing spasmodically intercut with shots of the industrial mise-en-scène of steam-emitting machines in a rundown iron foundry.[139] "Tetsuo" is not the name of the salaryman (he is never identified as such in the film), nor does the salaryman work at the factory that serves as the noisy backdrop to his frenetic dance. Rather, as the salaryman loses control of his body during the course of the film and starts to mutate against the backdrop of the machine-city,[140] the crisis faced by the salaryman comes into focus through the lens of his struggles with the metal fetishist.

I have underscored the noisy mise-en-scène of *Tetsuo* because the machine-city of *Tetsuo* would be nothing without the machine noises of its Einstürzende Neubauten–inspired industrial soundtrack composed by Ishikawa Chū, which embodies "the art of noises" first celebrated by

Futurist Luigi Russolo in his essay of the same name from 1913. In "The Art of Noises," Russolo beckons us to

> cross a great modern capital with our ears more alert than our eyes, and we will get enjoyment from distinguishing . . . the eddying of water, air and gas in metal pipes, the grumbling of noises that breathe and pulse with indisputable animality, the palpitation of valves, the coming and going of pistons, the howl of mechanical saws, the jolting of a tram on its rails, the cracking of whips, the flapping of curtains and flags. We enjoy creating mental orchestrations of the crashing down of metal shop blinds, slamming doors, the hubbub and shuffling of crowds, the variety of din, from stations, railways, iron foundries, spinning mills, printing works, electric power stations and underground railways.[141]

Ishikawa's soundtrack, punctuated with metallic percussion designed to simulate the noise of striking iron, evokes Russolo's conviction that the variety of noises, which will multiply "as new machines multiply," will elicit "a taste and passion for noises," and that "in this way, the motors and machines of our industrial cities will one day be consciously attuned, so that every factory will be transformed into an intoxicating orchestra of noises."[142]

The Futurist celebration of dynamic forward motion and speed, best summed up by Marinetti's motto that "a roaring motorcar . . . is more beautiful than the Winged Victory of Samothrace," also enters into the salaryman's engagements with the machine-city in relation to what I call "velocity-images." In *Tetsuo*, velocity-images are visualized in a distinctive manner: the salaryman and metal fetishist are propelled across the surface of the machine-city of Tokyo at high velocities not by means of the Futurists' favored modes of transportation—automobiles and airplanes—but rather, by means of mini-rocket-engine-augmented feet. The velocity-images of their high-speed chase, filmed by means of stop-motion animation, visualize the sensation of speed *as such*. It is not that speed is without perspective or point of view; rather, it is that the point of view from which speed is visualized in *Tetsuo* is not stable, but rather shifting, fluctuating, mobile, transient. The velocity-image presents the imaging of speed itself, unattached to the subject as an organizing principle or reducible to a single, static point of view. In this sense, *Tetsuo*'s velocity-images probably owe as much, if not more, to the speed lines in manga as they do to the Futurists. As every reader of manga knows, speed lines have become part and parcel of the style of manga, one of the innovations introduced by manga artists in the 1960s that has influenced comic book artists throughout the world. If, as has often been suggested, *Tetsuo* incorporates "a pure manga sensibility transferred to the screen with gorgeously deranged energy,"[143] it is

partly due to the way in which manga visualizes speed, alternating between "*observing* a moving object" and "*being* that object."[144]

If the mechanized, iron wasteland and urban factory depicted in the opening credits is the domain of the metal fetishist, then, in some sense, the salaryman and metal fetishist's collision with one another and high-speed traversal of the machine-city underscores the importance of class politics in the film. The struggle between the salaryman and the metal fetishist in the arena of the machine-city is a class struggle between an agent of the white-collar middle class and an agent of the blue-collar lower class, and it is this struggle that enframes the entire film. In order to interpret this class struggle, a brief explanation of the sociology of the salaryman type and what it presupposes is in order.

Confrontations with the Salaryman Model: Resisting Hegemonic Masculinity and State-Sponsored Capitalism

In a Japanese sociocultural context, the salaryman represents the typical workaholic white-collar employee of a large corporation or government bureaucracy, who is middle class, heterosexual, and married. From the elevated productivity associated with Japan's so-called high growth period (roughly 1953–73) until the economic bubble of the late 1980s (when *Tetsuo* was made), the salaryman served as the dominant masculine stereotype—the model citizen and taxpayer—and a powerful symbol of the "state-sponsored patriarchal industrial-capitalist system" of Japan, Inc.[145] Until Japan's recession hit in the mid-1990s and "stripped many salarymen of their 'three treasures' of lifetime employment, the seniority system of promotion and company unionism,"[146] the salaryman was the dominant postwar symbol of "economic security, social status, and sex role division"[147] in Japan. However if, as James E. Robertson and Nobue Suzuki have argued, representations of the middle-class, white-collar, heterosexual salaryman powerfully invoke "ideologies of nation, class and sexuality in Japan, [then] the practices and performances of other people must be seen as acts of challenge and change—potential, playful or purposeful."[148]

In his groundbreaking study *Masculinities*, Raewyn Connell has argued that "to recognize the diversity of masculinities is not enough.": "We must also recognize the *relations* between the different kinds of masculinity, relations of alliance, dominance and subordination. These relationships are constructed through practices that exclude and include, that intimidate, exploit and so on. There is a gender politics within masculinity."[149] Connell shows the gender politics within masculinity by distinguishing

among hegemonic, subordinate, complicit, and marginalized masculinities, and in so doing, demonstrates "the interrelations of 'gender and power'"[150]—that "gender relations themselves are bisected by class relations and vice-versa."[151] Hegemonic masculinity guarantees "(or is taken to guarantee) the dominant position of men and the subordination of women,"[152] as well as "the dominant position of certain men over other men."[153] Marginalized masculinity describes "the relations between the masculinities in dominant and subordinated classes or ethnic groups,"[154] which can have the effect of eliciting either a "protest masculinity" among the subordinated class or ethnic group or complicity "in the collective project of patriarchy."[155] Interpreted through such a critical lens, what *Tetsuo* shows is that the homology that equates salarymen, masculinity, and heterosexuality is a cultural essentialism that effaces the multiplicity of men and masculinities and the performativity of gender in Japan.[156] *Tetsuo* demystifies the dominant ideology of salaryman masculinity by offering the figure of the metal fetishist as a "protest masculinity" that challenges the hegemonic model of salaryman masculinity. How does this "protest masculinity" of the metal fetishist manifest itself?

Rather than being middle class, white collar, and heterosexual, the metal fetishist is portrayed as lower class, blue collar, and homosexual. Moreover, the figure of the metal fetishist goes against the grain of the salaryman ideal of masculinity in the former's attention to body aesthetics, modification, and beautification. In her study of male beauty work in Japan, Laura Miller shows that men's beauty consumption "symbolizes resistance to the 'salaryman' folk model," since "an emphasis on male appearance counters the salaryman reification of men as workers."[157] Miller discusses how contemporary Japanese fashion styles for men (e.g., "Mode, School, Punk, American Casual, French Casual, Military and Outdoor") intersect with body aesthetics and techniques of body modification (e.g., skin darkening, facial makeup application, tattooing or body piercing, and hair styling or removal).[158] By the late 1980s, aesthetic (called "*esute*") salons for men had become "an established part of the urban landscape."[159] The metal fetishist exemplifies such male beauty work by mixing punk fashions with track star chic and displaying a body that has clearly undergone various techniques of beautification and modification, such as facial makeup, darkened skin, body hair removal, and pierced body parts.[160] Although the viewer does not see the metal fetishist go through the process of applying makeup, entering a tanning salon, or removing body hair, we do see the effects of such beautification techniques before he starts to undergo more radical metamorphosis.

With each escalation of the struggle between the salaryman and metal fetishist, their bodies mutate more and more until they finally become fused after a particularly intense battle that makes greater use of the tentacle-porn symbolism discussed earlier. Just before the parodic result of their fusion is disclosed, the film is interrupted by an upside-down, tilted-horizon sequence that reiterates the very first encounter between the salaryman and the metal fetishist at the time of the hit-and-run accident, when the camera spelled out "NEW WORLD" in extreme close-up against a romantic soundtrack of 1940s-style swing jazz music. Toward the end of the film, the same swing jazz soundtrack is replayed and "NEW WORLD" is again spelled out in extreme close-up, but now we see the mostly naked bodies of the salaryman and metal fetishist embracing one another in an erotic dance with one of their arms fused in a metallic mutation.[161] Although some critics have chosen to ignore *Tetsuo*'s latent engagement with homosexuality, Tsukamoto had already made such connotations manifest in an earlier film, *The Phantom of Regular Size* (*Futsu saizu no kaijin*, 1986), an experimental dress-rehearsal for *Tetsuo* that anticipates many scenes and plot points in *Tetsuo* but does so in 8 mm color (rather than 16 mm black-and-white) and without the latter's level of achievement in cinematography or editing. The rivalry between the salaryman and metal fetishist (again played by Taguchi Tomorowo and Tsukamoto Shin'ya, respectively) is there in nascent form, as is the pain of metamorphosis and the motif of violent sex via drill-penis; however, the same-sex relations between the two rivals are made much more explicit in the earlier film, including brief scenes of the fetishist masturbating the salaryman's drill-penis and then coupling with the salaryman, as well as a romantic dinner together in which the fetishist feeds the salaryman using his own chopsticks (a clear sign that the relationship is intimate).

Viewing *Tetsuo* in the wake of *The Phantom of Regular Size*, it becomes obvious that what *Tetsuo* offers is nothing less than cyberpunk's first coming-out film, in which the salaryman's posthuman metamorphosis functions as a metaphor for coming to terms with his homosexuality in a heteronormative Japanese society. Although the naked dance of the salaryman and metal fetishist seems to abruptly shift genres from that of a cyberpunk revenge film to a parody of the classic Hollywood narrative of "the formation of the couple"[162] in a manner reminiscent of *Un chien andalou*, attentive viewers will recall earlier clues that anticipate the surrealistic turn. For example, scenes involving the metal fetishist–controlled woman in glasses propositioning the salaryman, the metal fetishist's presenting flowers to the salaryman in a parody of courtship, and the symbiotic connection

between the metal fetishist and salaryman that is suggested when the metal fetishist feels the pain of the salaryman as the latter is beaten by a homeless person—all of these scenes offer subtle clues that *Tetsuo* is much more than simply a revenge narrative in cyberpunk clothing.

At the end of the film, the machine-city serves as the backdrop for the salaryman and metal fetishist's transformation into a war-machine, as the Tetsuo assemblage sets out to destroy the city (as well as the rest of the world). What we see speeding through the streets of Tokyo is a giant phallus, covered with various cables, wires, and exhaust pipes, incorporating the heads of both the metal fetishist and the salaryman and powered by an assortment of engines, which clearly satirizes the phallic violence of previous giant monsters that have destroyed Tokyo in so many classic Japanese science fiction horror films (see Figure 2.9). The film ends with the white-collar salaryman's head sticking out the top of the giant phallus, looking maniacally gleeful, while the face of the blue-collar metal fetishist peers out from the shaft of the phallus, looking utterly miserable. The salaryman may be in a symbolically privileged position on top of the biomechanical phallus, but the violence associated with the "masculinist, capitalist, statist"[163] ideologies embodied by the salaryman and his hegemonic masculinity is not a recapitulation of the patriarchal state-capitalist system in Japan, but rather its thorough

Figure 2.9 The Iron Man phallic assemblage (*Tetsuo*).

demystification. The Janus-faced phallus both shows the multiplicity of masculinities in Japan and deconstructs the essentializing identification of masculinity with phallic dominance and violence by means of a bitingly transgressive parody of the stereotyped monster setting out to level Tokyo with apocalyptic destruction. *Tetsuo* is transgressive precisely because it overturns on screen the dominant "cultural assumptions and institutional arrangements which effectively exclude homosexuality and homosexual relations in a cultural-political-economic system of compulsory (public) heterosexuality."[164] Tetsuo, the Iron Man, is the name of this parodic monstrosity, which subverts through a biting satire of salaryman masculinity the status quo of heteronormative state capitalism and the mechanisms of social domination and control that maintain it. "Our love can put an end to this fucking world," mockingly proclaims the salaryman to the metal fetishist.

Coda: Co-opting *Tetsuo* in *Tetsuo II: Body Hammer*

I have focused mostly on *Tetsuo* and its relation to its precursors, but there is no denying the huge impact Tsukamoto's small independent film has had on subsequent filmmakers, ranging from Ishii Sōgo (*Electric Dragon 80,000V*) to Fukui Shōjin (*964 Pinocchio, Rubber's Lover*), from Quentin Tarantino (*Pulp Fiction*, *Kill Bill*) to Darren Aronofsky (*Pi, Requiem for a Dream*). Perhaps the most ambitious emulation is Tsukamoto's own followup, *Tetsuo II: Body Hammer* (1992), which is less a sequel to *Tetsuo* than a larger budgeted co-optation or recuperation. Many of *Tetsuo*'s signature moves are there, including its hyperactive editing and high-velocity stop-motion animation, paranoia about being controlled telekinetically by others, scenes of sadomasochistic sexuality, organicized technology of flesh-weapons and various cyborg augmentations (including *Videodrome*-like virtual reality helmet), as well as homoerotic combinations of male bodies and metal.

However, in its mixing of the genres of revenge narrative and family melodrama about a devoted family man and mild-mannered salaryman named Taniguchi Tomoh (a pun on the name of the actor, Taguchi Tomorowo, who plays the role), who undergoes cyborgic metamorphosis in response to the kidnapping of his son by a gang of cyberpunk fascists under the direction of the metal fetishist (reprised by Tsukamoto Shin'ya), who happens to be the salaryman's long lost brother, *Tetsuo II* reconceives the homosexuality foregrounded in the first film as homosociality.[165] Through an emphasis on homosociality, *Tetsuo II* reaffirms the status of the heteronormative patriarchal family.[166] By positioning the family unit

in opposition to the city as a whole, *Tetsuo II* ends up domesticating what made the first film so radical: instead of two men setting out to destroy the city with their nontraditional love, *Tetsuo II* ends by showing the heteronormative family unit reaffirming itself against the backdrop of Tokyo in ruins. The impact on the city may be the same, but the journey there is a thorough co-optation of the first *Tetsuo*'s transgressive, parodic force. Compared to *Tetsuo II: Body Hammer*, the dark humor of *Tetsuo: The Iron Man* proves to be much more subversive. As the phallically fused salaryman and metal fetishist prepare to turn "the whole world into metal" in *Tetsuo*'s denouement, to "rust the whole world and scatter it into the dust of the universe," as the salaryman gleefully asserts to the metal fetishist, the Futurists' proposition that "war is beautiful because it initiates the dreamt-of metallization of the human body"[167] receives its most literal cinematic expression, one that underscores the absurdity of the entire enterprise with the sort of in-your-face artistic assault most prized by the Futurists.[168]

Part III

Consensual Hallucinations and the Phantoms of Electronic Presence in *Kairo* and *Avalon*

The whole life of those societies in which modern conditions of production prevail presents itself as an immense accumulation of *spectacles*. All that once was directly lived has become mere representation.

—Guy Debord

Tokyo is becoming every day more like a sort of virtual reality world. People no longer communicate through contact but use technology for everything and this is progressively substituting [for] communication itself.

—Tsukamoto Shin'ya

I believe that the future belongs to ghosts, and that modern image technology, cinema, telecommunications, etc., are only increasing the power of ghosts.

—Jacques Derrida

Just about anything electronic has its uncanny aspect: telephones, cameras, television, personal computers, ATM machines, X-ray machines, answering machines, bar-code sensors, compact disks, laser disks, beepers, and on and on. Whenever something non-human can move on its own, respond to our movements, signal to us, answer questions, or image our bodies or voices back to us in some luminous or resonant fashion, we confront, I think, a kind of cognitive *mise-en-abyme*.

—Terry Castle

In his study *Haunted Media: Electronic Presence from Telegraphy to Television*,[1] Jeffrey Sconce analyzes the discourses of "electronic presence" enframing the history of telecommunications in relation to the development of telegraphy, wireless technology, radio, television, and cyberspace, which ascribe to the emergence of such new technologies a whole range of fictional qualities, from sentience to ghostly spectrality. "Electronic

presence" is Sconce's term to describe "the 'living' quality of such technologies," the distinctive "liveness" that "leads to a unique compulsion that ultimately dissolves boundaries between the real and the electronic"[2] or gives rise to fantasies about "invisible entities adrift in the ether, entire other electronic realms coursing through the wired networks of the world."[3] Just as important as the "liveness," "immediacy," and "simultaneity" of electronic presence is the fact that the new technologies exemplifying it are often construed as mediums of the dead.

Although Tobe Hooper's 1982 horror film *Poltergeist* famously incorporated media folklore from the early days of television when some construed the new device as a "haunted apparatus" because of the way in which it evoked "the supernatural by creating virtual beings that appear to have no physical form,"[4] Sconce's cultural history of electronic presence shows that television was not the first telecommunications technology to evoke such associations with the paranormal. Rather, television needs to be situated in relation to a long line of technological innovations and their discursive elaborations inflected by social and historical conditions dating back to the mid-nineteenth century. Well before television's first spectral appearance, telegraphs, telephones, and radios were also conceived by media folklorists as "similarly 'possessed' by such 'ghosts in the machine,' the technologies serving as either uncanny electronic agents or as gateways to electronic otherworlds."[5] The telegraph, for example, both in its wired and wireless forms, was one of the earliest telecommunication technologies to be conceived as making possible "a mechanical dissociation of consciousness and the body," creating a simultaneity that "allowed for temporal immediacy and spatial isolation and brought psychical connection in spite of physical separation."[6] Likewise, Sconce points out that when radio was transformed into network broadcasting in the 1920s and 1930s, its reception was similarly modulated by the fictions of electronic presence. However, rather than offering a conduit for "point-to-point communication" with spiritual entities "across frontiers of time and space," it "assumed the form of an all-enveloping force occupying the ether," offering "shared, electronically generated worlds of national programming"—fantasies of a "self-contained electronic world" that would later be appropriated by the discourses of "televisual presence."[7]

With the advent of cyberspace—although the material technologies and sociohistorical conditions have changed considerably since the age of the telegraph—the metaphors and discourses utilized remain strikingly similar to previous articulations of electronic presence. In her article "Ghosting the Interface: Cyberspace and Spiritualism," Sarah Walters notes that "the

literature of cyberculture recapitulates the enthusiasms and defining fantasies of the spiritualist movement."[8] Walters sees in the obsession of contemporary cyberdiscourses with "virtual personae, cyborgian doubles, simulacra, body parts and replacements" a reiteration of concerns about the potential opportunities and pitfalls of blurring the boundaries of subjectivity on the way toward "radical new models of intimacy and community" that were discussed by both utopian practitioners and skeptics of spiritualist discourse in the late nineteenth century.[9] Likewise, Sconce notes a historical trajectory linking "the Spiritualist occult and the current explosion of supernaturalism in cyberspace" in terms of their mutual fascination with the correlated fantasies of "discorporation and the hope that the human soul, consciousness, or subject could exist independently of his or her material frame" and a belief in "sovereign electronic worlds" accessible by means of the latest telecommunications technologies.[10]

As I hope to show, articulations of electronic presence are not limited to the West. Using *Haunted Media* as a springboard, I analyze expressions of electronic presence in relation to Kurosawa Kiyoshi's *Kairo* (2001) and Oshii's Mamoru's *Avalon* (2001), both of which offer representations of cyberspace or virtual reality filtered through the lenses of spectrality, uncanniness, technological addiction, and social reclusion.

Letting In Ghosts, Shutting Out the Sun

Before the vey first shot of Kurosawa Kiyoshi's acclaimed techno-horror *Kairo*, which won the Fédération Internationale de la Presse Cinématographique's (FIPRESCI) Un Certain Regard Prize at the Cannes Film Festival in 2001 for presenting "an original view on the 'virtual' danger of the world of computers,"[11] as the distribution and production credits start to appear, we hear the sounds of a dial-up modem connecting to the Internet. For a full seventeen seconds, we hear nothing but the squealing sounds of one modem handshaking with another on the other end in order to establish a connection so that the transfer of information may occur. In other words, what we hear at the outset are the voices of electronic "circuits" (*kairo*) communicating with each other. As is often the case in a Kurosawa Kiyoshi film, ambient, electromechanical sounds and rumblings are used to evoke the noise of modernity. Although commonly referred to as *Pulse* in English, this is actually a poor translation of *Kairo*.[12] A better translation would be "circuit(s)," as in electronic circuits, an especially apt title given the film's haunting exploration of the increasingly complex circuitry of relations between humans, modernity, and telecommunication

technologies.[13] The signature sounds of the handshaking procedure heard at the outset are repeated at key moments during the film as a way of underscoring the automated process by which different systems and forms of technology establish a communication channel and negotiate telecommunication protocols based on information transfer rates and other parameters. In addition to being a metaphor for the technological means by which ghosts pass into the world of the living,[14] the opening sound of machines negotiating communication during the handshake procedure (without human assistance) underscores the gulf that exists between humans and machines: in sharp contrast to the efficient, orderly manner in which machines establish communication stands the difficulties of communication among humans that is repeatedly depicted throughout the film. The machines, it turns out, communicate much better with each other than do humans.

The first visual shot of the film is actually a flashforward that anticipates the end of the movie. As protagonist Kudō Michi (played by Kumiko Aso) gazes out onto the gray, windswept sea, reflecting on the past and perhaps pondering the future, the white noise of the modem connection morphs into the white noise of the ocean, thereby blurring the boundaries between the technological and the natural.[15] In voiceover, as the camera cuts to a helicopter shot of the solitary ship that gives her passage across the vast expanse of ocean, Michi reflects, "It all began one day without warning like this." This flashforward is interrupted by the sound of a telephone ringing and a flashback to the rundown Tokyo apartment of a twentysomething named Taguchi (Kenji Mizuhashi), a co-worker of Michi who has not shown up for work at Sunny Plant Sales (a small rooftop nursery) in a week, eliciting concern from his cohorts. As the camera jumps between medium shots of Taguchi's apartment taken from two different angles refracted by a subtle ripple effect that moves over the surface of the film with sharp electronic noises marking each jump, Taguchi's apartment appears dark and empty yet uncannily animated. We see Taguchi's desk covered with computer equipment and multiple monitors, but Taguchi is not in the frame. Taguchi's co-worker Michi goes to his apartment to check up on him and retrieve a computer disk he was supposed to bring to work. Since Taguchi does not answer the door, Michi lets herself in with a key hidden outside the apartment. As she searches for the disk, the backlit shadow of Taguchi's ghostly figure rises up from behind a semiopaque vinyl curtain dividing the rooms of his apartment. In this scene, Taguchi is not yet a ghost—he is still alive—but he might as well be given how isolated he has become. Taguchi's isolation is underscored by the low-key lighting and composition of the shot filmed by director of photography Hayashi Jun'ichirō,[16] who

uses the semiopaque vinyl curtain to show the separation between Taguchi and Michi, who is unaware that her colleague is even inside the apartment.

As soon as Michi discovers that Taguchi is home, she chides him for his reclusive ways, reminding him that they are friends, and then asks him for the computer disk. After renewing her search for the disk amid piles of stuff on his desk, she returns to the room where she just spoke to Taguchi a moment ago only to discover that he has hanged himself without warning. Afterward, Taguchi's co-workers express shock that he was so depressed yet never conveyed his feelings to any of them. One of Taguchi's colleagues, Yabe Toshio (Matsuo Masatoshi), wonders if "he suddenly just wanted to die," acknowledging that he sometimes feels that way himself. Taguchi is the first victim we encounter in the film who contracts a virus spread via the Internet that both inhibits its carriers from communicating with others around them and fills them with the desire to commit suicide.

Following a parallel storyline, a young college student majoring in economics named Kawashima Ryōsuke (Katō Haruhiko) installs dial-up software for the first time on his home computer to connect to the Internet. Once connected, he is surprised to see a series of apparently live Webcam images of other, anonymous Internet users. Although Kawashima's Internet connection is dial-up, *Kairo* anticipates the widespread adoption of videoconferencing that has occurred since 2003 as the cost of high-speed Internet connectivity has decreased and computer Webcams have become commonplace. However, rather than showing videoconference users happy to make telepresent connections with distant friends and relatives, the figures who appear on Kawashima's computer look depressed, aimless, and isolated. In their darkened rooms, the Webcam actors pace back and forth, roll around on the ground, sit at their desks with their heads in their hands, but say nothing. In some cases, the anonymous Webcam users return Kawashima's gaze, thereby suggesting that those who surveil are also under surveillance.[17] This series of anonymous videoconference encounters is finally interrupted when the following question appears on a black screen: "Would you like to meet a ghost [*Yūrei ni aitai desu ka*]?" Kawashima immediately shuts down his computer in a state of abject fear. Later that night, Kawashima's computer uncannily turns on by itself and connects to the Internet automatically. A person with a black hood over his head, who looks more like a prisoner of war or someone about to be executed than a Web surfer, appears via Webcam sitting on a chair in his room. On the wall behind the hooded figure is written "*Tasukete tasukete tasukete* [Help me! Help me! Help me!]" in reverse script over and over again.

That same night Kawashima goes to the university computer lab to consult one of the lab technicians to determine if the Internet can connect to his computer automatically. There he meets a lab assistant named Karasawa Harue (Koyuki), who provides him with instructions on how to bookmark or print out a screen capture of the Web site that issued the ghostly invitation. The next time Kawashima's computer connects to the Internet by itself, the figure with the black hood starts to remove the hood in close-up, but Kawashima gets spooked and quickly turns off the computer, disconnecting all the cables. When Kawashima returns to the computer lab to consult Harue further, she shows him a computer-generated model of the human world that demonstrates the attraction-repulsion dynamics of social interaction. Harue advises Kawashima not to stare at it too long, explaining that if two dots get too close to one another, they die, but if they get too far apart, they are drawn closer. Back at Kawashima's apartment, Harue suggests that, like the computer simulation, humans may try to connect, but they do not really connect, living separately: "Each of us is living in a disconnected manner [*Hitori hitori barabara ni ikiteiru*]."

Later, in her apartment, Harue continues this line of conversation, offering strong social commentary on the disintegration of the Japanese family structure, by telling Kawashima that she feels "no connection [*kankei nai*]" with her parents or family and often wonders what it would be like to die, since she is always alone. The fact that we barely see any traces of family in the entire film (the only exception being a brief scene involving Michi's mother who scolds her for making no attempt to contact her father, despite living in the same city) underscores the lack of connection felt by the characters. In this scene, framing and composition are used to good effect to underscore the gulf that separates Harue from Kawashima. As is the case in many of his films, Kurosawa uses doorframes and window frames to differentiate the spaces inhabited by his characters and to emphasize "the isolation of his characters, their distance from one another."[18] Harue continues her reflections on the death of the social by telling Kawashima that she fears one might be all alone in death, just as one is essentially alone in life. The possibility that nothing changes in death, that one is always alone, whether in life or death, Harue finds the most terrifying idea of all. Harue wonders if the eternal now of loneliness—this incessant isolation and solipsism in life and death—is what it means to become a ghost.

Kawashima criticizes her for focusing too much on death and speculates that some day a drug may be developed that would enable humans to live forever. As far as Kawashima is concerned, immortality sounds great, but Harue is not so sure it would be enjoyable, since it could also mean eternal

loneliness. Harue points to all the solitary Internet users appearing like digital monads via Webcam on the array of computer monitors situated around her apartment and asks how they are different from ghosts: "Are they really alive?" she asks. She concludes that people and ghosts are the same, whether dead or alive.[19] In her view, the plethora of aimless, isolated Internet users demonstrates that ghosts are not just a metaphor for the dead, they are also a metaphor for the loss of human connection, for the desperate attempt to make contact but the eternal impossibility of fully doing so.[20] When Harue looks at the ghostlike, solitary individuals who appear like empty shells via Webcam on the "Would you like to meet a ghost?" Web site, it is clear that she also sees herself reflected on the screen. In interviews, the director has suggested that, in addition to their lack of connection, ghosts are also distinguished by their lack of emotion: "I've never seen a ghost [*yūrei*] first-hand, but I don't believe that ghosts are full of hatred or resentment or anger. They're commonly portrayed to be filled with emotion, but I think that ghosts are beings that lack human emotion and personality. They're human-like, but all the emotional elements of a normal person are missing. They're empty shells. That's what scares me when it comes to ghosts."[21] In this way, Kurosawa offers a conception of "*yūrei*" (ghosts, specters, apparitions, or phantoms) that is worlds away from the representation of ghosts as "evil spirits" purveyed in Hollywood.[22] Harue does not believe that ghosts are setting out to kill people because that would simply create more ghosts. Instead she suggests that ghosts may be trying to make people immortal "by quietly trapping them in their own loneliness." The fact that Harue later commits suicide in the film right before Kawashima's eyes underscores the nihilistic feelings of isolation and lack of connection that she expresses in this scene.

What these parallel narrative threads have in common is that they all engage the complex circuitry of relations between human beings, modernity, and technology. The electronic circuit (*kairo*) is not only a metaphor in the film for the technological means by which ghosts pass into the world of the living but also an allegory for our loss of connection with one another in an increasingly technological world. However, rather than simply offering a retread of Nakata Hideo's *Ringu* (1998), Kurosawa raises techno-horror to another level by underscoring its sociological subtexts, situating the narrative of *Kairo* in terms of a social disorder known as *hikikomori* (literally, a combination of "pull away" and "seclude onself") that is plaguing contemporary Japanese society.[23] *Hikikomori* is a term coined by psychiatrist Saitō Tamaki to describe the social withdrawal of reclusive youth, 80 percent of whom are male, who shut themselves up in

their rooms and avoid face-to-face interaction for six months or longer following acute social or psychological trauma, typically triggered by an event that has occurred at school, such as academic failure, bullying, or jilted romance.[24] The term is used to describe both the social disorder itself and those who suffer from it. According to Japanese psychiatrists, *hikikomori* is a social rather than mental disorder that is specific to Japan (although a growing number of cases have been reported in South Korea, China, and Taiwan) and, as such, does not fall under any of the standard mental disorders, such as bipolar disorder, schizophrenia, or agoraphobia, that are differentiated by the *Diagnostic and Statistical Manual of Mental Disorders* (or DSM-IV) used by professional psychiatrists and psychologists in the West.[25] It is estimated that approximately 1.2 million young Japanese men (20 percent of all adolescent males or 1 percent of the entire population) in their late teens and early twenties suffer from *hikikomori*, thus making it a social disease of nearly epidemic proportions.[26] The majority of those suffering from *hikikomori* are eldest sons who live with their middle-class parents in the suburbs of Japan's largest cities. Many *hikikomori* sleep during the days and spend their nights in seclusion, playing video games, watching television, reading books and manga, listening to music, and surfing the Internet. Those who do venture into the outside world on rare occasions do so in the middle of the night when they are unlikely to encounter anyone other than the twenty-four-hour convenience store clerks from whom they purchase food. Extraordinary measures are taken to avoid contact with the disapproving gaze of *sekentei* (literally, "appearance [in the eyes of society]"), which "can powerfully constrain individual action just as bullying does in the collectivist pressure cooker of contemporary Japan."[27] Those affected by the disorder often cut off communication not only with the outside world but also with family members, even going so far as to eat meals alone in their darkened rooms. When Harue tells Kawashima that she feels no connection to her family and that she is "living in a disconnected manner [*barabara ni ikiteiru*]," broken apart from others, she uses the language and expressions of a *hikikomori*.[28]

In his study *Shutting Out the Sun: How Japan Created Its Own Lost Generation*, Michael Zielenziger analyzes the social and political subtexts that gave rise to this "cadre of more than one million young adults, the majority of them men, who literally shut themselves away from the sun, closing their blinds, taping shut their windows, and refusing to leave the bedroom in their homes for months or years at a time."[29] Zielenziger argues that these young men, some of whom will end up living in seclusion for ten years or more, are "barricad[ing] themselves in their rooms for protection rather

than attempt to engage with a society they feel denies them any expression of self."[30] Fujiwara Mariko, director of research at the Hakuhodo Institute of Life and Living, a sociological think tank that studies youth trends (and is funded by Hakuhodo, Inc., Japan's second-largest advertising agency), views *hikikomori* as a problem that has arisen because Japanese teens spend more time interacting with machines than other people and have lost their ability to socialize face to face: "We have game machines. We have portable phones; with [them] you can play games throughout the day. Media in general creates a virtual reality. . . . You don't spend as much time talking to your friends, talking to your parents, talking to your colleagues, people in the neighbourhood. In other words instant entertainment, instant excitement and this sort of stimulus replace the kind of human experience people were brought up for years and years."[31] And Japanese novelist Murakami Ryū, who has written a novel and numerous essays about the problem of *hikikomori*, agrees:

> So maybe Japan's socially withdrawn kids are a harbinger of a new way of life, one forged by the vast changes the country has undergone in recent years. Japanese society is caught in a paradox: it is concerned with the increase of socially withdrawn kids, while at the same time it applauds gizmos like the new Sony PlayStation, which comes equipped with an Internet terminal and a DVD player. Technology like that has made it possible to produce animated movies and graphics, as well as conduct commercial transactions, without ever stepping out of the house. It inevitably fixes people in their individual space. In this information society, none of us can be free from being somewhat socially withdrawn. . . . "Socially withdrawn" people find it extremely painful to communicate with the outside world, and thus they turn to the tools that bring virtual reality into their closed rooms.[32]

Although it is too simplistic to suggest that technology alone is to blame for the current plight of the *hikikomori*, there is no question that "the TV's and computers and video games that hikikomori rely on to fill out the tedious hours" are serious enablers of their self-imposed seclusion.[33]

Since Japan's adoption of compulsory education does not extend to secondary education, the growing problem of truancy (referred to in Japanese as *tōkōkyohi*, or "school refusal," and defined as skipping school for one or more months per year)—which has doubled in the past decade and is often the first step toward *hikikomori*—is considered an issue for parents to address, rather than for social workers. That many Japanese parents yield to their child's desire for "the sanctuary of solitude,"[34] rather than compel them to seek help and create further disruption within the family, simply exacerbates the problem. As Japanese psychiatrists have struggled to determine the root causes of *hikikomori*, some have blamed the sociopolitical conditions of Japan's postwar economic success, which "distorted the

traditional family structure, creating a class of businessmen who worked long hours and rarely saw their children."[35] *Hikikomori* experts have speculated that modern Japanese society has sown the seeds of its own social disorders in many ways, due to a compounding of multiple factors. First, Japanese working conditions have effectively cut off a father from interacting with his child, thereby creating the conditions for codependency with the mother (known as *amae*). Second, Japanese society puts extreme pressure on young people to succeed academically and perpetuate the status quo. Third, the recession that has plagued the Japanese economy since the 1990s has undercut the expectations of lifetime employment most commonly associated with the postindustrial ideals of Japan's status quo. Whatever its causes, the silent epidemic of social withdrawal is wreaking havoc on the social fabric of Japanese society and creating a "lost generation" of shut-ins that will place enormous stress on Japan's health and welfare systems in the years ahead.

Into the Mise en Abyme: Spectral Flows and the Forbidden Room

The so-called Forbidden Room that appears in numerous scenes in *Kairo* serves as one of the film's most powerful metaphors for the problem of *hikikomori*. We first encounter reference to the Forbidden Room after the ghost of Taguchi contacts his co-worker Yabe via mobile phone, pleading, "Help me! Help me! Help me!" When Yabe goes to Taguchi's apartment to determine if someone is playing pranks, he discovers that Taguchi's computer is unplugged both from the electrical outlet and the Internet. However, in Taguchi's apartment, Yabe comes upon a piece of paper with instructions for "how to make a Forbidden Room [*akazu no ma no tsukurikata*]." As he leaves, Yabe comes across a Forbidden Room sealed shut with red tape located elsewhere in Taguchi's apartment complex. As Jerry White has noted in his study *The Films of Kiyoshi Kurosawa: Master of Fear*, the red tape serves "two purposes: to seal the ghost inside, and warn future explorers of the danger."[36] However, as White acknowledges, it is also a temptation, an invitation to transgress the forbidden. Yabe tears off the red tape and enters the room, where he encounters a ghostly woman who moves toward him in an uncanny, strangely inhuman fashion, as if in slow motion, against a soundtrack of haunting choral chants. After this terrifying encounter, Yabe's failure to show up to work or return phone calls elicits concern from his co-workers Michi and Sasano Junko (Arisaka Kurume). When he does finally return to work, appearing depressed and lethargic and acting strangely, Yabe initially ignores his

co-workers' concerns but eventually opens up to Michi, telling her about the horrible ghostly face that he encountered and cautioning her not to enter into the Forbidden Room sealed with red tape. As we soon learn, the Forbidden Room is not singular, but plural. At the same time that Forbidden Rooms start to appear all across the city, people start to disappear. Those individuals who either enter a Forbidden Room or create one are so haunted by the experience that they eventually commit suicide or slowly waste away and vanish. One such example involves a woman whom Michi had accidentally observed leaving a Forbidden Room and sealing it up from the outside with red tape. Later, Michi witnesses the same woman jump from high atop a factory holding tank situated in the background. In what is surely one of the most shocking uninterrupted long shots in the entire film, with Michi in the foreground, the figure of a woman in the background barely catches our eye in the upper right corner of the frame before the camera smoothly tracks her downward trajectory as she leaps off the holding tank and falls to her death. As is often the case in a Kurosawa film, the camera in *Kairo* often assumes a restrained, almost detached position, as if it were simply there to document what happens, with increased depth of field allowing events to appear in the frame as if from one remove, occupying a dispassionate position that is only eroded when it dawns upon the viewer what one has just witnessed. The lack of musical cues and Kurosawa's skillful sound design choices—particularly, his subtle use of ambient, mechanical background noise—makes such a scene all the more unnerving. The woman's suicide underscores the seriousness of Yabe's warning to Michi but begs the question as to the genealogy of the Forbidden Room. When and why was it first created? What is its function?

The film provides answers to these questions and further background exposition by returning to the alternating narratival thread involving Kawashima, whom we see at the library browsing through books on ghosts that were previously perused by Harue. Kawashima reads that since everything dies, it is logical that there are ghosts. As he ponders how many ghosts there have been since prehistoric times, Kawashima witnesses a ghost materialize in the library. Another library patron—a graduate student named Yoshizaki (Takeda Shinji) who was introduced earlier to Kawashima by Harue—sees it, too. Yoshizaki dares Kawashima to try to catch it, but Kawashima fails and is left emotionally shaken and physically chilled after this near encounter. Discussing the incident over tea, Yoshizaki speculates that what is referred to as spirits (*tamashii*), consciousness (*ishiki*), or souls (*reikon*) occupy a realm with a finite capacity. Whether the capacity is in

the billions or trillions is unclear, but Yoshiazaki speculates that, once that capacity is reached, "it's got to overflow [*afuredeyō*] somehow, somewhere." Invoking metaphors of "flow," which Jeffrey Sconce notes in his study on haunted media draw upon a metaphysics of electricity that presupposes "analogies between electricity, consciousness, and information that enable fantastic forms of electronic transmutation, substitution, and exchange,"[37] Yoshizaki speculates that the spirits have no choice but to "ooze forth" (*shinshutsu shitekuru*) into our world. "Once the realm reached critical mass," Yoshizaki claims that "any device would have sufficed," but given the many tropes shared between the discourses of spiritualism and cyberspace, it is fitting that it is the Internet and the computers connected to it that provide the gateway for spirits to flow into the world in *Kairo* in an act of electronic transmutation. As Erik Davis reminds us, the space of cyberspace imagined by utopic cybertheorists is "a new dimension": "As computers, media and telecommunications technology continue to collect, manipulate, store, represent and transmit an ever-increasing flux of data, they are installing nothing less than a new dimension: the space of information. This proliferating multi-dimensional space is virtual, densely webbed, and infinitely complex, a vast and sublime realm accessed only through the mediation of our imaginative and technical representations. How powerfully we engage this information space depends on how powerfully we both manipulate and inhabit these representations, these phantasms ghosting the interface."[38]

Spectral flows are literally ghosting the interface of *Kairo*. In a flashback to what appears to be the birth of the first Forbidden Room, we see a worker (in a cameo played by the veteran actor Aikawa Shō) at a construction site ask for tape to seal up a room. After the door and window have been sealed with red tape, the scene cuts to a shot inside the room, where we see a ghost manifest itself. Since this Forbidden Room is located in a condemned building on a construction site, it is soon torn down to make way for a new building. Rather than simply escaping into the outside world once the building has been demolished, the editing of the scene—which features a Steadicam shot that shows a telephone jack and cables on a pile of rubble juxtaposed with the modem handshake sounds first heard at the outset—suggests that the ghost that materialized in the first Forbidden Room in a moment of electronic transmutation subsequently entered cyberspace as a spectral flow in order to spread throughout the world like an Internet virus. Yoshizaki warns Kawashima that, no matter how simple the device, once the system has been established and the

"circuit has been opened [*kairo wa hirakareta*]," it will function on its own and remain permanently open.

Although Kawashima expresses skepticism, refusing to believe in Yoshizaki's ghost stories, Kawashima himself later encounters a ghost in a Forbidden Room situated in the abandoned factory where Harue commits suicide. After seeing a few films by Kurosawa, it becomes obvious that the director often prefers to use locations constructed during Japan's high-growth period that have fallen into ruins or are on the verge of dilapidation rather than sites that are new, sleek, and intact. As Jerry White has suggested, Kurosawa's "aesthetic vision of Tokyo is consistently marked by decay."[39] What an abandoned factory on the verge of ruins offers to the narrative of *Kairo* is a metaphor for the dilapidated state of the Japanese economy, which has been falling apart at the seams since the collapse of the bubble economy, and a generalized disillusionment with what Japanese modernity has become. It is in this ghost factory that Kawashima (accompanied by Michi) encounters Harue with a black hood over her head, carrying a handgun in her right hand. She removes the hood and speaks briefly to Kawashima but ends up shooting herself in the head despite Kawashima's pleas.

After Harue's shocking suicide, as Kawashima and Michi lament that they could not save her, they resolve to leave the city and go as far away as possible, but before they can do so, Kawashima must first reenter the factory in order to collect some gas. After filling a gas can, he accidentally drops the cap, which rolls into a Forbidden Room whose red-taped door has become unsealed. Despite Michi's previous warnings to the contrary, Kawashima enters the room to retrieve the gas cap and there has an encounter with a ghost, who approaches Kawashima and addresses him: "For a long time, death was eternal loneliness [*nagai, shi wa eien no kodoku datta*]. Help me! Help me! Help me!" In a sense, as is foreshadowed by Harue's heart-to-heart discussion with Kawashima about the "disconnected manner [*barabara ni*]" in which human beings live, the ghost that confronts Kawashima in the Forbidden Room of the abandoned factory, who expresses despair over the "eternal loneliness" of death and is effectively a shut-in as long as he is sealed inside the Forbidden Room, functions as a substitute (or analogue) for the *hikikomori* individual. As long as one remains trapped in the solipsism of one's own isolation, death is as lonely for a ghost as life is for the *hikikomori*. Such an impression is reinforced by the marketing for *Kairo*; the film's movie poster shows a ghostly woman trapped inside a computer monitor enframed by red tape with the imperative "*Tasukete*" (Help me!) printed in reverse, a metaphor for

the Forbidden Room that suggests that the characters who have become addicted to cyberspace, shutting out the world around them, are as isolated as the ghosts sealed in by red tape.[40]

Kawashima initially refuses to acknowledge that the ghost in the abandoned factory is real, insisting that it must be a "*maboroshi*" (phantom, vision, illusion, or dream), but the ghost refuses to budge. When the door suddenly closes and locks behind him,[41] Kawashima cannot escape, so he figures that if he can catch the ghost (as he tried to do in the library earlier), it will disappear. However, unlike the ghost in the library, the factory ghost allows Kawashima to catch it but does not disappear. In fact, when Kawashima comes face to face with the ghost, although the figure of the ghost is blurred and its facial features indistinct, Kawashima discovers to his horror that this ghost is more substantial than illusory, as if composed of flesh and blood. The ghost tells Kawashima, "I am not an illusion [*maboroshi*]." As the ghost approaches closer (with the camera offering Kawashima's point of view), we hear again the sound of a modem connecting to the Internet, as if not only to signal the arrival of additional ghosts via cyberspace but also to confirm that the Internet has somehow enabled the ghost to become reembodied through electronic transmutation. This encounter seals Kawashima's fate and the audience knows that it is only a matter of time before he will suffer in a manner similar to the others who have entered the Forbidden Room, slowly metamorphosing into a *hikikomori* and eventually dying of loneliness.

In sum, *Kairo* uses the metaphor of the Forbidden Room to engage the problem of *hikikomori* in the context of techno-horror, providing valuable social commentary on the isolation of modern existence in relation to our increasing reliance on electronically mediated forms of social interaction and telecommunication that privilege absent presence over face-to-face communication. As social psychologist Kenneth Gergen has suggested, "We are present but simultaneously rendered absent; we have been erased by an absent presence. . . . One is physically present but is absorbed by a technologically mediated world of elsewhere. . . . The erosion of face-to-face community, a coherent and centered sense of self, moral bearings, depth of relationship, and the uprooting of meaning from material context: such are the repercussions of absent presence. Such are the results of the development and proliferation of our major communication technologies of the past century."[42] By linking the influx of ghosts to new telecommunication technologies and the Internet, *Kairo* addresses the potential pitfalls of absent presence associated with the emergence and rapid adoption of e-mail, text messaging, mobile phone use, and Webcam videoconferencing,

thereby underscoring the ghosting of human interaction along the virtual pathways of electronic presence in which "the present moment is always being split, always shadowed by an 'elsewhere' that takes up every moment of time not filled by some immediate activity."[43] This is the increasing "power of ghosts" of which Jacques Derrida speaks in the epigraph at the outset of this chapter in relation to modern image technology, cinema, and telecommunications. If "the future belongs to ghosts," as Derrida suggests, it is due to the inherent ghostliness of new technologies that are able to provide temporal immediacy despite spatial isolation, separating voice and image from their source.[44]

In his essay "The Uncanny Home: Television, Transparency and Overexposure," Scott McQuire critiques the impact that such electronic presence has upon privacy: "Inserted directly into the heart of domestic space, devices such as the telephone, radio, television and computer punch right through the threshold of the private residence. Instead of being defined primarily by the passage of material bodies, access to a residence increasingly depends upon the activation of a circuit. Conceiving the home as an interactive *node* permanently on-line to vast information flows radically alters the division and dynamics of public and private space. One result is a profound *deterritorialization* of the home, insofar as what we see and experience within its walls is no longer contained by their limits."[45] Although one might expect the blurring of boundaries between public and private space to expand the boundaries of community, as humans become nodal points in the circuitry of modernity, *Kairo* suggests that our ability to communicate with one another paradoxically decreases rather than increases. In other words, as the flows of (spectral) information enter into our homes, not only is the technological uncanny evoked, but also "concepts such as proximity and locality take on entirely different meanings."[46] This redefinition of proximity, locality, and privacy is most poignantly visualized in multiple instances of mise en abyme that are associated with the suicides of Taguchi and Harue.

After Taguchi's suicide early on in the film, while examining the floppy disk that he had prepared for work, his co-workers discover a strange photo showing a feedback loop of the computer setup in Taguchi's apartment with Taguchi appearing on the left of the photo with his back turned toward the camera and a ghostly face appearing in a secondary monitor in front of Taguchi. This entire scene is repeated again and again on his primary computer monitor with ever smaller iterations to create a mise en abyme. The French term "mise en abyme" literally means "placement in abyss," where "in abyss" describes an infinite reflection or inclusion of

the whole within a part of the whole. The term originally derives from heraldic usage in which the representation of a small shield inside a larger one appears in traditional coats of arms. In contemporary critical theory, mise en abyme is used to describe a story within a story, a film within a film, a dream within a dream, or any figure, image, or concept that self-reflexively disrupts the logic of identity or renders meaning unstable by repeating the whole in multiplied reflections in an apparent feedback loop of infinite regression.[47]

As they gaze into this mise en abyme, Taguchi's co-workers realize that something uncanny is going on—the familiar has become unfamiliar, the normal has become estranged, but they are uncertain as to the significance of this recursive feedback loop. Later, the ghost of Taguchi contacts his co-worker Yabe via mobile phone, whispering, "Help me! Help me! Help me!" On his mobile phone appears the image that Yabe first discovered on Taguchi's computer disk, which shows the mise en abyme shot of Taguchi's apartment. Yabe is profoundly shaken by this experience of staring into the electronic abyss but still uncertain as to what it all means. However, it begins to dawn on the audience that the figure of the mise en abyme is somehow related to larger questions about technology, identity, and spectrality that are raised by the film. Later in the film, the function of the mise en abyme is illustrated further vis-à-vis Harue, just before she commits suicide.

In her apartment, Harue clicks on different pages of the "Would you like to meet a ghost?" Web site, eventually coming upon a videostream of a figure with a black hood over his head (apparently, the same one seen earlier by Kawashima). When she tries to print a screen capture of the site, instructions for constructing a Forbidden Room emerge from her printer. The figure on the Web site then removes his hood and shoots himself under the chin. Despite turning off her computer, the monitor turns back on by itself and shows an image of Harue herself, but with a long shot of her back, as if from the perspective of someone who is voyeuristically watching her. After witnessing the live-streaming suicide of another lonely Web surfer like herself, Harue enters a mise en abyme in which images of herself are recursively multiplied, rendering her identity even more unstable than it already was. The editing alternates between pixelated, subjective camera shots of Harue as she gazes directly into the mise en abyme and objective camera shots of her without the mise en abyme in the frame. However, rather than flee in terror from the mise en abyme, Harue literally embraces it, apparently concluding that as long as she has her own image, she is not alone. Critics have complained that Harue's reaction in this scene

is strange, since "at no point does it seem like the characters who commit suicide are destined for a new, blissful condition."[48] However, I would argue that, at this moment in the film, Harue is still enthralled by the false promises of electronic presence that she sees when she gazes into the mise en abyme. When she does finally commit suicide later in the abandoned factory, Harue appears to be anything but blissful. As she is faced with the instability of subjectivity and the "dissociative relationships among body, mind, space, and time"[49] in the vortex of the technological mise en abyme, Harue responds by throwing herself headlong into the fantasy of electronic transmutation, which proves to be her undoing. In the end, Harue seems to conclude that she would be better off as a ghost.[50]

The Human Stain: Suicide in the Shadow of Hiroshima

Director Kurosawa Kiyoshi has said that in most of his films, the protagonist "inevitably comes into conflict with the world around him."[51] In response to such conflict, he has said that there are only four possible solutions: committing suicide, becoming a criminal, going insane, or destroying the world. In *Kairo*, it is Internet-facilitated suicide that is the chosen response, but as in many other films by Kurosawa Kiyoshi (e.g., *Cure* [*Kyua*, 1997], *Charisma* [*Karisuma*, 1999], *Bright Future* [*Akarui mirai*, 2003], and *Retribution* [*Sakebi*, 2006]), there is also an apocalyptic dimension to the drama that unfolds.

The topic of suicide and the Internet is one that also resonates loudly outside of the diegetic world of *Kairo*. Since 2000, Japan has seen an increasing number of suicide pacts facilitated by Internet message boards and Web sites. Although cyber-based suicides still only account for roughly 0.01 percent of the more than thirty thousand suicides committed in Japan each year over the past decade, they are definitely on the rise, especially among adolescents, and have received a great deal of media coverage in Japan, as well as becoming a hot topic in Japanese film and popular culture devoted to "youth crisis."[52] As Zielenziger has noted in his study of *hikikomori*, suicide often functions as a form of protest in Japan: "Radical dissent is also reflected in the proliferation of suicide—Japan has the world's highest rate among wealthy industrial nations—as well as in the growing number of group suicides committed by complete strangers who meet on the Internet in order to die together."[53] There has been quite a bit of debate in Japan over whether or not to shut down Internet Web sites that are devoted to offering instruction on the most effective suicide techniques and to helping potential suicides make contact with each another

to facilitate group suicide. However, as free speech advocates have argued, as soon as one filters or outlaws one form of Internet communication, it is a slippery slope toward censorship. The Internet itself is not responsible for the growing number of cyber-based suicides; on the contrary, if suicide pacts are spreading like a virus over the Internet, as suggested in *Kairo*, it is because the Internet is uniquely suited to placing people with similar interests into contact with one another who might not otherwise meet. The Internet can be used to facilitate positive communication, such as message boards for cancer survivors, just as easily as it can be put to negative uses, such as fostering the formation of hate groups and the like.

Although most of the suicides in *Kairo* are performed outside the home after a character has come into contact with other *hikikomori*-type individuals on the Internet (or with a ghost in one of the Forbidden Rooms), one of the most disturbing ways in which suicide is visualized in the film involves the live-streaming of a suicide performed via Webcam so that others can bear witness. Most cyber-based suicides in the real world involve suicide pacts formed in Internet chat rooms, which are then carried out in person when the would-be suicides meet at a designated location (or, if the group is large, across multiple locations performed at a designated time in a specified manner). However, around the world, although still relatively rare, instances of suicide streamed live over the Internet seem to be the preference of those who wish to commit suicide in a private space where authorities are less likely to intervene and at the same time sensationalize the moment via Webcam in order to maximize the number of potential witnesses. It is as if those who commit suicide via Internet videostreaming are seeking some sort of social connection with other people at the very moment their lives are about to end, even if that connection is merely virtual and the contact brief.

However, perhaps the most distinctive aspect of how death is represented in *Kairo* is the particular way in which the body is transformed into a black shadow or stain at the spot where the person has died. For example, when Yabe goes to Taguchi's apartment after his suicide, he discovers a black stain on the wall where Taguchi had hanged himself, as if the death of Taguchi had left behind a residue on the wall itself (see Figure 3.1). Instead of the stain on the soul, we are presented with the soul as stain. Yabe turns the lights off, exits the room, and then returns again, wanting to reconfirm with his eyes what he just saw. Upon returning to the room, Taguchi appears to be standing there in the flesh in place of the stain. Yabe approaches, asking Taguchi what happened, before realizing that Taguchi is not, in fact, there—it is just a shadow left behind by Taguchi. It is at that

Figure 3.1 Yabe discovers a black stain on the wall where Taguchi killed himself (*Kairo*).

moment that Yabe realizes he has just seen a ghost. How are we to interpret this metaphor of the human shadow or stain left behind in the wake of death? Let us look at some other examples before considering the larger sociohistorical connotations of these scenes.

After Yabe's ghostly encounter with Taguchi, Michi receives a phone call from Yabe, who asks her for help with a voice that sounds almost electronic. Michi is then surprised to see Yabe in one of the storage rooms at Sunny Plant Sales. When she walks up to him, he disappears, leaving only a black stain. As she stares at Yabe's shadow imprinted on the wall, she can still hear him whisper repeatedly, "Help me! Help me!" Diegetic sounds in the scene are momentarily silenced so that only the sound of Yabe pleading for help can be heard. Later, we see another of Michi's co-workers, Junko, enter a Forbidden Room situated in the basement of the building where she works. As a ghost approaches Junko, Michi rushes in and rescues her. Back at Michi's apartment, Junko's condition worsens as she becomes more and more deranged, repeating "Help me!" over and over again like the others. With a pale blanket draped over her head and body—only her face peering out—she already looks like a ghost. The next morning, Junko dissolves into a black shadow that crumbles into individual particles and blows away. Michi can only stare in disbelief and cry out for Junko to stay.

In the final act, after the parallel storylines of two survivors, Michi and Kawashima, have intersected and they have attempted to no avail to rescue Kawashima's friend Harue, who shoots herself despite his pleas to come and live with him, there is nothing left to do but try to escape the city before it comes tumbling down around them. Tokyo appears eerily

abandoned, with burnt-out cars around every corner and smoke pouring forth from the tops of buildings. Sirens and explosions can be heard in the background. The sky looks ominous. Previously crowded stores and video arcades are empty save for a few lonely ghosts lurking in the shadows. Automated newscasts blaring on television sets that no one is watching list all the people reported missing across Japan. Anticipating that Kawashima will not survive after his encounter with a ghost in the Forbidden Room of the abandoned factory, Michi asks him if he would like to return to where Harue died, but Kawashima, despite waning energy, insists that they go as far away as possible. At a docking area, Michi and Kawashima appropriate a small motor boat, which they hope will help them escape Japan. However, Michi cannot locate the keys. As she runs to the nearby boat rental shop to search for keys, a commercial airline descends quickly out of the sky and crashes into the city, further enhancing the aura of apocalyptic destruction all around. Inside the boat rental shop, Michi discovers not only the boat keys but also the ashes and remains of numerous deceased.

Michi and Kawashima head out to sea and there meet up with a ship piloted by actor Yakusho Kōji. It is here that the film dovetails with the opening shot of Michi gazing out onto the sea as the ship's captain looks on. In voiceover, Michi wonders if they would have been happier to die with the rest of humanity. Instead they decided to go on further into the unknown future.[54] The ship captain tells her that they are heading for South America from which they are still receiving signals (albeit weak ones), which simply reinforces the impression that the Internet virus depopulating Tokyo has spread apocalyptically all across the globe. If anyone has survived, they can pick up the survivors and then head back out again, going as far away from cyberconnected civilization as possible. Although Michi wonders aloud to the captain if she has done the right thing by bringing her weakened friend onto the boat, she finds a strange sort of comfort later while observing Kawashima turn into a black shadow in one of the ship's cabins, effectively bearing witness to her friend's moment of death (see Figure 3.2): "Now, alone with my last friend in the world, I have found happiness."[55]

What all these scenes have in common is a strong association with the aftermath of the atomic bombing of Hiroshima. On August 6, 1945, the first atomic bomb was dropped on Hiroshima, leveling 90 percent of the city. The number of people who were killed, injured, or missing is estimated to have been as high as 130,000. One of the most shocking photos taken by photojournalist Matsushige Yoshito soon after the blast shows the stone steps leading to the entrance of the Sumitomo Bank just 250 meters from the hypocenter where the bomb landed. A black shadow burnt into the steps

Figure 3.2 Michi witnesses her friend Kawashima turn into a black shadow (*Kairo*).

is believed to have been the incinerated human remains of a customer who was sitting on the steps waiting for the bank to open when the bomb detonated.[56] With thermal rays reaching up to two thousand degrees centigrade, the atomic bomb literally burned human shadows into stone, which could be clearly seen for ten years after the explosion. The human shadows left behind in Hiroshima serve as powerful reminders of the human devastation produced by the atomic apocalypse in Hiroshima and Nagasaki. In *Kairo*, we are presented with an apocalypse of a different kind: a social apocalypse. At the level of the film's narrative, apocalypse is the outcome of ghostly overcrowding in the other world, which leads to the massive influx of ghosts into this world and the loss of human connection on a global scale. At the level of ideological critique and social commentary, the film invokes the trauma of Hiroshima as a way of addressing the apocalyptic devastation produced by the steady disintegration of community in the hypertechnological, modernized world. What makes this invocation so effective in the context of a techno-horror film such as *Kairo* is that the ghosts of Hiroshima's past irrupt into the present by means of the new technologies enframing the present. As Ramie Tateishi puts it, "Not only will the past live; it will circulate in the present through the *very technology* that so defines the present."[57]

In the end, although most of the film has unfolded in the form of an extended flashback, it finally dovetails with where it began. As an overhead shot of Michi's ship recedes into the distance, the entire frame slowly reduces in size until it flashes off like an old-fashioned television set,

thereby reaffirming the spectrality of electronic presence and the ineluctability of haunted media in the postmodern era.[58] In a sense, Michi and her friends (Taguchi, Yabe, Junko, and Kawashima) were like the dots circulating through the computer simulation of the human world that Harue showed to Kawashima in the computer lab. But even if human life and society have become merely virtual, Michi finds happiness in knowing that her connections with her friends, however brief, however spectral, were no less meaningful.

Avalon and "Borderline Cinema"

Although best known for his direction of the animated cyberpunk classic *Ghost in the Shell* (*Kōkaku kidōtai*, 1995), whose sequel I analyzed in detail in Part I, Oshii Mamoru is also a live-action film director. In response to the spectrality of cyberspace and electronic presence, Oshii's 2001 film *Avalon* offers a melancholy reflection on the ontological status of virtual reality. Like *Kairo*, *Avalon* engages the question of virtual reality in terms of the problems of spectrality, addiction, and social reclusion. *Avalon* is not Oshii's first foray into live-action filmmaking: he directed two earlier films, *Hellhounds: Red Spectacles* (*Jigoku no banken: Akai megane*; a.k.a. *The Red Spectacles*, 1987) and *Hellhounds: Cerberus* (*Jigoku no banken: Kerubersu*; a.k.a. *Stray Dog: Kerberos Panzer Cops*, 1991), which explore the politics and existential crises of an elite police force called the Panzer Cops. In addition, he has also made a surrealist murder mystery titled *Talking Head* (1992), which deals with the exploitation of artistic talent in the anime industry.[59] However, *Avalon* is regarded by many critics as Oshii's most cinematically accomplished live-action film to date, one that has garnered praise from other directors around the world, as well as winning awards at three international film festivals.[60]

Like so many films and anime by Oshii, *Avalon* privileges mood, atmosphere, and the composition of complex visual tableaux over character and plot development, which seem to be almost secondary considerations. As Oshii himself has suggested in interviews, he creates films that are not so much understood as they are "vaguely felt."[61] Oshii's well-known interest in the details of military hardware design has occasionally elicited speculation about his apparent gun fetish and mechaphilia. However, more striking than the size, power, and types of assault weapons, armored combat vehicles, attack helicopters, and the like featured in *Avalon* is the stark contrast that is established between testosterone-filled scenes of raging guns and artillery, on the one hand, and gunless scenes of incredible

understatement, subtlety, and fragility, on the other. Indeed, the spectacle of big guns on display in an Oshii film such as *Avalon* typically serves as a foil to scenes evoking elegiac lyricism and a profound sense of loss, which are at the heart of what an Oshii narrative is really about.[62]

As with a number of other works directed or written by Oshii (including *Ghost in the Shell* and its sequel, as well as *Jin-Roh: The Wolf Brigade* [1998], whose manga source material and screenplay Oshii penned), *Avalon* begins with a prologue that situates the story in medias res: "The near future. Some young people deal with their disillusionment by seeking out illusions of their own—in an illegal virtual reality war game. Its simulated thrills and deaths are compulsive and addictive. Some players, working in teams called 'parties,' even earn their living from the game. The game has its dangers. Sometimes it can leave a player brain-dead, needing constant medical care. Such victims are called 'Unreturned.' The game is named after the legendary island where the souls of departed heroes come to rest: Avalon." Oshii utilizes such a technique to create a greater sense of historical depth and complexity (or the illusion thereof) by providing the film with a narrative context before the very first image is shown. The prologue introduces the most important issues raised by the film: the disillusionment of youth, the attraction of immersive war-game simulations, technological addiction and the dangers of virtual reality, and, above all, the Isle of Avalon and related Arthurian leitmotifs. Throughout the film, the word "Avalon" functions self-reflexively as a borderline where multiple lines of meaning and narrative intersect. In addition to being the title of the film itself, a mythological reference to Arthurian saga, and the name of "the legendary island where the souls of departed heroes come to rest," "Avalon" also functions within the film as the name of an illegal, highly addictive virtual reality war game that combines elements of the first-person shooter (FPS) genre with role-playing games (RPG), as well as a particular level within the game. It is also the designation that appears on the identification/debit cards used by players for the transfer of game winnings, as well as the title of an Avalon-themed oratorio concert that is performed later in the film in a highly realistic level of the game called Class Real. "Avalon" also appears on the official-looking "Stop Avalon" posters appearing outside the parlor where the outlawed game is played, as well as on posters advertising the oratorio concert *Avalon* in Class Real. In sum, "Avalon" is everywhere.

In my discussion of *Ghost in the Shell 2: Innocence* in Part I, I noted Oshii's claim that he is not interested in representing real nations such as Japan so much as he is in exploring the liminality of borderlines and imaginary space-time continuums—"somewhere that is not here,

sometime that is not now"—featuring "characters who are nowhere and somewhere at the same time," who are "coming and going from this [borderline] place."[63] Given the polysemy of the term "Avalon" and the polymorphous geographical marking of the imaginary space-time continuums in which the film and game unfold, the concept of "borderline cinema" developed by Oshii is especially applicable to *Avalon*. The film's retrofuturistic Eastern European cityscape and dilapidated architecture blur historical borders between the Soviet invasion of Budapest in 1956 (to crush the Hungarian Revolution) and Prague in 1968 (to suppress the Prague Spring reforms),[64] while the liminal space-time of virtual cinematography and computer-generated imagery used to create the film blur cinematic borders between live-action film and anime. Although Oshii's choice to film *Avalon* in Poland is undoubtedly related to his love of Polish cinema, as well as Poland's lower production costs (including access to inexpensive Soviet-era military equipment), one wonders if directing Polish actors and crew in a language that is not his own did not also place Oshii himself in a borderline position as he was creating this work of borderline cinema. In the diegetic world of *Avalon*, the digital constructedness and liminality of the borderline space-time continuum called "Avalon" is foregrounded by various means. For example, RPG player-characters, such as the protagonist Ash (played by Malgorzata Foremniak), a dominant player who earns a living from the game, navigate various superflat two-dimensional (2D) planes of virtual reality (see Figure 3.3). These include tactical battle-planes (digital terrain maps displaying the status and location data of different opponents), explosion-planes (sheets of billowing flames frozen in midair following an aerial hit), fragmented death-planes (in which characters flatten into 2D shapes and then scatter into a multitude of tiny glass-like shards or polygons when shot), and city-planes (which materialize around a character when teleporting to different locations).[65] What is profoundly at issue in this collision of 2D and 3D is whether the borderline between "reality" and "virtual reality" can be confidently differentiated or is irretrievably blurred.

Despite being a live-action film, *Avalon* sometimes seems more like an animation in its employment of anime-like visual techniques and shots, including the foregrounding of 2D "flatness" or "extreme planarity," which Murakami Takashi has described in terms of the concept "superflat" as one of the defining characteristics of Japanese anime.[66] It is also distinguished by the sort of virtual cinematography associated with other films about virtual reality—most notably, *The Matrix* (1999)—involving virtual sets and extremely complicated camera shots that are made possible by means

Figure 3.3 Ash gazes upon 2D explosion-planes in a virtual battlefield within the Avalon game (*Avalon*).

of computer-generated imagery (CGI). Films such as *Avalon* and *The Matrix* not only show contemporary cinema's indebtedness to the framing, camera movement, and fast cuts of anime but also blur the boundaries between live-action cinema and animation to a degree unimagined before the emergence of CGI. More than ever in an era of digital filmmaking and virtual cinematography, live-action film and animation are situated not as antipodes (with animation devalued as somehow less than the standard offered by live-action film), but rather as variants along a continuum of cinematic image making that often includes the hybrid intertwinement of both.[67]

Although *Avalon* does not go as far as *Casshern*,[68] the 2004 film debut of acclaimed music video director Kiriya Kazuaki, which marks the emergence of a new form of filmmaking best described as "live-action anime," *Avalon* does succeed in creating a productive tension between 2D and 3D layers, consisting of neither simply live-action film nor simply anime, but something in between that combines aspects of each into a new hybrid form. Oshii uses the term "superlivemation" to describe the special techniques employed in *Avalon* that combine the digital animation of 2D elements within 3D spaces. Oshii developed superlivemation further in *Amazing Lives of the Fast Food Grifters* (*Tachiguishi retsuden*, 2006), a mockumentary-style animation about Japanese postwar sociopolitical history told through the lens of changes in Japanese dietary culture and the

emergence of "fast food grifters," who employ all manner of subterfuge in an attempt to gain a free meal.

Mixing photography of real locations and people (mostly cameos of famous directors, producers, and talent from the anime industry) with digital animation of paper puppet theater-style characters, *Amazing Lives of the Fast Food Grifters* approaches something like a 2D/3D digital reimagining of *kamishibai* storycard theater, aspiring to a new form of animation that is, according to Oshii, in between "a live-action movie with extremely limited information" and "a simple animation with extremely intense information."[69] Although *Avalon* is more live-action than it is animation, it employs the superlivemation technique in the form of the 2D "superflat" layers that I mentioned earlier, which are first introduced in the opening scenes of *Avalon* as representations of the virtual gaming world in which its protagonist, Ash, demonstrates her prowess on the virtual battlefield by dispatching numerous opponents and taking down a combat helicopter. As if to underscore the unreality of the Avalon gaming world, "Mission Complete" flashes across the sepia-colored sky as superflat 2D explosion and shrapnel layers float upward in the 3D space.

As the opening credits appear, it is obvious that *Avalon* is, on some level, Oshii's response to Andy and Lana (formerly Larry) Wachowski's *The Matrix*, just as *The Matrix* was the Wachowskis' response to Oshii's earlier anime *Ghost in the Shell*.[70] The famous title credits of *The Matrix* are composed of streams of glowing green code consisting mostly of reversed Japanese katakana characters and Arabic numerals, which flow downward like falling rain (sometimes described as "digital rain") before forming into the words of the title. Similarly, in Oshii's earlier ground-breaking anime *Ghost in the Shell*, which the Wachowskis have acknowledged as an important precursor to *The Matrix*, the opening credits appear as a grid of flashing green numbers evoking data encryption that form into credits.[71] By comparison, the opening credits to *Avalon* are composed of multilayered grids of orange- and yellow-hued retro-futuristic, neon-lit letters from the Roman alphabet, which flash across the screen before resolving into legible title credits.[72] In all three films, animated code represents the digital zone of virtual reality. In the digital zone, everything is constituted by streams of data. Lacking anything like a deep hermeneutic meaning or intrinsic signified, the flipside of data consists of nothing but discrete electronic pulses, or "bits."[73] Along the electronic pathways of the digital zone, neither meaning, money, power, nor any other unit of semiotic, economic, or political exchange can be said to "exist" any longer. Only virtual meaning-effects, money-effects, and power-effects—the by-products of electronic streams

of data and noise—can be said to "subsist" across a plane of immanence.[74] However, it is noteworthy that the opening credits for *The Matrix* and *Avalon* also share similar sound design in the form of sharp, high-pitched electronic data-transfer noises to underscore the materiality of data (not unlike the modem handshake sounds heard at the outset of *Kairo*)—a useful reminder that the ethereality of the digital zone's virtual reality constructs is based in material reality: there is no software without hardware.[75]

The emergence of the digital zone marks an epistemic shift away from the hermeneutic semiotics of signifier and signified to a digital network of data links, sites, screens, frames, menus, and scrollable bands. Instead of the metaphysical presuppositions of hermeneutics, characters are confronted with the electronic flows and intensities, the pulsating folds and lines of escape, of digital immanence. Those characters who learn to read the code that inheres in data streams (the underside of virtual constructs), such as Neo in *The Matrix* and Ash in *Avalon*, are better able to manipulate the virtual systems they traverse and, in some cases, even to resist the oppressiveness of those systems. If green hues come to be associated with the synthetic reality and corporate totalitarianism of *The Matrix*, it is sepia tones that are associated with the virtual reality and Soviet-era militarism of *Avalon*.

The Society of the Spectacle

After the opening credits, the words "Log Off" appear on screen and the camera cuts to an overhead shot of Ash wearing only her underwear and a virtual reality helmet, reclining in a chair that looks more like what one would see in a dentist's office than an illegal gaming parlor. The clinical looking gaming room, with its dental chair, surgical lights (as if taken from an operating room), and walls covered by an assortment of wires, cables, and broken tiles, strongly suggests that the room has been retrofitted numerous times for multiple purposes using whatever equipment was available. After Ash revives from her latest virtual reality gaming experience, she removes her helmet and chats briefly with the Game Master (Wladyslaw Kowalski), who congratulates her on her performance but encourages her to join a party rather than continuing to play solo (see Figure 3.4). The benevolently authoritarian-looking Game Master of *Avalon*, who never appears anywhere else but on the monitor overhead as an ever-watchful talking head wearing a priest's collar, recalls images of Big Brother from Michael Radford's cinematic adaptation of George Orwell's *1984*, the all-seeing dictator of Oceania whom no one ever encounters in person. When Ash later

Figure 3.4 The Game Master addresses Ash (*Avalon*).

questions the Game Master about the status of his own existence, asking him if he accesses from a terminal somewhere, or is "a simulated character that is part of the system [*shisutemu ni kumikomareta mogi jinkaku*]," the Game Master replies, echoing *1984*'s protagonist Winston Smith that Big Brother may never have existed: "Whichever it is, there's no way for you to confirm it." As Ash collects her winnings, other players gather to watch replays of her recent performance displayed holographically. Repeatedly, the film shows gamers watching other gamers play Avalon. Player-spectators analyze Ash's every move in the game and compare her performance to that of other elite players, just as the Orwellian Game Master keeps a watchful eye on the game, its players, and spectators. As Susan Ingram and Markus Reisenleitner have noted, the visual style of *Avalon* "conveys a pervasive atmosphere of (almost) inescapable surveillance and oppression by an authoritarian police state, which, though never explicitly elaborated in the movie, nevertheless makes itself felt as the background of Ash's life world."[76] Likewise, as if embodying the mechanisms of surveillance that watch her, Ash herself is quite interested in observing the play of other elite players (and comparing it to her own), such as the character belonging to the Bishop class (not a character's name, but a special "prestige class" in the game[77]), who has been surveilling Ash from afar from the very beginning of the film. When Ash overhears other players praise the Bishop (Dariusz Biskupski) for employing battle tactics similar to her own at the elite level of the game (known as Class A)[78] but with even greater speed and confidence, she sets out to determine who he is. However, when she checks

his status on the terminal in the lobby of the game branch, the computer replies that the Bishop has "No Name" and his access point is unknown, thereby suggesting that he accesses Avalon from his own terminal and has no need of gaming parlors (piquing her curiosity further). Ash is annoyed that another Avalon player could create a battle spectacle greater than her own, and she tells the Game Master that the Bishop is challenging her.

In *Avalon*, it is not simply the masses that watch while elite individual players act; rather, both players and spectators seem to be enthralled by the spectacle of gaming that is Avalon. Although the setting of *Avalon* may be a borderline space-time continuum, which is difficult to pinpoint precisely, there is no doubt that *Avalon* exemplifies in a general sense the "society of the spectacle" critiqued by Situationist and Marxist theorist Guy Debord in his treatise of the same name: "All that once was directly lived has become mere representation. . . . The spectacle is not a collection of images; rather, it is a social relationship between people that is mediated by images."[79] Insofar as "the spectacle is *capital* accumulated to the point where it becomes image,"[80] Debord argues that it expresses a social cleavage and alienation that "is inseparable from the modern State."[81] In an era when the commodity fetishism of advanced capitalism ("following in the footsteps of the old religious fetishism, with its transported convulsionaries and miraculous cures,"[82] as Debord remarks) has ushered in the fetishization of the commodity images produced by mass-media marketing and elicited "waves of enthusiasm for particular products, fueled and boosted by the communications media . . . propagated with lightning speed,"[83] the society of the spectacle is first and foremost a system that "is founded on isolation": "At the same time it is a circular process designed to produce isolation. Isolation underpins technology, and technology isolates in its turn; all *goods* proposed by the spectacular system, from cars to televisions, also serve as weapons for that system as it strives to reinforce the isolation of 'the lonely crowd.'"[84]

When the function of the spectacle becomes "the concrete manufacture of alienation,"[85] then spectators are linked "only by a one-way relationship to the very center that maintains their isolation from one another."[86] *Avalon* presents a society of spectators watching game players who are also spectators in their own games, consumed by the mass media of gaming. Even those who think they are acting as players in the game are trapped as spectators of the illusions provided by the game. Indeed, *Avalon* questions whether it is possible to go outside of the game, to go outside of the society of the spectacle. As she gains access to additional levels and different planes of the game of spectacles, Ash discovers that the illegal game called Avalon

is just another layer of passive consumption provided by the society of the spectacle, leaving little room for active resistance.[87]

The Surrealism of (Virtually) Everyday Life

Although opportunities for resistance may be limited in Ash's world, *Avalon* does offer an implicit critique of the society of the spectacle by showing the isolation and alienation produced by the totalitarianism of spectatorship. Nowhere is this more apparent than in the early montage sequence that underscores Ash's isolation from others. We see the repetitive monotony of Ash's life in which she participates daily in the virtual reality game Avalon, departs from the game branch alone, buys food for her dog with her Avalon winnings, and takes an electric tram home without communicating with others on the way to or from her apartment. As Oshii has remarked, "If you live in a world where you repeat the same action every day, you may indeed be in a very empty and meaningless world."[88]

The degree of Ash's alienation is also heightened by certain surreal aspects of her everyday life. For example, when Ash leaves the Avalon game branch, she passes bystanders loitering outside who are utterly static, not moving an inch, much less making eye contact with her. Indeed, only the dogs standing nearby appear to be animated enough to take notice of Ash as she walks past. Likewise, when Ash takes the tram back to her apartment, the passengers are similarly immobile—always standing or sitting in the same positions, wearing the same clothes, and never interacting. On one level, these motionless figures may suggest that Ash's everyday reality outside of the virtual reality game is itself another level of virtual reality inside another game, as if the bystanders were nothing but ciphers, not unlike the "programmed dummies" that Ash later encounters in a special level of Avalon when she joins a party assembled by the Bishop, who is accompanied by figures who are "nothing more than data without personalities [*jinkaku no nai dēta ni suginai*]" to fill out the team. On another level, the stationary people in Ash's everyday reality, as well as the fact that, by and large, people ignore each other on the streets and on public transportation, may also suggest that other people are perceived as unreal by Ash, since she is only interested in gaming and dogs.[89] Although not to the same extent as the characters in Kurosawa's *Kairo* discussed earlier, Ash does display some aspects of the social malaise of *hikikomori*, especially the way in which she seems to avoid making contact with other players if possible. According to the Game Master, Ash's philosophy is never to make contact with another player. Indeed, until she meets up again with her former teammate Stunner

(Bartlomiej Swiderski) and the Bishop, those instances in which she does make contact with other humans seem quite fleeting. Like so many other cyberpunk protagonists reacting to the disappearance of community, Ash operates mostly as an isolated individual, a lone wolf. Perhaps other people outside the game parlor and on the tram appear motionless from Ash's perspective because she has become so alienated in her immersion in the society of spectacle that she no longer views them as human. Correlatively, in such surreal scenes comprised of static humans, the fact that the only other entities that move and appear animated (besides Ash herself) are dogs seems to reflect Ash's deep affection for canines, especially her pet basset hound.

However, rather than using the basset motif to suggest, as I argued in Part I in relation to *Ghost in the Shell 2: Innocence*, that our relations with dogs may be a possible way beyond anthropocentrism (if the dog is construed after Haraway in terms of coevolutionary networks), Oshii performs a U-turn in *Avalon* by demystifying Ash's basset hound as a simulacrum. Although there is no question that Ash is as deeply affected by contact with her basset hound as Batou is with his pet in *Ghost in the Shell 2*, the basset hound in *Avalon* turns out to be an illusion, a virtual reality construct. This is revealed in a surreal scene in which Ash returns to her apartment with carefully selected fresh meat, fruits, and vegetables (a rarity in Ash's world of *Avalon*) to prepare a delicious stew for her pet.[90] When she first enters her apartment, we hear the sounds of her dog greeting her at the door, but the dog does not enter the camera frame as it had in previous scenes. After Ash has finished preparing the meal and tests it as a mother would for her child, she looks pleased with her creation and excited to present it to her beloved pet. However, as Ash looks around her one-room apartment, the basset hound is suddenly nowhere to be found, as if it had vanished into thin air. Where did he go? Ash emerges from her apartment, wondering if somehow he escaped, despite the fact that the door was closed, and makes a startling discovery: as Ash steps outside of her apartment looking for her dog, she hears the sounds of a military helicopter flying overhead such as the one encountered previously inside the game. The look of puzzlement on Ash's face slowly turns to realization as it becomes apparent that Ash's dog was merely a simulacrum. As Oshii has remarked, "The meaning of the disappearance of the dog is important . . . but whether or not the dog existed in the first place is an even more important question."[91] When the dog disappears, Ash realizes that her everyday reality is another level of the game, that her pet basset is itself a symbol of Avalon. Ash's most intimate relationship in the film turns out to be a virtual reality illusion.

The demystification of Ash's pet as a simulacrum (and her emotional response to the loss of the Real) underscores the function that her virtual dog served in her life, expressing her desire to connect, to form an emotional connection with someone or something while simultaneously exposing her status as an isolated, solitary individual.

Other surreal clues that suggest Ash's reality is not as solid as she assumes include the confused temporality of her apartment building and the strange objects in Ash's apartment itself. Repeatedly, as Ash returns to her apartment building after an intense gaming session in Avalon, we see a low-angle shot of her apartment building bathed in nighttime shadows cast by streetlamps, juxtaposed with a daylight sky (see Figure 3.5). Clearly citing René Magritte's (1898–1967) famous painting *The Empire of Light* (*L'empire des lumières*, 1954), which also juxtaposes night and day in the same scene, the temporal confusion evoked by Ash's apartment building suggests that even the reality Ash takes for granted as real is just another level of virtual reality.[92] Inside Ash's apartment, other surreal clues reinforce this conclusion. The vast array of black computer keyboards that Ash uses to access online data are missing letters, numbers, or any recognizable

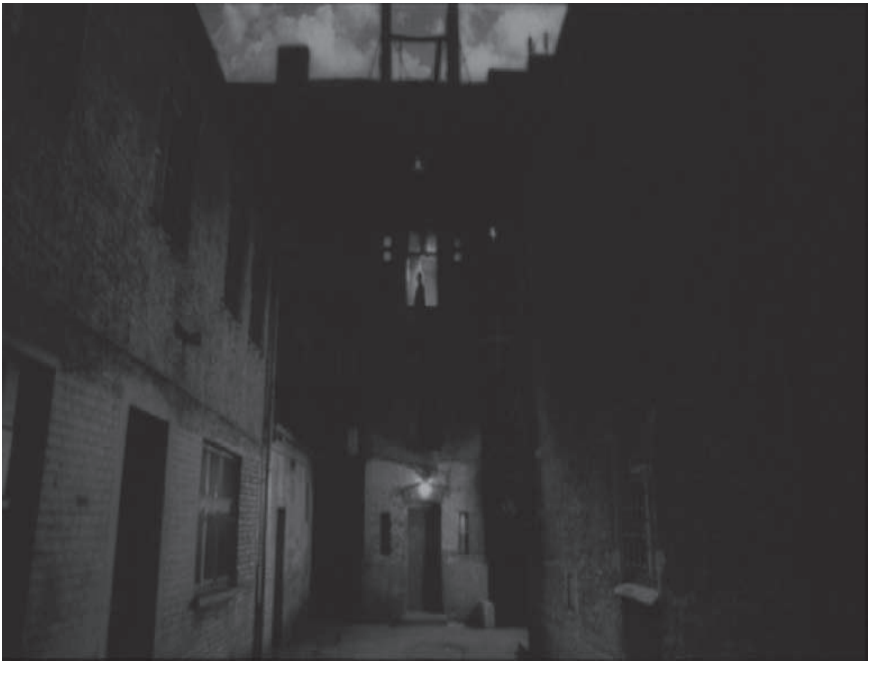

Figure 3.5 The Magrittean juxtaposition of night and day at Ash's apartment building (*Avalon*).

symbols on the keys to help guide her typing. It may be that an objective camera shot makes the audience privy to the blankness of the computer keyboards, whereas what Ash sees when she types are keyboards with virtual letters and numbers superimposed on the keys.[93]

Likewise, it is most peculiar that all the books purchased by Ash from a local bookstore on the topic of Arthurian legend display Japanese titles on the spines, even though we never encounter any character who speaks any language other than Polish in the film.[94] Even stranger, we discover that, despite their Japanese titles, the books appear to be completely empty of content. After Ash returns to her apartment, she is visited by the Bishop, who has been surveilling Ash and whom Ash has been trying to track down since Stunner mentioned that she would need the help of a Bishop-class player in order to enter a hidden mode of Class A known as Class SA (for "Special A"). When Ash invites him in and they discuss plans to form a new party, the Bishop looks around her apartment and enviously notes all the so-called real commodities her game winnings as a solo player have enabled her to buy ("Real meat, real vegetables, rice . . . real alcohol, cigarettes"), as well as her access to "knowledge that has become impossible to browse by means of a computer terminal [*tanmatsu dewa etsuran dekinaku natta chishiki*]." As the Bishop pages through the tomes of book-based knowledge in Ash's apartment, we see that her books are completely blank inside, suggesting that, like the computer keyboards, books are screens overlaid with data in virtual reality, sort of like retro-futuristic e-books filled by whatever virtual reality textual overlay Ash thinks she's reading at the moment, but that remain blank when viewed without the aid of virtual reality.

"Welcome to Class Real"

The final demystification of Ash's reality as another layer of the virtual reality game occurs after she forms a party with the Bishop and sets out to catch "the Ghost" that haunts the game. Earlier in the film, Stunner, one of Ash's cohorts on the Avalon team Wizard, had instructed Ash about a hidden "neutral character" in the game—a silent young girl with sad eyes known as the Ghost whom some consider a bug in the Avalon program and others a gateway to the hidden level of Class SA. The Avalon receptionist describes Class SA as "a place in Avalon that is not Avalon [*Abaron ni atte Abaron narazaru basho*]," thereby underscoring its liminal status as a hidden, forbidden field. It is rumored that if one catches the Ghost, one will gain access to the phantom field known as Class SA and gain a huge amount of experience points. The only drawback is that it is dangerous to

pursue the Ghost—according to Stunner, everyone who has ever pursued the Ghost thus far has been rendered one of the "lost" (or "Unreturned"). Moreover, if one is lucky enough to pass through the gateway of the Ghost to Class SA, it is impossible to reset the game if one wishes to escape.[95] Ash learns that Murphy (played by Jerzy Gudejko), the former team leader of Wizard, is one of the lost who became trapped in Class SA when he pursued the Ghost and whose body now vegetates in a comatose state in a hospital for the Unreturned.[96] Undeterred by such warnings (even the Game Master tries to talk her out of entering Class SA), Ash forms a new party with the Bishop. Stunner had advised Ash that a Bishop-class player of level twelve or higher would be needed to accomplish such a feat, since among all the previous examples of players encountering the Ghost, the only common link was that each party included an Archbishop. Ash is persuaded that if she joins forces with a high-ranking Bishop, she stands a better chance of catching the Ghost and advancing to Class SA.

The Bishop agrees to Ash's proposal to join forces and instructs Ash to meet him at Flak Tower 22, where they are also joined by Stunner and three ciphers to fill out the team. After their party destroys a moving citadel at Ruins D99, Stunner fires at the Ghost, who reveals herself, but misses and is shot by one of their opponents. As Stunner lay dying, he discloses to Ash that she can only kill the Ghost when its 2D image separates from the wall and becomes 3D. When Stunner dies in the game, rather than fragmenting into the glass-like shards or polygons seen previously when a player is terminated inside the game, his body spirals open in a column of 2D strips that decompose into a shimmering 3D rotation before finally disappearing into the virtual ether. Following Stunner's exit, Ash pursues the Ghost herself through the ruins of an abandoned factory. As soon as the Ghost's superflat 2D image separates from a wall along which she is running and becomes 3D, Ash aims carefully and manages to score a direct hit on the Ghost. This sets off an elaborate superlivemation effect in which the Ghost turns into a spiral of 2D strips that decompose into a shimmering purple-blue 3D rotation, which opens the gateway to Class SA. As Ash steps through the gateway like Alice falling down the rabbit hole, she decomposes into 2D strips in a manner similar to the Ghost and is enveloped by streams of data spiralling around her (see Figure 3.6).

When Ash becomes one with the rotating column of data, the constructedness of the virtual reality world around her becomes apparent in an epiphany that recalls the ending of *The Matrix*. In the denouement of *The Matrix*, Neo's awakening to the digital streams of data constituting the Matrix enables him to manipulate such data for his own purposes and

Figure 3.6 Ash disintegrates into 2D strips and is enveloped by data (*Avalon*).

launch a resistance against the oppressive system. However, unlike Neo, whose digital epiphany allows him to freeze bullets in their tracks and explode the agents of the Matrix program from the inside out, Ash merely awakens to a new level of the game with the words "Welcome to Class Real" flickering on a computer terminal. After she removes her virtual reality helmet, Ash is startled as she surveys the room and realizes that it is a cross between the game branch and her apartment, mixing elements of both. On the one hand, it contains the virtual reality chair, helmet, cables, and surgery lighting associated with the Avalon game branch; on the other hand, the size and layout of the room strongly resemble her own apartment, including a few pieces of furniture (desk and wardrobe), computer terminal, dog bowl, as well as a poster advertising the oratorio concert *Avalon* on which is featured an image of Ash's beloved basset hound (which she strangely caresses as if it were real) and an attached ticket (see Figure 3.7). If the virtual reality helmet and chair that Ash thought were in the game parlor were always in her own room and her pet basset was as virtual as the image on the poster, then there is a strong possibility that Ash may never have left her apartment and that the game parlor itself and what Ash construed to be her everyday reality were both forms of virtual reality inside of the game. In other words, in the process of pursuing the Ghost in order to gain entrance to Class Real, Ash discovers that spectrality haunts not only Avalon the game but also the everyday lifeworld that she experienced and took for granted, which turned out to be a data construct.

Figure 3.7 Ash awakens in Class Real (*Avalon*).

Confirming that this is another level of the game, the Bishop appears on the computer monitor and proceeds to give Ash instructions about her mission in Class Real (a.k.a. Class SA or Special A). The Bishop explains that Class Real is a test field that required cutting-edge technology and enormous amounts of data to build. Her new task is to get rid of the Unreturned (*mikikansha*: literally, "unrepatriated person") who continues to remain, namely, Murphy. If she completes her mission, the Bishop will consider recruiting her to join the ranks of program creators. However, the Bishop also warns Ash that since "the field's neutral characters all have free will," if she injures one of them, the game is over. Provided with only an evening gown, a pistol, and one clip of ammunition, and no time limit or way to exit the game other than by completing the mission, Ash sets out to locate Murphy at the Avalon-themed oratorio concert site where their rendezvous with fate will take place. As she emerges from the game branch into the outside world, the film marks the transition to Class Real with a pronounced color shift from the darkened, drab, monochromatic sepia-toned mise-en-scène of Ash's everyday world to a daylit, vibrant, polychromatic mise-en-scène that looks more like a contemporary European city (it was filmed in Warsaw), complete with modern buildings, transportation, fashion, and advertising. As one reviewer noted, "*Avalon* may be the first movie that uses contemporary Poland as a special effect."[97]

Oshii's use of color shift in *Avalon* may owe something to Andrei Tarkovsky's haunting philosophical parable *Stalker* (1979), which Oshii has acknowledged as one of *Avalon*'s points of reference.[98] Tarkovsky explains

the purpose of such a technique in his theoretical reflections on cinema, *Sculpting in Time*: "Perhaps the effect of colour should be neutralised by alternating colour and monochrome sequences, so that the impression made by the complete spectrum is spaced out, toned down."[99] Tarkovsky was keen to limit the impact of color lest it overwhelm the other formal aspects of the film and "have the same sort of appeal as the luxuriously illustrated glossy magazine; the colour photography will be warring against the expressiveness of the image."[100] However, rather than dulling our senses to color, Tarkovsky's technique of reserving polychromatic hues for certain sequences has the opposite effect of foregrounding the importance of color for cinema (and the sequences in which such color shifts are employed) by making visible previously withheld colors of the spectrum.

Tracing the journey of two allegorical figures, referred to simply as the Writer and the Professor, who are guided by the Stalker to a mysterious place called "the Zone," a wilderness area supposedly not governed by the laws of physics and whose access is restricted by the state because it contains a special room that is said to have the power to fulfill one's "deepest, innermost desires," *Stalker* utilizes a similar color shift by reserving monochromatic black and white and brownish sepia tones for "the sordid reality of the everyday world"[101] (well suited for an allegory about life in the former Soviet Union) and introducing color when the group enters the Zone to suggest the possibility of escape that is offered by this liminal space, which some scholars have interpreted as offering the dream of escaping Soviet oppression and fleeing to the West.[102] In her review of *Stalker* for *Cahiers du Cinéma*, Danièle Dubroux has suggested that the Zone's special Room of Desires is akin to "the shop window that West Berlin is for East Berlin."[103] Susan Ingram and Markus Reisenleitner have offered a similar interpretation of *Avalon* as a political parable about "the state of Eastern Europe today after joining the EU [European Union]," where "the bleak world of authoritarianism seems to have been superseded by commodity fetishism."[104] The transition from Soviet-era Eastern European decline to EU capitalist splendor is foreshadowed not only by *Avalon*'s engagement with the society of the spectacle that I considered earlier and its association with passive consumption but also by the interwoven references to the Isle of Avalon and the connotations evoked by Arthurian legend as an edenic space. In his *Vita Merlini* (Life of Merlin, ca. 1150), Geoffrey of Monmouth describes the legendary island where King Arthur went to recover from his wounds (and also where his sword Excalibur was forged) in the following terms:

> The island of apples which men call "The Fortunate Isle" gets its name from the fact that it produces all things of itself; the fields there have no need of the ploughs of

> the farmers and all cultivation is lacking except what nature provides. Of its own accord it produces grain and grapes, and apple trees grow in its woods from the close-clipped grass. The ground of its own accord produces everything instead of merely grass, and people live there a hundred years or more. There nine sisters rule by a pleasing set of laws those who come to them from our country.[105]

That Oshii's Arthurian conception of Avalon as a utopic space, which also evokes the room "where desires can be satisfied"[106] in Tarkovsky's *Stalker*, is not without irony is suggested by the capitalist spectacle on display in Class Real (the gateway to Avalon), filmed in post-Soviet Warsaw. As Ash makes her way to the Filharmonia Narodowa Concert Hall, home of the renowned National Philharmonic Orchestra and Choir of Poland, where her showdown with Murphy will take place, the camera focuses on various advertisements dotting the city of Warsaw, including ones for Nivea, Coca-Cola, and the German cigarette brand West (sold in most EU countries). On the billboard marketing West cigarettes is featured a Japanese geisha smiling at a casually dressed young blond-haired European woman as they both enjoy a smoke (see Figure 3.8). On one level, the ad for West cigarettes demonstrates that globalized capitalism has not gone beyond the metaphors of the Orientalist imaginary by showing a geisha—one of the most stereotyped symbols of "Japaneseness"—enjoying West cigarettes—as if to suggest that for all her exotic strangeness, even geishas are interested in consuming what the West has to offer. On another level, the ad seems to present a self-reflexive critique: in capital letters to the right of the geisha's head appear the English words "TEST IT,"[107] as if offering a

Figure 3.8 An advertisement for West cigarettes in Class Real (*Avalon*).

warning to Ash (and the audience) that all is not as it appears in Class Real, that the spectacles of capitalism constitute a kind of virtual reality. From this perspective, more than simply portraying a Japanese geisha and young European woman as two cosmopolitan women enjoying a smoke together, what the ad suggests (after Debord) is that "the spectacle is *capital* accumulated to the point where it becomes image,"[108] that "the spectacle is not a collection of images; rather, it is a social relationship between people that is mediated by images."[109] In other words, as Susan Ingram and Markus Reisenleitner have argued, "Class Real, the mystical realm of redemption, is (virtually) imagined in the form of the (colorful) trappings of consumer culture, overlaid with what has signified as 'Western' tradition."[110]

Although I find quite persuasive Ingram and Reisenleitner's interpretation that *Avalon* engages "global capitalism's game world [that] defines most people's everyday reality, a reality born out of violence yet commercialized,"[111] I would argue that for Oshii, *Avalon* is, like *Stalker* was for Tarkovsky, more than simply a political or economic allegory, and more than simply another critique of consumer capitalism: it is, first and foremost, a moral-philosophical parable. For Tarkovsky, *Stalker* was envisioned as a parable about the possibility of hope in an era when spiritual faith had been displaced by communist ideology. As Tarkovsky remarked in interviews, "The Stalker needs to find people who believe in something, in a world that no longer believes in anything."[112] Although it is never confirmed in *Stalker* whether the Room of Desires is real or not, since neither the Writer, the Professor, nor the Stalker dares enter even when standing at the room's threshold, the Stalker's goal as "one of the world's last remaining idealists" is "to light a spark, a belief in the heart of people," as Tarkovsky put it.[113] Whether that belief is religious or not is beside the point: what interests Tarkovsky is whether or not faith in the possibility of human happiness is still possible, whether the "virus of idealism,"[114] as Tarkovsky described it, can be passed on to others: "It's the story of a man who believes in the possibility of happiness independent of the will and the capacity of man. . . . As if he were a priest of the Zone, the Stalker leads men there to make them happy. . . . In the end he finds himself alone with his idea of human happiness achieved by a pure faith."[115] Even if the Zone is entirely "a product of the Stalker's imagination," which is a distinct possibility that Tarkovsky acknowledges, the Stalker's mission is to create the possibility of hope again, "to instill faith—faith in his reality."[116] Of course, it is more than a little ironic that "the Zone" (*Zona*) was also the slang term used by prisoners in Stalin's Siberian labor camps to refer to the camps themselves.

Tarkovsky inverts this usage of the term by redefining it as a place that is also heavily guarded but that people want to enter rather than escape.

The denouement of Oshii's *Avalon* ventures into philosophical territory quite similar to that of *Stalker* and with similarly unresolved ambiguities. On her mission to locate the Unreturned (Murphy), Ash follows the trail of posters featuring her dog's image to the concert hall, where there is a performance of the oratorio *Avalon*. On the way, Ash passes through a city that is drastically different from the one she inhabits in her everyday world. In addition to the presence of more color and light, people move at a faster pace and engage one another in a more animated fashion in Class Real (subway riders actually make eye contact with Ash), and the buildings are not crumbling or on the verge of ruins. Also noteworthy is the fact that the statues of angels in Class Real are neither defaced nor decapitated as they were in Ash's world. Although such defacement may mark the disappearance of traditional religion and the substitution of a new "opium of the people"[117] in the form of addictive virtual reality gaming in Ash's everyday realm, the reappearance of full-faced statues in Class Real does not guarantee the reinstatement of spirituality or religious faith in the traditional Christian sense.[118] When Ash and Murphy do finally encounter one another at the site of the Avalon-themed oratorio concert, rather than offering a defense of religious faith, Murphy defends his faith in the perspectival truth of Class Real, no matter how virtual it may be. As the soloist, choir, and symphony orchestra perform the oratorio inside the concert hall, Ash and Murphy have a vigorous debate outside in the courtyard about the status of Class Real. When Ash confronts Murphy about his Unreturned status and asks him if he abandoned his former Wizard cohorts just to spend his life wasting away like a vegetable in a hospital bed outside of Class Real, he responds by asserting his own philosophy of perspectivism: "Do I look like a human vegetable to you? . . . The world—in short, my world—is nothing more than what I am convinced it is! Treating this place as reality—what harm is there? [*Sekai towa, tsumaru tokoro, jibun ga sekai to omoikondeiru mono ni suginai. . . . Koko ga genjitsu da to shite, donna futsugō ga aru*?]" Ash counters that Murphy is just running away from reality, evading his true state outside of Class Real. Such a response suggests that, at this point, Ash still believes it is possible to differentiate "reality" from "virtual illusion," since her criticism only makes sense if Murphy is running away from something. If he is merely moving from one level of virtual reality to another, what difference does it make? In his defense, Murphy offers a philosophy of perspectivism that strikes a Nietzschean chord. In what is perhaps Friedrich Nietzsche's (1844–1900) most concise

articulation of perspectivism, the philosopher, who famously questioned some of the most hallowed metaphysical fictions of Judeo-Christian culture, argues "against the positivism which halts at phenomena—'There are only facts'":

> I would say: no, facts are just what there aren't, there are only interpretations. We cannot determine any fact "in itself": perhaps it's nonsensical to want to do such a thing. "Everything is subjective," you say: but that itself is an *interpretation*, for the "subject" is not something given but a fiction added on, tucked behind.—Is it even necessary to posit the interpreter behind the interpretation? Even that is fiction, hypothesis.
>
> Inasmuch as the word "knowledge" has any meaning at all, the world is knowable: but it is variously *interpretable*; it has no meaning behind it, but countless meanings. "Perspectivism."
>
> It is our needs *which interpret the world*: our drives and their for and against. Every drive is a kind of lust for domination, each has its perspective, which it would like to impose as a norm on all the other drives.[119]

Going beyond a simple relativism that equates all interpretations as equally valid, Nietzsche's perspectivism sets out to show the extent to which we are always already enmeshed in a struggle of interpretations, each proposing a perspectival "truth" (rather than an absolute or metaphysical Truth) against others. As Michael Stern has suggested, Nietzsche's perspectivism "is not relative; it is relational": "It is relational in that interpretations are an event of *the will to power*. 'Der Wille zur Macht *interpretiert*' (The will to power interprets), and as an interpretive force, defines itself in relation to other interpretations. . . . Within this framework, our understanding of the world is textual, and the confluence of its multiple interpretations results in it being a site of collision. This collision activates a play of forces. . . . Interpretation is always met by counter-interpretation, memory by counter-memory, and dogma by difference."[120] Against the backdrop of a courtyard that features an old World War I–era field gun as a framing device, the dialogue between Murphy and Ash unfolds within the arena of this struggle of interpretations, offering a competition between perspectives on the status of Class Real. That the collision of their interpretations activates "a play of forces" is brought to the fore by Murphy's ensuing escalation. Murphy challenges Ash to a duel, asking her if she has ever been shot and if she would like to feel real pain. Before drawing his gun, Murphy asserts that "when one of us dies and their corpse doesn't vanish, the one who survives will ascertain [*dochiraka ga shinde, shikamo sono shitai ga shōmetsu shinakereba . . . ikinokotta mono ga sore o tashikameru sa*]." In other words, if the body does not vanish, then it must be real. However, if it does vanish, then it is merely an illusion. Murphy and Ash duel one

another to determine if Class Real is truly real (or not), using the status of the body in death as the criterion.

The editing of Ash and Murphy's confrontation cuts back and forth between their duel and the Avalon-themed oratorio concert, in which the accomplished Polish soprano Elzbieta Towarnicka appears as a soloist in an uncredited role and sings about fallen heroes and specters, as if elevating the duel that is taking place outside the concert hall to a mythical level:

> So many of the brave are cut down
> and heroes lay fallen.
> As bright, shining death approaches,
> the spectres appear
> and shroud them in darkness
> as black night descends.

As the oratorio reaches its crescendo, Ash and Murphy draw their guns in slow motion and point them at one another. Ash gets off the first shot, which strikes Murphy in the chest. As he lay dying, his white shirt stained with blood, he opens his hand to reveal bullets that he had already removed from his gun and drops them to the ground. Murphy never actually fired his weapon at Ash nor had any intention of doing so. Gasping for air, Murphy urges Ash not to let appearances deceive her: "This place is your Field [*Koko ga omae to Field da*]." Rather than making a metaphysical claim for the truth status of Class Real, Murphy appeals to Ash to stay there for perspectival reasons: it is *her* Field; this is where she belongs. As Murphy dies and slumps over, his body spirals open in 2D strips and then metamorphoses into a shimmering 3D rotation before finally disappearing into the ether of virtual reality like Stunner did previously inside the game.[121] To create the effect of Murphy's death scene, a 3D model of the actor playing Murphy was created and transformed into an animated spiral pattern using 3D software. Murphy's stylized disappearance (recalling Stunner's vanishing act) and the greenish glow that is projected onto Ash's face as Murphy spirals out of existence confirms the insubstantiality of reality in Class Real. If Ash had been shot instead of Murphy, presumably she would have disappeared in the same manner. Despite this dramatic demonstration of computer-generated effects, no "Mission Complete" sign appears.

After witnessing Murphy's computer-generated vanishing, Ash reloads her gun using Murphy's bullets and enters the concert hall. Although audience applause can still be heard reverberating throughout the hall following the completion of the oratorio concert, when Ash enters the building there is no one left inside—no audience, director, musicians, choir, or soloist (even the musician's chairs and music stands have disappeared from

the stage)—except for the bluish glowing figure of the Ghost, who stands on the vacant stage. Ash approaches the front of the hall and aims her gun squarely at the Ghost on stage, but just before raising her gun, she looks up and there is a momentary flashback in black and white to a pair of cherub statues that had previously appeared in decapitated form in the Avalon game branch (above the receptionist's front counter).[122] However, now they appear to be untouched, neither defaced nor headless. From the Ghost's point of view, we see Ash raise her gun and point it at the Ghost. This is followed by a reverse shot of the Ghost, whose Pre-Raphaelite face expresses an ambiguous, uncanny smile. As we wait for a gun shot to ring out (it never does), the silence is broken only by the sound of computer data and the film ends with a close-up of a terminal screen on which appear the words "Welcome to Avalon." The ending is as ambiguous as the Ghost's smile. It is unknown whether Ash enters this next level of the game or not. However, considering her unflagging pursuit of the Ghost up to this point, it seems likely that, despite Murphy's appeal to her to remain in Class Real, she would enter the gateway opened up by the Ghost and follow it wherever it leads.

It is left to the audience to ponder the significance of Ash's choices even after it has become obvious that no space-time in the film can be considered anything other than virtual. As Carl Gustav Horn has pointed out, in sharp contrast to *The Matrix*, which offers the "Gnostic revelation of a life revealed to be a dream, to be escaped into reality," for Oshii "there is no difference between dreams and reality, and escape is a concept without referent; a wish that is a waste of time, for . . . there is no outside."[123] Indeed, Oshii has gone out of his way to distinguish *Avalon* from Hollywood films about virtual reality, such as *The Matrix*, which always reinstate the metaphysics of reality in the end: "Hollywood films about virtual reality always end with a return to the real world. However, because those real worlds exist inside film, they themselves are lies. Reality is a questionable thing. I didn't want to do a movie where the characters returned to reality. The reality we experience is an illusion inside the heart of each individual. . . . For me personally, Ash's imaginary world is not really any different from what I conceive as my real world. I don't make any clear distinction."[124] However, even if one subscribes to Oshii's Buddhist-inflected blurring of boundaries between dream and reality, that does not mean that the society of virtual spectacles is not without its dangers. Earlier in the film, Ash has a dialogue with the Game Master about the legend of Avalon and related mythology. The Game Master recounts the legend of Morgan le Fay, one of the nine fairy queens who guided the dying King Arthur to the Isle of

Avalon. In response, Ash offers a mythological analogue from northern Europe about Ogier the Dane (a.k.a. Holger Danske) donning the Crown of Oblivion that foreshadows Ash's own relationship to Avalon the game.[125] Legend has it that when he was shipwrecked, Ogier drifted to an island where he was rescued by Morgan le Fay, taken to Avalon, and granted a gold ring that ensured immortality and eternal youth. According to the legend (not recounted by Ash in her exchange with the Game Master), it was believed that Ogier would return from Avalon after slumbering there for two hundred years in order to save France from its enemies. As Ash dons the virtual reality helmet (see Figure 3.9), she points out that what Ogier failed to recognize was that Morgan le Fay had also placed upon his head the Crown of Oblivion, which caused Ogier to "forget completely not only about his fatherland but also about all the things outside of that island [*kare wa sokoku no koto bakari ka sono shima no soto ni aru mono no subete o wasurehateta*]." Whether or not Ash is aware of the self-reflexive irony of recounting the tale of Ogier and the Crown of Oblivion while she places the virtual reality helmet on her own head is unclear. However, what is clear is that *Avalon* can be read as a cautionary tale about the complex dangers associated with the society of the spectacle.

The greatest danger is not that one is inventing one's own meanings for the world, such as is suggested by Murphy's assertion of Nietzschean perspectivism, but rather that such perspectivism may conceal the extent to which the game has already been scripted well in advance. The Avalon game—a metaphor for the society of virtual spectacle and its system of

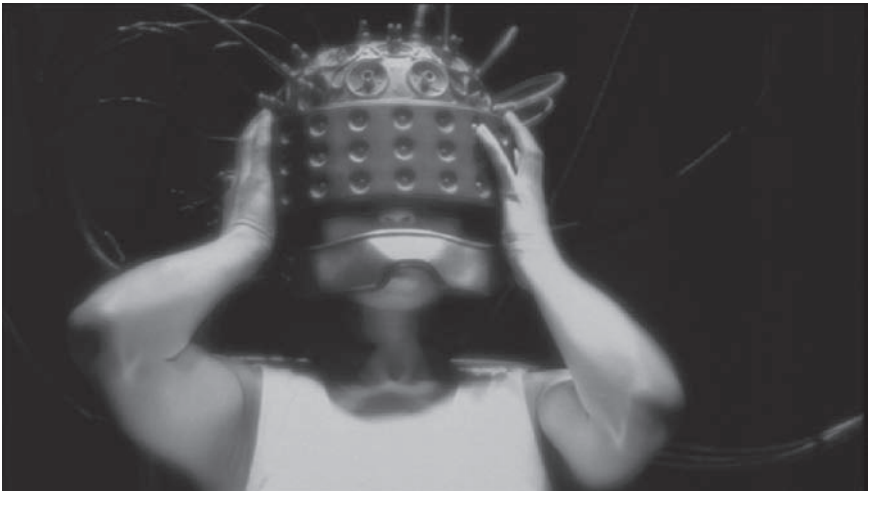

Figure 3.9 Ash dons her own "Crown of Oblivion" (*Avalon*).

control—provides all the rules for interaction and meaningful perspectives in the world inhabited by players such as Ash, Murphy, and Stunner. Although a player may think she is determining her own destiny, in fact, each player is simply another spectator caught up in the illusion of self-determination provided by the game and its preprogrammed spectacles and mechanisms of control. As Debord argues, "Thus the spectacle's instruction and the spectators' ignorance are wrongly seen as antagonistic factors when in fact they give birth to each other. In the same way, the computer's binary language is an irresistible inducement to the continual and unreserved acceptance of what has been programmed according to the wishes of someone else and passes for the timeless source of a superior, impartial and total logic."[126] This dilemma (which is something *Avalon* shares with Tarkovsky's *Stalker*) is never fully resolved by Ash. Not only is Ash haunted by the ghostly Murphy,[127] but also Ash herself is a sort of specter who haunts and is haunted by the ineluctability of the spectacle across all the levels of virtual reality in *Avalon*. Those who enter the world of virtual reality may be engaging voluntarily in consensual hallucinations, but that does not make it any less problematic. As the terminal manager for the game of Avalon remarks to Ash before she joins Bishop's party, "No matter how real it is, Avalon is no more than a game. . . . But a program that appears to refuse to clear isn't a game any more [*Dore hodo rearu demo, Abaron wa gēmu ni suginai. . . . kuria o kobamu yō na puroguramu gēmu to wa ienai mono*]."

Situationists such as Debord advocated using the technique of *détournement* (misappropriation, hijacking, or rerouting) to transform the spectacular images of "both everyday ephemera, such as advertisement slogans and comic strips, and significant cultural production, such as quotations from Marx and old master paintings,"[128] reinserting them into new contexts in order to awaken the spectator from the phantasmagoria of the spectacle. Although it is doubtful that Ash has figured out how to disrupt the flow of spectacular images as she traverses the various levels of Avalon's virtual gaming world, at least by film's end, she has awakened to the constructedness of the spectacle and her degree of enthrallment with it.[129]

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Conclusion

Software in a Body

Critical Posthumanism and *Serial Experiments Lain*

Man is something that should be overcome. What have you done to overcome him?

—Friedrich Nietzsche

During the course of this study, numerous insights have been gleaned about the status and limits of posthumanism in the context of Japanese visual culture. First and foremost, it should be apparent that the discourse of posthumanism is neither homogeneous nor unified, but rather an arena of contesting perspectives grappling with both "humanism" and its "post." Concerning the meaning of the "post" prefix, it is no exaggeration to say that over the last thirty years, cultural critics have been obsessed with post-isms. In addition to the spate of studies dealing with postmodernist, poststructuralist, postcolonialist, and postnational approaches to culture, one is not hard-pressed to find numerous examples of post-Marxist, posthegemonic, postfeminist, and postracial readings of cultural texts. In the absence of a prefix with greater purchase, some scholars have even resorted to repeating the "post" prefix to the point of utter vacuity, such as in the designation "post-poststructuralist." Such examples notwithstanding, it would be shortsighted to assume that the "post" prefix is utterly meaningless. At the risk of oversimplification, such post-isms frequently serve as pronouncements of death: the death of essentializing foundational concepts such as Subject, Man, Nation, and Meaning.

In terms of their historicity, what such "post" discourses have in common is that they not only look back to a certain "past" and its discursive formations, which have been or are soon to be overcome, but also look ahead to a certain "future" beyond the peculiar fixations and hypostatizations of

the "past" or soon-to-be-past "present." Although discourses of the "post" performatively promise (or even demand) the advent of some "future" alterity, some anticipated rupture with the "past," it seems to be almost an irrevocable trait of post-isms that they always promise to arrive but have always already *not yet* arrived. They thereby risk enacting what Jean-François Lyotard has warned may be a "forgetting or repressing [of] the past"[1] that, rather than surpassing the "past," actually remains nostalgically attached to the "past," even as it attempts to displace it. Or worse: such post-isms, in their global formalization of the outdated "past" and the much-heralded "future," repeat what Jacques Derrida has described as "the oldest of historicisms."[2]

The discourse of "posthumanism" belongs to this tradition of post discourses without simply being conflated with it. Where critical posthumanism parts company with other post discourses is precisely in the way in which it situates the status of the "post." More precisely, it would be a mistake to assume that the "post" of "posthumanism" simply implies a going beyond of "humanism" per se or a clean eschatological break with the human, as if it were possible to discard the discourse of humanism (and the human) once and for all so that we can move forward into a new era free from anthropocentric presuppositions and metaphysical fictions.[3] Without presuming to escape the orbit of humanism or eclipse its philosophical underpinnings altogether, critical posthumanism nevertheless problematizes the fundamental principles of humanism, particularly its appeal "to the notion of a core humanity or common essential feature in terms of which human beings can be defined and understood."[4] Historically, Western humanism has defined this "core humanity" in terms of a privileging of reason and the human subject derived from René Descartes' (1596–1650) philosophical reflections on the status of the cogito (and implied mind-body split) in his influential seventeenth-century treatises *Discourse on the Method* (1637) and *Principles of Philosophy* (1644). The ramifications of Descartes' fundamental philosophical principles were far reaching for the development of humanism as a discourse. As Neil Badmington succinctly puts it, "Humanism is a discourse which claims that the figure of 'Man' (sic) naturally stands at the centre of things; is entirely distinct from animals, machines, and other nonhuman entities; is absolutely known and knowable to 'himself'; is the origin of meaning and history; and shares with all other human beings a universal essence. Its absolutist assumptions, moreover, mean that anthropocentric discourse relies upon a set of binary oppositions, such as human/inhuman, self/other, natural/cultural, inside/outside, subject/object, us/them, here/there,

active/passive, and wild/tame."[5] Critical posthumanism destabilizes the founding ontological principles of Eurocentric humanism, introducing what Sarah Whatmore describes as the "messy heterogeneity of being-in-the-world"[6] into the discussion, which "upsets the *homo*geneity and 'ontological hygiene'"[7] of humanism and its associated privileging of the first term in dualisms such as mind and body, human and machine, human and animal, and nature and culture. In so doing, Catherine Waldby has argued that critical posthumanism offers "a general critical space in which the techno-cultural forces which both produce and undermine the stability of the categories 'human' and 'nonhuman' can be investigated."[8]

Although my analysis has focused more on cultural posthumanism (i.e., posthumanism as it enters into cultural forms and practices) than philosophical posthumanism (i.e., posthumanism as critical theorization of analytical or ontological positions), the examples of Japanese visual culture I have analyzed throughout are no less critical, self-reflexive, or philosophically engaged for being cultural. Insofar as posthumanism is profoundly transnational, there is no Japanese posthumanism per se, if that is understood as a unified discourse of posthumanism that is specific to Japan alone; however, that is not to say that posthumanism does not come to be inflected in certain ways by the cultural forms and practices specific to Japanese visual culture of the late twentieth and early twenty-first centuries. The fact that Japan followed an alternative historical path to modernity, emerging from an early modern tradition that privileged neo-Confucian rationalism, made it no less susceptible to the influence of the Cartesian cogito in the form of instrumental reason with its emphasis on efficiency, productivity, and usefulness, which has become one of the dominant principles underpinning techno-science and global capitalism more generally.[9] As Oshii Mamoru's inclusion in *Ghost in the Shell 2* of the anecdote discussed in Part I concerning Descartes' mechanical doll Francine suggests, Descartes' importance to any discussion of posthumanism has not eluded contemporary Japanese directors. Indeed, in a recent postcyberpunk anime series titled *Ergo Proxy* (*Erugo Purakushī*, 2006), directed by Murase Shukō, whose robotic characters are named after famous Western thinkers (Berkeley, Husserl, Lacan, Derrida, Kristeva, Deleuze, and Guattari), "Cogito" is the designation given to a virus that causes androids to become self-aware, thereby blurring the boundaries between humans and machines and introducing chaos into the Cartesian anthropocentric system.

Perhaps the most challenging methodological task faced by this study has been how best to situate the relations between contemporary Japanese cultural forms and practices and transnational discourses of posthumanism

without effacing the heterogeneity or specificity of either. In his influential study *Otaku: Japan's Database Animals*, Azuma Hiroki attempts to theorize the forms and practices specific to contemporary Japanese visual culture and *otaku* (geek, nerd, or fanboy) subculture in terms of what he calls the "database model." According to Azuma, the database model presupposes a double-layer structure composed of a "*surface outer layer* [*hyōsō*] *within which dwell simulacra*, i.e., the works," and a "*deep inner layer* [*shinsō*] *within which dwells the database*, i.e., settings."[10] Azuma imagines an anonymous database of character traits (including visual elements, personality traits, special powers, and ways of speaking), conventional plot devices, and settings upon which artists, readers, and viewers draw. Eschewing the distinction between original and copies, Azuma argues that the individual work functions as a "simulacrum on the surface outer layer" that concretizes the information stored in the anonymous "database at a deep inner layer."[11] Although his readings of individual works are often quite perceptive, the problem with Azuma's conception of the database model is that it still relies upon a vertical metaphorics of depth by positioning the database as the "deep inner layer [*shinsō*] of the world."[12] Although it may be the case that some diehard *otaku* may view Japanese popular culture more in terms of character traits than narratives, Azuma goes too far in my opinion in elevating his database model to "the essence of postmodernity."[13] As an antifoundationalist condition that questions the very notion of "essence," postmodernity has no "essence." Try as Azuma may to distinguish his database trope from the metaphysical fictions proferred by grand metanarratives, the former remains caught within the orbit of the latter, as suggested by the fact that he repeatedly glosses the database as a "grand nonnarrative [*ōkina himonogatari*]."[14] As long as the database is positioned by Azuma as "grand," "deep," or "core," it has not escaped the metaphorics of depth haunting all grand metanarratives and metaphysical fictions.

As I noted in my introduction to this study, instead of analyzing works of Japanese visual culture for deep meaning or as expressions of some "inner layer of the world,"[15] I have practiced rhizomatic reading, which views the works of Japanese visual culture tangentially through their rhizomatic connections with other anime, other films, other works of art, and other discursive formations, both Japanese and non-Japanese, including the mechanisms of advanced capitalism, globalization, and emerging imaging and telecommunication technologies. By situating works of visual culture dealing with posthumanism in relation to their nonhierarchical linkages with diverse smaller narratives, codes, memes, and techniques,

a horizontal image of posthuman visual culture has come into view that eschews vertical notions of metanarrative.

In conclusion, in keeping with the rhizomatic methodology that has animated my investigations thus far, I will revisit the lessons learned during the course of this study, as well as open new connections and paths for future study, by way of a rhizomatic analysis of the acclaimed thirteen-episode anime series titled *Serial Experiments Lain* (1998). In my introduction, I analyzed *AKIRA* as a touchstone for much that has come to be associated with cyberpunk and posthumanism in Japan. It seems only fitting, then, that I conclude this study with another touchstone, appearing sixteen years after *AKIRA*'s manga debut.

A *Shōjo* Named Lain

Awarded a prize at the 1998 Japan Media Arts Festival for "its willingness to question the meaning of contemporary life" and for the "extraordinarily philosophical and deep questions" it raises,[16] director Nakamura Ryūtarō's *Serial Experiments Lain* caused quite a stir when it was first broadcast on Japanese television (TV Tokyo) from July through September 1998 for a late-night audience. Written by the prolific Konaka Chiaki, who has authored numerous screenplays for anime such as *Armitage III: Poly Matrix* (1997), *Bubblegum Crisis: Tokyo 2040* (1998), *Gasaraki* (1998), *The Big O* (1999), *Hellsing* (2001–2), and *Texhnolyze* (2003), with original character designs by ABe Yoshitoshi, *Serial Experiments Lain* is among the most philosophically provocative anime to come out of Japan in the past twenty-five years, engaging issues relating to cyberspace, virtual reality, addiction to technology, the crisis of youth in the Japanese education system, and the status of identity in a posthuman world.

Like Ōtomo Katsuhiro's groundbreaking manga and anime *AKIRA*, *Serial Experiments Lain* is a coming-of-age story, but instead of being about adolescent boys and their motorcycles, *Serial Experiments Lain* tells the story of a thirteen-year-old girl named Iwakura Rein (a.k.a. Lain) who struggles with her status as a "*shōjo*" in the realm of cyberspace. The figure of the *shōjo* typically describes a girl who (a) occupies the liminal stage between childhood and adulthood (approximately seven to eighteen years of age[17]); (b) is not permitted to express her sexuality (even if physically mature) because she is "socially considered sexually immature"[18]; and (c) is the avid consumer (and target demographic) of popular culture and merchandise that might be described as "cute"[19] (*kawaii*) and that appeals to the *shōjo*'s sensibility which privileges human relationships

(especially close same-sex friendships and romances), emotions, and psychological interiority.[20] It is no exaggeration to say that the *shōjo* is "a definitive feature of Japanese late-model consumer capitalism,"[21] as John Treat has suggested, with an entire industry devoted to *shōjo* culture (manga, anime, and novels), *shōjo* fashion, and *shōjo* hobbies. What *Serial Experiments Lain* offers is a coming-of-age story about a *shōjo* named Lain who undergoes a profound transformation in cyberspace by means of a specific form of electronic presence—that is, telepresence.

Strictly speaking, telepresence is defined as "a set of technologies which allow a person to feel as if they were present, to give the appearance that they were present, or to have an effect, at a location other than their true location."[22] Telepresence in the strict sense of the term typically engages multiple senses (sight, hearing, and touch) and gives an individual the immersive feeling of being present in a remote location and of being able to affect that remote location, enabling the emergence of "distributed selves" and the experience of "action-at-a-distance without the familiar restrictions of conventional interfaces."[23] Information travels in both directions between the remote location and the location of the telepresent agent or agents. Examples of telepresence in the strict sense include, but are not limited to, video teleconferencing, telesurgery, bomb disposal and working in hazardous environments via robotic technology (including firefighting), and remote combat via unmanned aerial vehicles (or drones) and other remotely operated devices in technologically mediated theaters of war.[24] However, telepresence may also be used in a more extended sense to refer to "presence at a distance" in any form. Many forms of telecommunication, including telephone and mobile phone communication, text messaging, and live Internet chats (either text based or in virtual online communities and three-dimensional environments, such as Second Life) may also be construed as telepresence in an extended sense so long as one achieves the feeling of vividly interacting with someone or something from afar *as if one were there*. What happens when the lines separating the so-called real and wired worlds become blurred by means of telepresence in this extended sense is at the heart of the posthuman dilemma faced by the *shōjo* named Lain.

E-mail from the Dead

As has been the case with all other examples that I have considered during the course of this study, from *AKIRA* to *Tetsuo: The Iron Man*, from *Ghost in the Shell 2* to *Kairo*, the posthuman mise-en-scène of *Serial Experiments*

Lain is urban, although the form and limits of the city undergo profound changes as it becomes digital. After the opening credits, each episode (or "layer"[25]) in the series (except for the last) begins with an everyday cityscape bathed in a computerized green glow: pedestrians, appearing as abstract shadow figures, cross the street at night in sync with changing crosswalk signals. What could be more mundane than a pedestrian crossing? However, the accumulation of such imagery casts this everyday urban scene in an uncanny, defamiliarized light. Within the framework of the series, such a seemingly benign feature of the city functions not only as a metonymy for strategies of urban planning and techniques of traffic calming but also as a means of visualizing the programmed control of pedestrian and automobile traffic, which regulates the circulation of bodies and cars in space and their rates of acceleration and deceleration across the digital urban grid. In other words, what is evoked by this repetition of the pedestrian crosswalk scene at the outset of each episode is the power of urban planning and social control, which we largely take for granted when crossing the street.

In the midst of this scene of social control, the voiceover of a girl is heard, asking "Why? Why won't you come? I wish you would come here." Although the speaker is not identified, the addressee is a teenage girl named Yomoda Chisa, a classmate of Lain's, who navigates the urban landscape alone through a maze of couples, groups of friends, and the occasional drunken salaryman looking for a good time—all but Chisa apparently enjoying Tokyo's neon-lit nightlife. Chisa stands out because she walks with her face downcast, gasping for breath and looking depressed. This scene and the associated sounds of the city are interrupted by an intertitle—a message that ripples across the screen in Japanese in total silence, bathed in an iridescent rainbow of pastel watercolors: "Why you should do that is something you have to consider by yourself [*Dōshite sō shinakya ikenai ka wa—jibun de kangaenakya ikenai*]." As is frequently the case in *Serial Experiments Lain*, messages from the networked world of online digital communications (a.k.a. "the Wired") appear as text on the screen in a manner that evokes Jean-Luc Godard's mix of image and text in his films, which the creators of Lain actively sought to emulate.[26] As I noted in my analysis of Oshii Mamoru's *Ghost in the Shell 2: Innocence* in Part I, Godard foregrounds the status of language in cinema, infusing or interrupting the image with text, as a way of rejecting the continuity editing of classical Hollywood cinema. In so doing, Godard's interplay of text and image demystifies the constructedness of traditional narrative film by "making the text question the image, and denying the possibility of the

image to simply illustrate the text."[27] In the context of *Serial Experiments Lain*, when text appears on the screen, whether in the form of e-mail, texting, instant messaging, or via pseudodocumentary footage overlaid with text that outlines the genealogy of the multimedial World Wide Web from Vannevar Bush's "memex" to Ted Nelson's "Xanadu," it not only interrupts the narratival flow of the series and underscores the stylization of each episode but also foregrounds how such electronic communications and rhizomatic hypertextual multitasking impacts the cognitive functioning of its characters with information and distraction overload, producing effects of attention deficit (or "continuous partial attention" in the lingo of cognitive psychologists and informatics specialists) and technological addiction.[28]

As Chisa removes her glasses, loosens her hair, and leans precariously from the edge of a railing on the rooftop of a building in the shopping mecca of Shibuya, there is little doubt as to what the silent message she received is advocating that she do: commit suicide. Before she leaps to her death, a smile appears on her face in close-up and she silently mouths words that are translated into Japanese text (again bathed in an iridescent kaleidoscope of colors) on the screen: "I don't have to stay in a place like this [*Atashi wa konna tokoro ni inakutemo ii no*]." As the series evolves, it becomes clear that such intertitle texts are electronic communications (in the form of e-mail, texting, or instant messaging) circulating in cyberspace. However, what is most peculiar is that we never see Chisa use a device, such as a computer, mobile phone, or handheld personal digital assistant, through which to transmit or receive such messages. Chisa's death may be another example of Internet-facilitated suicide, such as I discussed in relation to *Kairo* in Part III; however, it is as if the electronic communications leading up to her suicide were conducted without the aid of any device. What it means for the boundaries between the real and Wired worlds to become blurred in this way is not only the fundamental question of the entire series but also a powerful metaphor for the posthuman blurring of boundaries between the human and nonhuman, living and nonliving, organic and machinic.

Chisa's suicide is the first of many in *Serial Experiments Lain*, but it is one of the most shocking because she does it in such dramatic fashion: she hurls her body through the air and crashes into a large neon sign, as if in protest against the rampant consumerism appearing all around her. After she hits the ground, her motionless body lies crushed *underneath* the sign that she had just dislodged. Everyone at the scene expresses shock and denies responsibility. A week later, Lain's classmate Julie (Juri) is quite upset because she has received an e-mail message purportedly sent by Chisa *after*

she committed suicide. Lain, too, is haunted by the ghost of her dead classmate. When Lain returns home and powers up her NAVI (an abbreviation for "Knowledge Navigator"[29]) computer, she discovers that she, too, has received an e-mail message from the dead Chisa, who writes, "I have only discarded my body [*nikutai o suteta dake*]. By doing this, I can explain to you that I am still alive. . . . You will all understand soon. Everyone will." Lain asks, "Why did you die?" to which Chisa responds by evoking religious metaphors that cast cyberspace as a transcendental realm: "God is here [*koko niwa kamisama ga iru no*]."

The next day, during her commute to school, an accident occurs when the train Lain is riding hits someone (possibly another suicide) and comes to a sudden halt. When Lain looks outside the train window, which glows white like a computer monitor without a signal, she sees blood dripping from the power lines outside. *Serial Experiments Lain* is well known for its highly stylized imagery of utility poles distributing telephone lines, coaxial cables for cable television, and power cables with their associated incessant hum. This network of cables and wires,[30] which stretches as far as the eye can see across urban and suburban spaces, envelops the city and comes to suggest the foreboding, ominous hum of electronic existence, the flow of data and power in cyberspace, the interconnectivity between the real and Wired worlds, as well as the assemblage of technical and abstract

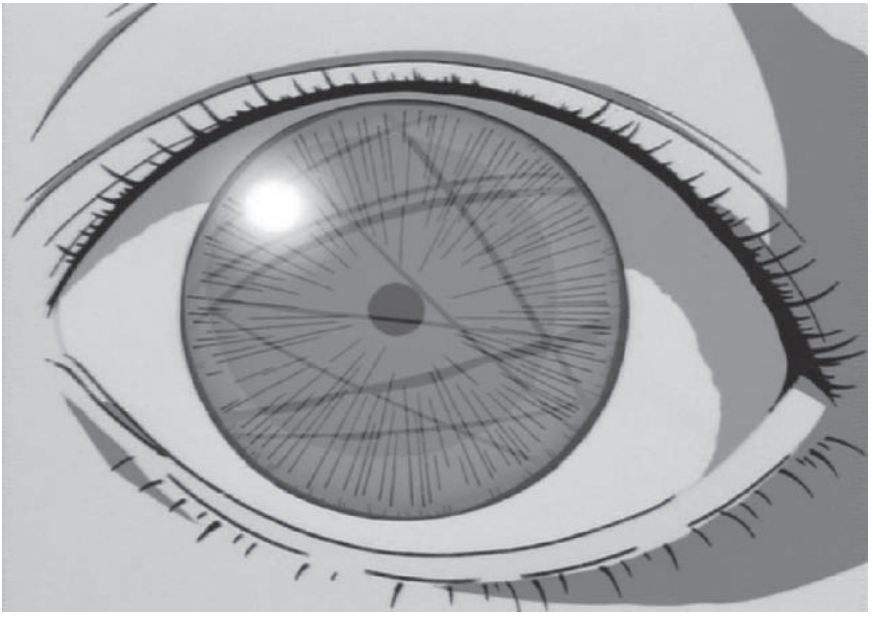

Figure 4.1 Power lines reflected on the eye of Lain (*Serial Experiments Lain*).[31]

machines that make cyberspace possible (see Figure 4.1). The image of blood dripping from power lines serves as a powerful visual metaphor that suggests not only the posthuman intersection of the living and nonliving but also that electricity is the lifeblood of a cybersociety, that power lines circulate the electronic presence of cyberspace.

Although we do not know for certain who or what was hit by the train, Lain later hallucinates seeing the ghostly, shape-shifting image of Chisa on the train tracks as she is run over by an oncoming train that has appeared out of nowhere in the suburban neighborhood near her home. Lain awakens from this vision, crying at her desk in class, only to have another vision in which the English grammar lessons written on the chalkboard dissolve into pixilated data, under which is revealed a palimpsest message apparently from Chisa: "Come to the Wired as soon as you can." In a third vision, on her way home from school, Lain sees Chisa juxtaposed with power lines in the background. Lain asks, "Where are you?" Chisa smiles, the answer being obvious—she is in the Wired—before dissolving into an Escheresque, two-dimensional helix-like spiral (see Figure 4.2), a technique we saw used earlier in relation to the stylized deaths of Stunner and Murphy in

Figure 4.2 Against the backdrop of high-tension wires, Chisa dissolves into an Escheresque helix (*Serial Experiments Lain*).

Avalon discussed in Part III.[32] "Chisa" is but one of many anthropomorphic faces given to the Wired.

That Serial *Experiments Lain* begins more like a horror film than cyberpunk is perhaps not too surprising given that it was written by Konaka Chiaki, who also makes a living as a screenplay writer in the genre of live-action horror cinema and is a self-professed follower of H. P. Lovecraft (1890–1937).[33] But it is the unique way in which *Serial Experiments Lain* blends elements of horror and cyberpunk that makes it so compelling. As with *Kairo* in Part III, the glue that holds this techno-horror together is electronic presence and its manifold fictions. Whether in the form of e-mail as an uncanny gateway to another world, a "sovereign electronic world" accessible by means of the latest telecommunications technologies,[34] or cyberspace as a realm in which the technological "dissociation of consciousness and the body" is made possible, creating a simultaneity that allows "for temporal immediacy and spatial isolation," bringing "psychical connection in spite of physical separation,"[35] the fantasies of electronic presence animate *Serial Experiments Lain* from beginning to end.

Doppelgängers in Cyberspace

Serial Experiments Lain negotiates the fictions of electronic presence in relation to a world that is split into two spheres that are distinct but interconnected. On the one hand, there is the analog world "around us, a world of people, tactile sensation, and culture." On the other hand, there is the digital world "inside the computer, of images, personalities, virtual experiences, and a culture of its own."[36] *Serial Experiments Lain* dramatizes the extent to which the primal scene of translation is no longer simply between speech and writing, or between consciousness and the unconscious, but rather between the analog and the digital. The series reframes this scene of translation in terms of what it calls the "real" and "Wired" worlds. Every time we talk on a mobile phone, compose e-mail, watch television, listen to music, or surf the Web, we enter and reenter the scene of analog-digital translation. In the midst of this interminable scene of translation, *Serial Experiments Lain* explores the crisis that emerges when the distinction between the analog and digital, the real and Wired, begins to dissolve in the person of the introverted thirteen-year-old girl named Lain.

This blurring of boundaries manifests itself initially through a series of surrealist moments. The opening credits of each episode include a strange sequence in which Lain's cap blows off due to a sudden gust of wind while she is crossing a pedestrian bridge, but instead of falling to the ground,

her cap freezes in midair as she continues across the bridge. As the series progresses, Lain has increasingly surrealistic visions in which her surroundings and the figures inhabiting them fade in and out of focus and sometimes dissolve into digital data or shape-shifting shadows. In Lain's world, the highly stylized, almost abstract shadows are especially noteworthy, insofar as they often appear strangely colored with blood red (or, in some scenes, blue) spots that dot and, in some cases, animate the surface of the shadow even when the person or object casting the shadow is standing still. In other scenes, Lain observes smoke emerging from her fingertips, or chalkboard lessons become animated and dissolve into pixilated data. What such surrealist moments show is the uncanny irreality of Lain's "real" world—the Wired's immanence just "beneath the surface"[37] of everyday reality. "The real world isn't real at all," as Lain remarks to herself in an especially self-reflexive moment as she gazes out over her neighborhood in Layer 07, titled "Society," looking through the bars of a railing as if imprisoned. If cyberspace is a "consensual hallucination,"[38] as William Gibson famously defined it in his quintessentially cyberpunk novel *Neuromancer* (1984), it is the hallucinatory aspects that come to the fore when cyberspace bleeds into the spaces of Lain's everyday life, as they did for Ash in *Avalon* as discussed in Part III.

That Lain herself comes to function as a sort of screen for the consensual hallucinations of the Wired is suggested by repeated scenes of her staring blankly at her computer monitor as blue rectangles reflecting the screen are projected back onto Lain's eyes, suggesting that she is transfixed by what she sees (see Figure 4.3). It is no exaggeration to say that *Serial Experiments Lain* contains more imagery of computer terminals, television screens, and their associated video lines and noise than just about any other anime to date. Addiction to screen technology (and its negative effects) is as important an issue for *Serial Experiments Lain* as it was for *Kairo* and *Avalon* in Part III. By the time the series reaches Layer 11, titled "Infornography" (a play on the words "inferno + information + pornography"[39]), Lain has metamorphosed from a demure and innocent *shōjo*, who wears cute bear pajamas, into a "machinic junkie"[40] (see Figure 4.4), entwined from head to toe in electrical cables, with electrodes attached to her head and even her mouth, and computer-generated holographic screens superimposed over her entire body.

The extent to which Lain has changed is also underscored by how completely her bedroom has become transformed from that of a slightly immature adolescent girl's room, filled with stuffed animals, to a cyberpunk's techno-haven reminiscent of the metal fetishist's apartment in

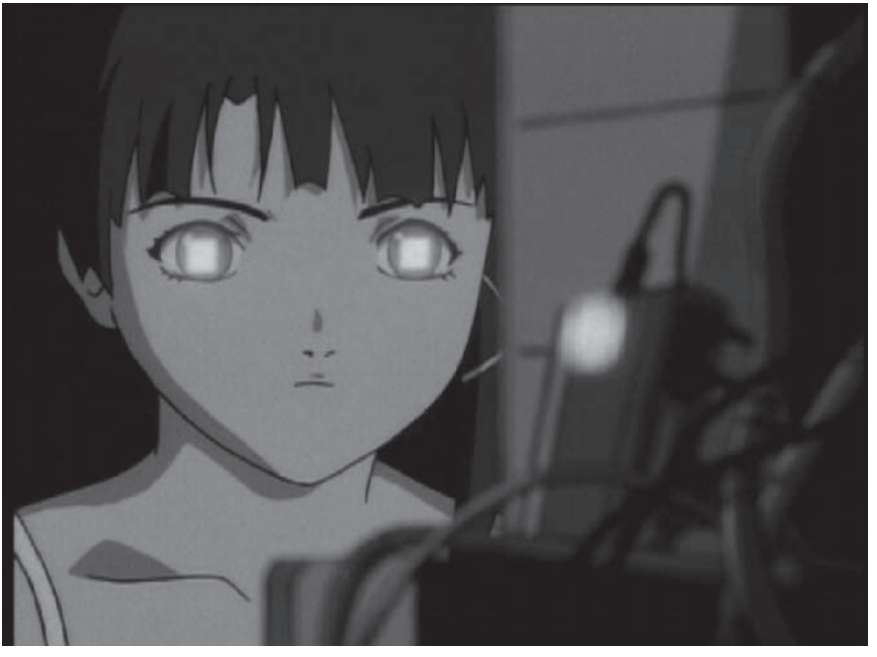

Figure 4.3 Lain's eyes reflect back her computer screen (*Serial Experiments Lain*).

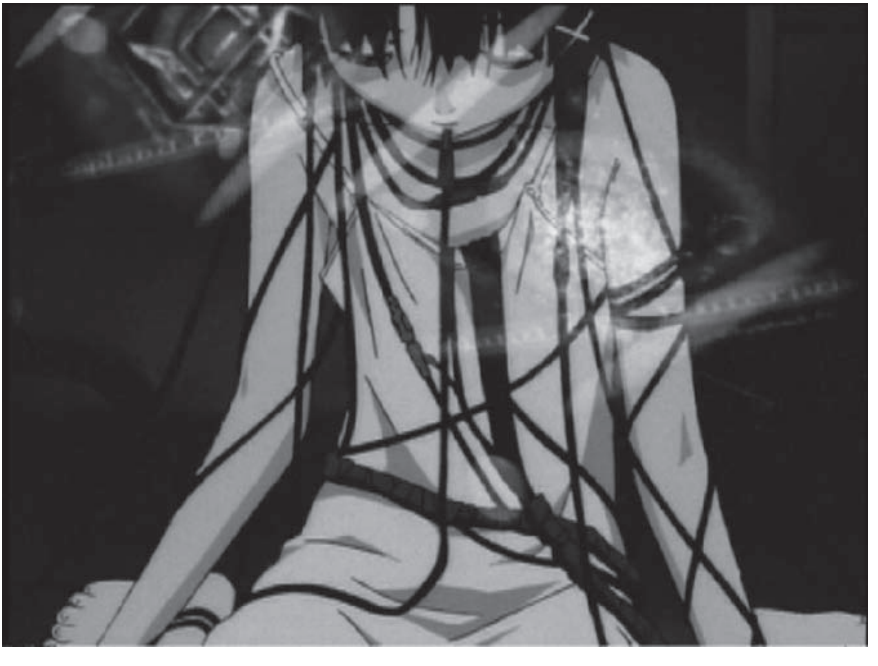

Figure 4.4 Lain the machinic junkie (*Serial Experiments Lain*).

Tetsuo discussed in Part II, overflowing with computer equipment, liquid cooling devices triggered by thermal sensors with retro-futuristic pressure gauges that spew out steam, as well as holographic projections overhead. The representation of Lain the techno-fetishist is also reinforced in the final image that appears at the end credits of each episode in a slow zoom out: Lain lies naked in a fetal position, surrounded by a multitude of power lines and data cables (see Figure 4.5). Although this image may be a citation of the tentacle motif, whose long history stretching back to Hokusai I considered previously in my reading of *Tetsuo* in Part II, it is noteworthy that Lain is not under assault by any of the cables or wires surrounding her, but instead appears to be resting peacefully, lulled asleep by the warm electronic embrace of the techno-womb. On the one hand, such womblike imagery reinforces the conclusion that the development of the posthuman cyborg subject is coemergent with the forms of technology and companion devices that surround it;[41] on the other hand, it suggests that during the course of the series, Lain's perception becomes almost completely

Figure 4.5 Lain enjoying the warm electronic embrace of the techno-womb (*Serial Experiments Lain*).

mediated by the consensual hallucinations produced by the network of hardware and software technologies that are connected to her cybernetic body and enframe her personal space.

And Lain is not the only machinic junkie to appear in *Serial Experiments Lain*. Numerous characters display an addiction to technology to varying degrees: for example, Lain's father, who, although issuing a warning to Lain that the Wired "is just a medium for communication and the transfer of information" that she "mustn't confuse . . . with the real world," spends much of his time surfing the Web in a home office filled with multiple computers and monitors; her sister Mika, who gets trapped in a sort of limbo in between the real and Wired worlds and starts mumbling to herself, repeating the sounds of a telephone's busy signal[42]; the Men in Black (Karl and Lin Sui-Xi), who keep Lain under constant surveillance in order to prevent the crumbling of boundaries between the real and Wired, yet, at the same time, are so reliant upon technology that they resemble cyborgs; members of the Knights organization of hackers, who will do anything necessary to usher in a new age in which there is no border between the real and the Wired; and Eiri Masami, the self-proclaimed "God of the Wired," a researcher for Tachibana General Laboratories who illegally inserted his personal history, thoughts, memories, and emotions into the code of the Internet Protocol before committing suicide, uploading his consciousness in order to rule the Wired with information as an anonymous Godlike digital entity.

To this list one could also add a host of secondary characters, such as the young man in Layer 02, "Girls," who ingests a pill-sized nano-mechanism called Accela at the Cyberia dance club in order to accelerate his sense of time and ends up going berserk on the dance floor right in front of Lain, proclaiming, just before he takes his own life with a gun, "The Wired can't be allowed to interfere with the real world!" to which Lain responds, "No matter where you go, everyone's connected." Or the virtual reality–headset-wearing street person Nezumi in Layer 07, "Society," who, despite the fact that he is weighed down by a backpack that holds his computer and wireless modem, traverses the city making pronouncements about how he is able to "send [his] consciousness anywhere [he] wants," no matter where his body happens to be, "breaking the barrier between the real world and the Wired." Or the adolescent boy in Layer 04, "Religion," obsessed with the online game Phantoma, who becomes trapped in its virtual environment while being chased by the Wired Lain and accidentally shoots and kills a young girl who is playing tag in the Wired. Even after smashing his portable computer to the ground, the boy continues to see reality itself as

if it were virtual reality—everything appears mediated by video lines and pixilated, low-resolution computer graphics. As Kawashima learned in *Kairo*, disconnecting or even destroying the machine does not help once one has become part of the network, programmed by it, seeing the world through its Webcam eyes. Like Kim in *Ghost in the Shell 2: Innocence*, the metal fetishist in *Tetsuo*, Harue in *Kairo*, and Ash in *Avalon*, all of the aforementioned characters in *Serial Experiments Lain* may be construed as machinic junkies to varying degrees along the continuum of technological addiction.

In addition to the problems of techno-addiction, the accumulation of screen metaphors in *Serial Experiments Lain* is also used to suggest the operations of abstract machines. It is much easier to identify and domesticate the threat posed by technology when it appears in the Hollywood form of the Terminator (with red eyes aglow), but technology is not always reducible to the technical machines, hardware prosthetics, and high-tech implants that are on display in cyberpunk films and anime. Machines in the wider, more generalized sense of "abstract machines"[43]—a concept introduced by philosophers Gilles Deleuze and Félix Guattari—include social machines, political machines, economic machines, scientific machines, media machines, ecological machines, and even aesthetic machines. Such abstract machines never operate in isolation but always in relation to larger arrangements and concrete assemblages. The value of Deleuze and Guattari's notion of the "abstract machine" to critical posthumanism is that it makes visible less conspicuous, but no less constitutive, networks of control and stratification: "An order-word machine overcodes language, a faciality machine overcodes the body and even the head, a machine of enslavement overcodes or axiomatizes the earth: these are in no way illusions, but real machinic effects. . . . Every abstract machine is linked to other abstract machines, not only because they are inseparably political, economic, scientific, artistic, ecological, cosmic—perceptive, affective, active, thinking, physical, and semiotic—but because their various types are as intertwined as their operations are convergent."[44] Abstract machines operate as an exteriority that becomes immanent in the human subject, programming the forms, movements, and subjectivities of bodies in a controlled and premapped space. At its most provocative, anime such as *Serial Experiments Lain* demystify the workings of abstract machines, foregrounding their operations so that they are no longer simply taken for granted.[45]

The various types of screens—from computer terminals to televisions, from classroom blackboards to large-format outdoor video screens—that appear in *Serial Experiments Lain* foreground not only addiction

to technology but also the enthrallment with abstract machines and the "control society"[46] they constitute. The frequency with which Lain not only appears as a screen for the Wired but also appears *on screen* (whether on a computer monitor, television, or giant JumboTron-type outdoor screen)—her image distorted by television scan lines, intermittent video noise, and blue static, as well as vertical hold malfunctions and video ghosting—underscores the mediating force of abstract machines and their associated screen(ing) technologies.[47] Gilles Deleuze has famously remarked with respect to cinema's power to endow images with self-motion that "the brain is the screen": "Cinema not only puts movement in the image, it also puts movement in the mind. . . . The brain is the screen. . . . Cinema, precisely because it puts the image in motion, or rather endows the image with self-motion [*automouvement*], never stops tracing the circuits of the brain."[48] Perhaps nowhere is this claim more applicable than in the posthuman cinema of *Serial Experiments Lain*. Not only does the series show that "the brain is the screen" for Internet addicts such as Lain, but by explicitly visualizing the reflection of the blue computer screen onto Lain's eyes as she looks back at the camera from the computer's point of view—with the audience placed in the position of the computer screen (or just behind the terminal)—it suggests that we viewers and scholars of posthuman anime are also the screens of anime. If one accepts Deleuze's argument that cinema not only "puts movement in the image" but also "puts movement in the mind," tracing the circuits of the brain—the brain-as-screen—then perhaps it is not going too far to suggest that the movement of images produced by that particular form of cinema called "anime" also traces the brain circuits of anime viewers around the world and their transnational relations to abstract machines. In other words, the anime viewer is placed in a position similar to that of Lain, whose eyes reflect the screen's projections even as the screen traces the circuits of her brain. But I would go even further: if one considers the incredible rate of consumption of anime outside of Japan, in regions as diverse as East and Southeast Asia, North America, Europe, and Australia, then it is not only the brain that is the screen of anime. One would have to say, in an era of global capitalism and the accelerating transnational traffic of cultural flows, that *the world is the anime screen*.

However, within the diegetic world of *Serial Experiments Lain*, it is noteworthy that the consensual hallucinations of cyberspace are not simply projected onto the body and brain of Lain but also projected outside of Lain in the form of doppelgängers manifesting both inside and outside of cyberspace to suggest that Lain is losing control of who she is, that her

subjectivity has become not simply distributed but fractured.[49] As I noted in my discussion of the uncanny in Part I in relation to *Ghost in the Shell 2: Innocence*, the figure of the doppelgänger expresses a blurring of boundaries between self and other that is one of the dominant issues of posthumanism. The spectrality and uncanniness of electronic presence (and telepresence, in particular) in cyberspace is what makes this split possible in *Serial Experiments Lain*. Telepresence creates an electronic doppelgänger by turning the self into media, since the self-turned-into-media that is introduced by telepresence is not simply identical with the self that is engaged in telepresence.[50] In this sense, more than simply a coming-of-age story for the Internet age, *Serial Experiments Lain* is a story about the struggle between a *shōjo* and her telepresent doppelgängers.

The disjunction between the real and Wired worlds is paralleled by the differentiation between the real and Wired Lains. Lain struggles with the duplicity of her identity in cyberspace after her virtual alter ego, called "Wired Lain," takes on a life of its own, spreading nasty rumors online, acting as a digital peeping Tom (a metaphor for identity theft in cyberspace) who acquires personal secrets and then discloses them to others online, as well as engaging in other forms of antisocial behavior designed to disrupt the smooth functioning of the status quo. In a psychoanalytic register, in addition to being interpreted in the context of ego formation as a sort of superego or moral censoring agency that tells the self what it should or should not do and making it feel guilty about misdeeds, the doppelgänger may also function as a sort of id, impulsively doing all the things the self would like to do but dare not do. Lain's doppelgänger behaves and dresses so differently from her counterpart in the real world that the Wired Lain is sometimes referred to as the "wild Lain." As Tarō, the young technopunk who hangs out at Cyberia Club observes to Lain in Layer 03, "Psyche," "Most people take on a personality in the Wired that's different than what they have in the real world, but yours are total opposites."

As the series progresses, the more the real Lain hears about the "wild" Wired Lain, the more she worries about what the other Lain has done in her name. The conflict between real and Wired Lain reaches its peak in Layer 08, "Rumors," as Lain surfs the Wired during class with her HandyNAVI, a handheld computer. She enters a chatroom in which Internet Protocol 6 and its bugs are being discussed along with a variety of other rumors on the Wired. Eiri Masami, the self-proclaimed Deus of the Wired, makes a grand entrance and proceeds to engage Lain in a theological debate about his status in cyberspace: "How do you define 'God'? If it's the creator of the world, that's not me. The all-powerful ruler of the world? You give God too

much credit. . . . But if you define God as one who exists everywhere in that other world? If that's what you mean, then yes, I suppose you could call me that. I have only a slight influence on the workings of the world, however." The conversation takes an unexpected turn when Lain presses him and asks, "Who are you?" to which Deus responds, "I am you. . . . You are merely a hologram of that other you. You are just a body." She thinks this is crazy and refuses to believe him. Deus presses further: "But you don't think that the you in the real world is the same as the one standing here in the Wired, do you?" "But I'm me," Lain responds and returns to the classroom, where her teacher is standing over her disapprovingly. It is one thing for Lain to enter the Wired fully. "In full range. Full motion. I'll translate [metaphorize] myself into it," she asserts in Layer 04, "Religion." Lain is considered powerful in the Wired precisely because she can "metaphorize" herself, translating her real world form into the Wired as a digital avatar, as the avatar of a talking mouth explains to Lain in Layer 06, "Kids." However, what the God of the Wired is suggesting is that Wired Lain is able to transubstantiate herself into the real even as the real Lain metaphorizes herself into the Wired. Indeed, Eiri Masami, the self-proclaimed God of the Wired, tries to convince the real Lain that she is just a hologram of the Wired Lain—just a body. In Layer 10, "Love," Eiri tells Lain that she was "originally born in the Wired": "The real world's Iwakura Rein is merely a hologram of her, a homunculus of artificial ribosomes. You never had a body to begin with." But this simply begs the question as to who is the doppelgänger of whom—is the Wired Lain the doppelgänger of the real Lain, or vice versa? And things become even more complicated when it is suggested that Lain may have developed more than one doppelgänger. As the doubles started to proliferate, the creators of *Serial Experiments Lain* had to resort to orthographical distinctions in order to differentiate Lain into three figures: the name of the so-called real Lain was designated using the Chinese characters 玲音; the Wired Lain was written in katakana[51] as レイン; and the Wired Lain's evil twin was written in Romanized script simply as "Lain."[52]

The conflict between Lain and her doppelgängers comes to a head in Layer 08, "Rumors." As Lain lies terrified in her bed, flashing power lines, both within her room and outside, give birth to Wired Lain out of the real Lain's dapple red shadow. As the confrontation between the real and Wired Lains ensues, Lain's crisis of subjectivity comes to a head: "You're not me!" proclaims the real Lain to the Wired Lain. "I'd never do what you do. Stop it! Why are you acting like the part of me that I hate?" As the real Lain begins to strangle the Wired Lain, she reflects, "I'm committing suicide." This is

followed by a surrealistic vision of multiple bodies, both male and female, with Lain bobbleheads bouncing on top. Deus tells Lain that they are all her, since she has "always existed in the Wired" and is "omnipresent." Lain denies it, saying that her "true self is inside" of her and proceeds to knock over the dummies with bouncing Lain heads. Lain asserts that if she is really what Deus claims she is, then she should be able to delete the unpleasant memories of people who believe they were wrongly surveilled by the panoptic, peeping-Tom Lain. Deus agrees, and Lain carries out her first act of historical revisionism. At school, real and Wired Lain split off from each other with the latter running to Lain's friends and greeted warmly. The Wired Lain taunts the real Lain: "That's right! Lain is Lain, and I'm *me*." When the real Lain next reappears in her bedroom, she tries to reconfirm her existence as the "real Lain," greeting her NAVI computer as a friend: "I . . . I'm me, right? There's no other me but me, right?" By this point it has become clear that, given the split subjectivity of Lain, neither the real Lain nor the Wired Lain is the master of her posthuman house. In terms of the larger issues of posthumanism, *Serial Experiments Lain* shows how such computer-generated virtual worlds can offer "new forms of 'post-bodied' activity," as described by Elaine Graham, in which "the unitary face-to-face self is superseded by the multiple self—the simulated, fictive identity of the electronic chat-room or the multi-user domain, the avatar or synthesized self of a digitally synthesized interactive environment."[53] Although it may seem obvious that such virtual reality worlds are not simply "instruments in the service of pre-given bodies and communities" but "are themselves contexts which bring about new corporealities,"[54] the status of the body both inside and outside the digitally generated worlds of cyberspace is far from straightforward.

Desiring Disembodiment

Despite the fact that forms of Japanese visual culture engaging issues of posthumanism often push the envelope of what may be conceived as the gendered body, both gender and the body remain profoundly at issue. In the midst of Lain's protracted existential crisis, the status of her *shōjo* body becomes an important point of contention. Is it possible to get in touch with the "real" organic body beneath all the layers of virtuality, or do all such attempts betray a nostalgia for the Real and reinstatement of anthropocentric essentialism? There is a tension throughout *Serial Experiments Lain* between a desire for disembodiment, on the one hand, and a desire for reembodiment, on the other. Indeed, it could be argued that most

posthuman anime and films involve some sort of negotiation between these two poles, generally favoring one side over the other. The desire for disembodiment typically presupposes contempt for the obsolete human body and a yearning to escape death by discarding or annihilating the body in favor of some higher, transcendent state of being, whether spiritual or software, free of mortal and biological constraints.[55] For example, the devaluation of the body in favor of a "mind" or "soul," however conceived, exemplifies a clear desire for disembodiment. Moreover, the desire for disembodiment may also include transhuman (or extropian) fantasies of uploading consciousness into a computer[56] in the digitally pure form of an autonomous program or code that can then circulate freely across cyberspace (which Kusanagi does at the end of *Ghost in the Shell* when she uploads herself to cyberspace after merging with the Puppet Master or, conversely, downloads herself from cyberspace into a gynoid in order to protect Batou in *Ghost in the Shell 2*, as I discussed in Part I).[57] This transhuman view of posthumanism privileges what N. Katherine Hayles has described as "informational pattern over material instantiation, so that embodiment in a biological substrate is seen as an accident of history rather than an inevitability of life."[58]

In his essay "Data Made Flesh: Biotechnology and the Discourse of the Posthuman," Eugene Thacker coins the useful term "informatic essentialism" to describe the extropian view that considers the body as "essentially" information but insists that such informatic essentialism "is not a repression, denial, or effacement of the body."[59] However, insofar as Thacker acknowledges that "the body in informatic essentialism increasingly becomes *valued less* according to any notion of materiality or substance . . . and more according to the value of information itself as the index to all material instantiation—a kind of source code for matter,"[60] this "valued less" is itself an explicit devaluation of the materiality of the body in favor of information, reducing flesh to "the material carrier for the information it expresses."[61] On the other hand, just because the body is repressed by such informatic desires for disembodied consciousness-as-data does not mean that it is no longer relevant. Indeed, the obsessiveness with which the desire to escape the body is asserted in posthuman popular culture betrays the extent to which the materiality of the body still haunts the ideality of digital information. In such narratives, the body often comes back with a vengeance as the return of the repressed.

In contrast, the desire for reembodiment typically involves the reconfiguration of one's body in the form of a cyborg, mecha, or other biomechanical mutation on the way toward an evolutionary redefinition of what

is human without necessarily aspiring to the immateriality of the soul. In numerous posthuman anime and films, this desire for reembodiment often takes the form of armoring the human (especially male) body as an expression of the crisis of masculinity: biomechanical hardware remakes the weak body into a hard, phallic, machinic body capable of defending humanity against threats from without or within. However, just as often, the armored body of hypermasculinity fails to work as a defense mechanism against the disempowerment of men in an age of waning patriarchy—the redefinition of masculinity must be sought elsewhere. In some cases, a desire for reembodiment may actually be a disguised desire for disembodiment, a desire to discard inadequate embodiment in favor of something provisionally better on the way to no embodiment.[62]

How do these two opposing desires manifest themselves in *Serial Experiments Lain*? On the one hand, the Wired God's assertion that the real Lain is just a hologram of the Wired Lain clearly presupposes devaluation of the obsolete body and a desire for disembodiment as opposed to a desire for reembodiment. Eiri Masami, the Deus of the Wired, tells Lain that she is "software" in a body—nothing more than an "executable program with flesh." In Layer 12, "Landscape," Lain opines to her close friend Alice (Arisu) that this applies to everyone else as well: all humans are reduced to software applications. Lain then proceeds to proclaim openly her desire for disembodiment: "The truth is you don't *need* bodies." In saying this, Lain echoes not only Eiri Masami, who conveys a similar disregard for the body in Layer 10, "Love," but also Chisa, the girl who committed suicide at the outset of the series, whose ghost informs Lain that "bodies are totally meaningless." However, Lain's friend Alice knows better, telling Lain she is dead wrong—they *do* need their bodies. Alice shows Lain that they are more than just "inconvenient bodies" (an expression used in Layer 11, "Infornography") by placing Lain's hand on her chest so that she can feel Alice's beating heart, which is beating so quickly because she is scared. Although Lain's body is cold and she is enshrouded in cables from head to toe, she is still alive and has the capacity for affect.[63] As Bruce Braun has argued, one of the lessons of posthumanism is "the possibility of, and necessity for, a political cartography of bodily formation that attends to how bodies are imbued with the capacity for affect—the capacity to be acted upon, and the capacity to act."[64] In contrast to humanism, the posthuman emphasis on the capacity for affect is no longer tied to a norm, universal, or essence, but instead attends "to the middle—that place where everything happens, where everything picks up speed and intensity," a "meeting place of danger and hope"[65] where ontological play allows for the

hybridity and heterogeneity of new becomings, where the subject is "local, fluid, and contingent."[66]

As Alice convinces Lain of the importance of embodiment (no matter how hybrid) and the capacity for affect, Eiri Masami floats into view from behind Lain (albeit initially invisible and inaudible to Alice) and offers a counterdiscourse in favor of disembodiment, telling Lain that Alice is scared "because she's afraid of losing her body." Eiri asserts that if "all sensations are caused by impulses in the brain," then one simply has to block unpleasant impulses and select pleasant ones. Thinking that Lain has a programming bug that needs fixing, Eiri proceeds to materialize as a disembodied hand that is perceived by Alice, who recoils in fear. In response, Lain questions the godhood of this self-proclaimed Deus of the Wired. Lain points out that, despite Eiri's attempt to remove all peripheral devices from the Wired in order to raise unconscious human connections to a conscious level and create a worldwide wireless neural network whose rhizomatically distributed connections mimic the brain itself, Eiri could not have accomplished all that he has without such hardware. The more Eiri rants against the materiality of the body and hardware, the more obvious it becomes that his is an ideology of electronic presence—an "informatic essentialism"[67] or digital idealism, if you will—that is simply another variation on the extropian fantasy of electronic transmutation, such as I discussed in relation to *Kairo* and *Avalon* in Part III. According to Eiri's brand of digital idealism, the sensible world of phenomena is subordinated to the intelligible world of digital data in the Wired, of which the material world is merely a hologram. In other words, by elevating the Wired to a transcendental realm where Truth, the Real, and the Thing-In-Itself reside, Eiri's digital idealism approaches something like cyber-Platonism. According to a virtual avatar in the guise of Lain's mother (serving as one of many mouthpieces for Eiri) in Layer 05, "Distortion," "physical reality is nothing but a hologram of the information that flows through the Wired." Eiri's digital idealism advocates transcending the obsolete body and rising to a higher plane—not of spirituality but of pure digitality. However, as Jeffrey Sconce reminds us in *Haunted Media*, although "dreams of a complete absenting of the body and entrance into a more rarified plane of existence have definitively shifted from the metaphysics of the church to those of the computer chip," in the last analysis, "we are always left with a material machine at the heart of such supernatural speculation, a device mechanically assembled, socially deployed, and culturally received within a specific historical moment."[68] In response to this "hallucinatory world of eternal simulation where the material real is forever lost,"[69] *Serial Experiments Lain*

offers the ubiquitous sound of powerline hum heard throughout the series, which underscores the importance of materiality to the Wired world—that it is material hardware and infrastructure that make possible the virtuality of the Wired world. Although we see repeated examples of wireless technologies being used during the series, the continued emphasis on the Wired makes it clear that there is no wireless telepresence without the hardware technology that makes it all possible. The wireless dreams of electronic presence are nothing without the Wired reality of electronic materialism and a steady source of electric power.

Furthermore, Lain asserts that without a body, Eiri "will never be able to truly understand" the human animal, which is more than simply a machine. In response to this confrontation, Eiri insists that he is the one who gave Lain a body in the real world. In an attempt to demonstrate his omnipotence in the Wired and real worlds, Eiri desperately tries to create a body for himself by materializing in the form of a grotesquely misshapen body, a monstrous assemblage of organs that is an obvious homage to the mutating bodies of Tetsuo in Ōtomo Katsuhiro's *AKIRA* and the salaryman in Tsukamoto Shin'ya's *Tetsuo: The Iron Man*. In order to defend themselves against the assaulting tentacles of Eiri, Lain telekinetically mobilizes nearby hardware, flinging equipment of all types at the transmutated body of Eiri and crushing it in the onslaught. In the end, Lain's declaration of victory is also a victory for the body: "So what do you think now? Do you still think a body doesn't mean anything to you?" However, where that leaves Lain's identity is uncertain. At the outset of the final episode, Layer 13, "Ego," Lain is still faced with a crisis of subjectivity despite her reaffirmation of the body. The degree of Lain's crisis is indicated by the series of existential questions that she poses in a soliloquy addressed directly to the viewer, her image distorted by the usual television scan lines, vertical hold malfunctions and video ghosting, as well as intermittent noise and blue static: "I'm confused again. Am I here? Or am I there? Over there, I'm everywhere. I know that. I'm connected there, after all. Right? But where is the real me? Oh, right—there *is* no real me. I only exist inside those people who are aware of my existence. But this *me* who's talking right now—it's me, isn't it? This me who's talking—this *me*—who is it?" Where is the real Lain? Who is the real Lain? Or is there no real Lain? If there is no stable subjectivity, what is the ontological status of Lain's posthuman existence? How are agency and politics redefined in the face of such posthumanism?

The Question of Resistance

Serial Experiments Lain traces the emergence of the Internet and the posthuman transformation it has brought about in the technologies of subjectivity that govern human forms of self-reference, categories of perception, and forms of communication. One of the most commonly accepted ideologies of cyberspace at the time *Serial Experiments Lain* first aired on Japan's TV Tokyo network in the late 1990s portrayed it as a zone of unbridled democracy and freedom of expression, which was beyond race, nation, and class. Such utopian rhetoric is referenced in the opening credits of each episode through English slogans appearing as motion graphics: "NO RACE . . . NO NATION . . . NO POSITION." However, as the series illustrates, the Internet is an arena in which struggles for power still occur. What *Serial Experiments Lain* offers is a counterdiscourse to such cyberutopianism, linking the digital realm referred to as "the Wired" to surveillance technologies and a control society. In *Serial Experiments Lain*, the world of cyberspace is haunted by the anonymous eye of the Panopticon.[70] The panoptic eye of Wired surveillance manifests itself not only in terms of the characterization of the Wired Lain as a peeping Tom but also in the repeated imagery of the panoptic eye of Lain's NAVI computer (running an operating system provided by Tachibana Labs) that greets her at start-up, as well as the ubiquitous Men in Black who are constantly subjecting Lain to surveillance. What was all too often ignored by early Internet theorists in their enthusiasm for the "egalitarian" open-endedness of Web surfing was the extent to which the user is subjected to the filtered selectivity of search engine algorithms constituting a virtual network of links, while user profiles created from the digital tracks left at each Web site visited are bought and sold as data commodities for both commercial and government uses: "Most of us are unaware of being watched. But if you surf the net half an hour a day, chances are there's an online profile of you . . . a cyber you who reflects your online behaviors and can help marketers target ads especially for you."[71] Internet choices and options, no matter how decentralized, exist only to the extent that Web programming and search engine algorithms make them possible.[72] As the Internet spread to every corner of the world and was embraced as a sort of "digital democracy," *Serial Experiments Lain* warned us of the need to be more attentive to the new "technologies of the self"[73] enframing the subjectification of Internet users. How does the increasing accessibility of the Internet to users all over the world contribute to the disciplinary programming of gendered subjectivities and bodies circulating in the analog world? How do techniques of online user profiling and information gathering figure into the emergence of new disciplinary

technologies and the constitution of the Internet as a power-knowledge grid? How does the ideology of the Internet as "digital democracy" conduct readers into a rarefied and regulated field of possibilities—manipulating and controlling individual bodies, turning them into normalized, serviceable subjects directed toward strategic ends and goals? These are just a few of the questions evoked by *Serial Experiments Lain*.

In a posthuman world dominated by abstract machines, in which human beings have been reduced to "executable programs," is resistance still possible? If the real and the virtual have already become blurred, if the real is already in some sense virtual due to the programmed instructions of abstract machines, what form must resistance take if it is to be effective as an antiprogram? If power is not concentrated in a single individual or group, but is dispersed across a decentralized network of abstract machines, who or what does one resist? As we have seen in discussions throughout this study, becoming-other is the strategy most often pursued in Japanese posthuman visual culture as a line of flight away from abstract machines and their mechanisms of classification, normalization, commodification, and control. Becoming-other denaturalizes the socially constructed body and resists the classifications and categories to which it is subjected by the abstract machines of society. In the forms of posthumanism analyzed thus far, becoming-other is either visualized quite literally in the form of a mutating body that resists the social classifications and categories to which it is subjected by pushing the boundaries of the body itself into nonhuman monstrosity (e.g., *AKIRA*, *Tetsuo*), or such becoming-other manifests itself in terms of split, multiplied, or distributed subjectivities (e.g., *Ghost in the Shell 2*, *Kairo*, *Avalon, Serial Experiments Lain*).

In the final episode, Layer 13, "Ego," Lain offers the most dramatic form of resistance possible by rewriting history itself, or at least the conception of history that is circulating in the digital memory of the Wired. Like a deus ex machina, Lain resets everything in her world in an attempt to correct the mistakes of the Wired Lain by deleting bad memories. She is able to accomplish this feat through the dislocated indexicality of digital memory. As Adèle-Elise Prévost has suggested in her reading of *Serial Experiments Lain*, insofar as "digital information, by its very nature as 'a seemingly arbitrary code of discrete, relational elements (numbers),' is almost infinitely malleable," "nothing serves as an unambiguous index of a real-life event; any pre-existing medium can be digitized and turned into raw material, and in this grand levelling 'universal coding procedure' anything can be transmuted, redistributed, and recast in new ways."[74] In this newly reset,

more vividly colored, utopic world, with an upbeat soundtrack playing, Lain's parents and sister Mika eat breakfast together (without Lain) as if nothing had happened. Eiri Masami is no longer the Deus of the Wired, but just another disgruntled salaryman who is thinking about quitting his job. The Men in Black are now telephone repairmen working high atop utility poles. Chisa, the girl who committed suicide at the outset of the series, is alive again and attending school. Moreover, e-mails from the dead are no longer leaking out of the Wired world. Even the incessant noise of power cables now seems to "hum in harmony."[75] But the most significant change is that Lain is no longer a part of this world. Her place at her family's kitchen table is empty, as is the spot where she used to sit on the train. In resetting everyone's memories, she has written herself out of the world altogether, since "what isn't remembered never happened," as a textual intertitle asserts. However, rather than giving her peace, such historical revisionism causes Lain great distress.[76] Lain finds herself not in this new, more utopic world but in a vastly different one in which the city appears gray and bleak, the streets are eerily empty, technical machinery and digital connections are everywhere the eye can see, and Lain is merely an electronic shadow. When the camera pulls back, it reveals a domed city situated on a piece of rock floating in a void. Although no one is being hurt from the actions of the Wired Lain—indeed, everyone seems almost better off without Lain—she is lachrymose because she has deleted herself from everyone's memory. Wired Lain appears and asks her if this is not what she wanted all along, but the real Lain wonders who she is if she is nowhere. So Lain resets the world again, but this time reinserts herself in it. With the help of her doppelgänger, Lain comes to the realization that "the Wired isn't an upper layer of the real world," since the Wired is so thoroughly entwined with the real that the two cannot be so easily disentangled. As soon as Lain starts to realize that her everyday life includes aspects that are both embodied *and* virtual, she becomes less inclined to submit to the programmed instructions of the abstract machines constituting the society in which she lives. Once the programming of the abstract machines has been demystified, Lain no longer feels compelled to submit to the status quo or its Ministry of Information Control.[77] The technology of control demands that every body be put into its place,[78] but Lain refuses to be pinned down, identified, classified, or regulated by the abstract machines of society. Lain discovers that the most effective act of resistance in a cybersociety is to proliferate one's digital personae in cyberspace in ways that disrupt the flow and control of information and elude the digital representations of personal identity stored as user profile data.

In *Serial Experiments Lain*, the powers that be consider it a threat to the system if there are two or more versions of the same person. The top executive for Tachibana Labs with the assistance of the Men in Black, who may also be agents for the Ministry of Information Control, interrogate Lain in Layer 07, "Society," describing her as "dangerous" because if there are two Lains, then "the border between the real world and the Wired is starting to crumble." During the interrogation scene, serious questions are posed about the identity of the real Lain, which she seems initially unable or unwilling to answer.[79] Questions such as when and where she was born, whether Lain's parents are her real parents, whether she can recount important dates in her family's history (including her mother's and father's birthdays, their wedding date, etc.) are posed to her. Lain's inability or unwillingness to recollect such fundamental personal data suggests either that her memories and life history are fabricated fictions (like the implanted memories of replicants in *Blade Runner* or the ghost-hacked garbage man in *Ghost in the Shell*), or that she is resisting the demands of the status quo to be pinned down as a singular identity. During the interrogation, Lain's personality shifts to that of the more assertive Wired Lain and she responds, "Shut up, damnit! Who cares about that crap? Like any of it matters."

According to the Men in Black, "the Wired can't be allowed to be a special world. It can only be a field that functions as a subsystem reinforcing the real world" (Layer 10, "Love"). Why does it matter to the system whether or not individuals can be pinned down? Imposters threaten the system with crimes of identity theft, tax evasion, forgery, illegal immigration, and so forth—all crimes involving false identity. If one is not who one claims to be, then one must be a hacker, criminal, illegal immigrant, or terrorist. False identity (or multiple identities) simply cannot be tolerated by the system.[80] As soon as individuals start to become difficult to track or categorize, then the system begins to have problems. *Serial Experiments Lain* suggests that the task for posthuman political resistance is not to overthrow the virtual (which is impossible) but rather to elude its totalizing grasp by using technologies of virtuality against the very assemblages and abstract machines that cast a virtual web over our bodies and subjectivities.

Rather than fighting her Wired doppelgängers, Lain learns to embrace them and the perspectivism they evoke, since "people only have substance within the memories of other people": "That's why there were all kinds of me's." If there are multiple Lains, it is due to the multiple memories of Lain in different people. Like Murphy in *Avalon*, Lain seems to have come to terms with the insubstantiality of her posthuman subjectivity and the extent to

which it is constituted in a virtual, relational fashion. "Is it even necessary to posit the interpreter behind the interpretation?" asks Nietzsche. "Even that is fiction, hypothesis."[81]

In the penultimate scene, Lain encounters Alice on the pedestrian bridge featured in the opening credits. Although Lain appears to be about the same age, Alice is now a mature woman (twenty-two years of age according to the production notes) with an adult boyfriend who resembles a handsome young teacher from Lain's school that the younger Alice used to have a crush on. Thinking that she recognizes Lain, Alice approaches her and they speak briefly, with Alice wondering aloud if Lain was a student at the school where she was employed as a student-teacher. Lain responds by saying that they are meeting for the first time. They proceed to exchange names, and Alice suggests that maybe they will meet again someday. As Alice walks away with her boyfriend, Lain remarks to herself, "You're right. We can see each other anytime." In the final scene, the Wired Lain reappears inside an old computer monitor or television set, her figure distorted by the scanlines and blue static that we have come to associate with her throughout the series, and offers a highly ambiguous concluding remark: "I'm right here, so I'll be with you. Forever."[82] Whether this final manifestation of the Wired Lain addresses her real-world self, the grown Alice, the audience, or perhaps all three remains uncertain. In the end, it is unclear if Lain has truly reset the world but remains trapped in cyberspace as a goddess or "digital angel" of the Wired,[83] or has awakened from her delusions of cyberspace grandeur and it is only her virtual doppelgänger who remains online. In either case, although Lain may not have completely eluded the fictions of electronic presence and the technological sublime,[84] her realization of the ineluctability of perspectivism, the fragility and rewritability of memory, and the importance of hybrid embodiment has moved her considerably beyond the techno-reductive views of transhumanist Eiri Masami, for whom human beings were no more than devices and communication, simply data exchanges.[85] More importantly, Lain has learned to accept the posthuman self as an ongoing work of fiction that is in a constant state of revision—contingent, fluid, and in between human, animal, and machine—a "nomadic subject" that emerges in relation to a wide range of nonhuman others.[86]

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Notes

Introduction

1. See Ōtomo Katsuhiro, *AKIRA* (Tokyo: Kōdansha, 1984), 1:8–9. See Ōtomo Katsuhiro, *AKIRA* (New York: Epic Comics, 1988), 1, no. 1: unpaginated; Ōtomo Katsuhiro, *AKIRA* (Milwaukie, OR: Dark Horse Comics, 2000), 1:5 and 10. The animated adaptation shifts the date of the explosion to July 16, 1988, which was the date of the anime's release in Japan. In the discussion that follows, I have respected Ōtomo's preference for English capitalization in designating the title of the *AKIRA* manga series. During the course of its serialization in *Young Magazine*, Ōtomo experimented with a number of different fonts for the title logo, including both English and Japanese katakana, before settling on the English uppercase font Impact that adorns the paperback collections and anime, which he thought evoked "an air of American comics." A diagram showing the various fonts used for the *AKIRA* logo, as well as Ōtomo's annotations, is included in Ōtomo Katsuhiro, *Akira Club: The Memory of Akira Lives on in Our Hearts!* trans. Kumar Sivasubramanian (Milwaukie, OR: Dark Horse Manga, 2007), unpaginated.
2. That Akira appears not to have aged at all, despite the passage of time since the destruction of Old Tokyo and rebuilding of Neo-Tokyo, is apparently due to his having been stored in a state of suspended animation in a cryogenic chamber following World War III. Akira's eternal youth also reinforces the perception of his godlike aura.
3. On the symbolism of the Olympic stadium in *AKIRA*, which was modeled after the National Olympic Stadium that was used as the main stadium for the Tokyo Summer Olympics in 1964, see Susan J. Napier, "Panic Sites: The Japanese Imagination of Disaster from *Godzilla* to *Akira*," *Journal of Japanese Studies* 19, no. 2 (1993): 347.
4. In the United States, Geof Darrow, the illustrator of *Hard Boiled* (1990), written by Frank Miller, approaches Ōtomo's attention to detail and visceral evocation of the beauty of destruction. See Frank Miller and Geof Darrow, *Hard Boiled* (Milwaukie, OR: Dark Horse Comics, 1993). On *AKIRA*'s "postmodern celebration of apocalypse," see Susan J. Napier, *Anime from "Akira" to "Howl's Moving Castle": Experiencing Contemporary Japanese Animation* (New York: Palgrave Macmillan, 2005), 260–63; Napier, *The Fantastic in Modern Japanese Literature: The Subversion of Modernity* (London: Routledge, 1996), 219; Isolde Standish, "*Akira*, Postmodernism and Resistance," in *The Worlds of Japanese Popular Culture: Gender, Shifting Boundaries and Global Cultures*, ed. D. P. Martinez (Cambridge:

Cambridge University Press, 1998), 69; and see Susan Sontag, "The Imagination of Disaster," in *Liquid Metal: The Science Fiction Film Reader*, ed. Sean Redmond (London: Wallflower Press, 2004), 40–47.

5. Ōtomo, *AKIRA* (Kōdansha, 1990), 5:343.
6. Ōtomo, *Akira Club*. Japanese text from Ōtomo Katsuhiro, *Akira Club: The Memory of Akira Lives on in Our Hearts!* (Tokyo: Kōdansha, 1995), unpaginated.
7. Freda Freiberg, "*Akira* and the Postnuclear Sublime," in *Hibakusha Cinema: Hiroshima, Nagasaki and the Nuclear Image in Japanese Film*, ed. Mick Broderick (London: Kegan Paul International, 1996), 100.
8. This also extends to *AKIRA*'s genre hybridity, as Freda Freiberg notes, which includes "elements from scifi fiction and movies (the mad scientist, the dystopic future, time and space travel, psychic phenomenon), the horror movie (metamorphosis from human to monstrous non-human form), the disaster movie (the spectacle of destruction on a massive scale, through fire, flood, earthquake, war, nuclear disaster; escalating panic), the teen pic (classroom capers, teen romances, teenage rebellions) and the suspense thriller (high-speed chases, collisions, explosions, thrills and spills) alongside references to indigenous religions and spiritualism." See Freiberg, "*Akira* and the Postnuclear Sublime," 94–95.
9. Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Minneapolis: University of Minnesota Press, 1984).
10. See Napier, *Anime from "Akira" to "Howl's Moving Castle*," 39–40, 46.
11. Napier, *The Fantastic in Modern Japanese Literature*, 137; Napier, "Panic Sites," 343.
12. On *bōsōzoku* subculture, see Satō Ikuya, *Kamikaze Biker: Parody and Anomy in Affluent Japan* (Chicago: University of Chicago Press, 1991); Satō Ikuya, *Bōsōzoku no esunogurafi: Mōdo no hanran to bunka no jūbaku* (Tokyo: Shin'yōsha, 1984); Satō Ikuya, *Yankī bōsōzoku shakaijin: Itsudatsuteki raifu sutairu no shizenshi* (Tokyo: Shin'yōsha, 1985); Karl Taro Greenfeld, *Speed Tribes: Days and Nights with Japan's Next Generation* (New York: HarperCollins, 1994); and Standish, "*Akira*, Postmodernism and Resistance," 57–62.
13. Napier, *The Fantastic in Modern Japanese Literature*, 216. Elsewhere, Napier provocatively suggests that "in their frantic motorcycle chases and endless mutations," the *bōsōzoku* of *AKIRA* are "attempting to get away from history." See Napier, "Panic Sites," 351.
14. Standish, "*Akira*, Postmodernism and Resistance," 57–58. On the motorcycle as an ideological symbol, see Yomota Inuhiko, *Manga genron* (Tokyo: Chikuma Shobō, 1999), 376–78; as "an agent of change," see Napier, *Anime from "Akira" to "Howl's Moving Castle*," 41.
15. I borrow the terms "lines of flight" and "lines of segmentarity" from philosophers Gilles Deleuze and Félix Guattari, who argue in *A Thousand Plateaus* that the entire world can be conceived in such terms. In the philosophy of Deleuze and Guattari, these two types of lines pertain to everything from the movement of bodies to the flow of capital. Both society and individual are defined as much by their lines of flight (movements of decoding and deterritorialization) as they are by their segmentary stratifications (movements of overcoding and reterritorialization). See Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism*

and Schizophrenia, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 3–4, 216, 222–24.

16. Napier, *The Fantastic in Modern Japanese Literature*, 215. See Freiberg, "*Akira* and the Postnuclear Sublime," 97.
17. See David Desser, "Consuming Asia: Chinese and Japanese Popular Culture and the American Imaginary," in *Multiple Modernities: Cinemas and Popular Media in Transcultural East Asia*, ed. Jenny Kwok Wah Lau (Philadelphia: Temple University Press, 2003), 190–91; see Freiberg, "*Akira* and the Postnuclear Sublime," 92, 97–98.
18. An ironic, self-critical reference to the "Greater East Asia Co-Prosperity Sphere," a propagandistic concept decreed by the Shōwa-era Japanese government and military to justify Japanese imperialism in China, Manchukuo, and parts of Southeast Asia under the pretense of liberating Asian nations from Western domination.
19. Ōtomo Katsuhiro, *AKIRA* (Dark Horse Comics, 2002), 6:421. The phrasing of the Japanese text here is a little different from the English translation but gets across the same point: "I hope you'll consider [what you're doing] as interference in the internal affairs facing our country [*Wa ga kuni ni taisuru naiseikanshō to minasu ii na*]!" (6:421). For some reason, although "AKIRA" appears in English on the banner unfurled before the UN troops in the Japanese edition (6:414–15), it is removed from the English translation published by Dark Horse Comics (6:414–15).
20. On the tension between power and control, see Napier, *Anime from "Akira" to "Howl's Moving Castle*," 44.
21. See Freiberg, "*Akira* and the Postnuclear Sublime," 95; see Frances Ferguson, "The Nuclear Sublime," *Diacritics* 14, no. 2 (Summer 1984): 5–10.
22. Bill Powell, "Don't Write Off Japan," *Newsweek* 919 (1992): 48.
23. See Napier, "Panic Sites," 348–49; Napier, *Anime from "Akira" to "Howl's Moving Castle*," 40; Freiberg, "*Akira* and the Postnuclear Sublime," 100.
24. See Freiberg, "*Akira* and the Postnuclear Sublime," 100–101; Napier, *Anime from "Akira" to "Howl's Moving Castle*," 42. On comparisons between Akira and the titular *kami* of the Kasuga Wakamiya ("Young Prince Shrine") dedicated by Fujiwara Tadamichi in 1135 inside the compound of the Kasuga Shrine in Nara, see Komata Toji, "Nagare to chikara no hate ni," *Yuriika* 20, no. 10 (1988): 54–67. Kasuga Wakamiya is a youthful syncretic god combining the attributes of renewal and wisdom. He is thought to be the incarnation of Manjusri, the Buddhist bodhisattva of wisdom who wields a sword to cleave ignorance.
25. See Deleuze and Guattari, *A Thousand Plateaus*, 7–13.
26. Azuma Hiroki, *Otaku: Japan's Database Animals*, trans. Jonathan E. Abel and Shion Kono (Minneapolis: University Of Minnesota Press, 2009), 103.
27. I am using the term "defamiliarization" in the sense given to it by Fredric Jameson in relation to the genre of science fiction: "In reality, the relationship of this form of representation, this specific narrative apparatus, to its ostensible content—the future—has always been more complex than this. For the apparent realism, or representationality, of SF has concealed another, far more complex temporal structure: not to give us 'images' of the future—whatever such images might mean for a reader who will necessarily predecease their 'materialization'—but rather to defamiliarize and restructure our experience of our own present,

and to do so in specific ways distinct from all other forms of defamiliarization." See Fredric Jameson, "Progress versus Utopia, or, Can We Imagine the Future?" *Science Fiction Studies* 27 (July 1982): 152.

28. Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham, NC: Duke University Press, 2000).

Part I

An earlier, much abridged version of Part I was published in *Mechademia 3: Limits of the Human*, ed. Frenchy Lunning (Minneapolis: University of Minnesota Press, 2008), 222–53.

1. Oshii Mamoru and Ueno Toshiya, "Anime wa zure kara hajimaru: 2D to 3D no hazama de," *Yuriika* 30, no. 4 (2004): 59. Also see Sharalyn Orbaugh, "Frankenstein and the Cyborg Metropolis: The Evolution of Body and City in Science Fiction Narratives," in *Cinema Anime: Critical Engagements with Japanese Animation*, ed. Steven T. Brown (New York: Palgrave Macmillan, 2006), 98, 102–3, 109n43.
2. Sigmund Freud, "The 'Uncanny,'" in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, ed. and trans. James Strachey (London: Hogarth, 1955), 17:217–56; Ernst Jentsch, "On the Psychology of the Uncanny," *Angelaki* 2, no. 1 (1995): 7–16.
3. Jacques Derrida, "The Double Session," in *Dissemination*, trans. Barbara Johnson (Chicago: University of Chicago Press, 1981), 220n32, 268–69n67; Héléne Cixous, "Fiction and Its Phantoms: A Reading of Freud's '*Das Unheimliche*' ('The "Uncanny"')," *New Literary History* 7 (1976): 525–48; Sander Gilman, ed., *Reading Freud's Reading* (New York: New York University Press, 1994); Neil Hertz, "Freud and the Sandman," in *The End of the Line: Essays on Psychoanalysis and the Sublime* (New York: Columbia University Press, 1985), 97–121; Samuel Weber, *The Legend of Freud* (Stanford, CA: Stanford University Press, 2000); Nicholas Royle, *The Uncanny* (New York: Routledge, 2003).
4. E. T. A. Hoffmann, "The Sandman," in *The Golden Pot and Other Tales*, trans. Ritchie Robertson (Oxford: Oxford University Press, 2000), 85–118.
5. "Remediation" is defined by media theorists Jay David Bolter and Richard Gruisin as follows: "It is that which appropriates the techniques, forms, and social significance of other media and attempts to rival or refashion them in the name of the real." I would qualify this definition by revising the last part: acts of remediation may be performed not only in the name of "the real" but also in the name of "literary or aesthetic value," "cultural or political authority," "beauty," as well as "pleasure" and "entertainment." Indeed, the functions of remediation are probably as diverse as the audiences of remediation. On remediation, see Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, MA: MIT Press, 1999), 65.
6. As Tatsumi Takayuki points out, the term "gynoid" was first coined by British science fiction novelist Gwyneth Jones in *Divine Endurance* (London: Allen & Unwin, 1984) and later appropriated by other authors and artists, from Richard Calder to Sorayama Hajime. See Tatsumi Takayuki, *Full Metal Apache: Transactions*

between Cyberpunk Japan and Avant-Pop America (Durham, NC: Duke University Press, 2006), 93–102, 213nn1–2.

7. From the marketing materials for *Inosensu*, dir. Oshii Mamoru (2004); translated as *Ghost in the Shell 2: Innocence*, subtitled DVD (Universal City, CA: DreamWorks Home Entertainment, 2004).
8. Production notes for *Ghost in the Shell 2: Innocence* at http://www.gofishpictures.com/GITS2/main.html (accessed July 28, 2007).
9. In the storyboards to *Ghost in the Shell 2*, Oshii credits the work of acclaimed American photographer Berenice Abbott (1898–1991), whose photos of New York City's architecture during the 1930s Oshii sought to emulate in a number of urban scenes. See Berenice Abbott, *New York in the Thirties* (New York: Dover Publications, 1973).
10. Kusanagi is described as "government property" (*seiji no kizai*—lit., "government equipment") in the manga as well. See Shirow Masamune, *Ghost in the Shell*, trans. Frederik L. Schodt and Toren Smith, 2nd ed. (Milwaukie, OR: Dark Horse Comics, 2004), 241; Shirow Masamune, *Kōkaku kidōtai* (Tokyo: Kōdansha, 1991), 237.
11. Canterel, the protagonist of Roussel's *Locus Solus*, resembles the hacker Kim in *Ghost in the Shell 2* not only with respect to the surrealistic country estate he occupies, which contains all manner of strange sights (including reanimated corpses), but also insofar as he orchestrates numerous scenes of repetition, causing the dead to reenact the most important events of their lives again and again in a perpetual cycle of déjà vu. See Raymond Roussel, *Locus Solus*, trans. Rupert Copeland Cunningham (Berkeley: University of California Press, 1970); and Mark Ford, *Raymond Roussel and the Republic of Dreams* (Ithaca, NY: Cornell University Press, 2000), 121–50.
12. For a thorough discussion of Hadaly and *L'Ève future* in relation to *Ghost in the Shell 2*, see Orbaugh, "Frankenstein and the Cyborg Metropolis," 97, 100; and "Emotional Infectivity: Cyborg Affect and the Limits of the Human," in *Mechademia 3: Limits of the Human*, ed. Frenchy Lunning (Minneapolis: University of Minnesota Press, 2008), 150–72.
13. Incidentally, Hans Bellmer also cited *L'Ève future* as a minor influence on his work. On Hadaly and robotics research at Waseda University, see the Humanoid Robotics Institute Web site, http://www.humanoid.waseda.ac.jp/booklet/booklet2000.html (accessed February 23, 2010). On Bellmer and *L'Ève future*, see Sue Taylor, *Hans Bellmer: The Anatomy of Anxiety* (Cambridge, MA: MIT Press, 2000), 231n33. Oshii Mamoru, *Ghost in the Shell 2: Innocence Ani-Manga*, trans. Yuji Oniki (San Francisco: Viz, 2005), 2:148–49.
14. Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," in *The Haraway Reader* (New York: Routledge, 2004), 7–45.
15. Asimov's "Three Laws of Robotics": "1. A robot may not injure a human being or, through inaction, allow a human being to come to harm. 2. A robot must obey the orders given it by human beings except where such orders conflict with the first law. 3. A robot must protect its own existence as long as such protection does not conflict with the First or Second law." First introduced in Asimov's short story "Runaround" (1941). See Isaac Asimov, "Runaround," in *I, Robot* (New York: Bantam Dell, 2004), 37.

16. Masamune, *Ghost in the Shell*, 109–50; Masamune, *Kōkaku kidōtai*, 105–46.
17. "Robot Rondo" is also a narrative about malfunctioning robots and children who have been kidnapped for the purposes of ghost dubbing.
18. Oshii Mamoru and Yamada Masaki, "Afterword: Masaki Yamada and Mamoru Oshii on *Innocence*," in *Ghost in the Shell 2: Innocence: After the Long Goodbye*, ed. Yamada Masaski (San Francisco: Viz Media, 2005), 196.
19. "Glossary of Terms," in Oshii, *Ghost in the Shell 2: Innocence Ani-Manga*, 4:2.
20. Dani Cavallaro, *The Cinema of Mamoru Oshii: Fantasy, Technology and Politics* (Jefferson, NC: McFarland & Company, 2006), 238.
21. In the same montage sequence, we also see a store mannequin who looks like Kusanagi. Insofar as a shadow of the canal boat upon which Kusanagi is riding appears reflected in the window containing the Kusanagi-type mannequin as it passes by, this is most likely a point-of-view shot for Kusanagi.
22. The soundtrack for *Ghost in the Shell 2* is composed by the incomparable Kawai Kenji, with whom Oshii frequently works.
23. However, Christopher Bolton argues that, as the Puppet Master explains his rationale for the proposed merger with Kusanagi, he "leads her on a figurative walk through time, arguing for a version of evolutionary history in which humans and machines are virtually indistinguishable. . . . [T]hrough analogy with the puppet theater, we can regard the words of the Puppet Master (itself a piece of code, a being of language) as a kind of *michiyuki*, highlighting the power of words alone to bring about the pair's transformation." See Christopher Bolton, "From Wooden Cyborgs to Celluloid Souls: Mechanical Bodies in Anime and Japanese Puppet Theater," *positions* 10, no. 3 (Winter 2002): 764.
24. Oshii and Yamada, "Afterword," 195.
25. On *dashi karakuri ningyō*, see Alan Scott Pate, *Ningyō: The Art of the Japanese Doll* (Boston: Tuttle, 2005), 229–30.
26. Ueno Toshiya, "Japanimation and Techno-Orientalism," in *The Uncanny: Experiments in Cyborg Culture*, ed. Bruce Grenville (Vancouver: Arsenal Pulp Press, 2001), 223–31.
27. Ueno Toshiya, "The Shock Projected onto the Other: Notes on *Japanimation and Techno-Orientalism*," in *The Uncanny: Experiments in Cyborg Culture*, ed. Bruce Grenville (Vancouver: Arsenal Pulp Press, 2001), 234–35.
28. "Interview with Director Mamoru Oshii," *Abaron*, dir. Oshii Mamoru (2001); translated as *Avalon*, subtitled DVD (Burbank, CA: Miramax Home Entertainment, 2003) (translation altered). For further discussion of these issues in terms of anime's "a-national" (*mukokuseki*) quality, see my essay "Screening Anime," in *Cinema Anime: Critical Engagements with Japanese Animation*, ed. Steven T. Brown (New York: Palgrave Macmillan, 2006), 1–19. Also see Sharalyn Orbaugh on "the permeability of boundaries in the posthuman city." See Orbaugh, "Frankenstein and the Cyborg Metropolis," 101.
29. Thea von Harbou evokes a similar liminality in the epigram to her novelized version of *Metropolis* (1926): "This book is not of today or of the future. It tells of no place. . . . It has grown on the pillar of understanding." Tom Gunning reads this "no-time, no place" as opening *Metropolis* "into the realm of significance and instruction: the mode of allegory." On Thea von Harbou's epigram and Gunning's interpretation, see Tom Gunning, *The Films of Fritz Lang: Allegories of Vision and Modernity* (London: British Film Institute, 2000), 54.

30. Oshii, *Ghost in the Shell 2: Innocence Ani-Manga*, 3:3.
31. A number of the surrealistic scenes in Kim's mansion were inspired by the work of American photographers Jerry Uelsmann and Arthur Tress. According to the director's annotations to the storyboards for *Ghost in the Shell 2*, Oshii consulted the following collections by Uelsmann: *Uelsmann: Process and Perception* (Gainesville: University Presses of Florida, 1985), *Jerry Uelsmann: Photo Synthesis* (Gainesville: University Press of Florida, 1992), and *Uelsmann/Yosemite* (Gainesville: University Press of Florida, 1996). On the photography of Arthur Tress, see Richard Lorenz, *Arthur Tress: Fantastic Voyage: Photographs 1956–2000* (Boston: Little Brown, 2001).
32. On the origins of the Golem tale in Jewish legend, see Angelo S. Rappoport, *The Folklore of the Jews* (London: Soncino Press, 1937), 195–203.
33. Bolton, "From Wooden Cyborgs to Celluloid Souls," 730. Also see Susan J. Napier, *Anime from "Akira" to "Howl's Moving Castle": Experiencing Contemporary Japanese Animation* (New York: Palgrave Macmillan, 2005), 103–16.
34. Bolton, "From Wooden Cyborgs to Celluloid Souls," 742.
35. Ibid., 748.
36. Ibid., 748–49.
37. Ibid., 753.
38. Oshii, *Ghost in the Shell 2: Innocence Ani-Manga*, 2:148–49.
39. See "Glossary of Terms" in Oshii, *Ghost in the Shell 2: Innocence Ani-Manga*, 3:2.
40. Shirow, *Ghost in the Shell*, 97.
41. See Christopher Bolton: "But in the film [*Ghost in the Shell*], thoughts too are subject to the invasions of technology, and this reduction of the self to disembodied information produces both the freedoms and the threats that Haraway predicts. The major can send her consciousness out into the virtual world of the data network through a plug in the back of her neck; but others can enter her thoughts through the same doorway, and minds as well as memories can be manipulated over the network" ("From Wooden Cyborgs to Celluloid Souls," 733–34).
42. Andrew Bennett and Nicholas Royle, *An Introduction to Literature, Criticism, and Theory*, 3rd ed. (Harlow, UK: Pearson Longman, 2004), 38. See also Freud, "The 'Uncanny,'" 234; Royle, *The Uncanny*, 256–76.
43. The trash collector was a puppet used to ghost hack government officials.
44. *The Dhammapada*. Spoken by Aramaki.
45. *The Analects of Confucius*. Spoken by Kim.
46. Psalms 139. Spoken by Togusa.
47. John Milton's *Paradise Lost*, Book 1 (ll. 301–2). Spoken by Togusa.
48. Zeami, *Kakyō*, in *Zeami, Zenchiku*, ed. Omote Akira and Katō Shūichi, in *Nihon shisō taikei*, vol. 24 (Tokyo: Iwanami Shoten, 1974), 100.
49. Epigraph to "The Inspector-General." Spoken by Batou.
50. *L'Homme machine*. Spoken by Batou.
51. Richard Dawkins, *The Extended Phenotype: The Gene as the Unit of Selection* (Oxford: Freeman, 1982). Spoken by Batou.
52. This poem also appears in the late fourteenth-century Rinzai Zen text, *Gettan oshō hōgo* (Priest Gettan's Buddhist sermons). According to noh scholars Omote Akira and Katō Shūichi, the medieval pronunciation would have been

a little different: "*Shōji korai hōtō no kwairai issen tayuru toki raku raku rai rai*." See Omote Akira and Katō Shūichi, eds., *Zeami, Zenchiku*, in *Nihon shisō taikei*, vol. 24 (Tokyo: Iwanami Shoten, 1974), 100.

53. Oshii Mamoru, "*Inosensu*" *Methods: Oshii Mamoru enshutsu nōto* (Tokyo: Kadokawa Shoten, 2005), 12.
54. Oshii on the audio commentary to *Ghost in the Shell 2: Innocence* DVD.
55. On Zeami's citation of verses from Gettan's homilies, see Tom Hare, trans., *Zeami: Performance Notes* (New York: Columbia University Press, 2008), 115–16, 115n36, 211–12.
56. Hare, *Zeami*, 115. Compare Mark Nearman, "*Kakyō*: Zeami's Fundamental Principles of Acting (Part Two)," *Monumenta Nipponica*, 37, no. 4 (Winter 1982): 489.
57. Nearman, "*Kakyō*," 490.
58. Peder Grøngaard, "For Ever Godard: Two or Three Things I Know about European and American Cinema," *p.o.v.* 12 (December 2001), http://pov.imv.au.dk/Issue_12/section_1/artc5A.html (accessed September 10, 2006). On the classical Hollywood style, see David Bordwell, Janet Staiger, and Kristin Thompson, *The Classical Hollywood Cinema* (New York: Columbia University Press, 1985); and Miriam Bratu Hansen, "The Mass Production of the Senses: Classical Cinema as Vernacular Modernism," *Modernism/Modernity* 6, no. 2 (1999): 59–77.
59. Jean-Luc Godard, *A Woman Is a Woman; A Married Woman; Two or Three Things I Know about Her: Three Films* (London: Lorrimer, 1975), 153.
60. John Conomos, "Only the Cinema," *Senses of Cinema* 14 (June 2001), http://archive.sensesofcinema.com/contents/01/14/godard_conomos.html (accessed February 14, 2010).
61. Grøngaard, "For Ever Godard."
62. Jean Narboni and Tom Milne, eds., *Godard on Godard: Critical Writings by Jean-Luc Godard* (London: Secker and Warburg, 1972), 173.
63. Oshii Mamoru at the press conference for *Ghost in the Shell 2: Innocence*, which occurred at the Cannes Film Festival on May 20, 2004. See http://www.festival-cannes.fr/films/fiche_film.php?langue=6002&id_film=4200520 (accessed August 25, 2004; site now discontinued).
64. In *The Cinema of Mamoru Oshii: Fantasy, Technology and Politics*, Dani Cavallaro recognizes that Oshii's use of intertextuality is derived from Godard but does not explore the larger philosophical implications of such a technique in the context of the film's extended engagement with *ningyō*. See Cavallaro, *The Cinema of Mamoru Oshii*, 202.
65. Gilles Deleuze quoted in Michel Foucault and Gilles Deleuze, "Intellectuals and Power," in *Language, Counter-memory, Practice: Selected Essays and Interviews by Michel Foucault*, ed. Donald F. Bouchard (Ithaca, NY: Cornell University Press, 1977), 206.
66. Roland Barthes, *S/Z*, trans. Richard Miller (New York: Hill and Wang, 1974), 10.
67. Oshii, "*Inosensu*" *Methods*, 4.
68. Scott Bukatman, *Terminal Identity: The Virtual Subject in Postmodern Science Fiction* (Durham, NC: Duke University Press, 1993), 66–67.

69. Pate, *Ningyō*, 229. For this and other details concerning *karakuri ningyō*, I am indebted to Pate, *Ningyō*, 224–30; Morishita Misako, *Edo no biishiki* (Tokyo: Shinyōsha, 1988), 160–90; Nishimura Shigenaga and Takeda Ōmi, *Ōkarakuri ezukushi* (Tokyo: Yoneyamado, 1933); and Tagaya Kanchusen et al., *Karakuri kinmo kagamigusa* (Tokyo: Kowa Shuppan, 1976).
70. Marian Ury, trans., *Tales of Times Now Past* (Berkeley: University of California Press, 1979), 142.
71. Recorded in *Kanmon gyōki* (Diary of things seen and heard), quoted in Pate, *Ningyō*, 224.
72. Pate, *Ningyō*, 229. On automata in China in the third and fourth centuries BCE, see Bruce Mazlish, *The Fourth Discontinuity: The Co-Evolution of Humans and Machines* (New Haven, CT: Yale University Press, 1993), 32–33.
73. Pate, *Ningyō*, 224.
74. Morishita, *Edo no biishiki*, 187–88, quoted in Yamaguchi Masao, "*Karakuri*: The Ludic Relationship between Man and Machine in Tokugawa Japan," in *Japan at Play: The Ludic and the Logic of Power*, ed. Joy Hendry and Massimo Raveri (London: Routledge, 2002), 74.
75. Production notes for *Ghost in the Shell 2*. See especially Yotsuya's life-sized doll made of wood, paper, and glass, titled "Otoko" (Man, 2000), at http://www.simon-yotsuya.net/oeuvre/galerie17.htm (accessed February 14, 2010).
76. See "Dolls of Innocence" Exhibition Web site at http://www.simon-yotsuya.net/information/dolls-of-innocence.htm (accessed February 14, 2010).
77. Bennett and Royle, *An Introduction*, 36–37. Also see Freud, "The 'Uncanny,'" 226–27. A similar uncanniness is evoked when the face of Coroner Haraway, who appears to be an organic human, opens up to reveal hidden mechanisms.
78. Bennett and Royle, *An Introduction*, 39.
79. See ibid., 39. For an interesting analysis of the figure of the doppelgänger and the "mechanical uncanny" in the detective fiction of Yumeno Kyūsaku (1889–1936), see Miri Nakamura, "Horror and Machines in Prewar Japan: The Mechanical Uncanny in Yumeno Kyūsaku's *Dogura magura*," in *Robot Ghosts and Wired Dreams: Japanese Science Fiction from Origins to Anime*, ed. Christopher Bolton, Istvan Csicsery-Rony, Jr., and Takayuki Tatsumi (Minneapolis: University of Minnesota Press, 2007), 3–26.
80. Production notes for *Ghost in the Shell 2*. Also see Oshii Mamoru, "*Inosensu*" *sōsaku nōto: Ningyō, kenchiku, shintai no tabi+taidan* (Tokyo: Tokukan Shoten, 2004), 26–28.
81. Production notes for *Ghost in the Shell 2*.
82. Ibid.
83. Ibid.
84. I am referring to Marcel Duchamp's *Fountain* (1917) and Andres Serrano's *Piss Christ* (1987).
85. Quoted in Michael Semff and Anthony Spira, "Introduction," in *Hans Bellmer*, ed. Michael Semff and Anthony Spira (Ostfildern, Germany: Hatje Cantz Publishers, 2006), 9.
86. Quoted in Peter Webb with Robert Short, *Hans Bellmer* (London: Quartet Books, 1985), 29.
87. For examples of the first doll, see Hans Bellmer, *The Doll*, trans. Malcolm Green (London: Atlas Press, 2005), 45–54; Semff and Spira, eds., *Hans Bellmer*, 72–78;

and Sue Taylor, "Hans Bellmer in the Art Institute of Chicago: The Wandering Libido and the Hysterical Body," http://www.artic.edu/reynolds/essays/taylor (accessed August 17, 2006).

88. Quoted in Agnès de la Beaumelle and Laure de Buzon-Vallet, "Chronology," in *Hans Bellmer*, ed. Michael Semff and Anthony Spira, 236.
89. Ibid, 233. See Hoffmann, "The Sandman."
90. Both Therese Lichtenstein and Malcolm Green have questioned this "origin myth" insofar as Bellmer had already started preliminary drawings for the doll before he saw the opera. See Therese Lichtenstein, *Behind Closed Doors: The Art of Hans Bellmer* (Berkeley: University of California Press, 2001), 21; and Malcolm Green, "Introduction," in Hans Bellmer, *The Doll*, trans. Malcolm Green, 16.
91. From the curator's introduction to an exhibit of Hans Bellmer's photography held at the International Center of Photography, March 29 to June 10, 2001, which is probably the exhibit of Bellmer's work to which Oshii refers in his production notes. See Therese Lichtenstein, "Behind Closed Doors: The Art of Hans Bellmer," http://museum.icp.org/museum/exhibitions/bellmer/intro1.html (accessed September 5, 2006).
92. Sue Taylor, "Hans Bellmer in the Art Institute of Chicago: The Wandering Libido and the Hysterical Body." For examples of the second doll, see Bellmer, *The Doll*, trans. Malcolm Green, 73–101; Semff and Spira, eds., *Hans Bellmer*, 88–101; and Taylor, "Hans Bellmer in the Art Institute of Chicago." A selection of Bellmer's photographs of both dolls is available online at "Hans Bellmer," http://www.moma.org/collection/browse_results.php?criteria=O%3AAD%3AE%3A452&page_number=0&template_id=6&sort_order=1 (accessed February 14, 2010) and "Dolls of Hans Bellmer," http://www.angelfire.com/in2/belmer/ (accessed July 29, 2007).
93. Lichtenstein, "Behind Closed Doors."
94. Bellmer, *The Doll*, trans. Malcolm Green, 40.
95. According to Bellmer and his cohorts, he "aimed from the very beginning at revealing the 'physical unconscious.'" See Green, "Introduction," 16; Peter Webb, *The Erotic Arts* (London: Secker and Warburg, 1983), 366–70; and Webb and Short, *Hans Bellmer*, 38.
96. Bellmer describes the mechanism as follows: "Inside the hollow at the centre of this circular arrangement is a swivelling mirror set at 45° to the perpendicular. The horizontal axis of rotation passes through the body at exactly the level of the navel, which acts as a peep-hole. The whole is operated by a button in the left breast. The slanting mirror, which reflects the panorama opposite it at that moment, revolves by one sixth of the circumference at the press of the button. The next bulb lights up and the next image appears." See Bellmer, *The Doll*, trans. Malcolm Green, 41–42.
97. Quoted in de la Beaumelle and de Buzon-Vallet, "Chronology," 234.
98. Pierre Dourthe, *Bellmer: Le Principe De Perversion* (Paris: J.-P. Faur, 1999), 40, quoted in de la Beaumelle and de Buzon-Vallet, "Chronology," 233.
99. de la Beaumelle and de Buzon-Vallet, "Chronology," 237.
100. Quoted in Agnès de la Beaumelle, "Hans Bellmer: The Stakes at Play in Drawing *Les Jeux de la poupée*," in *Hans Bellmer*, ed. Michael Semff and Anthony Spira, 35.
101. Hans Bellmer, *The Doll*, trans. Malcolm Green, 133.

102. Green, "Introduction," 17.
103. Sigrid Schade, quoted in *REAL TEXT: Denken am Rande des Subjekts*, ed. George Schöllhammer and Christian Kravagna (Klagenfurt: Ritter, 1993), 252.
104. Semff and Spira, "Introduction," 10.
105. Bellmer, *The Doll*, trans. Malcolm Green, 125. Also see Webb and Short, *Hans Bellmer*, 196; Green, "Introduction," 20–21.
106. Bellmer, *The Doll*, trans. Malcolm Green, 125.
107. Ibid., 41, 45–48.
108. Lichtenstein, "Behind Closed Doors."
109. Sidra Stich, *Anxious Visions: Surrealist Art* (Berkeley: University Art Museum, 1990), 51.
110. As Agnès de la Beaumelle comments, "By creating *Die Puppe* (*The Doll*), Bellmer was of course perpetuating the unusual vogue for mannequins, automata, puppets, marionettes and dolls that flourished in Europe, and particularly in Germany, between 1910 and 1920, in response to the horrors of the First World War." See de la Beaumelle, "Hans Bellmer," 33. Also compare Hal Foster, *Compulsive Beauty* (Cambridge, MA: MIT Press, 1993), 136.
111. de la Beaumelle, "Hans Bellmer," 34.
112. Wieland Schmied, "The Engineer of Eros," in *Hans Bellmer*, ed. Michael Semff and Anthony Spira, 15. Also see de la Beaumelle, "Hans Bellmer," 37.
113. Roger Caillois, "The Praying Mantis: From Biology to Psychoanalysis," in *The Edge of Surrealism: A Roger Caillois Reader*, ed. Claudine Frank (Durham, NC: Duke University Press, 2003), 78–79.
114. Bellmer, *The Doll*, trans. Malcolm Green, 36.
115. de la Beaumelle, "Hans Bellmer," 41.
116. Ibid., 35; de la Beaumelle and de Buzon-Vallet, "Chronology," 235, 237.
117. de la Beaumelle and de Buzon-Vallet, "Chronology," 237.
118. Ibid., 237.
119. Schmied, "The Engineer of Eros," 22.
120. Ibid., 24; de la Beaumelle, "Hans Bellmer," 37.
121. de la Beaumelle, "Hans Bellmer," 42.
122. Jean Laplanche and J.-B. Pontalis, *The Language of Psycho-Analysis*, trans. Donald Nicholson-Smith (New York: Norton, 1973), 301.
123. Bellmer, *The Doll*, trans. Malcolm Green, 108, 112.
124. Rosalind E. Krauss and Yve-Alain Bois, "Part Object," in *Formless: A User's Guide*, ed. Yve-Alain Bois and Rosalind Krauss (New York: Zone Books, 1997), 156.
125. Taylor, "Hans Bellmer in the Art Institute of Chicago."
126. Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia*, trans. Robert Hurley, Mark Seem, and Helen R. Lane (Minneapolis: University of Minnesota Press, 1983), 47.
127. Ibid., 1.
128. Bellmer, *The Doll*, trans. Malcolm Green, 112.
129. Ibid., 127.
130. Ibid., 150.
131. Green, "Introduction," 15.
132. Quoted in de la Beaumelle and de Buzon-Vallet, "Chronology," 233.

133. Semff and Spira, "Introduction," 9. Also see Lichtenstein, *Behind Closed Doors*, 5–6, 16–17, 127–28, 137–38, 159–60.
134. Lichtenstein, *Behind Closed Doors*, 159–60.
135. Ibid., 131–35.
136. de la Beaumelle and de Buzon-Vallet, "Chronology," 238.
137. See de la Beaumelle, "Hans Bellmer," 35. Multiplication is also at work in the proliferation of gynoid doubles on the Locus Solus factory ship. Bellmer engaged the problem of the doppelgänger not only through the doubling of the doll's body but also through the sheer number of doll photos that he shot, suggesting a proliferation of dolls through repeated variation.
138. Walter Benjamin, "Paris, the Capital of the Nineteenth Century," in *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Belknap Press, 1999), 8. On cyberpunk's "desire *for* machines" and technofetishism, see Thomas Foster, *The Souls of Cyberfolk: Posthumanism as Vernacular Theory* (Minneapolis: University of Minnesota Press, 2005), 81–114. Also see Part II of this study, "Desiring Machines: Biomechanoid Eros and Other Techno-Fetishes in *Tetsuo: The Iron Man* and Its Precursors."
139. Oshii, "*Inosensu*" *Methods*, 52.
140. Created with pencil and white gouache on paper, 30 × 25 cm in size. See Semff and Spira, eds., *Hans Bellmer*, 11, fig. 1.
141. Ibid., 10.
142. Ibid., 12.
143. de la Beaumelle and de Buzon-Vallet, "Chronology," 237.
144. Green, "Introduction," 26–29. It is this reversibility that also interested Bellmer in the universal joint or ball joint: "The idea of a body that is isolated from all outside forces except gravity seems the perfect symbol of egocentricity; yet curiously it is reversible. Rather than the object being suspended at the centre of a system of rings connected to the outside world by its periphery, the outside world can be put at the centre of this system in place of the object, and thus the object at the periphery. . . . [T]he ring system is located between two fundamentally conflicting demands, it tends both towards concentricity and eccentricity." See Bellmer, *The Doll*, trans. Malcolm Green, 60–61.
145. Taylor, *Hans Bellmer*, 28.
146. Ibid.
147. de la Beaumelle, "Hans Bellmer," 45.
148. Semff and Spira, "Introduction," 10.
149. For examples from the collection at La Specola that bear a striking resemblance to the self-rending girl in Bellmer's *Rose ouverte la nuit* and Oshii's suicidal gynoid in *Ghost in the Shell 2*, see Monika von Düring, Marta Poggesi, and Georges Didi-Huberman, *Encyclopaedia Anatomica: Museo La Specola Florence* (Cologne: Taschen, 2006), 72–79.
150. de la Beaumelle, "Hans Bellmer," 35.
151. See Hans Bellmer, *The Doll* (Tokyo: Treville Co., 1995).
152. In his press release for Cannes, Oshii opined, "This movie does not hold the view that the world revolves around the human race. Instead, it concludes that all forms of life—humans, animals, and robots—are equal. . . . What we need today is not some kind of anthropocentric humanism. Humanity has reached its limits."

153. Although some of the gynoids in *Ghost in the Shell 2*, particularly those without hair that are suspended in Coroner Haraway's lab, seem to bear more than a passing resemblance to the amorous androids made famous in Björk's acclaimed 1999 music video "All Is Full of Love" (dir. Chris Cunningham), Oshii has indicated that the gynoids were inspired by the work of Hans Bellmer and Yotsuya Simon. On Björk's "All Is Full of Love," see http://www.director-file.com/cunningham/bjork.html (accessed February 14, 2010).
154. Gaby Wood, *Edison's Eve: A Magical History of the Quest for Mechanical Life* (New York: Anchor Books, 2003), 3–7.
155. Oshii and Maskaki, "Afterword," 193.
156. Compare Christine Boyer and Dani Cavallaro on the "mass-production of identity." M. Christine Boyer, *CyberCities: Visual Perception in the Age of Electronic Communication* (New York: Princeton Architectural Press, 1996), 108; and Dani Cavallaro, *Cyberpunk and Cyberculture: Science Fiction and the Work of William Gibson* (London: Athlone Press, 2000), 108.
157. Saitō Ryokuu, *Ryokuu keigo* (Tokyo: Fuzanbō, 1991), 75 (translation mine). Compare Cavallaro in *The Cinema of Mamoru Oshii*, who notes, "Oshii has posited the image of the mirror as a symbol of self-absorption and, by extension, egoism and accordingly furnished Kim's mansion with a plethora of reflective surfaces, including marble and polished gold" (211). On the "de-realising role" of the mirror in Bellmer, see de la Beaumelle, "Hans Bellmer," 35.
158. Friedrich Nietzsche, *The Gay Science*, trans. Walter Kaufmann (New York: Vintage Books, 1974), section 374.
159. Oshii and Masaki, "Afterword" 190.
160. Ibid., 192.
161. Ibid., 193–94. Compare the Japanese sociocultural phenomenon of male *otaku* falling in love with two-dimensional anime and video game characters. See Lisa Katayama, "Love in 2-D," *New York Times*, July 21, 2009, http://www.nytimes.com/2009/07/26/magazine/26FOB-2DLove-t.html (accessed February 14, 2010).
162. The sword was originally called "*Ame Murakumo no Tsurugi*," or "Sword of Billowing Clouds."
163. On the figure of the vanishing woman in relation to the emergence of new visual technologies in the nineteenth and twentieth centuries and anxieties about the female body, see Karen Beckman, *Vanishing Women: Magic, Film, and Feminism* (Durham, NC: Duke University Press, 2003).
164. Oshii and Masaki, "Afterword," 190–91.
165. In the scene of Batou feeding his basset hound, it is hard not to be reminded of similar scenes involving the character of Ash and her pet basset in Oshii's live-action cyberpunk film *Avalon* (2001). Like Ash, after lovingly preparing his dog's food, Batou first tastes it, as a mother might do for her baby.
166. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 242–43, 257–60. For a different take on becoming-animal, see Azuma Hiroki's critique of animalized *otaku* culture in *Otaku: Japan's Database Animals*, trans. Jonathan E. Abel and Shion Kono (Minneapolis: University Of Minnesota Press, 2009), 86–95.
167. Deleuze and Guattari, *A Thousand Plateaus*, 273–74.

168. Ibid., 258, 273, quoting René Schérer and Guy Hocquenghem, "Co-ire," *Recherche* 22 (1976): 76–82.
169. Donna Haraway, "Cyborgs to Companion Species: Reconfiguring Kinship in Technoscience," in *The Haraway Reader* (New York: Routledge, 2004), 315–16.
170. Lisa Bode, "Oshii's Redemptive Pets and Killer Puppets," http://www.realtimearts.net/article/65/7737 (accessed February 14, 2010).
171. On posthumanism's problematization of the binary opposition between human and animal, see Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (Chicago: University of Chicago Press, 2003); Bruce Braun, "Modalities of Posthumanism," *Environment and Planning A* 36, part 8 (2004): 1352–53.
172. Here my interpretation differs from that of Orbaugh in "Emotional Infectivity," who concludes that "the emotion that remains in a cyborg or android context is precisely what will keep us 'human' even after our bodies have become mostly or entirely artificial" (150).
173. Gilles Deleuze and Félix Guattari, *Kafka: Toward a Minor Literature*, trans. Dana Polan (Minneapolis: University of Minnesota Press, 1986), 22.

Part II

1. From the marketing materials for *Tetsuo*, dir. Tsukamoto Shin'ya (1989); translated as *Tetsuo: The Iron Man*, subtitled DVD (London, UK: Tartan Video, 2005).
2. On the collision of the Gothic and the modern in *Metropolis* and the figure of Rotwang, see Tom Gunning, *The Films of Fritz Lang: Allegories of Vision and Modernity* (London: British Film Institute, 2000), 64–65.
3. Thea von Harbou, who wrote the novel upon which the screenplay for *Metropolis* was based, was influenced by literary representations of an earlier robot woman named Hadaly from the nineteenth-century science fiction novel *L'Eve future* (*Future Eve*, 1886) by French symbolist writer Auguste Villiers de l'Isle-Adam. In Harbou's novel, the robot woman is named Futura. See Gunning, *The Films of Fritz Lang*, 65, 67.
4. That there is an Orientalist dimension to the Yoshiwara Nightclub is undeniable. As Dietrich Neumann has suggested, "It is no coincidence that 'Yoshiwara,' the name of Tokyo's red-light district, was chosen for this temple of vice; Thea von Harbou's novel [upon which the screenplay for *Metropolis* was based] contains numerous openly racist allusions to Asians being connected to gambling, crime, and prostitution" (153). Indeed, the inhabitants who occupy the public spaces of the Metropolis above ground are predominantly affluent, adult, white German males. No other ethnic groups or races are seen above ground except for the black slaves holding up the dais upon which robot Maria dances in the Yoshiwara Nightclub. In other words, the only nonwhite associations in *Metropolis* are negative ones, which reinforced contemporaneous German racist and Orientalist attitudes that circulated in the ideologically charged 1920s and 1930s. See Dietrich Neumann, "The Urbanistic Vision of *Metropolis*," in *Dancing on the Volcano: Essays on the Culture of the Weimar Republic*, ed. Thomas W. Kniesche and Stephen Brockmann (Columbia, SC: Camden House, 1994), 143–62.

5. Gunning, *The Films of Fritz Lang*, 71–72.
6. Some of the most famous examples of the Surrealist fascination with the subversive potential of eyes include Luis Buñuel and Salvador Dalí's collaboration *Un chien andalou* (An Andalusian dog, 1929), Salvador Dalí's *Le Jeu lugubre* (The lugubrious game, 1929), René Magritte's *Le Faux Miroir* (The false mirror, 1928), Claude Cahun's *Object* (1936), and Guillermo Meza's *Ojos-paranoia* (Eyes-paranoia, 1941). See Sidra Stich, *Anxious Visions: Surrealist Art* (Berkeley: University Art Museum, 1990), 32, 128, 227.
7. Georges Bataille, "Eye," in *Visions of Excess: Selected Writings, 1927–1939*, ed. Allan Stoekl (Minneapolis: University of Minnesota Press, 1985), 17.
8. Compare Marxist theoretician Nikolai Bukharin's (1888–1938) critique of the "destroy the machines"-style of Luddite protest in his essay "Anarchy and Scientific Communism" (1918): "Of course, there was a time in the labour movement when the workers were not yet clear on the difference between the machine as a means of production and the machine as capital, that is, as a means of oppression. Nonetheless, at that time the workers tended not to do away with private ownership of the machines, but to *destroy the machines* themselves, so as to return to primitive manual means of labour." See Nikolai Bukharin, "Anarchy and Scientific Communism," in *The Poverty of Statism*, trans. Paul Sharkey (Sanday, UK: Cienfuegos Press, 1981), 4 (emphasis added).
9. See Andreas Huyssen, "The Vamp and the Machine: Fritz Lang's *Metropolis*," in *Fritz Lang's "Metropolis": Cinematic Visions of Technology and Fear*, ed. Michael Minden and Holger Bachmann (Rochester, NY: Camden House, 2000), 198–215.
10. Gunning, *The Films of Fritz Lang*, 64–68, 71.
11. Ibid., 82.
12. See Sorayama Hajime, *Sexy Robot* (Tokyo: Genkōsha Publishing Co., 1983). The term "sexy robot" was first coined to describe the work of Sorayama Hajime.
13. Mes, *Iron Man*, 60.
14. See Tom Mes, "Review of *Tetsuo: The Iron Man*" at MidnightEye, http://www.midnighteye.com/reviews/tetsuoim.shtml (accessed October 23, 2007).
15. In his essay on *Tetsuo*, Andrew Grossman mentions in passing how much *Tetsuo* owes to "the discontinuously edited Surrealism of the 1920s" but does not explore the connection further. See Andrew Grossman, "*Tetsuo/The Iron Man* and *Tetsuo 2/ Tetsuo 2: Body Hammer*," in *The Cinema of Japan & Korea*, ed. Justin Bowyer (London: Wallflower, 2004), 140.
16. Antonin Artaud quoted in Stephen Barber, *Antonin Artaud: Blows and Bombs* (London: Faber and Faber, 1993), 36.
17. Stich, *Anxious Visions*, 227.
18. Ibid.
19. Luis Buñuel quoted in Robert Short, "Un Chien Andalou," in *The Age of Gold: Surrealist Cinema*, ed. Robert Short (London: Creation Books, 2003), 61. On the history of the dream metaphor in relation to film, see Laura Rascaroli, "Like a Dream: A Critical History of the Oneiric Metaphor in Film Theory," *Kinema* (Fall 2002), http://www.kinema.uwaterloo.ca/article.php?id=141&feature (accessed February 16, 2010).
20. Luis Buñuel, *My Last Breath* (London: Jonathan Cape, 1985), 103–4.

21. Stich, *Anxious Visions*, 227. In this connection, it has been suggested that the discontinuous, antinarrative editing style of *Un chien andalou* anticipates by more than fifty years the development of contemporary music videos in the 1980s. See Ken Dancyger, *The Technique of Film and Video Editing: History, Theory, and Practice* (Boston: Focal Press, 2002), 185.
22. Short, "Un Chien Andalou," 94–95.
23. Jean Goudal, "Surrealism and Cinema," in *The Shadow & Its Shadow: Surrealist Writings on the Cinema*, ed. Paul Hammond (San Francisco: City Lights Books, 2000), 93. Goudal's essay, which was originally published in *La Revue hebdomadair* in February 1925, was read by Buñuel before he made *Un chien andalou* and is said to have influenced his conception of surrealist cinema.
24. Short, "Un Chien Andalou," 72. Short also points out how these fragmented body parts, superimposed onto the face, anticipate René Magritte's painting *Le Viol* (The rape, 1934). See Richard Abel, *French Cinema: The First Wave, 1915–1929* (Princeton, NJ: Princeton University Press, 1984), 485.
25. Also see Gérard Legrand's engagement with fetishism and film fragments in his essay "Female × Film = Fetish": "It was a stroke of genius on the part of Krafft-Ebbing . . . to propose the word 'fetishism,' drawn from the history of religion, to designate the ritual passion applied to some part of the body or detail of dress which can go as far as substituting these for all other sexual objects. This passion corresponds to the ancient magical recipe according to which 'the part entails the whole.' I see no reason not to use this word to describe the motivations that draw us toward such and such a film. . . . This would explain why many a lover of cinema is so easily and completely satisfied by film fragments." See Gérard Legrand, "Female × Film = Fetish," in *The Shadow & Its Shadow*, 203.
26. Short, "Un Chien Andalou," 58.
27. Ibid.
28. Roger Ebert, "Review of *Un Chien Andalou* (1928)," http://rogerebert.suntimes.com/apps/pbcs.dll/article?AID=/20000416/REVIEWS08/401010369/1023 (accessed April 14, 2008).
29. Short, "Un Chien Andalou," 92, 94.
30. Richard Scheib, "Review of *Tetsuo: The Iron Man*," http://www.moria.co.nz/sf/tetsuo.htm (accessed April 17, 2008).
31. Stephen Holden, "Forgoing the Flesh For Metallic Pleasures," *New York Times*, April 22, 1992, http://movies.nytimes.com/movie/review?res=9E0CE6D61230F931A15757C0A964958260&scp=1&sq=Forgoing%20the%20Flesh%20For%20Metallic%20Pleasures&st=cse (accessed February 14, 2010).
32. Shakespeare, *Macbeth*, 5.5.26–28.
33. The series title derives from Tsukamoto's first film, *The Phantom of Regular Size* (*Futsu saizu no kaijin*, 1986).
34. On the postindustrial landscapes in *Tetsuo*, see Ian Conrich, "Metal-Morphosis: Post-Industrial Crisis and the Tormented Body in the *Tetsuo* Films," in *Japanese Horror Cinema*, ed. Jay McRoy (Honolulu: University of Hawai'i Press, 2005), 100–102.
35. For an interesting alternative reading of the politics of skin color in *Tetsuo*, see Takayuki Tatsumi, *Full Metal Apache: Transactions Between Cyberpunk Japan and Avant-Pop America* (Durham, NC: Duke University Press, 2006), 151–70. Tatsumi reads the figure of the metal fetishist as a reinscription of the postwar literary

history of the Japanese Apache in relation to three novels: Kaikō Ken's *Nihon sanmon opera* (Japanese three penny opera, 1959), Komatsu Sakyō's *Nihon apatchi zoku* (Japanese Apache tribe, 1964), and Yang Sok Il's *Yoru o kakete* (Through the night, 1994). Tatsumi argues that, by reiterating the figure of the Japanese Apache, *Tetsuo* "radically reproduce[s] the most uncanny fear of and fascination with the techno-Mongoloid" (169). The problem with this reading is that it ignores the iconographic function of African American athletes in the film with whom the metal fetishist clearly identifies and seeks to emulate. Whether blackness in *Tetsuo* reiterates racial stereotypes (e.g., of athletic prowess or predatory sexuality) or resists such stereotypes is open to question. Either way, the metaphorics of skin color in the film is neither innocent nor straightforward.

36. See Andy Miah, "Be Very Afraid: Cyborg Athletes, Transhuman Ideals & Posthumanity," *Journal of Evolution and Technology* 13 (October 2003), http://jetpress.org/volume13/miah.html (accessed July 24, 2008).
37. Later, the biomechanical bodies of both the metal fetishist and salaryman magnetically attract and absorb all manner of metal debris—"all the nearby accessories of the modern world—stray tools, televisions, all the electronic accessories of capitalist production," as Grossman puts it. On the importance of the metaphorics of incorporation and absorption to the biomechanical transformations that occur in *Tetsuo*, see Grossman, "*Tetsuo/The Iron Man*," 144; Conrich, "Metal-Morphosis," 99–100.
38. Also compare the role of athletic imagery—particularly bodybuilders and boxers—in *Tetsuo II: Body Hammer*. See Mes, *Iron Man*, 93.
39. See Mes, *Iron Man*, 65.
40. Mes briefly mentions the influence of H. R. Giger on the design of the Iron Man in his book-length study of Tsukamoto, as well as in his review of *Tetsuo* for Midnight Eye, but does not explore the connection further. See Mes, *Iron Man*, 51; Mes, "Review of *Tetsuo: The Iron Man*" at Midnight Eye, http://www.midnighteye.com/reviews/tetsuoim.shtml (accessed October 23, 2007).
41. In his airbrush work, Giger sprays directly onto paper without preliminary sketches or stencils in a working style that is analogous to the "automatic writing" (*écriture automatique*) made famous by the Surrealists, which aimed to bypass the censorship of consciousness (or the superego) so that images could arise from the unconscious and enter directly into art. Giger describes the process as follows: "The drawings arose spontaneously, without any prior sketch or idea. I tried to switch off my thoughts as far as possible, so as to bring the debris in my mind uncensored into the daylight. The result was a highly personal form of psychogram. . . . With time, working this instrument [the airbrush] becomes as automatic as driving a car. One becomes a mere automaton, a machine, functioning, even when one has overstepped the frontiers of lucid thought, as for example in a state of intoxication." See Giger quoted in H. R. Giger, *H. R. Giger's Retrospective, 1964–1984* (Beverly Hills, CA: Morpheus International, 1997), 48. Also see Fritz Billeter, "The Beauty and Surrealism of HR Giger," in *HR Giger: The Oeuvre Before Alien, 1961–1976*, ed. Beat Stutzer (Zurich: Scheidegger & Spiess, 2007), 75–76; Carlos Arenas, "Liberation Through Horror: Giger and the Fantastic in Art," in *HR Giger*, ed. Beat Stutzer, 29. On André Breton's famous definition of surrealism as "psychic automatism," see André Breton, *Manifestoes of Surrealism*,

trans. by Richard Seaver and Helen R. Lane (Ann Arbor: University of Michigan Press, 1969), 3–47.

42. Harlan Ellison, "Introduction," in *H. R. Giger's Biomechanics* (Beverly Hills, CA: Morpheus International, 1990), 1.
43. Beat Stutzer, "Foreword," in *HR Giger*, ed. Beat Stutzer, 8.
44. Arenas, "Liberation Through Horror," 33.
45. Billeter, "The Beauty and Surrealism of HR Giger," 74.
46. The Giger exhibit in Tokyo was held at the Seibu Museum of Art from May 29 through June 17, 1987.
47. H. R. Giger, *H. R. Giger's Biomechanics* (Beverly Hills, CA: Morpheus International, 1990), 88.
48. Contemporaneous with the Tokyo show, Giger also created designs and paintings for Jissōji Akio's live-action film *Tokyo: The Last Megalopolis* (*Teito monogatari*, 1988).
49. Giger, *H. R. Giger's Biomechanics*, 88.
50. Ibid., 90.
51. Ibid.
52. Some of the chrome-plated gynoids of Japanese illustrator Sorayama Hajime also mix flesh and metal but do so in a way that is far less disturbing (and less thought provoking) than Giger's work (or Tsukamoto's remediations of Giger). Sorayama's "sexy robots" are, basically, robot pinups and have more in common with soft porn than they do with cyberpunk per se. See Hajime, *Sexy Robot*. On Sorayama, see Thomas Foster, *The Souls of Cyberfolk: Posthumanism as Vernacular Theory* (Minneapolis: University of Minnesota Press, 2005), 98–107.
53. E-mail exchange with Tsukamoto Shin'ya, May 27, 2008. Special thanks to Tom Mes for helping make this exchange possible.
54. See Stutzer, *HR Giger*, ed. Beat Stutzer, 66–69.
55. The emphasis on womblike chambers and claustrophobic shafts and tunnels is something *Tetsuo* shares with *Alien*. As Barbara Creed writes, in *Alien*, "virtually all aspects of the *mise en scène* are designed to signify the female: womb-like interiors, fallopian-tube corridors, small claustrophobic spaces." See Creed, "Gynesis, Postmodernism and the Science Fiction Horror Film," in *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, ed. Annette Kuhn (London: Verso, 1990), 215.
56. On *Tetsuo*'s similarities to silent film, see Mes, *Iron Man*, 63.
57. Scott Bukatman, *Terminal Identity: The Virtual Subject in Postmodern Science Fiction* (Durham, NC: Duke University Press, 1993), 266–67.
58. Tsukamoto Shin'ya quoted in Mes, *Iron Man*, 59.
59. Kathleen Bühler, "Portrait of an Immortal Love: The Painting of *Li II*," in *HR Giger*, ed. Beat Stutzer, 133.
60. Ibid.
61. On Giger's relation to many of these exemplars of fantastic art, see Arenas, "Liberation Through Horror," 25–35.
62. Grossman, "*Tetsuo/The Iron Man*," 142.
63. In interviews, Tsukamoto has singled out both *Matango* and *Godzilla* as "two of my favourite films from when I was a kid." See Tsukamoto Shin'ya quoted in *Shinya Tsukamoto: La mutazione infinita di Tetsuo il fantasma di ferro*, ed. Donatello Fumarola (Rome: Minerva Pictures Group, 2004), unpaginated.

64. Ibid.
65. From David Cronenberg's rewritten screenplay. See *The Fly*, dir. David Cronenberg (1986), DVD (Beverly Hills, CA: Twentieth Century Fox Home Entertainment, 2005).
66. Burton Watson, trans., *Chuang Tzu: Basic Writings* (New York: Columbia University Press, 1964), 49.
67. On the telepods' resemblance to eggs, see Adam Knee, "The Metamorphosis of the Fly," *Wide Angle* 14, no. 1 (1992): 20–34. Taking it a step further, Helen Robbins sees in the telepod's "uterine shapes and vulvi-form glass doors . . . clear womb simulacra" and the masculine reappropriation of the maternal function (in other words, a trope for androgenesis). See Helen Robbins, "'More Human than I am Alone': Womb Envy in David Cronenberg's *The Fly* and *Dead Ringers*," in *Screening the Male: Exploring Masculinities in Hollywood Cinema*, ed. Steven Cohan and Ina Mae Hark (New York: Routledge, 1993), 137.
68. *The Fly* DVD.
69. Ibid.
70. William Beard, *The Artist as Monster: The Cinema of David Cronenberg*, rev. and expanded ed. (Toronto: University of Toronto Press, 2006), 227.
71. Tsukamoto quoted in *Shinya Tsukamoto*.
72. *The Fly* DVD.
73. The surrealist nonlinearity of *Tetsuo*'s narrative makes it difficult to sort out cause and effect, but another possible interpretation is that the piece of metal lodged in the face of the salaryman (possibly the result of the hit-and-run accident with the metal fetishist) is serving as a kind of antenna, by means of which the metal fetishist is able to infect the salaryman's thoughts and control him telekinetically (just as he does to the woman in glasses who stalks the salaryman). This scene also bears comparison with another in *The Fly*: after Seth and Ronnie first make love, he accidentally rolls over onto a small computer circuit board in bed, which becomes embedded into his back and has to be removed by Ronnie. The very first enlarged fly hairs eventually emerge from the wound caused by the metal pins of the circuit board.
74. For example, see Edward Guerrero, "AIDS as Monster in Science Fiction," *Journal of Popular Film and Television* 18, no. 3 (Fall 1990): 87–93; Knee, "The Metamorphosis of the Fly," 20–34; Eric Cazdyn, *The Flash of Capital: Film and Geopolitics in Japan* (Durham, NC: Duke University Press, 2002), 250–52. Both in his commentary track for *The Fly* and in interviews, Cronenberg has explicitly denied this interpretation: "If you think of *The Fly* as an AIDS movie, then you have to think that Geena Davis gave it to him, because he's a guy who's never been fucked before. Then, is she going to die? That's why I don't want it to be AIDS, truly." See Chris Rodley, ed., *Cronenberg on Cronenberg* (London: Faber and Faber, 1992), 127–28.
75. Compare Grossman, "*Tetsuo/The Iron Man*," 140. In a scene reminiscent of Seth Brundle's gradual loss of body parts, *Tetsuo*'s biomechanoid woman in glasses (under the remote control of the metal fetishist) loses an ear while trying to accost the salaryman. Like the fingernails and teeth of Seth Brundle that are sloughed off during the course of the film, the biomechanoid woman's ear falls off and drops into the toilet bowl, frightening the salaryman.
76. E-mail exchange with Tsukamoto Shin'ya, May 27, 2008.

77. On hypermasculinity in *The Fly*, see Beard, *The Artist as Monster*, 209–12.
78. As William Beard notes in his analysis of *The Fly*, such shame and embarrassment also play an important role in Gregor Samsa's reaction to his transformation into a giant beetle in Franz Kafka's short story, "The Metamorphosis." Ibid., 217.
79. Ibid., 202.
80. In order to distinguish the film *Videodrome* from the fictional television show of the same name that is thematized within the film, I have used italics for the former and left the latter unitalicized.
81. Beard describes the visceral color associated with the Videodrome show as "a kind of earthy, dried-blood orange-red" (ibid., 157). He points out the contrast that is set up in *Videodrome* between this dominant hue and more neutral shades—charcoals, grays, and dull blues—associated with "the rational or desexualized, non-body world" (ibid., 157).
82. Jill McGreal, "Interview with David Cronenberg," in *David Cronenberg*, BFI Dossier, no. 21, ed. Wayne Drew (London: British Film Institute, 1984), 9.
83. Quoted in Beard, *The Artist as Monster*, 121.
84. Compare Paula Uimonen, "The Internet as a Tool for Social Development," http://www.isoc.org/inet97/proceedings/G4/G4_1.HTM (accessed August 12, 2008).
85. Steven Shaviro, *The Cinematic Body* (Minneapolis: University of Minnesota Press, 1993), 138.
86. Tim Lucas, "Medium Cruel: Reflections on *Videodrome*," http://www.criterion.com/current/posts/676 (accessed February 10, 2008).
87. It is strangely fitting that the latex rubber material used by special makeup effects designer Rick Baker to create this sexually charged, swelling television-mouth effect is the same used routinely by dentists as a dental dam in endodontic therapy, as well as a safe-sex technique to protect against sexually transmitted diseases during cunnilingus and analingus. The dental dam material was covered with a highly reflective white paint so that the video of Nicki's mouth could be rear-projected onto it. See Lucas, "Medium Cruel: Reflections on *Videodrome*."
88. Friedrich Nietzsche, *Writings from the Late Notebooks*, ed. Rüdiger Bittner, trans. Kate Sturge (Cambridge: Cambridge University Press, 2003), 139 (sec. 7[60]).
89. However, Bianca contradicts Convex's assertion of the necessity of violent media by telling Max that "the Videodrome signal, the one that does the damage, it can be delivered under a test pattern, anything." Since the viewer is placed in the position of not knowing any more than Max, it is hard to say who is telling the truth. Cronenberg's conception of the Videodrome subsignal owes much to William S. Burroughs's notion of the "image-virus," as discussed in *The Soft Machine*. See William S. Burroughs, *The Soft Machine* (New York: Grove, 1961), 78. Also See Bukatman, *Terminal Identity*, 74–80; Beard, *The Artist as Monster*, 129–33.
90. Beard, *The Artist as Monster*, 141.
91. See Bukatman, *Terminal Identity*, 70, 73, 92; Mes, *Iron Man*, 63.
92. Beard, *The Artist as Monster*, 148.
93. Tim Lucas paraphrases Cronenberg's scripting of this unfilmed scene as follows: "Nicki reveals to Max a new abdominal slit of her own, and Bianca has one too, and the three of them probe one another's slits with their hands, which slip out bearing strange, mutated sexual organs emitting even stranger fluids, ending the

film on a note of moist, exploratory, sensual feasting." See Lucas, "Medium Cruel: Reflections on *Videodrome*."

94. See Cronenberg's commentary on *Videodrome*, DVD, dir. David Cronenberg (Irvington, NY: Criterion Collection, 2004).
95. Beard, *The Artist as Monster*, 139.
96. Gary Indiana, "That Slithery Sense of Unreality," in *Videodrome* booklet, included with *Videodrome* DVD, 33.
97. Beard, *The Artist as Monster*, 124.
98. Ibid., 133.
99. Ibid., 201.
100. J. G. Ballard, *Kurasshu*, trans. Yanashita Kiichiro (Tokyo: Peyotorukobo, 1992).
101. Jean Baudrillard, "Simulacra and Science Fiction," *Science Fiction Studies* 18, no. 3 (1991), http://www.depauw.edu/sfs/backissues/55/baudrillard55art.htm (accessed July 23, 2007).
102. Jean Baudrillard, "Ballard's Crash," *Science Fiction Studies* 18, no. 3 (1991). http://www.depauw.edu/sfs/backissues/55/baudrillard55art.htm (accessed July 23, 2007).
103. Ibid.
104. Tsukamoto quoted in Mes, *Iron Man*, 59.
105. Beard, *The Artist as Monster*, 137.
106. Ibid., 154. As Beard explains, "*Videodrome* establishes the standard identification practices of the cinematic apparatus at the outset (i.e., 'objective' shot of Max, 'subjective' shot of what Max is seeing, both shots having the same 'actuality' status). . . . But whatever viewer confidence is conventionally brought to the film and sustained by these means is first undermined and then shattered, as Max's perceptions of what is happening to him diverge more and more wildly from anything that could 'actually' be happening. . . . Any distinction between subjective and objective introduced by the 'first-person' editing conventions is lost, and we as viewers are now hindered rather than helped by the apparatus to make that distinction. The result is to disorient the viewer thoroughly, to blur and even erase the borders between objective external events and those of a subjective delirium. This is perhaps at once the film's boldest and its most elegant formal stroke: to represent the fantastic elements of the narrative as straightforwardly and literally as the most prosaic" (154–55).
107. In addition to the surrealism of *Videodrome*, Tsukamoto may also be referencing the oneiric structure of *Un chien andalou* (discussed earlier), Kinugasa Teinosuke's *Kurutta ichipeiji* (A Page of madness, 1926), as well as Freder's fevered hallucinations in *Metropolis*.
108. Shaviro, *The Cinematic Body*, 148.
109. Beard, *The Artist as Monster*, 127.
110. Cronenberg, *Videodrome* DVD.
111. In *Tetsuo II: Body Hammer*, the salaryman reappears with a phallic flesh-cannon that erupts out of his chest like the chestburster from *Alien*. The metal fetishist likewise displays organicized technology in the form of an arm-cannon.
112. Enrico Ghezzi, "Tetsuo, Neither Man nor Iron, Image," in *Shinya Tsukamoto*.
113. See Danielle Talerico, "Interpreting Sexual Imagery in Japanese Prints," *Impressions*: *The Journal of the Ukiyo-e Society of America* 23 (2001): 24–41.

114. On the role of "tentacle sex" in anime, see Susan J. Napier, *Anime from "Akira" to "Howl's Moving Castle": Experiencing Contemporary Japanese Animation* (New York: Palgrave Macmillan, 2005), 21, 79, 93.
115. Although Tsukamoto acknowledges the kinship of his *Tetsuo* with the Tetsuo in *AKIRA*, he claims not to have been influenced by Ōtomo Katsuhiro's manga or film (see Mes, *Iron Man*, 60). Compare Susan J. Napier, who describes Tsukamoto's *Tetsuo* as "an explicit homage" to Ōtomo's Tetsuo in *AKIRA*. See Napier, "Panic Sites: The Japanese Imagination of Disaster from *Godzilla* to *Akira*," *Journal of Japanese Studies* 19, no. 2 (1993): 341.
116. See Tony Rayns, "Tokyo Stories," *Sight and Sound* 1, no. 8 (December 1991): 12–15.
117. Grossman notes the correlation between this scene and "the tentacles that in *hentai anime* so often substitute for the taboo penis"; however, by reducing the salaryman's penetration to "an extension of the humiliated salaryman/neo-samurai 'feminisation' at the hands of Japanese technocracy and corporatism," he overlooks the connection that is being established via displacement between the metal fetishist and the salaryman, which anticipates their later fusion. See Grossman, "*Tetsuo/The Iron Man*," 143.
118. Mes, *Iron Man*, 65.
119. Elisabeth Bronfen, *Over Her Dead Body: Death, Femininity, and the Aesthetic* (New York: Routledge, 1992), 181.
120. On the metal fetishist's powers of telekinesis and telepathy, see Mes, *Iron Man*, 64.
121. See Napier, *Anime from Akira to Howl's Moving Castle*, 47.
122. Felicity J. Colman, "Rhizome," in *The Deleuze Dictionary*, ed. Adrian Parr (New York: Columbia University Press, 2005), 231–32. See Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 7–13.
123. See Janet Staiger, "Future Noir: Contemporary Representations of Visionary Cities," *East-West Film Journal* 3, no. 1 (December 1988): 20–42; Lebbeus Woods, "The Question of Space," in *Technoscience and Cyberculture*, ed. Stanley Aronowitz and others (New York: Routledge, 1996), 279–90.
124. For example, *RoboCop* (dir. Paul Verhoeven, 1987); *Bubblegum Crisis* (dir. Akiyama Katsuhito and Hayashi Hiroki, 1987); *AKIRA* (dir. Ōtomo Katsuhiro, 1988); *Battle Angel* (dir. Fukutomi Hiroshi, 1993); *Ghost in the Shell* (dir. Oshii Mamoru, 1995); *Johnny Mnemonic* (dir. Robert Longo, 1995); *The Matrix Trilogy* (dir. Andy and Lana Wachowski, 1999–2003); *Metropolis* (dir. Rintarō, 2001); *Electric Dragon 80,000V* (dir. Ishii Sōgo, 2001); and *Casshern* (dir. Kiriya Kazuaki, 2004).
125. Gilles Deleuze, "Postscript on Control Societies," in *Negotiations: 1972–1990*, trans. Martin Joughin (New York: Columbia University Press, 1995), 177–82.
126. Bukatman, *Terminal Identity*, 66–67.
127. Syd Mead quoted in Don Shay, *Blade Runner: The Inside Story* (London: Titan Books, 2000), 8 (emphasis added). Also see Dietrich Neumann, ed., *Film Architecture: Set Designs from "Metropolis" to "Blade Runner"* (Munich: Prestel, 1999), 148–59. On the city as "a dense accumulation, a sedimentation of tubes, pipes, installations and cavities" in *Tetsuo*, see Alberto Momo, "The City in Two (or Three) Strokes by Tsukamoto (Compression and Explosion)," in *Shinya Tsukamoto*. The

machine-city receives perhaps its most literal expression in *The Matrix Revolutions* (2003) when Neo negotiates a truce with the machines governing the system of the Matrix against the backdrop of a machinic city space utterly devoid of all vestiges of the organic.

128. Giger, *H. R. Giger's Biomechanics*, 28.
129. Gunning, *The Films of Fritz Lang*, 63.
130. Thea von Harbou, *Metropolis* (Rockville, MD: James A. Rock & Co., 2001), 12 (emphasis added).
131. Caroline Tisdall and Angelo Bozzolla, *Futurism* (New York: Oxford University Press, 1977), 124.
132. Quoted in Thomas Elsaesser, *Metropolis* (London: British Film Institute, 2000), 64. As Elsaesser points out, Friedell's comments anticipate both *Metropolis* and Walter Ruttmann's *Berlin—Symphony of a Big City* (*Berlin: Die Symphonie der Großstadt*, 1927).
133. Sharalyn Orbaugh, "Frankenstein and the Cyborg Metropolis: The Evolution of Body and City in Science Fiction Narratives," in *Cinema Anime: Critical Engagements with Japanese Animation*, ed. Steven T. Brown (New York: Palgrave Macmillan, 2006), 86.
134. F. T. Marinetti, "Destruction of Syntax—Imagination without Strings—Words-in-Freedom," in *Futurist Manifestos*, ed. Umbro Apollonio (New York: Viking Press, 1973), 97.
135. F. T. Marinetti, "The Foundation and Manifesto of Futurism," in Filippo Tommaso Marinetti, *Critical Writings*, ed. Günter Berghaus (New York: Farrar, Straus and Giroux, 2006), 13. Compare the popularity of speeding cars in Futurist art, such as Gino Severini's *Dynamic Hieroglyph of the Bal Tabarin* (1912) and Luigi Russolo's *Automobile at Speed* (1913).
136. Quoted in Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations*, ed. Hannah Arrendt, trans. Harry Zohn (New York: Schocken Books, 1968), 241. Compare Dani Cavallaro on "the Futurist fantasy of a hard, sealed and machine-like male physique, capable of opposing the sense of boundlessness conventionally associated with the female body." See Cavallaro, *Cyberpunk and Cyberculture: Science fiction and the Work of William Gibson* (London: Athlone Press, 2000), 108. Also see Conrich, "Metal-Morphosis," 103; Claudia Springer, *Electronic Eros: Bodies and Desire in the Postindustrial Age* (Austin: University of Texas Press, 1996), 3–4.
137. Marinetti, "The Foundation and Manifesto of Futurism," 11–17.
138. On Tsukamoto's acknowledged interest in Italian Futurism and *Metropolis*, see Tony Rayns's interview with the director: "Sodom and Tomorrow," *Time Out* 8 (November 1992): 22.
139. As Alberto Momo notes, the urban decay, rundown factories, and machine noises in *Tetsuo* evoke "a post-industrial ghost town which bears within itself the echo of Lynch's earliest films"—first and foremost, *Eraserhead*. See Momo, "The City in Two (or Three) Strokes by Tsukamoto."
140. The salaryman's spasmodic dance in the machine room probably references the famous scene of Freder trying to control the clock in the subterranean factory of *Metropolis*.
141. Luigi Russolo, "The Art of Noises," in *Futurist Manifestos*, ed. Umbro Apollonio (New York: Viking Press, 1973), 85.

142. Ibid., 87.
143. From the marketing materials for *Tetsuo*, dir. Tsukamoto Shin'ya (1989); translated as *Tetsuo: The Iron Man*, subtitled DVD (London, UK: Tartan Video, 2005).
144. Scott McCloud, *Understanding Comics: The Invisible Art* (New York: Harper-Perennial, 1993), 114.
145. James E. Robertson and Nobue Suzuki, "Introduction," in *Men and Masculinities in Contemporary Japan: Dislocating the Salaryman Doxa*, ed. James E. Robertson and Nobue Suzuki (London: RoutledgeCurzon, 2003), 7. On the salaryman as social symbol, see Takeuchi Hiroshi, "Sarariiman to iu shakaiteki hyōchō," in *Nihon bunka no shakaigaku*, ed. Inoue Shun and others (Tokyo: Iwanami Shoten, 1996), 125–42; Anne Allison, *Nightwork: Sexuality, Pleasure, and Corporate Masculinity in a Tokyo Hostess Club* (Chicago: University of Chicago Press, 1994).
146. Robertson and Suzuki, "Introduction," 9.
147. Ibid., 1.
148. Ibid., 5.
149. Raewyn Connell, *Masculinities* (Berkeley: University of California Press, 1995), 37.
150. James E. Robertson, "Japanese Working-Class Masculinities: Marginalized Complicity," in *Men and Masculinities in Contemporary Japan*, ed. James E. Robertson and Nobue Suzuki, 127.
151. Mike Donaldson, "What is Hegemonic Masculinity?" *Theory and Society* 22 (1993): 643.
152. Connell, *Masculinities*, 77.
153. Robertson, "Japanese Working-Class Masculinities," 127.
154. Connell, *Masculinities*, 80–81.
155. Ibid., 109–11, 114–15; Robertson, "Japanese Working-Class Masculinities," 127.
156. On the performativity of gender, see Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (London: Routledge, 1990).
157. Laura Miller, "Male Beauty Work in Japan," in *Men and Masculinities in Contemporary Japan*, ed. James E. Robertson and Nobue Suzuki, 38. Reprinted in Laura Miller, *Beauty Up: Exploring Contemporary Japanese Body Aesthetics* (Berkeley: University of California Press, 2006), 125–58.
158. Miller, *Beauty Up*, 38.
159. Ibid.
160. The metal fetishist's eye makeup makes him look like a cross between a kabuki actor and David Bowie from his "Ziggy Stardust" era. Hair depilation includes the removal of chest, leg, arm, and armpit hair to create a body that is "smooth" (*subesube*). It has been suggested that the proliferation of mass-media images in Japan of hairless men is related to the increasing interest in particular sports, such as skateboarding, cycling, and track. See Ibid., 41, 51.
161. See Mes, *Iron Man*, 65–66.
162. Robert Short explains how *Un chien andalou* offers a similar parody: "Ostensibly, the plot's trajectory is the classic Hollywood (and folktale) one of 'the formation of the couple' (Raymond Bellour). It's that old chestnut about obstacles on the path to 'they lived happily ever after.' Yet the tension never lets up between the

hyper-familiar, reassurring, anecdotal line and the perversely irrational content that undermines its causal chain." See Short, "Un Chien Andalou," 90.

163. Robertson, "Japanese Working-Class Masculinities," 127.
164. Robertson and Suzuki, "Introduction," 8. Also see Wim Lunsing, *Beyond Common Sense: Negotiating Constructions of Sexuality and Gender in Contemporary Japan* (London: Kegan Paul, 2001).
165. I am using "homosociality" in the sense given to the term by David William Foster: "Homosociality is understood to refer to the way in which patriarchal society forges bonds between men for the orderly transference and maintenance of masculinist power: these bonds not only allow for men to transmit power from one to another (along any number of social axes of class, caste, race, religion, profession, and the like), but also they allow for the process of inclusion of some men in power and exclusion of others from it, and they allow for the vigilant scrutiny of men to determine if they are abiding by the conditions of the patriarchy—that is, if they are worthy exponents of it. . . . In homosociality, women are tokens of the exchange of power between men: appropriate and adequate heterosexual relations with women are taken as a guarantee of one's conformance with the patriarchy, and it is frequently through women that patriarchal power is transmitted." See David William Foster, *Queer Issues in Contemporary Latin American Cinema* (Austin: University of Texas Press, 2003), xv.
166. See Grossman, who criticizes "*Tetsuo 2*'s climactic reintroduction of the nuclear family" as "an oddly conservative gesture"("*Tetsuo/The Iron Man*," 147).
167. Quoted in Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," 241. Also see Catherine Russell, *Experimental Ethnography: The Work of Film in the Age of Video* (Durham, NC: Duke University Press, 1999), 60.
168. Shortly after this book was completed, it was announced that Tsukamoto Shin'ya was working on the third entry to the *Tetsuo* series, titled *Tetsuo: The Bullet Man*, which made its debut at the Venice Film Festival on September 5, 2009, and will receive a wider release in 2010. Tsukamoto's first English-language film, *Tetsuo: The Bullet Man* is about an American businessman named Antony, living in Tokyo and married to a Japanese woman, who seeks revenge against the driver (played by Tsukmaoto Shin'ya) who runs over his son. Whether this American *Tetsuo* pushes the envelope of the first film or offers another co-optation like the second remains to be seen, but it is clear from the poster, trailer, and advanced reviews that Tsukamoto remains keenly interested in the possibilities of posthuman metamorphosis.

Part III

1. Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham, NC: Duke University Press, 2000).
2. Ibid., 2, 4.
3. Ibid., 4.
4. Ibid. On *Poltergeist*, see ibid., 163–66.
5. Ibid., 4.
6. Ibid., 7.
7. Ibid., 11, 17.

8. Sarah Walters, "Ghosting the Interface: Cyberspace and Spiritualism," *Science as Culture* 6, no. 3 (1997): 414–43.
9. Walters, "Ghosting the Interface," 437, 425. Also see Tom Gunning, "Phantom Images and Modern Manifestations: Spirit Photography, Magic Theatre, Trick Films, and Photography's Uncanny," in *Fugitive Images: From Photography to Video*, ed. Patrice Petro (Bloomington: Indiana University Press, 1995), 42–71.
10. Sconce, *Haunted Media*, 202.
11. "FIPRESCI Festival Awards 2001," Fédération Internationale de la Presse Cinématographique, http://www.fipresci.org/awards/awards/awards_2001.htm (accessed May 21, 2007).
12. According to Kurosawa Kiyoshi, when he was trying to come up with a title for *Kairo*, he entertained a number of possibilities, but finally settled on *Kairo* because it reminded him of the classic 1961 British horror film *The Innocents* (dir. Jack Clayton), which was translated into Japanese as *Kaiten* (meaning "rotation" or "turning"). Kurosawa was looking for a title that began with the same Chinese character "*kai*" that appears in *Kaiten*. Based on the Henry James novella *The Turn of the Screw*, *The Innocents* is a psychological horror film in the best sense of the term, relying upon subtle shifts in lighting and music rather than blood and guts to elicit fear and dread from the audience. See Kurosawa Kiyoshi, *Kurosawa Kiyoshi no eigajutsu* (Tokyo: Shinchosha, 2006), 238.
13. *Kairo* is based on the novel of the same name by the director. See Kurosawa Kiyoshi, *Kairo* (Tokyo: Tokuma Shoten, 2001). A Hollywood remake of *Kairo*, titled *Pulse*, directed by Jim Sonzero, was released in 2006, but like most Hollywood remakes of J-horror films, it substitutes cheap thrills and short-term scares for the more atmospheric, existential dread evoked by the original. In order to distinguish Kurosawa Kiyoshi's film from the Hollywood remake, I will use the Japanese title rather than its English (mis)translation.
14. Although he does not use the term "electronic presence" per se, Kurosawa has expressed interest in the dramatic possibilities associated with a wide range of everyday technologies (especially computer, telephone, television, and the Internet) when they are depicted as gateways for communicating with the spirit world. See Kurosawa Kiyoshi, *Eizō no karisuma* (Tokyo: Ekusu Narejji, 2006), 329.
15. Nakata Hideo's groundbreaking J-horror film *Ringu* (*Ring*, 1998) begins with a similar blurring of boundaries, as ocean waves morph into television noise and scanlines. Like *Ringu*, *Kairo* makes technology an issue for horror while offering poignant social commentary through the lens of haunted media.
16. Hayashi was also responsible for the distinctive look of Kurosawa Kiyoshi's haunting film about ecological apocalypse, *Charisma* (*Karisuma*, 1999), as well as director Nakata Hideo's *Ringu*, *Dark Water* (*Honogurai mizu no soko kara*, 2002), and *Kaidan* (2007).
17. Kurosawa has remarked that he was trying to make the imagery caught on Webcams seem accidental in the same way that the earliest motion picture shot by Louis Lumière, titled *La Sortie de l'Usine Lumière à Lyon* (The exit from the Lumière factories in Lyon, 1895), was also recorded "without intent." Kurosawa regards the accidental footage of the world's first film as being similar in tone to what is captured on contemporary surveillance cameras. See Kurosawa Kiyoshi, quoted in Jason Anderson, "Review of *Cure*," *Eyeweekly.com*, October 4, 2001, http://www.eyeweekly.com/archived/article/55517 (accessed April 16, 2009).

18. Jerry White, *The Films of Kiyoshi Kurosawa: Master of Fear* (Berkeley, CA: Stone Bridge Press, 2007), 164.
19. Along these same lines, Kurosawa Kiyoshi has provocatively suggested that one of the philosophical presuppositions of *Kairo* is that "the essence of human beings is ghosts [*ningen no honshitsu wa yūrei de aru*]." See Kurosawa, *Kurosawa Kiyoshi no eigajutsu*, 234.
20. In talking about *Kairo*, the director has noted the importance of the contrast between the Internet circuit (*kairo*) through which ghosts enter the human world, which implies a connection between the human and ghost worlds, and the theme of loneliness (*kodoku*) that runs throughout, which presupposes a fundamental disconnection between humans. See Kurosawa, *Kurosawa Kiyoshi no eigajutsu*, 238.
21. "Making of *Pulse*: Behind-The-Scenes Footage," *Kairo*, dir. Kurosawa Kiyoshi (2001); translated as *Pulse*, subtitled DVD (Los Angeles, CA: Magnolia Home Entertainmment, 2006).
22. On Kurosawa's efforts to distinguish ghosts (*yūrei*) from evil spirits (*akuma*), see Kurosawa Kiyoshi, *Kurosawa Kiyoshi no kyōfu no eigashi* (Tokyo: Seidōsha, 2003), 73.
23. Timothy Iles notes in passing *Kairo*'s engagement with the problem of *hikikomori*, but does not explore the connection in any detail. See Timothy Iles, *The Crisis of Identity in Contemporary Japanese Film: Personal, Cultural, National* (Leiden: Brill, 2008), 123–24.
24. For in-depth analysis of the psychological and sociological underpinnings of *hikikomori*, see the numerous studies by Saitō Tamaki, including *Shakaiteki hikikomori: Owaranai shishunki* (Tokyo: PHP Kenkyujo, 1998); *Wakamono no subete: Hikikomori kei vs jibun sagashi kei* (Tokyo: PHP editazu gurupu, Hatsubaimoto PHP Kenkyujo, 2001); *Hikikomori, kyūshutsu maniyuaru* (Tokyo: PHP Kenkyūjo, 2002); *Hikikomori bunkaron* (Tokyo: Hatsubaimoto Kinokuniya Shoten, 2003); "*Maketa*"*-kyo no shinjatachi: Nito, hikikomori shakairon* (Chuo Koron Shinsha, 2005); and *Hikikomori wa naze naorunoka: Seishin bunsekiteki apurochi* (Tokyo: Chuohokishuppan, 2007).
25. Michael Zielenziger, *Shutting Out the Sun: How Japan Created Its Own Lost Generation* (New York: Nan A. Talese, 2006), 17.
26. For a penetrating documentary on the subject of *hikikomori*, see Phil Rees, *Japan: The Missing Million*, British Broadcasting Corporation, October 20, 2002.
27. Zielenziger, *Shutting Out the Sun*, 27.
28. Compare ibid., 22.
29. Ibid., 9.
30. Ibid., 12.
31. Fujiwara Mariko quoted in Rees, *Japan: The Missing Million*.
32. Murakami Ryū, "Japan's Lost Generation: In a World Filled with Virtual Reality, the Country's Youth Can't Deal with the Real Thing," *TimeAsia*, May 5, 2000, http://www.time.com/time/asia/magazine/2000/0501/japan.essaymurakami.html (accessed April 10, 2007). Also see Murakami's novel *Symbiotic Worm* (*Kyōseichū*), which features a protagonist who suffers from *hikikomori* and communicates only via e-mail: Murakami Ryū, *Kyōseichū* (Tokyo: Kōdansha, 2000).

33. Maggie Jones, "Shutting Themselves In," *New York Times*, January 15, 2006, http://www.nytimes.com/2006/01/15/magazine/15japanese.html (accessed February 18, 2010).
34. Rees, *Japan: The Missing Million*.
35. Ibid.
36. White, *The Films of Kiyoshi Kurosawa*, 169.
37. Sconce, *Haunted Media*, 7.
38. Erik Davis, "Techgnosis, Magic, Memory, and the Angels of Information," in *Flame Wars: The Discourse of Cyberculture*, ed. Mark Dery (Durham, NC: Duke University Press, 1994), 30.
39. White, *The Films of Kiyoshi Kurosawa*, 164.
40. For a reproduction of the film poster for *Kairo*, see http://en.wikipedia.org/wiki/File:Kairo_Japanese_film_poster.jpg (accessed March 1, 2009).
41. In talking about his goals for this scene, Kurosawa Kiyoshi has said that he wanted to create the impression that Kawashima was being imprisoned inside of some sort of machine that had just started up. See Kurosawa, *Kurosawa Kiyoshi no kyōfu no eigashi*, 40–41.
42. Kenneth J. Gergen, "The Challenge of Absent Presence," in *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, ed. James E. Katz and Mark A. Aakhus (Cambridge: Cambridge University Press, 2002), 227, 236.
43. Claire Lobet-Maris, "Mobile Phone Tribes: Youth and Social Identity," in *Mediating the Human Body: Technology, Communication, and Fashion*, ed. Leopoldina Fortunati, James E. Katz, and Raimonda Riccini (Mahwah, NJ: Lawrence Erlbaum Associates Publishers, 2003), 91.
44. Compare Steven Connor, "The Machine in the Ghost: Spiritualism, Technology, and the 'Direct Voice,'" in *Ghosts: Deconstruction, Psychoanalysis, History*, ed. Peter Buse and Andrew Stott (New York: St. Martin's Press, 1999), 212; and Peter Buse and Andrew Stott, "Introduction: A Future for Haunting," in *Ghosts: Deconstruction, Psychoanalysis, History*, ed. Peter Buse and Andrew Stott, 17.
45. Scott McQuire, "The Uncanny Home: Television, Transparency and Overexposure," *Paradoxa*, 3, no. 3–4 (1997): 532.
46. Ibid., 534.
47. On the use of mise en abyme in literary theory, especially Derridean deconstruction, see Derek Attridge, ed., *Acts of Literature* (New York: Routledge, 1992), 345; Peggy Kamuf, ed., *A Derrida Reader* (New York: Columbia University Press, 1991), 566n15. On its use in film theory, see Steve Blandford, Barry Keith Grant, and Jim Hillier, eds., *The Film Studies Dictionary* (London: Oxford University Press, 2001), 150.
48. White, *The Films of Kiyoshi Kurosawa*, 170.
49. Sconce, *Haunted Media*, 7.
50. See Kurosawa, *Kurosawa Kiyoshi no eigajutsu*, 239–40.
51. "Interview," *Kyua*, dir. Kurosawa Kiyoshi (1997); translated as *Cure*, subtitled DVD (Chicago, IL: Home Vision Entertainment, 2003).
52. Cyber-based suicide pacts appear, most notably, in the Japanese film *Suicide Circle* (*Jisatsu sākuru*, dir. Sono Sion, 2002) and the anime series *Paranoia Agent* (*Mōsō dairinin*, dir. Kon Satoshi, 2004).
53. Zielenziger, *Shutting Out the Sun*, 9.

54. On the importance of the term "future" (*mirai*) as an uncertain line on the horizon within the film, see Kurosawa, *Kurosawa Kiyoshi no eigajutsu*, 240–42. Also see the director's novel of the same name, which ends with bleak reflections on the uncertain future: Kurosawa, *Kairo*, 230.
55. The novel upon which *Kairo* was based, which was authored by the director, ends a little differently, with Michi gazing ahead while tightly embracing Kawashima in both arms. There is no mention of Kawashima turning into a black shadow on the wall, but it is strongly implied that it is only a matter of time before a similar fate befalls her friend. See ibid.
56. See Matsushige Yoshito, ed., *Hibaku no yuigon: Hisai kameraman shashinshū* (Hiroshima: Hiroshima Genbaku Hisai Satsueisha no Kai, 1996), 38. The photo is posted online at http://pegasus.phys.saga-u.ac.jp/peace/YMatsushige/docu13s.jpg (accessed October 31, 2009).
57. Tateishi Ramie, "The Japanese Film Series: *Ring* and *Eko Eko Azarak*," in *Fear Without Frontiers*, ed. Stephen Jay Schneider (Godalming, England: FAB Press, 2003), 298.
58. See Sconce: "Early viewers will always remember the eerie presence of the slowly fading dot of light appearing at the center of the screen once the set had been turned off, a blip that suggested something was still there in the cabinet even after the image itself had vanished" (*Haunted Media*, 4).
59. On Oshii's earlier live-action films, see Brian Ruh, *Stray Dog of Anime: The Films of Mamoru Oshii* (New York: Palgrave Macmillan, 2004), 17, 119–20, 143–44.
60. *Avalon* won awards for Best Cinematography at the SITGES International Fantastic Film Festival of Catalonia (2001) and Durban International Film Festival (2002), as well as Best Film at the London International Festival of Science Fiction and Fantastic Film (2002).
61. Lisa Bode, "Oshii's Redemptive Pets and Killer Puppets," http://www.realtimearts.net/article/65/7737 (accessed February 14, 2010).
62. On the elegiac mode in other works by Oshii, see Susan J. Napier, *Anime from "Akira" to "Howl's Moving Castle": Experiencing Contemporary Japanese Animation* (New York: Palgrave Macmillan, 2005), 105–6, 285–88.
63. "Interview with Director Mamoru Oshii," *Abaron*, dir. Oshii Mamoru (2001); translated as *Avalon*, subtitled DVD (Burbank, CA: Miramax Home Entertainment, 2003) (translation altered). For further discussion of these issues in terms of anime's anational (*mukokuseki*) quality, see my essay "Screening Anime," in *Cinema Anime: Critical Engagements with Japanese Animation*, ed. Steven T. Brown (New York: Palgrave Macmillan, 2006), 1–19. Also compare Sharalyn Orbaugh on "the permeability of boundaries in the posthuman city." See Orbaugh, "Frankenstein and the Cyborg Metropolis: The Evolution of Body and City in Science Fiction Narratives," in *Cinema Anime: Critical Engagements with Japanese Animation*, ed. Steven T. Brown (New York: Palgrave Macmillan, 2006), 101.
64. In interviews, Oshii has acknowledged not only the hold that Eastern Europe (especially the Warsaw Pact) has had on his cinematic imagination but also that he was thinking specifically of Hungary and Czechoslovakia when making *Avalon*. See Nishimura Ken'ichi, "Oshii Mamoru intabyū—*Kōkaku kidōtai* kara *Abaron* e," in *Oshii Mamoru zen shigoto: "Urusei Yatsura" kara "Abaron" made*, ed. Uekusa Nobuwa (Tokyo: Kinema Junpōsha, 2001), 155–56. As Susan Ingram and Markus Reisenleitner have also noted, "the oblique camera angles, crumbling

and somewhat threatening cityscapes and other visual markers evoke World War II newsreels and noir classics like *The Third Man*." See Ingram and Reisenleitner, "Polarizing *Avalon*: The European Virtuosity and Global Virtuality of Mamoru Oshii's Filmic Imaginary," *New Cinematic Journal of Contemporary Film* 4, no. 2 (2006): 131–32.

65. On the postproduction visual effects techniques used to create such planes, see Toyota Naoaki, ed., *Oshii Mamoru "Abaron" meikingu bukku mūbī konsutorakushon kurasu SA* (Tokyo: Mediafakutorī, 2001), 196–213. Also compare Thomas Lamarre on the "multiplanar image" in anime: Lamarre, "The Multiplanar Image," in *Mechademia 1: Emerging Worlds of Anime and Manga*, ed. Frenchy Lunning (Minneapolis: University of Minnesota Press, 2006), 120–43.
66. See Murakami Takashi, "The Super Flat Manifesto," in *Superflat* (Tokyo: Madra Publishing Co., 2000), 5, 9, 11, 13, 15, 17, 19, 21, 23, 25; compare "hyperflat" in Azuma Hiroki, *Otaku: Japan's Database Animals*, trans. Jonathan E. Abel and Shion Kono (Minneapolis: University Of Minnesota Press, 2009), 96–116.
67. Oshii has said that "in the future, there will be no difference [between animation and live action]." Judging by the results of films such as *The Matrix*, *Avalon*, and others mentioned in this chapter, that future is well nigh upon us. See Oshii Mamoru, quoted in Ruh, *Stray Dog of Anime*, 166. Also see Dani Cavallaro, *The Cinema of Mamoru Oshii: Fantasy, Technology and Politics* (Jefferson, NC: McFarland & Company, 2006), 174.
68. *Casshern*, based on the earlier anime precursors *Casshan: Robot Hunter* (1993) and *Neoform Human Casshan* (1973), is one of a handful of films from 2004, including *Sky Captain and the World of Tomorrow* (dir. Kerry Conran), *Immortel* (dir. Enki Bilal), and *Sin City* (co-dir. Frank Miller and Robert Rodriguez), that was produced almost entirely on a "digital backlot," mixing live-action footage shot against blue or green screens with computer-generated backgrounds and animations added in postproduction, thereby blurring the boundary between live-action film and computer-generated animation in a way that goes beyond even the groundbreaking *Matrix* trilogy.
69. Oshii Mamoru, "*Tachigui*: *The Amazing Lives of the Fast Food Grifters* Web site," http://www.productionig.com/contents/works_sp/35_/ (accessed February 18, 2010). *Amazing Lives of the Fast Food Grifters* is said to have required over thirty thousand photographs and twenty renderings in order to create a final composite.
70. On the similarities between *The Matrix* and *Avalon*, see Ruh, *Stray Dog of Anime*, 165, 184.
71. The number grid appearing in the background is said to be the names of staff members translated into computer code. In Oshii's digitally enhanced version of *Ghost in the Shell*, retitled *Ghost in the Shell 2.0* (*Kōkaku kidōtai 2.0*, 2008), which recapitulates the earlier film shot by shot but replaces 2D elements in many scenes with computer-generated 3D models, updated digital effects, and a color shift away from green toward the red and orange hues of *Ghost in the Shell 2: Innocence*, the grid of flashing green numbers from the opening credits of the original version, which inspired the digital rain of *The Matrix*, has been cut altogether (along with the prologue text).
72. On the computer-generated animation used to create the opening credits, see Toyota, *Oshii Mamoru "Abaron" meikingu bukku*, 214–15.

73. The binary principle infusing the "givenness" of data streams is not true/false, good/bad, or meaningful/meaningless, but on/off, yes/no, 1/0. In other words, binary code, at its most basic level, consists of a differentiation between the presence or absence of an electronic pulse, of discrete voltage differences, either positive or negative.
74. Compare Gilles Deleuze, *The Logic of Sense*, trans. Mark Lester (New York: Columbia University Press, 1990), 4; Gilles Deleuze and Félix Guattari, *What is Philosophy?*, trans. Hugh Tomlinson and Graham Burchell (New York: Columbia University Press, 1994), 156.
75. Similarly, the opening credits to the original *Ghost in the Shell* were accompanied by the rapid-fire, electromechanical sounds of a teletype machine.
76. Ingram and Reisenleitner, "Polarizing *Avalon*," 131.
77. In the series of computer role-playing games popular in the 1980s known as *Wizardry* (developed by Andrew Greenberg and Robert Woodhead), which Oshii has listed in the film's preproduction materials as influencing his conception of the story of *Avalon*, a number of so-called prestige classes are featured with special attributes and powers associated with each, including those of Fighter, Mage, Priest, Thief, Bishop, Lord, Ninja, and Samurai. In addition to players from the Bishop (Murphy), Fighter (Ash), Mage (Jill), and Thief (Stunner) classes, *Avalon* may also include an example of the Priest class, if one construes the branch Game Master (who wears a Priest's collar) as a player of that class rather than merely a data construct. The focus on team play and completing special tasks and missions in order to advance to the next level is also highly reminiscent of *Wizardry*. See Oshii Mamoru, *Avalon Pre-Production Book* (Tokyo: Bandai Visual Co., 2000), 21, 37; and Shinagawa Shirō, "AVALON/Abaron/Awaron: Kasōu to genjitsu no hazama ni tatsu kantoku/pureiyā Oshii Mamoru," in *Oshii Mamoru zen shigoto*, ed. Uekusa Nobuwa, 197–98.
78. Beginning players of Avalon must start in Class C before advancing to Class B and A. As is commonly the case with role-playing games, players advance to the next level by completing missions and accumulating experience points.
79. Guy Debord, *The Society of the Spectacle*, trans. Donald Nicholson-Smith (New York: Zone Books, 1994), theses 1 and 4.
80. Ibid., thesis 34.
81. Ibid., thesis 24.
82. Ibid., thesis 67.
83. Ibid., thesis 67.
84. Ibid., thesis 28.
85. Ibid., thesis 32.
86. Ibid., thesis 29.
87. Of course, it goes without saying that the audience of the film *Avalon* is also placed in the position of spectators of the society of the spectacle displayed on screen. Susan Ingram and Markus Reisenleitner have argued persuasively that later in the film, when Ash enters Class Real, "the bleak world of authoritarianism seems to have been superseded by commodity fetishism, an obvious parable of the state of Eastern Europe today after joining the EU." I will discuss the status of Class Real in greater detail later; here, I simply want to point out that well before entering Class Real, the society of the spectacle and its association with

passive consumption is already an integral part of the world inhabited by Ash. See Ingram and Reisenleitner, "Polarizing *Avalon*," 136.

88. Oshii Mamoru quoted at http://www.avalon-movie.com (accessed June 23, 2005; site now discontinued).
89. Only a chance encounter with Stunner, a former member of the renowned Wizard party to which Ash belonged before it was disbanded by Murphy, awakens her from her social isolation. On Ash's isolation, see Ruh, *Stray Dog of Anime*, 175–76.
90. This is one of the few moments before Ash enters Class Real that nonsepia colors appear: as Ash lovingly prepares the meal for her dog, brown sepia tones are punctuated by the red hues of fresh meat and apples (the fruit most associated with the Isle of Avalon in Arthurian legend), the green hues of fresh cabbage, and the pink hues of Ash's flushed cheeks. In other words, color expresses Ash's relationship with her dog, which is among the very few intimate connections in her life. Compare the film *Pleasantville* (1998), directed by Gary Ross, in which color is used in a similar fashion to express the affections and desires of its characters.
91. Oshii Mamoru quoted in Ruh, *Stray Dog of Anime*, 181. Also see Cavallaro, *The Cinema of Mamoru Oshii*, 181.
92. On Magritte's *The Empire of Light*, see Jacques Meuris, *René Magritte: 1898–1967* (Köln: Taschen, 2004), 100–101; Suzi Gablik, *Magritte* (London: Thames & Hudson, 1985), 109–10. As I noted previously in my reading of *Ghost in the Shell 2: Innocence*, Oshii has acknowledged his indebtedness to the surrealistic photography of American photographer Jerry Uelsmann, whose work plays with similar Magrittean paradoxes. See Jerry Uelsmann, *Uelsmann: Process and Perception* (Gainesville: University Presses of Florida, 1985); and *Jerry Uelsmann: Photo Synthesis* (Gainesville: University Press of Florida, 1992).
93. As is also the case in *The Matrix* triology, the subtle greenish glow appearing on Ash's face when she sits in front of the computer terminal in her apartment typing on her blank keyboards underscores the digital hyperreality of her everyday world, the extent to which Ash's everyday reality is just another level of virtual reality. Compare Matt Hanson, *The End of Celluloid: Film Futures in the Digital Age* (Mies, Switzerland: RotoVision, 2004), 43–48. On the postproduction techniques used to create this effect, see Toyota, *Oshii Mamoru "Abaron" meikingu bukku*, 238–39.
94. Of course, the status of language in the film is complicated by the fact that the Polish spoken on screen is a translation of the original Japanese screenplay written by Itō Kazunori, who has worked with Oshii on most of his anime and films. Wherever the English subtitles stray from the nuances of the original Japanese script, I have retranslated the Japanese and inserted it in parentheses.
95. The "Unreturned" is an English translation for the Japanese word "*mikikansha*" used in the screenplay, which means "unrepatriated person." Oshii may be quite insistent that he is not interested in representing Japan (and the Polish setting of *Avalon* could not be more different from Japan), nevertheless, for an older Japanese audience, the term *mikikansha* might evoke postwar memories of unrepatriated soldiers who were left behind in various theaters of war engaged by the Japanese Imperial Army, some of whom continued to believe for many years that the war had not ended. The last *mikikansha*, Nakamura Teruo, was not repatriated until

1975. On *mikikansha*, see Beatrice Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975* (London: RoutledgeCurzon, 2003).

96. Ash visits Murphy at the hospital for the Unreturned and passes by a young girl who matches the description of the Ghost, but Ash does not notice her.
97. J. Hoberman, "Avalon," *The Village Voice* 31 (2004): C55.
98. See Oshii, *Avalon Pre-Production Book*, 21. In addition to *Stalker*, Oshii also lists as cinematic "reference works" *Fahrenheit 451* (dir. François Truffaut, 1966), *A Clockwork Orange* (dir. Stanley Kubrick, 1971), *1984* (dir. Michael Radford, 1984), *The Element of Crime* (dir. Lars von Trier, 1984), and *The Warriors* (dir. Walter Hill, 1979).
99. Andrey Tarkovsky, *Sculpting in Time: Reflections on the Cinema*, trans. Kitty Hunter-Blair (Austin: University of Texas Press, 1986), 138.
100. Ibid.
101. Vida T. Johnson and Graham Petrie, *The Films of Andrei Tarkovsky: A Visual Fugue* (Bloomington: Indiana University Press, 1994), 190. On *Stalker* as a parable about the Soviet Union versus the West, see Johnson and Petrie, *The Films of Andrei Tarkovsky*, 142–43; Mark Le Fanu, *The Cinema of Andrei Tarkovsky* (London: British Film Institute, 1987), 101; Gilbert Adair, "Notes from the Underground: *Stalker*," *Sight & Sound* (Winter 1980–81): 63–64.
102. Of course, it may also express the desire to return to a Russia that is either prerevolutionary or non-Soviet. A similar shift from monochromatic to polychromatic color is used to express the arousal of passion and desire in *Pleasantville*, Gary Ross's 1998 morality tale about personal repression and political oppression in American suburbia. In an interview, the director described *Pleasantville* as being "about the fact that personal repression gives rise to larger political oppression. . . . That when we're afraid of certain things in ourselves or we're afraid of change, we project those fears on to other things, and a lot of very ugly social situations can develop." Quoted in Edward Johnson-Ott, Review of *Pleasantville*, http://reviews.imdb.com/Reviews/149/14904 (accessed January 10, 2009).
103. Danièle Dubroux, "Les limbes du temple," *Cahiers du Cinéma* 330 (December 1981). Quoted in Johnson and Petrie, *The Films of Andrei Tarkovsky*, 305n6.
104. Ingram and Reisenleitner, "Polarizing *Avalon* 136.
105. Geoffrey of Monmouth, *The Vita Merlini*, trans. John Jay Parry (Urbana: The University of Illinois, 1925), http://www.sacred-texts.com/neu/eng/vm/vmeng.htm#fr_49 (accessed July 29, 2008).
106. This is how Tarkovsky describes the Room of Desires in an interview granted around the time *Stalker* was released. See Tonino Guerra, "*Stalker*, Smuggler of Happiness," in *Andrei Tarkovsky: Interviews*, ed. John Gianvito (Jackson: University Press of Mississippi, 2006), 50.
107. Ingram and Reisenleitner incorrectly read the billboard's caption as "Taste It" ("Polarizing *Avalon*," 135).
108. Debord, *The Society of the Spectacle*, thesis 34.
109. Ibid., thesis 4.
110. Ingram and Reisenleitner, "Polarizing *Avalon*," 136.
111. Ibid., 137.
112. Tarkovsky quoted in Aldo Tassone, "Interview with Andrei Tarkovsky (on *Stalker*)," in *Andrei Tarkovsky: Interviews*, ed. John Gianvito, 56.
113. Ibid., 59, 57.

114. Ibid., 59.
115. Tarkovsky quoted in Guerra, "*Stalker*, Smuggler of Happiness," 51.
116. Tarkovsky quoted in Tassone, "Interview with Andrei Tarkovsky (on *Stalker*)," 61.
117. Karl Marx, "Introduction," in *A Contribution to the Critique of Hegel's "Philosophy of Right"* (1843) at http://www.marxists.org/archive/marx/works/1843/critique-hpr/intro.htm (accessed June 12, 2008).
118. Ruh interprets the reinstatement of statuary faces and heads in Class Real as suggesting that Ash "has restored a sense of completeness to her life that was sorely lacking" (*Stray Dog of Anime*, 177). However, if Ash's life is so complete in Class Real, then why does she continue to pursue the Ghost after she has returned the Unreturned (Murphy) and ostensibly completed the mission outlined for her by the Bishop?
119. Friedrich Nietzsche, *Writings from the Late Notebooks*, ed. Rüdiger Bittner, trans. Kate Sturge (Cambridge: Cambridge University Press, 2003), 139 (sec. 7[60]).
120. Michael Stern, *Nietzsche's Ocean, Strindberg's Open Sea* (Berlin: Nordeuropa-Institut der Humboldt-Universität, 2008), 187–88.
121. The peculiar way in which the 3D bodies of Stunner and Murphy unfold into 2D helix-like spirals recalls the paradoxical work of Dutch graphic artist M. C. Escher, especially his *Bond of Union* (1956), *Rind* (1955), and *Study for Rind* (1954). See F. H. Bool and others, *M. C. Escher, His Life and Complete Graphic Work*, ed. J. L. Locher (New York: H. N. Abrams, 1982), 83, 309–10, 312.
122. The use of headless statues in *Avalon* is likely a reference to Chris Marker's influential science fiction photomontage film *La jetée* (The jetty, 1962), which anticipates many of the issues and images that come to be associated with cyberpunk.
123. Carl Gustav Horn, "Afterword: This Model Comes with Genuine Sorrow—Thoughts after Mamoru Oshii's *Ghost in the Shell 2: Innocence*," in Oshii Mamoru, *Ghost in the Shell 2: Innocence Ani-Manga*, trans. Yuji Oniki (San Francisco: Viz, 2005), 4:iii. Also see Shinagawa, "AVALON/Abaron/Awaron," 198–99. In this sense, Ruh's conclusion that, "by shooting Murphy, Ash shows that, even though reality may be difficult to face, one cannot live in a dream world," seems to reinstate the very metaphysical distinction between dream and reality that Oshii has just erased. However, Ruh also acknowledges that "the world Ash knows as the 'real world' is not real at all" (*Stray Dog of Anime*, 181) and that "Oshii questions whether distinctions such as the 'real world' are meaningful" (ibid., 182). Compare Cavallaro, *The Cinema of Mamoru Oshii*, 176.
124. Oshii Mamoru quoted in Hanson, *The End of Celluloid*, 43, 45. See Shinagawa, "AVALON/Abaron/Awaron," 198–99.
125. Both the Polish translation and English subtitles mistranslate the Ogier (Ojīru) of the Japanese screenplay as "Odin," a Norse god of war and protector of fallen heroes. See Oshii, *Avalon Pre-Production Book*, 73.
126. Guy Debord, *Comments on the Society of the Spectacle* at http://www.notbored.org/commentaires.html (accessed February 23, 2010), sec. x.
127. As Ruh points out, while Murphy is in a coma, "his ghost continues to haunt everything [Ash] does. It was Murphy who had made the decision to break up Wizard, causing Ash to become a solo player, and it is Ash's drive to find out what exactly happened to Murphy that fuels most of the events of *Avalon*" (*Stray Dog of Anime*, 177).

128. Simon Ford, *The Situationist International: A User's Guide* (London: Black Dog, 2005), 36. See Guy Debord and Gil J. Wolman, "A User's Guide to Détournement," at http://www.bopsecrets.org/SI/detourn.htm (accessed November 12, 2008); Debord, *The Society of the Spectacle*, theses 204–9.
129. Compare Ruh, *Stray Dog of Anime*, 184.

Conclusion

1. Jean-François Lyotard, "Note on the Meaning of 'Post-,'" in *The Postmodern Explained: Correspondence 1982–1985*, ed. Julian Pefanis and Morgan Thomas (Minneapolis: University Of Minnesota Press, 1992), 76–77, 80.
2. Jacques Derrida, "Some Statements and Truisms about Neo-Logisms, Newisms, Postisms, Parasitisms, and Other Small Seismisms," in *The States of "Theory": History, Art, and Critical Discourse*, ed. David Carroll (New York: Columbia University Press, 1990), 68–74.
3. See Neil Badmington, "Theorizing Posthumanism," *Cultural Critique* 53, no. 1 (2003): 10–27; Neil Badmington, "Introduction: Approaching Posthumanism," in *Posthumanism*, ed. Neil Badmington (New York: Palgrave Macmillan, 2000), 9–10; Noel Castree and Catherine Nash, "Introduction: Posthumanism in Question," *Environment and Planning A* 36, part 8 (2004): 1341–43; Jonathan Murdoch, "Humanising Posthumanism," *Environment and Planning A* 36, part 8 (2004): 1357.
4. Kate Soper, *Humanism and Anti-Humanism* (La Salle, IL: Open Court, 1986), 11–12.
5. Neil Badmington, "Mapping Posthumanism," *Environment and Planning A* 36, part 8 (2004): 1345.
6. Sarah Whatmore, *Hybrid Geographies: Natures, Cultures, Spaces* (Thousand Oaks, CA: Sage Publications, 2002), 147.
7. Elaine Graham quoted in Badmington, "Mapping Posthumanism," 1346. On ontological hygiene, see Elaine L. Graham, *Representations of the Post/Human: Monsters, Aliens, and Others in Popular Culture* (New Brunswick, NJ: Rutgers University Press, 2002), 11, 13, 20, 33–35, 69–70, 231–34. On the task of critical posthumanism, see Jill Didur, "Re-Embodying Technoscientific Fantasies: Posthumanism, Genetically Modified Foods, and the Colonization of Life," *Cultural Critique* 53, no. 1 (2003): 101–2, 106.
8. Catherine Waldby, *The Visible Human Project: Informatic Bodies and Posthuman Medicine* (London: Routledge, 2000), 43.
9. See Karatani Kōjin, "One Spirit, Two Nineteenth Centuries," in *Postmodernism and Japan*, ed. Masao Miyoshi and Harry D Harootunian (Durham, NC: Duke University Press, 1989), 259–72. On technoscience and instrumental reason, see Steven Best and Douglas Kellner, *The Postmodern Adventure: Science, Technology, and Cultural Studies at the Third Millennium* (New York: Guilford Press, 2001), 101–2.
10. Azuma Hiroki, *Otaku: Japan's Database Animals*, trans. Jonathan E. Abel and Shion Kono (Minneapolis: University Of Minnesota Press, 2009), 33.
11. Azuma, *Otaku*, 39.
12. Ibid., 103; see also 32, 58, 63, 84–85, 106–7.

13. Ibid., 83, 96; see also 6.
14. Ibid., 34, 38, 54, 84, 86, 93, 95, 96, 105, 108, 109.
15. Ibid., 103. In contrast to Azuma, who argues for the decreasing importance of narrative (as compared to characters), Susan Napier shows how important narratival complexity is to American *otaku* without appealing to metanarratives: see Susan J. Napier, *From Impressionism to Anime: Japan as Fantasy and Fan Cult in the Mind of the West* (New York: Palgrave Macmillan, 2007), 16–17, 137, 176. Compare Azuma, *Otaku*, 47–48, 57.
16. "Excellence Prize for Long Form Animation: *Serial Experiments Lain*," Japan Media Arts Festival (1998), http://web.archive.org/web/20070426014853/http://plaza.bunka.go.jp/english/festival/backnumber/10/sakuhin/serial.html (accessed November 17, 2008). Brief portions of the following analysis of *Serial Experiments Lain* first appeared in my "Screening Anime," in *Cinema Anime: Critical Engagements with Japanese Animation*, ed. Steven T. Brown (New York: Palgrave Macmillan, 2006), 2–7.
17. As a legal term, *shōjo* refers to any female juvenile (or minor) below the age of twenty.
18. Takahashi Mizuki, "Opening the Closed World of *Shōjo Manga*," in *Japanese Visual Culture: Explorations in the World of Manga and Anime*, ed. Mark W. Macwilliams (Armonk, NY: M. E. Sharpe, 2008), 115; see also John W. Treat, "Yoshimoto Banana Writes Home: The Shōjo in Japanese Popular Culture," in *Contemporary Japan and Popular Culture*, ed. John W. Treat (Honolulu: University of Hawai'i Press, 1996), 281–83.
19. Indeed, the aesthetics of cuteness in Japan is indissociable from the figure of the *shōjo—Hello Kitty* being just the tip of the consumer capitalist iceberg.
20. See Deborah Shamoon, "Situating the *Shōjo* in *Shōjo Manga*: Teenage Girls, Romance Comics, and Contemporary Japanese Culture," in *Japanese Visual Culture*, ed. Mark W. Macwilliams, 137–54.
21. Treat, "Yoshimoto Banana Writes Home," 280.
22. "Telepresence," http://en.wikipedia.org/wiki/Telepresence (accessed March 12, 2009). See Jonathan Steuer, "Defining Virtual Reality: Dimensions Determining Telepresence," *Journal of Communication* 42, no. 4 (1992): 73–93; Jack M. Loomis, "Distal Attribution and Presence," *Presence: Teleoperators and Virtual Environments* 1, no. 1 (1992): 113–19.
23. William R. Macauley and Angel J. Gordo-López, "From Cognitive Psychologies to Mythologies: Advancing Cyborg Textualities for a Narrative of Resistance," in *The Cyborg Handbook*, ed. Chris Hables Gray (New York: Routledge, 1995), 436.
24. On telepresence in war, see Kevin Robins and Les Levidow, "Socializing the Cyborg Self: The Gulf War and Beyond," in *The Cyborg Handbook*, ed. Chris Hables Gray (New York: Routledge, 1995), 119–25.
25. In the language of *Serial Experiments Lain*, episodes are referred to as "layers." This usage invokes not only the concept of layers employed in digital image editing programs such as Adobe Photoshop but also the different layers (Application, Transport, Internet, and Link) that are part of the Internet Protocol Suite.
26. In an interview after *Serial Experiments Lain* had been completed, screenwriter Konaka Chiaki acknowledged having Godard in mind when he called for inserting text on the screen in the script. See Nakajima Shinsuke, "Interview with Chiaki Konaka," *HK* (Winter 1999), http://www.konaka.com/alice6/lain/hkint_e

.html (accessed October 16, 2006). One of the best examples of Godard's interplay of text and image is *Pierrot le fou* (1965).

27. Gleb Sidorkin, "*Pierrot Le Fou* and the Interplay between Text and Image," *Tisch Film Review*, May 13, 2008, http://tischfilmreview.com/voices/gleb-sidorkin/2008/05/13/pierrot-le-fou-and-the-interplay-between-text-and-image/ (accessed November 10, 2008).
28. Vannevar Bush, who was director of the agency that oversaw the development of the Manhattan Project, conceived of the memex as a memory expansion device that offered compression and rapid access to information and multimedia, which were to be recorded on microfilm and projected onto a translucent screen. Ted Nelson's Xanadu, on the other hand, which was the world's first hypertext database project, is described in Layer 09, "Protocol," as "a giant electronic library in satellites in stationary orbit which could be used at any terminal on Earth via radio or phone lines." On memex, See Vannevar Bush, "As We May Think," *Atlantic Monthly* 176, no. 1 (July 1945): 641–49, available at http://www.theatlantic.com/doc/print/194507/bush (accessed April 3, 2007); and James M. Nyce and Paul Kahn, eds., *From Memex to Hypertext: Vannevar Bush and the Mind's Machine* (Boston: Academic Press, 1991). On Xanadu, see Belinda Barnet, "The Magical Place of Literary Memory: Xanadu," http://www.latrobe.edu.au/screeningthepast/firstrelease/fr_18/BBfr18a.html (accessed February 12, 2009). See Honda Akira, ed., *Visual Experiments Lain* (Tokyo: Sonī Magajinzu, 1999), 44–45.
29. A term coined by former Apple CEO John Sculley in his 1987 biography to describe his vision of personal computing in the future, which would combine Web surfing, high-definition multimedia play, videoconferencing, speech synthesis and recognition, and software agents to facilitate the collection of information from an immense online hypertext database. See Sculley and John A. Byrne, *Odyssey: Pepsi to Apple—A Journey of Adventure, Ideas, and the Future* (New York: Harper & Row, 1987).
30. On the ubiquitous imagery of cables as carriers of electricity and signals for telecommunications, see Honda, *Visual Experiments Lain*, 9–10. Also compare Ishii Sōgo's *Electric Dragon 80,000V* (2001), which foregrounds similar imagery and associated noise.
31. Probably a citation of the famous extreme close-up shot at the outset of Ridley Scott's *Blade Runner* (1982) of a giant blue eye reflecting (like a cinematic screen) the urban dystopia around it.
32. On the comparison with the work of M. C. Escher, see n121 in Part III.
33. Konaka wrote the screenplay for Shimizu Takashi's Lovecraft-inspired *Marebito* (Stranger from afar, 2004), one of the most disturbing and provocative horror films in J-horror history. With its voyage into the netherworld, chilling encounters with a subterranean being who feeds on human blood, and the protagonist's steady descent into madness, *Marebito* offers a cinematic nod to H. P. Lovecraft's acclaimed science fiction horror novella *At the Mountains of Madness* (1931).
34. Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham, NC: Duke University Press, 2000), 202.
35. Ibid., 7.

36. From the series synopsis for *Serial Experiments Lain*. See *Serial Experiments Lain*, dir. Nakamura Ryūtarō (1998); subtitled DVD, disc 1 (Long Beach, CA: Pioneer Entertainment, 1998).
37. ABe Yoshitoshi quoted in "Otakon Panel Discussion with Yasuyuki Ueda and Yoshitoshi ABe," August 5, 2000, http://www.cjas.org/~leng/o2klain.htm (accessed May 6, 2006).
38. William Gibson, *Neuromancer* (New York: Ace Books, 1984), 5, 51.
39. Honda, *Visual Experiments Lain*, 57.
40. Félix Guattari, "Machinic Junkies," *Soft Subversions*, ed. Sylvère Lotringer (New York: Semiotext(e), 1996), 101–5.
41. On technology as coemergent with social and natural worlds, see Fernando Elichirigoity, "On Failing to Reach Escape Velocity beyond Modernity," *Social Studies of Science* 30, part 1 (2000): 146–47.
42. Lain's sister Mika becomes disoriented when she is unable to keep her Wired and real selves separate. In Layer 05, "Distortion," Mika encounters her doppelgänger after returning home. As Lain enters the room, the Mika who has just returned home starts to dematerialize, while her doppelgänger takes over. While Lain looks at the front door where Mika had just stood, she sees a scintillating mirage of her sister, almost like a residual heat signature.
43. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 510–14.
44. Ibid., 514.
45. Compare Susan Napier's analysis of the "invisible" machines in *Serial Experiments Lain*, which "not only support but literally construct identity." See Susan J. Napier, "When the Machines Stop: Fantasy, Reality, and Terminal Identity in *Neon Genesis Evangelion* and *Serial Experiments Lain*," *Science Fiction Studies* 29, no. 3 (November 2002): 418–35; reprinted in *Robot Ghosts and Wired Dreams: Japanese Science Fiction from Origins to Anime*, ed. Christopher Bolton, Istvan Csicsery-Rony, Jr., and Takayuki Tatsumi (Minneapolis: University of Minnesota Press, 2007), 101–22.
46. See Gilles Deleuze, "Postscript on Control Societies," in *Negotiations: 1972–1990*, trans. Martin Joughin (New York: Columbia University Press, 1995), 177–82.
47. Compare Jean Baudrillard: "In the image of television, the surrounding universe and our very bodies are becoming monitoring screens." See Jean Baudrillard, *The Ecstasy of Communication* (New York: Semiotext(e), 1987), 15.
48. Gilles Deleuze, "The Brain is the Screen: An Interview with Gilles Deleuze," in *The Brain is the Screen: Deleuze and the Philosophy of Cinema*, ed. Gregory Flaxman (Minneapolis: University of Minnesota Press, 2000), 366.
49. This may also include the avatars who appear to Lain in Layer 5, "Distortion," to tutor her in the ways of the Wired, which are likely a reference to Cordwainer Smith's science fiction short story "Think Blue Count Two" (1963) from his "Instrumentality of Mankind" series. "Think Blue Count Two" tells the story of a young girl named Veesey who is assisted and protected on an interstellar flight by a series of artificial personalities who appear real but are in actuality echoes of her mind. That the creators of *Serial Experiments Lain* were thinking of Cordwainer Smith is made clear by the Web site password ("Think Bule Count One Tow") used by Lain's father, which is an obvious play on the title of Cordwainer Smith's

short story. However, in *Serial Experiments Lain*, it is unclear if such avatars are all echoes of Lain's mind or if some may be manifestations of Eiri Masami, the so-called God of the Wired. See Cordwainer Smith, "Think Blue Count Two," in *The Rediscovery of Man: The Complete Short Science Fiction of Cordwainer Smith*, ed. James A. Mann (Framingham, MA: NESFA Press, 1993), 129–54. On the role of avatars in defining the inner life of adolescents who play online games, see John Hamilton, "The World Wide Web," in *The Inner History of Devices*, ed. by Sherry Turkle (Cambridge, MA: MIT Press, 2008), 64–76.

50. Compare Daisuke Miyao and Lisa Bode on digital doppelgängers. See Daisuke Miyao, "From Doppelgänger to Monster: Kitano Takeshi's *Takeshis*'," *Canadian Journal of Film Studies* 18, no. 1 (Spring 2009): 8–10; and Lisa Bode, "Digital Doppelgängers," *M/C Journal* 8, no. 3 (2005), http://journal.media-culture.org.au/0507/07-bode.php (accessed June 3, 2009).
51. Katakana is the Japanese syllabary reserved for foreign loan words, onomatopoeia, and special emphasis.
52. Honda, *Visual Experiments Lain*, 43.
53. Graham, *Representations of the Post/Human*, 5. On the "post-bodied," see Mike Featherstone and Roger Burrows, "Cultures of Technological Embodiment: An Introduction," in *Cyberspace/Cyberbodies/Cyberpunk*, ed. Mike Featherstone and Roger Burrows (London: Sage Publications, 1995), 1–16.
54. David Holmes, "Introduction," in *Virtual Politics: Identity and Community in Cyberspace*, ed. David Holmes (London: Sage Publications, 1997), 3.
55. On transhumanism's rhetoric of transcendence, see Graham, *Representations of the Post/Human*, 9–10, 131, 158–60, 163–65, 173–75, 211, 230. See also Mark Dery on techno-transcendentalism in his *Escape Velocity: Cyberculture at the End of the Century* (New York: Grove Press, 1996), 9, 45, 48–49, 161. Also see Sue Short, *Cyborg Cinema and Contemporary Subjectivity* (New York: Palgrave Macmillan, 2005), 162–63; Keith Ansell Pearson, *Viroid Life: Perspectives on Nietzsche and the Transhuman Condition* (London: Routledge, 1997), 32–33.
56. The most famous example of this is roboticist Hans Moravec's fantasy of a robot surgeon who transfers human consciousness to a machine. See Hans Moravec, *Mind Children: The Future of Robot and Human Intelligence* (Cambridge, MA: Harvard University Press, 1988), 110. See also N. Katherine Hayles's response to Moravec in *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), 1.
57. The situation is more complex in *Ghost in the Shell* due to Shirow Masamune's reflections on the post-Cartesian status of the term "ghost." Given the numerous citations of the Christian New Testament in Oshii Mamoru's *Ghost in the Shell*, some viewers have been quick to conflate the ghost (*gōsuto*) in the cyborg shell with a metaphysics of the soul, but it is worth recalling that Shirow Masamune, the author of the manga upon which the anime is based, resists the urge to rehabilitate the cyborg subject as a revamped Cartesian cogito with hardware exterior animated by the metaphysical software of the soul. Such a recuperation of humanism is the all too common denouement of many a cyberpunk film to come out of Hollywood, from *RoboCop* to *Terminator 2*. In his author's notes to the manga, Shirow resists such a conclusion by situating the ghost as a phase-effect of a biomechanical system. In the post-Cartesian world of *Ghost in the Shell*, the cyborg's ghost functions not as a directing agency positioned above,

behind, or beneath the system, but rather as a particular mode of that complex system, as a phase-effect in the system that is open to contingencies and forces from elsewhere in the system. Just as one does not say that the liquid or gas phase of a material system is the controlling "mind" or "soul" to which its solid phase is subordinated as "body," so too, Shirow refrains from anthropomorphizing the ghost mode of the cyborg's biomechanical system into a "lord over the decision-making process." However, Shirow's post-Cartesian conception of "ghost" notwithstanding, it is also the case that when Kusanagi uploads herself to cyberspace after merging with the Puppet Master at the end of *Ghost in the Shell* or downloads herself from cyberspace into a gynoid in order to protect Batou in *Ghost in the Shell 2*, such moments come awfully close to the extropian fantasy that privileges disembodied consciousness over the material body. See Shirow Masamune, *Ghost in the Shell*, trans. Frederik L. Schodt and Toren Smith, 2nd ed. (Milwaukie, OR: Dark Horse Comics, 2004), 364. Compare Laura Bartlett and Thomas B. Byers analysis of the desire for disembodied consciousness in *The Matrix*: Bartlett and Byers, "Back to the Future: The Humanist *Matrix*," *Cultural Critique* 53, no. 1 (2003): 30, 35, 42.

58. Hayles, *How We Became Posthuman*, 2.
59. Eugene Thacker, "Data Made Flesh: Biotechnology and the Discourse of the Posthuman," *Cultural Critique* 53, no. 1 (2003): 86. See also critical discussions of extropianism in Tiziana Terranova, "Posthuman Unbounded: Artificial Evolution and High-Tech Subcultures," in *FutureNatural: Nature, Science, Culture*, ed. George Robertson and others (London: Routledge, 1996), 170–73; Erik Davis, *Techgnosis: Myth, Magic + Mysticism in the Age of Information* (New York: Harmony Books, 1998), 118–22; and Dery, *Escape Velocity*, 301–6.
60. Thacker, "Data Made Flesh," 86 (emphasis added).
61. N. Katherine Hayles, "Afterword: The Human in the Posthuman," *Cultural Critique* 53, no. 1 (2003): 137.
62. This is what the "Human Complement Program" (*jinrui hokan keikaku*) in Anno Hideaki's *Neon Genesis Evangelion* (1995–96), inspired by Cordwainer Smith's "Instrumentality of Mankind" stories, seems to suggest: by attempting to replace the human species altogether in an act of species genocide in order to create room for the next step up the evolutionary (and spiritual) ladder, the Human Complement Program's evolution of the human animal into something transhuman ("the way to be a god," as one character in *Evangelion* asserts) seems to be motivated by a desire for disembodiment concealed as a desire for reembodiment.
63. This emphasis on embodiment is also evident in the so-called devices that appeared at the end of each episode to advertise the next, which included live-action footage of actual *shōjo* showing aspects of their own bodies, such as eyes, mouth, hands, ears, feet, hair, heart, and so on. See Honda, *Visual Experiments Lain*, 68–69.
64. Bruce Braun, "Modalities of Posthumanism," *Environment and Planning A* 36, part 8 (2004): 1354.
65. Ibid., 1354–55.
66. Teresa Heffernan, "Bovine Anxieties, Virgin Births, and the Secret of Life," *Cultural Critique* 53 (Winter 2003): 118.

67. I borrow the term from Eugene Thacker without his assumption that the body is not repressed or effaced by such essentialism. See Thacker, "Data Made Flesh," 86–87.
68. Sconce, *Haunted Media*, 19–20.
69. Ibid., 19.
70. Deleuze argues in "Postscript on Control Societies" that we are moving away from disciplinary societies, which organize sites of confinement (prisons, hospitals, schools, factories, families, etc.) toward control societies with new forms of domination (involving incessant monitoring via electronic tagging and user profiling), as well as new forms of resistance (such as computer piracy and viruses). Although I agree with Deleuze's diagnosis, I would qualify his conclusions by adding that panoptic technology has not disappeared so much as it has been adapted to new contexts. After all, as Foucault recognized, the Panopticon effect is not simply reducible to Bentham's architectural plans but is, more importantly, an abstract machine of surveillance and normalization with the potential for innumerable concrete applications. As Elaine Graham has remarked, "Surely something like cyberspace must be ripe for a Foucauldian analysis of how codes, protocols, commercial imperatives, modes of access and conventions of design all function to engender 'regimes' of virtuality in which self-identity is enacted, renegotiated and disciplined?" See Graham, *Representations of the Post/Human*, 13n4; Charles Ostman, "Total Surveillance," *Mondo 2000* 13 (Winter 1995): 16–20; John Perry Barlow, "Jackboots on the Infobahn," *Wired* 2, no. 4 (April 1994): 40–49. On the emergence of control societies, see Gilles Deleuze, "Postscript on Control Societies," 177–82. On the Panopticon, see Michel Foucault, *Discipline and Punish: Birth of the Prison*, trans. A. Sheridan (New York, 1977).
71. Adam Zagorin and Karl Taro Greenfield, "Click and Dagger: Is the Web Spying on You?" *Time*, November 22, 1999, 60, available at http://www.time.com/time/magazine/article/0,9171,992648,00.html (accessed February 21, 2010).
72. The controversy surrounding Google's initial decision to comply with the Internet censorship laws imposed by the People's Republic of China is one particularly troubling example of how search engine results can be filtered, altered, and truncated by political agendas. On January 12, 2010, Google announced that it was "no longer willing to continue censoring" search results on Google China (Google.cn).
73. Michel Foucault, "Technologies of the Self," in *Technologies of the Self: A Seminar with Michel Foucault*, ed. Luther H. Martin, Huck Gutman, and Patrick H. Hutton (Amherst: University of Massachusetts Press, 1988), 16–19.
74. Adèle-Elise Prévost, "The Signal of Noise," in *Mechademia 3: Limits of the Human*, ed. Frenchy Lunning (Minneapolis: University of Minnesota Press, 2008), 178. On the problem of indexicality in relation to digital animation and cinema, see Thomas Lamarre, "The First Time as Farce: Digital Animation and the Repetition of Cinema," in *Cinema Anime: Critical Engagements with Japanese Animation*, ed. Steven T. Brown (New York: Palgrave Macmillan, 2006), 161–88; Lev Manovich, "What is Digital Cinema?" in *The Digital Dialectic: New Essays on New Media* (Cambridge, MA: MIT Press, 1999), 173–92.
75. Prévost, "The Signal of Noise," 185.
76. The question of historical revisionism raised by *Serial Experiments Lain* also evokes the controversial issue of censorship involving Japanese history textbooks

and the representation of wartime aggression and atrocities committed by the Japanese army during World War II. See Caroline Rose, *Interpreting History in Sino-Japanese Relations: A Case Study in Political Decision-Making* (London: Routledge, 1998); and Jennifer Lind, *Sorry States: Apologies in International Politics* (Ithaca, NY: Cornell University Press, 2008).

77. The name of a Big Brother–like government agency responsible for maintaining the computer-controlled infrastructure of Lain's world, policing the Wired, and prosecuting hackers.
78. See Michel Foucault on the Panopticon, wherein "each individual has his own place; and each place its individual." See Foucault, *Discipline and Punish*, 154.
79. In Layer 10, "Love," Eiri tells Lain that she has "a fake family" and "fake friends."
80. This is also the threat posed by the splitting of Keanu Reeves's character in *The Matrix* into Thomas Anderson and Neo. In an interrogation scene that is probably being referenced by the creators of *Serial Experiments Lain*, Agent Smith expresses dissatisfaction with Neo's split subjectivity and double life: during the day he is Thomas A. Anderson, a software programmer who has a Social Security number and pays his taxes. By night, he lives his life in cyberspace as the hacker Neo, whom he claims is guilty of innumerable computer crimes. Neo's greatest threat to the Matrix is that by daring to be more than one identity, he runs the risk of eluding the user profiles that have been created for him and awakening from the virtual hallucinations forced upon him by that system.
81. Friedrich Nietzsche, *Writings from the Late Notebooks*, ed. Rüdiger Bittner, trans. Kate Sturge (Cambridge: Cambridge University Press, 2003), 139 (sec. 7[60]).
82. As in the ending of *Kairo*, the final shot disappears in a flash like an old-fashioned television that has just been turned off.
83. "Digital angel" is Konaka Chiaki's term. See Honda, *Visual Experiments Lain*, 2. See also Susan J. Napier, "The Problem of Existence in Japanese Animation," *Proceedings of the American Philosophical Society* 149, no. 1 (March 2005): 78.
84. On the technological sublime, see Graham, *Representations of the Post/Human*, 9–10, 16–17, 155.
85. See Honda, *Visual Experiments Lain*, 48–49.
86. On nomadic subjects, see Rosi Braidotti, "Posthuman, All Too Human: Towards a New Process Ontology," *Theory, Culture & Society*, 23, no. 7–8 (2006): 197–208. Compare Prévost, who concludes her interpretation of *Serial Experiments Lain* differently, echoing the transhumanist ideology of Eiri Masami: "*Lain*'s message is that although we are accustomed to basing our identity in physical tokens and the memories of those who know us, we will be able to exist just fine without these things" ("The Signal of Noise," 187).

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Index