

## INTRODUCTION

# Cinema and Hygiene

From World War Two and the Korean conflict health education prospered as the physical and mental defectiveness of the nation was revealed.

RICHARD K. MEANS, *A History of Health Education in the United States*

## VISIBLE SYMPTOMS AND TECHNOLOGIES OF REPRESENTATION

Recent attempts to halt the spread of severe acute respiratory syndrome (SARS) in China (in 2003) and foot-and-mouth disease in western Europe (in 2001) have been undermined by the invisibility of contagion. Spread by airborne viruses capable of surviving transcontinental travel, these outbreaks have prompted widespread efforts to fortify local and global boundaries against the flow of disease. The increasing prevalence of infectious disease pandemics has provoked extensive commentary on both the impossibility of maintaining national boundaries in the era of globalization and on the medieval insularity of the quarantine measures enacted against contaminated regions. This contrast between postmodern global interconnect- edness and premodern isolationism highlights the extent to which the ever- expanding culture of surveillance faces a unique representational challenge in the realm of public health. Despite the adoption of painstaking strategies for eliminating diseases by eliminating infected animals and quarantining infected people, efforts to halt the flow of contagion have been frustrated by the difficulty of visually representing the virus. While images of slaughtered animals, face masks, and decontamination procedures at airports have filled the media coverage of these epidemics, the impossibility of ascertaining the precise location of the virus until after the fact makes the threat of a new outbreak seem ever present.

In many ways, the discourses of globalization and invisible contagion surrounding these recent outbreaks are on a continuum with the depictions of disease outbreaks in post–World War Two public health films. In both cases, invisible pathogens produce widespread anxieties about global contagion, and in both cases, the anxiety is displaced through a proliferation of images of contamination.<sup>1</sup> This form of representational inoculation—if one can see the contaminant, one can avoid infection—defines the discourse of world health, with its efforts to map and thereby contain disease-ridden areas of the globe. This discourse compulsively attempts to visually represent invisible contagions in order to fix the location of the ever-elusive pathogen. In both postwar and contemporary representations of the spread of contagion, the search for images of disease fetishizes the invisible interior of the human body—where the contagious “difference” may be hidden—as the site of a privileged form of knowledge. The intersections of the invisible global flow of contaminated objects and the invisible contagion lurking within the human body form the focus of this project.

*Cinematic Prophylaxis* is an interdisciplinary study of public health and Hollywood films that represent the spread of contagious disease across national borders. In the broadest sense, the book argues that a discourse of world health develops and becomes increasingly culturally pervasive from World War Two to the present day. Audiovisual materials play a crucial role in the articulation of world health, not only as vehicles of educational and ideological dissemination, but also as metaphors for the spread of disease within the processes of globalization. The communications technologies—such as film, television, and satellites—that enabled multilingual, international instruction in the postwar era by the Centers for Disease Control and the World Health Organization were widely celebrated as media that could facilitate the globalization of culture and promotion of world health. But the content of these films reveals a contradictory attitude toward the dissolution of national boundaries that takes place in the era of globalization. Even while postwar public health films embrace the ideals of world health on one level, they simultaneously invoke a distinct and deeply anxious mode of representing the spread of contagious disease across national borders.

This anxiety shares with recent outbreaks the concern with realism in representations of invisible contagion. In both cases, it is crucial that the

visualization of disease bear an indexical relation to the object itself, so that “authentic” documentary images of contagion can function as inoculations against the continued spread of disease.<sup>2</sup> Cinema’s privileged relationship to indexicality is claimed in a wide range of discourses, with varying ideological effects. This has been an ongoing issue from the invention of photography to the present postphotographic digital era, and the ability to distinguish fiction from reality in visual representations has been a central problem for the cinema of public health. With its aim of training entire nations of viewers to imagine the presence of invisible pathogens in scenarios of consumption and exchange, the project of world health is confronted with the simultaneous need for indexical evidence of the presence of disease and for artificial simulations of the spatial and temporal flow of contagion through networks of social interchange.

The demand for convincing images of contagion has resulted from the genuine and pressing need to find effective strategies for responding to infectious disease outbreaks. Often, such responses are generated in emergency situations that require immediate action and, consequently, foreclose the possibility of time-consuming reflection upon the best means of communicating health information to the general public. At such moments, the explanation and depiction of contagion tends to fall back on familiar and, therefore, easily comprehensible imaging techniques. While the desire to prevent disease and promote health undeniably serves the greater good, the means by which this end is achieved have had unintended and sometimes quite damaging consequences. The dependence upon historically entrenched images and narratives to convey information about disease has encouraged the ongoing stigmatization and neglect of certain social groups and geographical regions, whose collective health and well-being has suffered as a result. For this reason, historical perspective on the techniques employed in the promotion of public health—especially the default mechanisms invoked at crisis moments—is of vital importance. As *Cinematic Prophylaxis* demonstrates, many of the presently familiar health education techniques have their origins in the founding moments of “world health,” after World War Two. But this history involves both continuity and change, and the formative and transitional phases of this discourse provide a crucial perspective on the processes by which certain representational strategies become long-

standing iconographies of disease, while others are discarded as they become outdated. The following example will illustrate this point, as the film under discussion typifies an early-twentieth-century approach to health education and points to the transformations in the representation of contagion that would occur in the postwar period.

#### HOW DISEASE IS SPREAD

Between 1922 and 1924, a film series called *The Science of Life* was coproduced by the U.S. Public Health Service and a small, independent production company called Bray Studios.<sup>3</sup> The series consists of twelve short films ranging in topics from *The Fly as a Disease Carrier* to *Personal Hygiene for Girls* and *First Aid Treatment after Exposure to Syphilis*. Many of the films in the series emphasize how proper diet and exercise will enable healthy physical and mental development and lead to good marriages producing “well-born” children. With its goal of promoting healthful living, this collection of short films typifies the rhetoric of early educational health films.

One of the particularly intriguing films in the series, *How Disease Is Spread*, begins with a sequence of intertitles explaining the viewer’s civic responsibility to prevent the spread of contagious disease:

Do you know that about one and one half MILLIONS of deaths occur every year in the United States? Do you know that OVER THIRTY PER CENT of this number of deaths could be PREVENTED? The remedy for this appalling condition lies in each one of us knowing how disease is transmitted and DOING HIS SHARE TO PREVENT THE TRANSMISSION. The traveler in the next scene is suffering from tuberculosis. She will show you how disease carriers may sow the seeds of a dangerous malady.<sup>4</sup>

The film follows the diseased traveler through a day of shopping and dining out with friends and, using a rudimentary special effect, marks the woman’s path of destruction with stars left on the sites of contagion. We see the protagonist carelessly spread her germs across town as she engages in various acts of leisurely consumption, beginning with her arrival onscreen in a taxicab. Before paying her fare, the contaminated woman coughs into a handkerchief, which she replaces in her purse next to the cash that she hands to the driver. The scene alternates between medium and close-up shots, always



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*How Disease Is Spread* (1924)



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privileging the moment of contagion with a cut-in, so that when the cabby sticks the bill in his mouth as he digs for change in his pocket, the impropriety of this act is emphatically stated to the audience (figure 1). Once the transaction has been completed, we see another close-up of the driver's mouth, this time with a black star on his lip (figure 2).

In the next sequence, the tubercular woman strolls up to a newsstand and begins browsing through a magazine; an intertitle informs the viewer of the potential danger in such an activity: "Suppose that she has the habit of moistening her fingers when turning the pages of books." The woman coughs into her hand, and is left with stars on her fingers. The medium shots of the protagonist flipping the pages are intercut with close-ups as she licks her starred thumb and then leaves a star on the corner of each page that she turns. Shortly, the woman tires of this magazine, tosses it aside, picks up another, buys it, and walks offscreen. As the woman exits, a man enters from the opposite side of the frame and picks up the contaminated magazine. He, too, licks his thumb before turning each page and thus the stars on the page corners are transferred to his lip.

The repetition within this film of the female protagonist's contagious interventions into public life is symptomatic of the eugenicist ideological

program of the series as a whole. A foundational premise of the eugenics movement is the insistence upon proper breeding, with the attendant requirement that procreative men and women pursue pure lifestyles that will produce strong and healthy babies. For women, adherence to the conventional gender norms of domestic femininity is axiomatic, and the consequences of departing from the norm are shown clearly in *How Disease Is Spread*; the extroverted woman infects a male consumer through her inappropriate behavior at the newsstand, and in the next sequence, she infects an innocent youth, potentially destroying the child's future mating capabilities.

In both of these scenes, the sphere of contagion is not only the public sphere but also, importantly, the sphere of commercialized leisure. While *How Disease Is Spread* attempts to specify the process by which invisible germs move from person to person, it also unwittingly links the process to particular scenarios that only occur in modern, urbanized consumer culture. The commodification of activities such as transportation, communication, and food service creates a circuit of exchange that enables diseases to spread through networks of production and consumption. It is no accident that in each of these scenes contagion occurs through the exchange of money; the cinematic representation of the body enables a commodification of the human form, both onscreen and in the paying audience, and the process of transforming individual identity into a consumable object becomes interwoven with the process of contagion in this period, as the public sphere becomes a site of both entertainment and contamination.<sup>5</sup>

In the next scene, the woman enters a restaurant and is seated with another woman and a young girl (presumably mother and daughter). The intertitle ominously sets the stage: "If we could see the bacteria on a drinking glass which has been used by a disease-carrier." After the woman takes a sip of water, the camera cuts in to a point-of-view close-up of the rim of the glass, covered with stars. In a medium shot of the table, we see the little girl asking her mother for water, and when her glass appears empty, the "disease-carrier" offers her own glass. As the girl drinks from the contaminated vessel, the intertitle informs us, "This shows why certain articles used by different persons should be sterilized." When we return to the lunch scene, the girl has a star on her lip.

The use of the close-up in this film is significant not only as a technique

for displaying the presence of germs, but also as a mode of fragmenting and fetishizing the human body. By using this representational technique, *How Disease Is Spread* reveals an early expression of the discourse of contagion, which places great emphasis on the importance of maintaining coherent, nonfragmented organic and national bodies, despite its inability to represent such bodies as whole.<sup>6</sup> Thus, even this early public health film contains the contradiction that comes to define the postwar discourse of contagion, which seeks to visually represent that which is invisible, just as the fetish—here, the commodity fetish—stands for something that is not actually there.<sup>7</sup> While the stars can signify the paths of contagion to the viewer, the characters in the film cannot see them. Thus, the film is attempting to train viewers to imagine seeing germs that they cannot actually see. *Imagining* the presence of disease is crucial to the construction of the public sphere in the discourse of public health; viewers are trained to identify scenarios of contagion, but in the process of categorizing threatening situations, these films also categorize threatening characters, threatening social types.

In *How Disease Is Spread*, the threatening character is the middle-class white woman, whose participation in the public sphere is seen as contaminating. The linkage of middle-class white women with contamination in this film would seem to contradict their traditional social status as guardians of the private sphere who must be protected from the dangers of the public sphere.<sup>8</sup> Indeed, in one of the more prevalent early-twentieth-century discourses of modernity, the public sphere was characterized as a dirty, crowded, and alienated mass of industrial workers, whose anonymity enabled criminality to pass undetected. The true sources of immorality were obscured by the thronging crowds of the new urban centers, and consequently all but the most sanctioned participants in the public sphere (namely, the normative white, propertied, literate males) were subject to suspicious scrutiny. In this vision of modernity, the middle-class white woman is representative of the domestic sphere and serves as the antidote to the evils of the public sphere—but only if she stays at home. Thus, while most discourses of modernity linked the typology of the diseased character with racial or class difference, the eugenicist perspective of *How Disease Is Spread* expanded the definition of disease carriers to include misbehaving middle-class white women as problematic subjects of modernity. Despite the con-

tinued and widespread rhetorical linkage of whiteness and femininity with purity, the discourse of contagion promoted near-universal suspicion as an unfortunate but necessary precaution. Therefore, public health films were produced to assist good citizens in imagining, based on a brief glance, what lurked within their fellow city dwellers, to determine whether they were corrupt or legitimate participants in the public sphere.

*How Disease Is Spread* thus sought to fulfill, for an early-twentieth-century audience, one of the same functions that photography had fulfilled starting in the previous century. Allan Sekula argued in his account of the intersection of technologies of representation and scientific discourses of racial and moral purity:

In claiming to provide a means for distinguishing the stigmata of vice from the shining marks of virtue, physiognomy and phrenology offered an essential hermeneutic service to a world of fleeting and often anonymous market transactions. Here was a method for quickly assessing the character of strangers in the dangerous and congested spaces of the nineteenth-century city. Here was a gauge of the intentions and capabilities of the other.<sup>9</sup>

And indeed, in many discourses of modernity, the typology of the diseased character was linked with racial or class difference from the norm of middle-class whiteness. However, in this widely viewed public health film, the good character has turned evil. Not only has she spread disease to the cab driver, the magazine reader, and her fellow diner, but, as the film goes on to illustrate, “By such careless habits, one diseased individual may scatter infection across an entire continent.” Following this proclamation, the viewer is presented with an animated map of the United States containing a superimposed list of infectious diseases: “Gonorrhea, Syphilis, Diphtheria, Smallpox, Tuberculosis, Measles, Influenza, Scarlet Fever, Common Colds, etc.” As this list fades out, a new caption appears: “Carrier of an Infectious Disease,” located near a dot on the map in the Northeast United States, which is identified by a pointer. The map dissolves and is replaced by a closer view of the dot in the Northeast region, where more dots appear, with the caption “Infections from the Disease Carrier.” As the pointer taps each new infection, another caption explains, “Each infected person becomes in turn the





source of further infections,” and new “secondary infection” rings appear. At this point the film cuts back to the full map of the United States, and a line traces the path of contagion across the country, connecting the dots, leaving new rings of secondary infections, and finally linking the coasts with the trail of disease (figure 3).<sup>10</sup>

This film’s selection of the least likely candidate for representing social contamination was undoubtedly strategic, as the emphasis on lifestyle—the infected woman’s “careless habits”—was a key component of the rhetoric of consumerism during this period, and advertisements for personal hygiene products were directed primarily toward middle-class white women.<sup>11</sup> The discourse of consumerism played a key role in defining the public sphere as urban space was transformed by technological and cultural developments such as the automobile, the department store, and the expansion of nickelodeons and vaudeville stages into motion picture palaces. These developments not only created a sphere of commercialized leisure, they also offered women increased opportunities to participate in the public sphere without requiring a male companion or chaperone.<sup>12</sup> As part of this transformation, the development of mass communication technologies enabled education of the audience in techniques for preventing the spread of contagions as well as mass indoctrination into an epistemology linking disease with the public sphere’s “dirty masses.” Ironically, this mass-mediated discourse constructed as its ideal audience an imagined community<sup>13</sup> of innocent, healthy people whose boundaries are defined by their racial, national, and class “purity” (as long as they behave properly, as our protagonist did not), and yet the audience’s very presence in the public space of a motion picture theater in 1924 would implicate them as members of the public that they were being instructed to avoid.<sup>14</sup>

By approaching public health practice as an issue of lifestyle, *How Disease Is Spread* represents the prevention of contagion as a responsibility of the individual, not the community. While this film recognizes contagion as a national problem, it does not place disease in the context of globalization or world health and, therefore, does not emphasize the problem of maintaining national borders as an extension of the physical boundaries of the self. This emphasis on local rather than global outbreaks links the representation of contagion to a gendered conception of domestic consumer culture, in contrast to the sexual and racial transnational public sphere that will define the postwar period. Instead of linking contagion to sexualized physical border crossing or racialized national border crossing, the representation of contagion here is closely tied to gender—the purveyor of contagion in this film is a white, middle-class woman whose pathological status is tied to her unhealthy forms of consumerism. In *How Disease Is Spread*, the paths of contagion are equated with paths of consumption, particularly in the context of commercialized leisure. But popular culture is not perceived as a global phenomenon until after World War Two, and thus the representation of the sphere of consumption remains within u.s. borders in this film.<sup>15</sup> In contrast, later public health films directly emphasize the importance of the national border as a site of surveillance and bodily regulation. Despite the fact that international quarantine is a crucial component of the practice of public health from at least the eighteenth century onward, the cinematic representation of contagion is not linked with the global flow of bodies until after World War Two.

While analysis of a single film cannot provide sufficient evidence of the dominant modes of representation in an entire historical period, viewed in the context of other early health films, the *Science of Life* series as a whole offers a useful contrast with later films, if largely through negative definition. That is, the earlier films are most notable for what they lack, in comparison with postwar public health education. Formally and stylistically, the *Science of Life* series exemplifies early public health filmmaking before the decisive shift to sound in the late 1920s—the use of voiceover in postwar films is a crucial strategy for identifying aurally what the films cannot successfully depict visually.<sup>16</sup> Thematically, the series demonstrates this period's tendency to understand health through the dual frames of modern, gendered

consumer culture and the eugenicist ideology of racial and sexual purity. These themes become inseparable in postwar films, as questions of health and hygiene become inextricably linked to issues of globalization.

#### A PARTIAL HISTORY OF CONTAGIOUS CINEMA

The history of public health film production is linked to the history of early cinema through their mutual construction of—and by—the broader surveillant impulse of late-nineteenth- and early-twentieth-century modernity, with its emphasis on the regulation of individual and national bodies. Motion pictures and institutions of public health were reshaping the public sphere in this period, with the aim of preventing a range of moral and biological contagions. Although very little government-sponsored public health filmmaking took place between *The Science of Life* series (1922–24) and the u.s. entry into World War Two, the realms of educational and commercial production and exhibition were not as separate in that period as they are today.<sup>17</sup> In the postwar period, health films were isolated from all other forms of cinematic entertainment, and yet, simultaneously, they came to occupy a central location in the public imagination of national identity. The events leading up to this seemingly contradictory state of affairs are the focus of chapter 1.

Using *How Disease Is Spread* (1924) as a point of reference for my discussion of postwar public health films will elucidate the historical specificity of the scope and vectors of contagion that distinguishes pre- and post-World War Two films. While communication and commerce (including the trade in motion pictures) had been global long before World War Two, the concept of “globalization” only gains audiovisual discursive prominence after the war. Through a cinematic emphasis on transnational air travel, communications technologies, and cartographic representations of the global flow of bodies and objects, cinematic articulations of the spread of disease expand their boundaries from the national to the global after 1945. Linked to this development is a shift in the modes of visualizing invisible contagions. A dialectic of visibility and invisibility pervades the imagery of contagion throughout its history, but specific socially legible markers of disease displace contagion from gender deviance, in the films of the 1920s, to racial and sexual transgression in the postwar films. These categories are not mutually exclusive but, rather, have varying degrees of visible salience in different representa-

tional paradigms. Thus, the gender improprieties of the female disease carrier in the earlier film are implicitly linked to eugenicist discourses of racial and sexual “purity,” but the specific techniques of visualization in that film emphasize gender over race and sexuality.

In all of the film analyses that follow, my privileging of particular categories of difference is driven by the historically specific context in which the film was produced and viewed. This context consists of generic and thematic groupings of films, iconographic linkages across genres, popular and scientific discourses about cinema and public health, and broader cultural concerns articulated across different media. Since my argument is both medium-specific and more broadly historical, motion pictures provide the central set of “documents,” but my textual analysis is governed by the films’ relationship to contemporaneous treatises about the role of cinema in public life. These treatises, in turn, are informed by the social, political, and cultural milieu in which they (and the films) were produced and consumed. For instance, a postwar public health film like *The Fight Against the Communicable Diseases* (1950) is considered in relation to other postwar public health films, public health issues and policies, and public health discourses about the role of motion pictures in promoting and disseminating the ideology of world health. Simultaneously, however, the film is viewed in relation to popular motion pictures of the period that also engage with questions of the invisible spread of contagious disease, such as science fiction alien invasion films. Finally, the widely discussed social issues of Communism and civil rights are considered in relation to the intersecting imagery of alien or viral invasion of national and bodily boundaries.

While the various intertextual histories of cinema and public health provide a crucial framework for analyzing the significance of these films, certain types of historical evidence are regrettably absent from this study. I have not included written records pertaining to the production, distribution, and exhibition of these films, because they are largely nonexistent or, at best, scattered across the country in unofficial collections unknown to researchers. No comprehensive history of public health film production exists, and consequently, much of the research for this project involved the challenging—if seemingly basic—task of simply identifying and locating copies of relevant films.<sup>18</sup> While several archival collections of historical audiovisual

materials do exist, most do not contain documentation about the films, nor do they claim to be comprehensive in any sense. Although there is abundant evidence to suggest that these films were far from obscure or marginal, they were nonetheless treated as ephemeral objects; possessing neither the artistic nor the commercial value deemed necessary to merit preservation, the films and the records related to them were often discarded as the age of video made the medium of 16 mm film obsolete.<sup>19</sup>

Thus, the central task of this project was to develop an understanding of the range and variety of health films that were produced throughout the twentieth century, especially after World War Two, in order to identify repeated themes and modes of representation. It is certainly possible that focused research on a single film might yield fruitful information about who made the film, where it was shown, who saw it, and what they thought of it; it is equally possible that such a search might lead only to a dead end. So, despite my curiosity about these important details, I made the strategic decision to focus here on text and context, leaving production and reception for another project. This methodology raises the question of how legitimately to interpret a film with only partial access to the historical materials that might provide a more complete answer. In other words, it raises the question of how to determine when one might be “reading too much into” a given film. And yet, having access to information about the film’s producers would not necessarily help answer this question—an auteur’s best executed intentions for a film cannot guarantee that the message will be received.<sup>20</sup> For that matter, having access to the audience members’ responses to a film would not necessarily prove that the film “meant” what they said it meant, either.<sup>21</sup> Moreover, as film scholar Ruth Vasey has shown, the regulation of Hollywood film under the Production Code was specifically designed to produce a degree of textual ambiguity that not only enabled but in fact encouraged viewers to “read into” the obfuscations and innuendo that defined popular film in this period.<sup>22</sup> By approaching these films as collective evidence of a broader discursive formation, I have attempted to identify widespread cultural concerns that the films were expressing—whether consciously and intentionally or not. In other words, my interpretation of these films was guided by my identification of specific issues and concepts that were repeated frequently enough to convince me that they functioned as “common sense” in a wide

range of materials related to the promotion of postwar public health in the United States and abroad.

In the first chapter, I trace the intersection between public health organizations and institutions of motion picture reform. More specifically, this chapter examines the development of the educational public health film in relation to debates over the social and artistic role of cinema in the public sphere of the 1930s. The proliferation of treatises on the “entertainment” versus “educational” value of film in this period ultimately led to the reinforcement of the Hollywood Production Code in 1934, and the language of these debates was heavily influenced by the discourse of contagion. Health education films were linked with instruction and opposed to films associated with pleasure, and yet the official articulation of boundaries between these spheres of discursive production could not keep them apart. Instead, the dominant representational forms of world health came to define the representation of a wide range of contagions in popular culture in the postwar period.

The interconnections between educational and entertainment films are especially striking considering the intense institutional pressure to isolate each mode of representation from the other. But this is not merely a formal or stylistic point; on the contrary, the efforts to create “realistic” visual representations of the invisible bind the most didactic instructional films with the most spectacular fictional features. Collectively, these films constitute the audiovisual discourse of world health, and the appearance of consistent, cross-generic techniques for visualizing contagion strongly suggests that the ideals of world health thoroughly pervaded both scientific and popular cultures in the postwar period. Moreover, the widespread dispersion of this imagery helps to account for its historical durability; as we can see in the foot-and-mouth and SARS epidemics, in the language of computer viruses, and in popular film and television, the rhetoric of contagious globalization continues to appear in prominent mass-mediated cultural forms.

Following my discussion of the “education versus entertainment” debates, I examine the status of film as a technology of ideological and instructional reproduction within global health surveillance organizations, arguing that although film was a privileged medium of discourse for these institutions, it was also identified as a source of the very contagions that public

health organizations were meant to contain. Chapter 2 provides the historical context for the surveillant gaze and the discourse of contagion by examining some key moments of institutional and representational intersection in the histories of public health and cinema: the “bacteriological revolution” of the 1880s, the invention of cinema in the 1890s, the Spanish American War in 1898, and World Wars One and Two. At each of these moments, the technologies of monitoring and visually representing contagious disease become increasingly systematic in their modes of production. By tracing this history, I demonstrate that the parallels between public health and cinematic institutionalization and representation emerge from historical forces engaged with the fear of invisible contagions. Moreover, I argue that the same anxiety that drives health surveillance organizations in their frustrated attempts to represent contagious disease is reproduced in the organizations’ privileging of film as the medium whose unique ability to capture “the real” will enable the elusive invisible to be visualized. As I demonstrate in my analysis of two postwar public health films—*Hemolytic Streptococcus Control*, a 1945 U.S. Navy training film, and *The Eternal Fight*, a 1948 United Nations film—a dialectic of visibility and invisibility pervades the films that attempt to represent contagious disease. The tension within these films, between indexical representation of the body and the impossibility of visualizing potential threats to that body’s integrity, reveals the paranoia about maintaining organic national boundaries that underlies the supposed confidence of the globally hegemonic postwar United States.

After examining the attempts to separate public health and Hollywood modes of representation in chapter 1 and discussing the techniques for representing invisible disease invasions in chapter 2, the third chapter argues that this institutionalized regulation is circumvented through the different film genres’ shared participation in broader discourses of visibility and disease. By comparing postwar public health films and postwar science fiction films, I demonstrate that the dialectic of visibility and invisibility at the heart of the pursuit of world health also structures the central problematic in an important subgenre of 1950s cinema: the alien invasion narrative. In these films, the oscillation between indexical and artificial representations of the invisible shifts to an oscillation between stock footage and special effects, enacting the same anxiety to visually fix the location of contagion.

A key argument of chapter 3 is that the prevailing interpretation of postwar science fiction invasion films as “Communist allegories” fails to recognize a crucial element common to all of the films: the centrality of the body in representations of invasion and contagion. The dialectic of visibility and invisibility is crucial to films such as *Invasion of the Body Snatchers*, as well as to the public health films discussed in chapter 2, because these films are fundamentally preoccupied with the question of how to discern visible evidence of the interior corporeal truth of an individual. Here, instead of determining whether an individual is healthy or diseased, the problem is determining whether an individual is human or alien. In both cases, the threatened penetration of physical and national boundaries links the representational form to the globalization anxiety of world health.

The popularity of the genre of science fiction in the 1950s is crucially linked to the expansion of image-based culture in the postwar era; the proliferation of electronic images and sounds in this period is attended by an increasingly widespread expression of the compulsion to visually represent invisible contagions. In the fourth chapter, I examine the narrative structure that organizes this “compulsion” in both public health and Hollywood films: the structure of conspiracy. As discussed in earlier chapters, at the core of the dialectic of visibility and invisibility are competing versions of realism, which alternately rely on “indexical” images of racially and sexually marked bodies and “artificial” animated maps of contagion. This contradictory but nonetheless foundational drive toward realism positions both public health and Hollywood films in an anxious relationship to “the real”: the impossibility of capturing a profilmic image of contagion is figured as the impossibility of mapping the boundaries of a global conspiracy. And the “crisis of referentiality” often attributed to postmodern systems of signification extends not only to the paradigmatic representational form of this era—the narrative of conspiracy—but also to the ambiguously indexical technique of epidemiological cartography.

Chapter 4 links the conspiracies of alien invasion in science fiction films of the 1950s with the conspiracies of globalized transportation and communication networks that enable the transnational spread of invisible contagions. By tracing this mode of representation through an important conspiracy film of the 1970s—*The Andromeda Strain*—chapter 5 explores the



collapse of sexually and racially marked bodies with “alien” vectors of contagious disease. In this and earlier alien conspiracy films, the representation of globalization as both cause and cure of contagion produces a paranoia about boundary crossing that treats male bodily invasion as sexual penetration. Thus, anxieties about the spread of disease are often represented through a fear of “homosexual contagion”—a fear that takes on increased political potency in the era of AIDS (acquired immunodeficiency syndrome). Chapter 5 examines the broader shifts in the discourse of contagious globalization by analyzing AIDS education videos as texts that reveal key representational and political struggles in the transformation from the era of conspiracy to the digital era. The most recent articulations of the ideals of world health come together in the 1995 Hollywood film *Outbreak*, through a condensation of AIDS allegories and digital imaging technologies. Unlike the earlier attempts to visualize invisible contagions, digital manipulations of the filmed image in *Outbreak* seamlessly integrate the indexical and the artificial, thus fulfilling the world health desire to incorporate global surveillance technologies within the physical body. But simultaneously, the advent of digital technologies has prompted a recycling of the rhetoric of viral invasion and contagious globalization.

The recurring themes of globalization, contagion, racial and sexual difference, and technologies of representation are brought up to date in the book’s conclusion through a brief discussion of computer viruses. In charting the articulation of the ideals of world health in these various genres, *Cinematic Prophylaxis* illustrates the historical transformation of national and bodily boundary anxieties from extraterrestrial to geopolitical borders between “inner” and “outer” space. Moving from early cinema in chapter 1 to contemporary cultural forms in the final section, the conclusion argues that film’s supposedly privileged access to “the real” has continually failed to secure an indexical image of contagion, resulting not in discursive failure but, rather, in a proliferation of attempts to visualize the invisible.