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Viral Bodies, Virtual Practices

Monica Hulsbus

> An additional measure of protection can be obtained by care
> in the way one uses a computer. Analogies with food and drug
> safety are helpful. Just as one would not consider purchasing
> food or capsules in unsealed containers or from untrusted
> sources, one can refuse to use any unsealed software or
> software from untrusted sources. ... Never use a program
> borrowed from someone who does not practice digital hygiene
> to your own standards.[1]

Endowed with the cultural anxieties that computer technologies have
brought about, biological and computer viruses are frequently conflated
in popular narratives. President of the American Computer Industries
and writer of VChecker Software, Winn Schwartau characterises viruses
as not only designed to make copies of themselves spreading through
computer networks, but as having 'the desire to propagate'. Further,
'[u]nlike its biological counterparts, viral software is hermaphroditic in
that each generation has only one parent that spawned it ... [and] it is
offensive by nature'.[2] The diversity and number of computer viruses
have escalated from six in 1987 to over three thousand catalogued in
1993. By the end of the millennium almost one hundred thousand
different viruses may have been actively circulating, in circumstances
where not only governmental, corporate, and institutional data and
research could be appropriated and damaged but almost everything
else - air traffic control, health insurance records, social services, and
credit reports, to name just a few. Moreover, at a time of global
connectivity, criminal hacking and terrorism are often linked by media
representations whereby bogus operations are launched along with
destructive viruses. In the aftermath of the Oklahoma City bombing, US
Attorney General's Office warned that '[t]he information superhighway
... is home to all manner of hate groups' in addition to 'how-to'
information on 'making nerve-gas', 'building pipe bombs' and 'harming
federal agents'. Furthermore, '[n]ot only would-be terrorists have access
to detailed information on how to construct explosives, but so do
children. ... This problem can only grow worse as more families join the
internet society.'[3] Time bombs, malicious and polymorphous, mutating
and unpredictable, the language employed to represent viruses betray
the difficulty in coming to terms with a host of topics that have emerged

alongside digital technologies – ranging from the AIDS epidemic, terrorism, moral concerns pertaining to the status of the body and traditional values, epistemological transformations in the educational and professional fields and the accompanying anxieties that precede foreseeable changes in lifestyle. Loaded with warnings, predictions and advice, the narratives this language breeds proliferate: ethically and aesthetically they anticipate, rehearse, and advocate certain trends, attitudes, and behaviours while discouraging others.

This essay examines the narrative tropes of recent films construed upon the imagined threats that viruses inflict on nation, community, and body. The tropes lend themselves to an investigation of the possible links between discourses of health and immunity and those about network technologies. Additionally, these tropes need to be contextualised within the circumstances of their emergence (the AIDS epidemic and the social and epistemological reconfigurations triggered by network technologies) and the larger history of science – if productive connections between cybernetics and popular culture, experts and laymen are to be obtained. Three main narrative strategies resonating with the paradigms that shaped science and cybernetics in the last 50 years emerge in these films. Addressing pressing issues such as the security of the body and the nation state, the trope of contamination condenses overall fears of losing control over clearly established boundaries. Firstly, *Outbreak* (Wolfgang Peterson, USA, 1995) recalls an earlier homeostatic model which is narratively reconfigured within complex system theory. Earlier strategies deployed to contain the polio epidemic as the major threat to public health in the 1940s and 1950s reappear in this film enforcing quarantine and focusing on body fluids and openings as entryways for disease. Borrowing from popular conspiracy theories the onset of AIDS in the destruction of natural ecosystems in Africa – proposing this particular virus as a more destructive strain of the HIV – *Outbreak* stages a devastating viral spread resulting from an interdependent global economy. The preposterous military efforts to eradicate it betray alarm at the prospect of losing jurisdiction over national boundaries. Moreover, this anxiety can be equated to a kind of semiotic xenophobia that wishes to remove from the communication exchange elements that pollute its logic and linearity – an anxiety shared with the champions of the homeostatic model in the aftermath of the Second World War. Nonetheless, this strategy of containment is altogether enunciated and resisted within the plane of the story since effectively stopping the spread entails acknowledging the futility of holding onto a Cold War, protectionist framework and shifting instead to one held by communication and feedback – where the body is perceived as capable of tailoring incommensurably diversified and specific responses to the challenges presented by its environment.

Secondly, through the endless discontinuities, incongruencies, displacements, and reversals in its story and mode of presentation

Ice (Carter, USA, 1993), *The Host* (Carter, USA, 1994), and *The X Files* (Rob Bowman/Chris Carter, USA, 1998) echo the labyrinthine structures of language with which reflexivity challenged homeostasis in the aftermath of the Second World War and more recently, poststructuralism, the fields of cultural studies and criticism. Yet while poststructuralism succeeded in opening up symbolic systems for interrogation and complex system theory radically transformed science and technology, our investigators remain locked within the constraints of a governmental agency. Since disclosure about the alien virus would yield widespread alarm yet its concealment breeds corruption within federal agencies, the only narrative alternative to this impasse is to stage the veiling and unveiling of this scandal ad infinitum. Our interest in the series does not accrue with the specificity of each story but with the reiteration of the inquiry itself. We take pleasure partaking of the talent of our investigators to see through the machinations of power – even while the results of those investigations remain, literally, to be seen. By incorporating the unexplainable, irrational, and repressed, Mulder and Scully deflect the hegemony of a signifying system into unending deferrals within the narrative. These 'experts' consistently subvert a positivist, linear model of signification bringing to our attention those disavowed elements that remain, otherwise, unacknowledged.

Thirdly, *Virus* (John Bruno, USA, 1999) can be read as an inversion of complex systems – a regressive, paranoid reaction to the shift from an industrial to an information economy. Enacting an impending disaster in the midst of a seamless global, capitalist, hegemony, the narrative responds not by generating a bifurcation[4] out of potential configurations, but by corrupting the components that make up the story. In the 'sameness' exhibited by both characters and events we read a shortage of resources to support a bifurcation. Stripped of contingency, the narrative lacks the necessary 'friction' to stimulate structural features into a new configuration. Rather than examining the grounds of an 'asymptomatic' new world order, the narrative places network technologies as the major threat to its equilibrium and hence an 'attractor' for chaos and entropy, not order. This 'wag-the-dog' narrative strategy of diversion forges an equilibrium predicated upon capital against an outside threat of invasion and colonisation. However, it is precisely this totalising hegemony that prevents diversification and survival.

Outbreak   *Outbreak* delivers a story of immune breakdown affecting an entire community. The film opens with a flashback showing a small village in Africa – where American troops have been deployed – bombed as a result of a viral outbreak that kills its people in about 48 hours. The massacre remains a classified secret until later when the same viral strain travels to the USA via a pet monkey smuggled by boat. Although

civilians are the ones initially affected by the disease, it is the USA military who struggle to contain it. The plot splits early into a conflict between two antagonistic strategies: a hard line position that strives to isolate and eventually destroy the entire town, fearing the virus will spread; and a humanitarian approach which attempts to avoid the atrocity by manufacturing the antibodies contained in the body of the missing monkey.

Although the rhetoric that describes the strategies of isolation to stop the virus in *Outbreak* resonates with those in use during the polio epidemics, Emily Martin has pointed out that scientific popular media addressing the AIDS epidemic adopts a similar rhetoric whereby a belligerent conceptual framework summons a xenophobic language and defensive operations. To understand the immune system, Martin quotes, we are encouraged to think of it as a 'disciplined and effective army that posts soldiers and scouts on permanent duty throughout [our] bod[ies]'.[5] Whereas the comparison of the immune system with warfare is frequently called forth, the body as police state is also often invoked. 'Every body cell is equipped with proof of identity, a special arrangement of protein molecules on the exterior ... these constitute the cell's identity papers, protecting it against the body's own police force, the immune system. ... The human body's police corps is programmed to distinguish between bona fide residents and illegal aliens – an essential ability to the body's self-defense mechanism.'[6] Moreover, 'T cells are able to remember for decades the identity of foreign antigens: the intruder's descriptions are stored in the vast criminal records of the immune system'.[7] Yet, whereas the military intervention is in this film a generic convention, we read their dysfunctional approach in light of a protectionist industrial model that has been superseded by an information economy. That the chosen scenario is a small town suggests that traditional values are particularly vulnerable to destruction from outside influences. Catastrophe films generally resolve narrative tensions by purging institutions of dishonesty and reestablishing community – and *Outbreak* is no exception. Alliances are presented here within a liberal agenda and science, military personnel, and the common people – the foundations of the nation in this case – survive devastation and learn from disaster.

Narratively, the film explores the ethical and ideological implications of managerial and epistemological models predicated upon binaries and hierarchies. Thus, it exposes corruption in centralised systems of authority divorced from grassroots foundations – implications that can be extended to the pharmaceutical corruption and runaway entrepreneurial logic the AIDS crisis uncovered. Against authoritarian strategies, the narrative promotes the medical team's tactics of resistance as a model that is morally accountable to the people it serves. Furthermore, the tropes of containment and narrative detours are

deployed within an economy that transfers authority from an outmoded militarism onto one that acknowledges the necessity of (net)working beyond and often against institutional frameworks. In so doing, the narrative refashions codes of masculinity, privileging the participation and contribution of women and racial minorities as key to a successful resolution of conflict.

As the personal computer was marketed into the American home, the markers defining nation, community, self, and body, already corroded during the 1980s, underwent throughout the 1990s further disintegration. As the social field has become visibly fragmented and unstable, narrative conventions also appear scattered. Still in place are discourses that approach emerging technologies within a mechanistic world view along with those embracing the incompleteness, interrelatedness, and transiency that mark postmodern cultures. Semiotic codes centred around a white, male, and heterosexual norm compete with a decentred model whereby signification is grounded by difference. Although the reconfiguration of social actors has not taken place without ongoing power struggles, the social landscape ultimately did change – enforced by anti-discrimination laws and Affirmative Action. Nonetheless, cultural anxieties triggered by the decline of traditional values have been exacerbated by the dematerialisation and decentralisation of network communications. Whereas in *Outbreak* these anxieties are resolved within a reconfiguration of the codes of masculinity and an epistemological shift, in *X Files* these anxieties subvert the traditional economy of masculinity and control.

Film studies informed by poststructuralism and psychoanalysis have argued that the pleasure the viewer experiences evokes the plenitude of the infant at the breast, intensified by the darkness of the screening room and immobility of the sitting position. Body orifices such as the mouth, offering otherwise entrance to disease, may draw scopophilic pleasure associated with orality and fusion. Not only are gender roles reversed (Mulder is intuitive and Scully rational and scientific) but the continuous deferrals stemming from the ambivalent tropes, delays, and disavowals displace resolution onto a fetishisation of the narrative structure itself – establishing a mode of address and a specular pleasure that circumvent an identification with a patriarchal orders. Thus the paranoid and suffocating atmosphere that accompanies Mulder and Scully wherever they go attest to a repudiation of a paternal authority predicated upon linearity and closure and instead, an allegiance with the mother and a longing for fusion. Yet, since fusion would end all narrative movement, pleasure lies in forever staging the fantasy of its anticipation.

The Host, Ice, The X Files

The Host and *Ice* are likely to have been the embryo for the main story of the *The X Files* feature film five years later. In *Ice*, the theme of contamination centres around a parasite alive under subzero temperatures

in Icy Cape, Alaska, USA. After Mulder and Scully undertake the investigation of Arctic Ice Core Project, they find everyone dead, except for a dog with visibly swollen lymph nodes and a strange worm traveling under its skin. Finding the ratio of ammonia hydroxide in the ice to be too high, they speculate that the meteor that long ago hit the area could have brought something with it – since ammonia supports life even under freezing temperatures. Not sure how the larvae is transmitted – if by air, touch, exchange of fluids, or all of the above – they figure that the parasite settles in the hypothalamus releasing hormones that trigger aggressive behaviour. By inserting another worm into the ear canal of the contaminated victim they learn that the hermaphroditic worms will kill each other, for they are too hostile to coexist. Expressing later a desire to return to the site of investigation, Mulder learns that it has been destroyed after they evacuated the place – perhaps by the Center for Disease Control, the military, or even the FBI itself.

The Host begins with the dead body of a man floating in the sewer system of Newark, NJ, USA. Performing an autopsy on the body, Scully extracts a fluke worm. After another sanitation worker is attacked allegedly by an unusually large worm, Mulder takes Scully to examine a large parasitic creature with primate physiology kept under medical surveillance, seemingly a mutation of the original fluke worm. While the creature is being transferred to FBI quarters, it escapes through the Newark County Sewage Processing Plant back to the ocean. The episode ends with Scully reporting that the fluke came off a decommissioned Russian ship used in the disposal of salvage material from the Chernobyl meltdown. Born in the radioactive sewage soup, the creature acquired – through abnormal cell fusion and suppression of natural genetic processes due to radiation – reproductive and physiological cross training, mutating into a quasi vertebrae human capable of spontaneous regeneration. Scully's sombre final statement, 'Nature didn't do this thing ... we did it,' is punctuated by a close-up on the creature still alive, floating in the open sea.

In both *Ice* and *The Host*, the separation between host and worm is very clearly established for once the worm finds its way into the human body, life ends. The trajectory of viral invasion in historical epidemics such as 'the bubonic plague, polio, and AIDS' (quoted earlier by Martin) comes back in *Ice* in the familiar teleology where body fluids and orifices turn up as ports of entry and 'self' is pitted against 'other'. In *The Host* the focus is on waste management and genetic mutation. As global traffic transfers all kinds of substances and cultural trends from place to place, cross-pollinating them, a reminder that we are all responsible for the preservation of the ecosystem surfaces as a critical issue for interdependent economies.

Significantly, in both episodes the worms are hermaphroditic – using their victim's body for regenerative nourishment while multiplying into other

bodies through their larvae. Insofar as the makeup of the alien parasites matches the descriptions by which computer viruses have been identified, we can conjecture that cultural anxiety may be mobilised by network protocols collapsing not only national/cultural boundaries and the social markers inscribed in a visible body but, most importantly, the sexual difference upon which the symbolic order is predicated, spreading social and economic chaos uncontrollably. Insofar as the subject – whose network of relations has been traditionally anchored by a body in a spatial location – is no longer grounded in a corporeal presence and instead, computers mediate the production of bodies, selves, communities, and cultures, dystopic accounts of surveillance (*Brazil*, Terry Gilliam 1985; *Gattaca*, Andrew Niccol 1997; *The Truman Show*, Peter Weir 1998) proliferate in popular culture. Institutionally, this is a tough bone to chew, for what is an accountable identity if not a traceable one? And, how is an identity addressed when dislodged from a body marked by sex, gender, race, and class? As the flow of information cannot be regulated anymore than the traffic of commodities can be controlled in a global economy, the social, institutional, and legal mechanisms that sufficed to apprehend a visible agency can no longer do so.

Based on the popular TV series, *The X Files* feature film combines the themes that the show produced during the last five years – the extra-terrestrial origins of a lethal virus that rapidly takes over its host and feeds off the body. The story accounts for the informal investigation Mulder and Scully perform to untangle the trajectory of an unknown viral organism (and the vaccine against it) secretly kept by the Federal Emergency Management Agency (FEMA) in conjunction with an international research project. Their investigation takes them to a mysterious building surrounded by corn fields where they are attacked by bees and later to Alaska where Scully has been kidnapped by FEMA. As Mulder looks for her, he falls into a deep hole in the snow that becomes an underground laboratory where hundreds of 'infected' individuals (including Scully), are kept alive in freezing incubators. Scully recovers body temperature after vaccination but, since the incubators are all connected, the increased temperature releases the emergency alarm. The laboratory is evacuated at once and Mulder and Scully barely make it to the surface, whence they see that the laboratory is really an extraterrestrial spacecraft rising to the sky. The film ends with FEMA personnel supervising a corn field at Foun Tataquise, in the middle of a Tunisian desert, where a telegram is read: 'X Files reopened. Please advise.' Evidently, Mulder and Scully have succeeded in reopening the files and in working together again on a classified assignment – this time concerning the circumstances surrounding altered bee pollen for biological warfare purposes.

What we have here is an 'infected' internal organisation running autonomously and seemingly without symptoms yet. While this internal

organisation – the Federal Emergency Management Agency – works allegedly independently from the FBI and other agencies, we can say that it has become not only corrupt, but that it has metastasised: a 'colonisation' project for the purpose of finding a vaccine turns out to be a cover up for a secret domestic biological warfare project that is not on the agenda of any international scientific research project. Additionally, the trope of the alien virus and biologically altered bees magnifies here a threat of a different 'nature' altogether. Genetic engineering and artificial intelligence bring along a significant diminishment of the aura that has traditionally been attached to the self and with it the fear that something beyond human will take over life as we know it. Additionally, FEMA's secret operation penetrates like a virus into the nation's body, potentially risking a global epidemic. Invisible and unrecognised, Mulder and Scully counter it with their investigative scrutiny. Their performance maintains the overall balance and well-being of the internal organs of the nation – the FBI and FEMA. Although Mulder and Scully officiate as the ultimate arbiters of authentication for only they can diagnose and keep infection at bay, it is not within their power to eliminate disease without support from these agencies. Metaphorically, our complicity with their work (provided we like the show) grants them the credibility they lack within the story world, bestowing on them the authority to locate, expose, and change authoritarian configurations in the symbolic order, hence ensuring its renewal.

Virus *Virus* begins with crew members in a Russian ship playing computer chess with colleagues in an outer space satellite. Suddenly, an electrical field approaches both satellite and ship, engulfing them completely. Seven days later, typhoon *Leah* almost destroys the *Sea Star* and its small crew – in the South Pacific. As the storm subsides, the crew spots a ghostly vessel that turns out to be the original Russian ship – fully equipped with 42 labs, five machine shots, advanced robotics and three parabolic dishes capable of maintaining communication with several space crafts simultaneously. Since maritime laws consider derelict any abandoned ship, conferring ownership to whoever takes it to port as long as there are no survivors, the crew boards it. They find traces of violence and their uneasiness turns into alarm when they realise that the vessel has been thoroughly rewired, the mainframe computer runs by itself, and they have lost their ship and one of their men. The crew is informed by a Russian female survivor that an alien electrical intelligence, learning from the memory banks, merged with the ship's mainframe computer. Through communication with the alien AI they learn that their status as 'viruses … destructive, invasive, noxious…[h]armful to the whole' shortly precedes the coupling of body parts and technology with which they will assist AI's expansionist scheme. Things go from bad to worse. While the ship targets a British Intelligence Station that monitors military and commercial satellites, the

treacherous captain and other crew members also end up as body parts. However, by means of an ingenious contraption designed by one of their crew members, the last two survivors of the *Sea Star* are propelled out into the ocean by an ejection seat as the cable releases the detonator that puts an end to AI and the Russian ship.

The film embraces conservative features of the postmodern period, disclaiming the multicultural project and the new cultural formations the last 20 years generated. The epithet employed by AI to sum up the human condition, 'virus', displaces the derogatory markers that have historically motivated discrimination onto the alien AI – even though racial and cultural differences are presented only to court the achievements of the white couple, who go out of their way righting wrongs. The initial crew composition – a Maori, a Latino, an African-American and a woman – pays only lip service to multiculturalism as the first one to morbidly fade out of the story is the Latino, immediately followed by the Maori. Later, the Russian survivor sacrifices herself, making up for the historical derailment of her country of origin. Having seniority as the first minority to partake of national civil rights, the African-American exits last, but not before endowing the fortunate couple with the means of their survival.

The depiction of new technologies is also conservative insofar as the narrative tropes are permeated with regret, warning us against an uncontrollable lust for power that may find the technological means to attain it. The embodiment of the macabre AI is conspicuously rendered as a crude assemblage, instead of a seamless interface, conveying a deliberate negative appeal that targets an unsophisticated audience uncomfortable with new technologies. Specifically, the narrative strategies address the fear that technology is growing at a speed that will explode our sensory experience, failing to blend smoothly with our flesh-and-bones existence. Hence, the represented consciousness emerging from AI is not one enhanced by network technologies but a breed of living dead that looks like Frankenstein – albeit devoid of his kindness. This statement is rhetorically punctuated by the repeated typhoons that signal the revolt of nature against AI – playing organic and digital systems against each other.

Whereas in all three films the trope of the virus directly taps into a cluster of fears related to the dissolution of boundaries that hold in place the safety of a sure location within the symbolic order, in *Virus* and *The X Files* the fear is of information flooding the precarious markers that still coordinate social and sexual difference. Insofar as the androgynous profile of the computer virus matches that of the parasites, I have argued that this trope is in *The X Files* activated by a fear of a collapse of the symbolic order – since the latter is founded upon sexual difference. Yet, instead of the regressive panic manifested in *Virus*, *The*

X Files bypasses the patriarchal authority that underwrites it as the narrative endorses an aesthetic that endlessly stages and postpones closure. *Outbreak* comes around cultural penetration by acknowleging the inevitability of global flow. In doing so, it refigures the codes of masculinity circumnavigating institutional authority by privileging networking and community. In *Virus* we read entropy and destruction connected to a lack of difference or, conversely, gender and sexual identity turning into perversions. Following this logic, the consequences of network connectivity is a corruption of the Oedipal scene – the paradigmatic controls that fasten the symbolic order. Repeatedly referred to as 'she,' the Russian vessel lends its physicality to the shapeless energy of AI through features that recall a sadomasochistic economy: victims are suffocated, butchered, and turned into proxies by an intelligence that keeps their brains alive without their knowing, forever possessing them. Endlessly, the arachno-robots lend support to the alien AI rewiring the vessel and luring their prey, catching them in their webs. The scene where the first crew member is strangled by wires and sucked into a hole recalls the devouring mother that populates western mythology, whereas assimilation for the purpose of creating replicants, proxies or, in this case, cyborgs, is reminiscent of the autarchic father ruling over totalitarian regimes and technologies of mass extermination. As opposed to the narratives previously discussed, absent in this one is a place for a confident viewer and an 'elegant' mode of address – from the Latin eligere, meaning choice, or pertaining to those who have choices – where we may see ourselves both enriched and conflicted by the possibilities supplied by global connectivity – and not afraid that what will come with it may find us lacking.

Notes   1   Peter Denning (ed), *Computers Under Attack* (New York: ACM Press, 1990), p. 291.

2   Winn Schwartau, *Information Warfare: Chaos on the Electronic Superhighway* (New York: Thunder's Mouth Press, 1994), p. 103 (my italics).

3   FDCH Congressional Testimony, 11 May 1995 Senate Judiciary Committee: Statement of Robert S. Litt, Deputy Assistant Attorney General, Criminal Division, United States Department of Justice, before the Subcommittee on Terrorism, Technology, and Government Information.

4   Bifurcations are mutations that occur at critical points in configurations of power and energy when new patterns become possible, and the system spontaneously adopts them. Bifurcations are instantiated by changes in certain control parameters which represent the more or less constant conditions affecting non-linear systems. As the configuration of a parameter shifts, the 'attractors' (constituting long term features) of the system will change too yet at a critical point, a bifurcation will take place and the attractors will transform themselves.

5   Emily Martin, *Flexible Bodies: The Role of Immunity in American Culture from the Days of Polio to the Age of AIDS* (Boston: Beacon Press, 1994), p. 54.

6   Ibid.

7   Ibid.