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HUMANITIES AND TECHNOLOGY

REVIEW

Fall 2014

Vol. 33

Contents

Articles

- Posthuman Lessons of the Televisual:
Science Fiction and the Praxis of Techno-
Humanity** 1
Ilan Safit
- You Have Your Fear: Radiophobia, Myth
and Cultural Trauma in Ishiro Honda's
*Godzilla (1954)*** 34
Rick Wallach
- Technologies of Authority, Technologies of
Resistance: Power and the Urban Form in
*Transmetropolitan*** 70
Evan Lampe
- Microbiopolitics: *Security Mechanisms*, the
Hela Cell, and The Human Strain** 112
Sean Erwin

Book Reviews

- Misunderstanding the Internet* 137
Authors – James Curran, Natalie Fenton, and
Des Freedman
Reviewed by Randy Connolly
- Carnal Knowledge: Towards a New
Materialism through the Arts* 146
Edited by Estelle Barrett and Barbara Bolt
Reviewed by Selmin Kara
- Digital Exposure, Postmodern Postcapitalism* 155
Author – Raphael Sassower
Reviewed by Eric Nay

**POSTHUMAN LESSONS OF THE TELEVISUAL:
SCIENCE FICTION AND THE PRAXIS OF
TECHNO-HUMANITY**

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The figure of the cyborg has been extremely popular in both science fiction film and in posthuman theory as a leading visual trope of human-technology interaction and even fusion. While the cyborg represents different variations of this symbiotic relationship, the cinematic medium and the genre in which it often appears set up a practice between viewer and technological media which gives rise to a techno-human mode of seeing and thinking. This practice is examined here through the notion of the “televisual,” understood as the ability of the medium to bridge over various spatial, temporal, and ontological distances by means of the visual image. The lessons of the televisual teach us that beyond the fictional plots and worlds of technologically driven science fiction film, its praxis engages us in a techno-human epistemology and in an ontological expansion that goes beyond the present. At the same time, while the technological and spectacular innovations of science fiction continue to create new kinds of images for us, this article concludes, tools and technology have constructed human identity from the start, forming humanity as *homo technologicus*.

Keywords: techno-humanism, posthumanism, cyborg, science fiction film, *Avatar*, *Earthrise*, film-philosophy

We have been living with cyborgs for a long time, both in fictional representations that date back to

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SAFIT

antiquity (cf. Warrick, 1980; Mazlish, 1993) and in the theoretical conceptualizations that, perhaps for convenience sake, begin with Clynes and Kline's coining of the term "cyborg" in their influential paper "Cyborgs and Space" (Clynes and Kline, 1960), followed later by the theoretical explosion precipitated by Donna Haraway's *Cyborg Manifesto* (Haraway, 1989).

Further investigating the significance of the cyborg, that no-longer-only-human amalgamation of the cybernetic and the organic, the biological and the mechanic, several leading scholars have been suggesting that it is time to move beyond this figure,¹ leave behind the cyborg's prosthetic and robotic associations, and focus on the more figuratively abstract, yet widely practiced human-technology interaction that has made us posthuman (Lenoir, 2007).

Still, it is the concrete and visual image of the robotic or human-prosthetic that has inserted the cyborg so powerfully into our contemporary culture, with science fiction film blazing its way from Fritz Lang's *Metropolis* (1927) to the most recent remake of *RoboCop* (Dir. José Padilha, 2014), with hundreds of variations in between. Furthermore, it is through the agency of this figure that posthumanist theory has reached many of its current realizations, that it still makes good sense to follow the ongoing representations

¹ See, for example, N. Kathryn Hayles' statement: "[T]he construction of the posthuman does not require the subject to be a literal cyborg. Whether or not interventions have been made on the body, new models of subjectivity emerging from such fields as cognitive science and artificial life imply that even a biologically unaltered *Homo sapiens* counts as posthuman. The defining characteristics involve the construction of subjectivity, not the presence of nonbiological components" (Hayles, 1999, p. 4).

POSTHUMAN LESSONS

of the cyborgian figure in order to reach a richer understanding of the techno-human bind. This is what we are about to do here, by observing some examples from science fiction and other visual footage in order to go beyond the cyborg figure within the image and observe the techno-human processes involved in cinematic presentation and reception. Our journey will not be a linear-historical exposition of the genre, but, in connection with the theme of tele-visuality we are about to explore, we shall proceed through great leaps that will bridge-over historical distances, with a longer attention given to the film *Avatar*.

In *Natural-Born Cyborgs* (2003), Andy Clark suggests that we are, or are becoming cyborgian “in the more profound sense of being human-technology symbionts: *thinking and reasoning systems whose minds and selves are spread across biological brain and nonbiological circuitry*” (Clark, 2003, p. 3; italics added). Moreover, Clark concludes his insightful and witty book with the observation that what is most significant in our adjusted understanding of ourselves as cyborgs is our

endless weaving of biotechnological webs: the constant two-way traffic between biological wetware and tools, media, props, and technologies. *The very best of these resources are not so much used as incorporated into the user herself.* They fall into place as *aspects of the thinking process.* They have the power to transform our sense of self, of location, or embodiment, and of our own mental capacities. They impact who, what and where we are. (p. 198; italics added)

SAFIT

It is precisely this incorporation that we are out to trace here in the cinematic experience, which is in itself a biotechnological web of engagements that transform our thinking process and our selves. Film, and especially science fiction film, is in a unique position to represent and demonstrate these engagements of consciousness, biology, and “nonbiological circuitry.” It does so on the obvious level of imagining and representing cyborgs of different sorts in a variety of alternative environments: an Earth transformed by constructive technology, an Earth destroyed by the technology of annihilation, or an Earth departed from in the voyage to other destinations. Whichever choice taken, the imaginings of a possible cyborg reality present us with the adventures of posthumanity on postearth. But the cinematic, or what I shall here name the *televisual*, carries an even greater significance for the *demonstration* of the technohumanism which is already at work. This significance lies in the fact that the production and the reception of the cinematic image and through it of a televisual world – a distant world brought closer by vision – themselves form a symbiotic interaction, a cyborgian thinking process through nonbiological circuitry. The cinema does not merely offer us images of a cyborgian posthumanity: it itself is already cyborgian, already an extension of human imagination carried out and carried through mechanical means. It is the site of the *praxis* of a cyborgian epistemology, where the hybridity of a human mind and technologically produced images can no longer be separated.

POSTHUMAN LESSONS

The Meaning Machine

Posing the question, “How does a culture understand and process new modes of subjectivity?” N. Katherine Hayles answers: “Primarily through the stories it tells, or more precisely, through narratives that count as stories in a given cultural context” (Hayles, 1995, p. 322). True. But the advance offered by cinematic science fiction lies in the *means* of telling the stories, beyond the details of their plots, and in the decisive role these means play in shaping the overall effect and impact of the cinematic experience.

The cinema – taken here as the general name for moving images in whatever format produced or displayed – produces its images and its meanings by technological means. From the capturing of the image by a camera lens, to its filmic processing or digital storage, to the splicing together of separate segments and the further manipulation of the image by the ever growing capacities categorized as “special effects,” to its final projection or display on a screen – the cinematic image is technological through and through. Of course, many human hands take part and deliver these processes, and several human minds participate in the forming of ideas, story, look, and overall “vision,” which is made visible and whole by technology. This means that on the level of production and process, the cinema is the outcome of a hybrid effort of the mental and the technological. As product, it is fully material and technological, meeting on its receptive end the human spectator that reconstructs meanings from the audio-visual material. Meaning occurs in the encounter of a mind that asks for meaning and the object, image, text, etc., whose meaning it

SAFIT

inquires. The spectator's encounter is with a mechanical product, not with the minds or intentions of the creators that have participated in producing the film. In this sense, the cinema is properly viewed as a *meaning machine*, one which indeed has human agents on both ends of production and reception, yet in which neither of these agents is in full control of the meaning produced. We are long past the time in which a medium was understood as a transparent conduit of a message, and the multiple channels of communication at the disposal of the cinematic medium (image, sound, speech, written text) are all the more effective in conferring their own form and transformative impact on whatever meaning or message was originally intended.

The cinema as a meaning machine introduces the mechanical and the technological into the very representations that populate our contemporary imagination. This means that a technological component, so to speak, takes a decisive role in our shared cultural imagination.

The Thinking Machine

The word "imagination," too, should be seen here in the wider sense than the images that populate a culture or the range of fictional fantasies it entertains. Imagination is a modality of thinking, and the cinematic medium can train us in thinking in a different modality. Walter Benjamin suggested as much in his classical 1936 essay, "The Work of Art in the Age of Mechanical Reproduction" (Benjamin, 1968), a piece conceived in a time in which the display of cinematic, moving images

POSTHUMAN LESSONS

was definitely on a consistent rise, yet not as ubiquitous as it is today.

Benjamin, informed by Rudolf Arnheim's pioneering work on the art of film (*Film als Kunst*, 1932), notes first the new aspects of the world revealed by film-technology:

With the close-up, space expands; with slow motion, movement is extended. The enlargement of a snapshot does not simply render more precise what in any case was visible, though unclear: it reveals entirely new structural formations of the subject. So, too, slow motion not only presents familiar qualities of movement but reveals in them entirely unknown ones [...]. Evidently a different nature opens itself to the camera than opens to the naked eye. (p. 236)

This introduction of new visual aspects of the physical world precipitates the need for new conceptual categories and constellations for understanding the newly encountered, and Benjamin notes further the epistemological impact of this new mode of seeing and of showing. He quotes the poet, playwright, and novelist, Georges Duhamel, who complains in *Scenes de la vie future* (1930), "I can no longer think what I want to think. My thoughts have been replaced by moving images" (Benjamin, p. 238). The successive flow of the medium, Duhamel scoffs and Benjamin realizes, is epistemologically effective and transformative; it dictates a certain rhythm of attention in its presentation and offers a visual model of successive association in its structure.

SAFIT

Three-quarters of a century and light years of technological development later, walking to a certain extent in the footsteps of Gilles Deleuze's important work on the epistemological effect and efficacy of the moving image (Deleuze, 1985, 1989), Daniel Frampton suggests the notions of a "filmind" and of "film-thinking" (Frampton, 2006). The important point Frampton notices is that the cinematic apparatus *sees* otherwise, *processes* otherwise and eventually *projects* otherwise than the human eye and the human mind. "The filmind," Frampton writes,

thinks better than us, as well as thinking beyond us: it can not only show us actual things that before would have been virtually closed off (cells, insect eyes, and so forth), but truly non-actual events and forms. Slow-motion is a good example, bringing us images we could never find for ourselves [...]. *The filmind has less and more capabilities than us; has different capabilities to us. Film-thinking is simply different to our thinking.* (p. 92; italics added)

Film *thinks* with technological means. It produces in us not only new imagery of the world and of other worlds but also a new imagination to go along with it, the imagination necessary for comprehending such imagery. For us to see the images produced by the cinema means to enact a vision and an imagination that grasps that which has been assembled by, with, and through machines. The guiding plan and hand might be human, but the final product is a true hybrid, whose human and technological components cannot be set apart.

POSTHUMAN LESSONS

Informed by such mechanically produced and processed images, our consciousness cannot but be effected, transformed. But who are “we”? To transform our consciousness is to transform ourselves, and the cinema that “we” have made has changed our consciousness, has trained us and then got us hooked on cinematic thinking in its different modes of image manipulation, multiplicity of points of view, synthetic splicing, and so forth.

Of course, a certain cinematic thinking preceded the cinematic apparatus and its technology by several millennia. The technology of the cinema has finally materialized, visualized, and hence *externalized* what we have been doing in our heads for quite a while. Aristotle, for example, states authoritatively that mental activity is necessarily involved in incorporating images of the perceived external world as well as in internally producing images of abstract ideas. “Without an image,” Aristotle states in *On Memory and Recollection*, “thinking is impossible” (450a1). We find the same claim stated several times in *On the Soul* (431a16, 432a8), where Aristotle’s detailed analyses of mental activities are strongly dependent on the visual nature of the *phantasma*, or mental image, as well as on the kinetics of mental activities.

What is implied by Aristotle’s statements, more than 2,000 years prior to the development of cinematic technology, is that human thinking proceeds along visual-kinetic principles. The cinematic apparatus has made it possible to externalize such visual-kinetic thinking and place it out in the world, make it visual and hence thing-like. This is cinema’s first contribution to consciousness.

SAFIT

Its next contribution consists, as noted above, in the cinema's feedback, that is, in its ability to teach us how to see and to think through the unique categories of visualization and of combination made possible by the ever developing technology of the medium. In short, developed through a combination of human thought and technological invention, the cinematic medium can teach us to think posthumanly, i.e. to think in the hybrid mode of techno-humanity.

A certain variation on the cybernetic loop is at work here, one in which *ideas*, rather than information, develop in a circuit; and yet these are ideas that cast a conceptual mold onto information: not only did our pre-cinematic thinking develop the idea of the cinema, which technology has realized and materialized, now the cinematic medium, with its film-thinking feeds back into human thinking, which has become so dependent on moving images of all sorts for information, communication, education, representation, and, yes, entertainment. The feedback loop of ideas described here, an *epistemological* rather than an informational loop, offers an understanding of the development of a system, the co-dependent components of which are the kinetic or kinematic image and human consciousness. This system, of which "we" are components, is a techno-posthuman consciousness.

The Televisual

The compound word "tele-vision" was coined for the needs of the technological invention of producing an image across a distance, modeled on earlier technological and semantic inventions designed to

POSTHUMAN LESSONS

overcome spatial distance: the telescope, the telegraph, the telephone. In combining the “far off” of the *tele-* with the immediacy of vision, the distance of the far off is overcome and practically destroyed by bringing the distant to immediate visual apprehension. The meaning of the term *tele-visual*, as a vision across distance that renders the far not simply near but *visually accessible*, gives the distant a visual presence that transforms the distance of separation into a connection and a contact established by the co-presence of seeing and sight, eye and image. Making the distant visual and visible, the (no-longer) distant is thus incorporated into an ontology accessible by sight and thought, and hence it becomes part of the whole that makes for a viewer’s “world” in its widest sense and farthest reaches.

The word *television*, itself a hybrid of the Greek *tele*, afar or *from* afar, and the Latin *visio*, vision or sight, hybridizes distance and vision in a novel way. Vision always needed distance, which is a condition of sight, but the distance, the farness, which was opened up and traversed by the invention of the television, introduced a new kind of experience and a new ontological category to human reality. This is the distance of the viewer from the *source* of the image itself, not simply from what is seen *in* the image. The image not only opens up a world that is *not* co-present with the reality of the viewer, it also emanates from a source that is in considerable remove. (In this sense broadcast or cable television is categorically different from the traditionally projected cinema, where the source of the image and the screen on which the image appears to a viewer are spatially co-present.) This means that the relationship of viewer and

SAFIT

view is no longer fully contained under the category of co-presence or of the Present.

The visual access of such media, of such mediation of distances of different sorts, affords, therefore, an ontological leap, a bringing into contact of (at least) two different ontological domains, the real and the virtual, by means of the visual. The essential distance traversed by the televisual, then, is an ontological distance, which means an ontological *difference*, the difference between the virtual and the real, which finds itself under erosion by this access provided by technologically enabled vision.²

² This evasion of the category of Presence can perhaps explain the roots of Heidegger's vehement rejection, in his lecture "The Thing," of the technologies of "the distanceless," among which he names the plane, the radio, film, and television. Especially television. "The peak of this abolition of every possibility of remoteness," Heidegger writes in 1950, "is reached by television, which will soon pervade and dominate the whole machinery of communication" (Heidegger 2001, p. 163). Heidegger is here working out his distinction between "object" and "thing," delegating the former to the field of science and the latter to thinking. The successes of science (or technoscience) in its own sphere, the sphere of objects, has created the "delusion ... that science is superior to all other experience in reaching the real in its reality" (p. 168). Whereas things, which "have never yet at all been able to appear to thinking as things" (ibid), bring together the fourfold of Being [earth, sky, divinities, and mortals]. In other words, the thing, in Heidegger's sense, *presences* the world, presences Being: "The thing stays – gathers and unites – the fourfold. The thing things world" (p. 178). What the thing does is *it nears*, it brings together the elements of the world without letting this nearness appear. Precisely because this nearness remains invisible, does not turn into an object, technoscience has stepped in and won over in its materialization of the world: "The failure of nearness [of presence and of thinking] to materialize in

POSTHUMAN LESSONS

These modes of transport and transcendence join the basic cinematic capacity, earlier observed, of visually externalizing ideas, objects, plots, etc., originating in the mind and projected out into the world. The distance between the mentally interior and the physically exterior, then, is one more essential distance bridged by the televisual image.

A Trip to the Moon

Science fiction, first in its literary and then in its cinematic forms, has always been invested in turning ideas into images and overcoming different kinds of *teles*, whether it is the distance that leads to the center of the earth or to the depths of the ocean, out into space or across the reaches of time and into the recesses of invisibility. Of course, very early on it breached the distance that separates humanity from the monster, the animal, or the machine, thereby producing the cyborg. Science fiction *film* has joined these efforts with the twist of conferring its technological form on the visual imaging of such ideas.

If in his 1898, three-minute long film, “The Astronomer’s Dream” (*La lune à un mètre*), the cinematic father and magician, Georges Méliès, is still focused on bringing the dream world into visual virtuality by experimenting with the ability of the new technology to make objects appear and disappear, four years later he sets out to intersect the distance of imagination with the distance of space. The telescope aimed at the moon of the earlier film becomes a

consequence of the abolition of all distances [by the inventions of technology] has brought the distanceless to dominance” (p. 179).

SAFIT

telescopic canon in the 1902 “A Trip to the Moon” (*Le voyage dans la lune*), which shoots onto the moon a missile-capsule hosting a delegation of voyagers. Landing in a dense environment of mega-fauna, the troupe realizes it is time to go to sleep when Earth rises on the horizon. The next day they will explore the moon’s tropical forest of enormous mushrooms and tree trunks, encounter a cabal of devilish, hostile moon-creatures, battle them, and eventually make their escape back to Earth, on which they land with a splash into the ocean. Behind them, or perhaps way ahead, these voyagers have left a set of images and an idea visualized that will continue to feed both science and fiction for decades.

These images crossed the distance from visualized fantasy to a visualized reality in December 1968, when U.S. spacecraft Apollo 8 took off for its trip to the moon, orbiting Earth’s satellite ten times, and returning with a splash into the Pacific Ocean. The astronauts took a camera with them on their mission, transmitting back to Earth its own live televised image seen from a faraway distance. The mission controllers found it apt to accompany these images, broadcast on Christmas Eve, with a recitation of the opening verses from the book of Genesis. This image, known as *Earthrise*, later circulated largely in the television and print media, feeding with great impact the cultural imagination, and it “has been widely cited as playing a key role in inspiring the first Earth Day, held in 1970, and in galvanizing the then still-emergent environmental movement” (Szerszynski, 2006, p. 81).

POSTHUMAN LESSONS

Earthrise appeared on the front page of the Christmas day issue of the *New York Times*, alongside the words of poet Archibald MacLeish:

For the first time in all of time, men have seen [Earth] not as continents or oceans from the little distance of a hundred miles or two or three, but seen it from the depth of space; seen it whole and round and beautiful and small. [...] To see the earth as it truly is, small and blue and beautiful in that eternal silence where it floats, is to see ourselves as riders on the earth together[.]³

Inspiring words, but both words and image must have posed a problem to their contemporary receivers: If this is “Earth as it truly is,” how does that match with the experience, and the view, of the tiny creatures who live upon it, depend on it, never directly experience it whole, and who could spend a lifetime, or at least 80 days, circling it without the technologies of modern transportation? Earth “truly” is as presented in the *Earthrise* image only from the point of view of the moon, not from the experiences of humanity down on earth. But now we have this point of view in our possession; now we have televisual access to Earth, by virtue of which we have added a fundamental experience to the set of humanity’s self-positioning experiences, and by doing so have transformed our selves and our understanding of ourselves from humans-on-Earth – humans defined, among other things, by their being on

³ *The New York Times*, December 25, 1968, p. 1. Reprinted in *National Geographic*, May 1969.

SAFIT

Earth – to something else. Perhaps we can call it posthumans on postearth.

Seven months after the televised broadcast of *Earthrise*, Apollo 11 landed on the moon surface, again transmitting live images back to Earth, this time of the “giant leap” of human kind, which might have been one of its most decisive steps into posthumanity. The loop completed between Méliès’ *Trip to the Moon* and the televised images of the historical moon-landing demonstrates the feedback of ideas and technology. This is not only a case of technological capacities making it possible for the inventions of the imagination to become a reality; it is also a demonstration of the *epistemological loop* in which thought is materialized into a thing that allows humanity to see what was previously not visible and with this to *think* in dimensions that were heretofore unavailable, with the eventual outcome that we have become something else.

A Televisual Avatar

But the loop is not complete. It coils on and outwards with the advance of the technology that breeds new views, visions, and ideas that evolve into more technological advance. James Cameron’s *Avatar* (2009) will show us how this is done.

Cameron’s 3D science fiction film made use of the most advanced computer graphics and film technology available at the time or developed especially for this film. Nature itself and the natives of the natural world are reproduced in unnatural colors, and the action-packed plot and scintillating images revel in the display of technologically advanced machinery as much as in the

POSTHUMAN LESSONS

cinematic technology that brings them to light. This is often a significant aspect of science fiction film, wherein the theme of advanced, futuristic technology corresponds to and is reflected by the advancement of the cinematic technology that constructs, presents, and represents such technological innovation. Film scholar Vivian Sobchack observes this point in her important work on the history of American science fiction film, *Screening Space*:

[T]he most popular SF films keep appropriating the culture's newest technology – on the one hand, literally 'incorporating' it as part of the film medium (e.g., computer generated imagery), and on the other, symbolically 'displaying' it as 'invention,' as a more special 'special' effect. (Sobchack 1987, p. 303)

The technology displayed in the fiction often stands in direct correlation with the cinematic technology that is able to visualize it. For this reason, aiming to draw a lesson that goes beyond the imagination and the speculation of fictional work, we will focus here on the incorporation of vision, image, and cinematic technology *in* the fictional worlds of these films.

Avatar's plot takes us a long distance from planet Earth, whose natural resources, so we are told, have been fully depleted. A powerful corporation sends its scientists, administrators, workers, and private military to excavate a valuable resource found on a distant moon named Pandora, whose natives are the Na'vi.⁴ These are nine-foot tall, blue-skinned humanoid creatures,

⁴ For a review of the many different allegorical, ideological, and political readings of the film, see Elsaesser, 2011.

SAFIT

endowed with an animal's tail, but also with a special kind of pony-tail, which allows them a direct contact, both physical and mental, with animals, plants, and even their spiritual goddess-mother, Eywa. This contact is made when a Na'vi plugs his or her pony-tail into appropriate receptors within Pandora's fauna and flora.

With this device, the spiritual appeal to nature is made concrete and is explained in terms of immediate physical contact, modeled on the contact of the electric cord, which allows for the spiritual connection to be visualized. In a visual medium, to visualize means to *materialize*. Such visual materialization is, in fact, central to this film and is advanced with its central figure, the avatar body, which, as shall be explained shortly, visualizes the notion of embodied consciousness and serves as the very figure of the cinematic transport as a techno-human network.

The posthuman hero of this story is Jake Sully, a paraplegic former marine who receives access to a new body, an "avatar" body similar to the one of the Na'vi, artificially generated in a lab from human and Na'vi genetic material, and to which his human consciousness is plugged in. Originally assigned to spy on the natives and learn their points of weakness, Sully, introduced to their ways of life and enchanted by the Na'vi princess, Neytiri, sides with the natives and eventually leads them in the battle to drive away the colonizers.

Battle of Cyborgs

If the human mind in the Na'vi body offers one version of cyborgian posthumanity, genetically engineered, technologically produced and yet soft-

POSTHUMAN LESSONS

tissued and on the side of “nature,” the film’s final battle scene pits it against another version of the cyborg, characterized by the mechanic and the metallic. Here, avatar-Sully faces off with the story’s villain, Colonel Quaritch, a muscular military man, who fights the tall and agile avatar by entering an Amplified Mobility Platform or AMP, a twelve-foot tall robotic war machine, operated from within by a human “driver” who can move the AMP’s metallic limbs by moving his own.⁵

Two visions of the posthuman cyborg clash in this battle scene. One consists of a mechanic, metallic body enveloping the human one, thus maintaining a distinction and a separation between the human body and its technological extension. The other is the fleshy, yet genetically engineered avatar body fused together with human consciousness. The first is an aggressive war machine, the second is a gentle warrior, whose nobility of (human) spirit is characterized by the humanistic values that motivate him: justice, freedom, courage, love, self-reflection, and even a harmonious relation with nature.⁶

Consciousness Embodied

⁵ Description of the AMP and other technological innovations of the *Avatar*’s fictional world as provided in the Wikipedia webpage, “Fictional universe of *Avatar*.” Retrieved from http://en.wikipedia.org/wiki/Fictional_universe_of_Avatar.

⁶ The humanistic ideals that motivate Sully to side with the Na’vi fall in line with Sue Short’s conclusion regarding the shared narrative concern she detects in cyborg cinema, which “ultimately works to reassure us that while we preserve specific ideals, we maintain our humanity” (Short, 2005, p. 208).

SAFIT

With its human mind operating an avatar body, Sully figures as a special kind of the posthuman that visualizes the notion of embodied consciousness. Sully's crippled body enters a "link unit," something between an MRI machine and a metal-and-glass coffin that connects his mind to the body of his avatar. If the plot wants to suggest that Sully is operating his avatar body in "remote control," the image quickly thins down any sense of remoteness as it shows, when Sully first "enters" the avatar, how he flexes his muscles, stretches his limbs, runs around in Pandora's nature, relishing in the contact of the land with his feet and of Pandora's exotic fruit in his mouth. Soon he will become a formidable warrior and even an adept lover. In other words, he is not only in full control of this body, but many of his subsequent experiences are presented as decisively bodily experiences. The film, then, visualizes the insertion of a human mind in a different body; body and mind become one: a human consciousness embodied by an avatar as a posthuman embodied consciousness. Later scenes show moments in which this avatar body is limp, lifeless – after Sully has plugged out or before he has plugged in – emphasizing the difference between a body without consciousness and a body enconscioused.

But to say that this union is fully "visible" would not be entirely accurate, for how is consciousness or the mind visualized? In *Avatar*, consciousness has two bodies visually juxtaposed: the active avatar-Sully, on the one hand, and human Sully, on the other, lying motionless in the link unit, his closed eyes moving from side to side as if dreaming. Here, Sully's human body presents an image of consciousness in its insular

POSTHUMAN LESSONS

isolation from the physical surroundings of its experiences, which take place out in Pandora.

Furthermore, consciousness receives other visual representations in the film: When Sully first connects to the avatar body, the linkage is visualized with an image suggesting the rushing passage of electricity through a tunnel, as if an electric cord or a television cable connects Sully's mind with his new body, just as the Na'vi connect themselves to nature with their pony-tails. It is an electro-technological contact that puts mind in body and that offers a kinetic image to represent the mind. Another image is offered prior to this contact, when Sully is being prepared for linkage in the control room, where X-ray pictures of his brain appear on several screens, one of them a tablet-screen held by one of the technicians. This specific gesture – the image of Sully's brain held in another man's hands – makes the image into a concrete thing, a handleable object, emphasizing the thingness of the image and suggesting the thingness of that which is imaged: the mind. In effect, consciousness or mind is incorporated into the visual-material ontology of the visual medium in which images are things. The linkage now made available is indeed a televisual linkage of the image of consciousness (visualized in Sully's human body, in the X-ray images of his brain, and in the electric passage through the cord) with the image of the avatar body. The conceptual distance between mind and body as well as the one between human and avatar are both overcome by rendering each element visual and linking them in the image of hybridity (avatar-Sully), which itself is a hybrid image of computer graphics and live action.

SAFIT

This is what is happening *on* the screen, but our true aim is to detect what is happening *between viewer and screen*, in other words to go beyond the fiction visualized and understand the kind of vision and the kind of thinking that coherently links the cinematic viewer with the cinematic image, and the world it opens up, as the deeper sense of televisual blending. The human-avatar transport is a reflexive trope that reflects on the cinematic-viewer relation, where a physically passive, immobile viewer is infused with moving-images from a distance and of a distant world.

The Reflexive Effect

The main device of reflexivity in *Avatar* is the “videolog,” Sully’s video journal, which he is instructed to maintain early on in the film: “We have to get into the habit of saying into it what we see, what we feel. *It is all part of the science*,” he is told. By speaking his storyline and thoughts into a microphone and looking straight into a video camera, Sully establishes all further instances of his voiceover narration as part of this recording, eliminating the other-worldliness of the cinematic convention. For voiceover narration is a technique that opens a rift between image and voice, plot and commentary on the plot, the fictional world and a level beyond the fictional world and its present events. Unless otherwise explained, conventional voiceover narration emanates from an invisible layer of the fictional ontology and often from a point in time subsequent to the visual unfolding of the events. Accepted as a formal convention, voiceover often remains unaccounted for in terms of the question of the source or “location” of this

POSTHUMAN LESSONS

voice (and all that it entails), thus leaving a magical distance between the phenomenal and its causes.

With the voiceover narration of the videolog, which is employed throughout the entire film, the televisuality of *Avatar* reaches out also to include the use of sound-image. It overcomes the distance between the causal and the magical (or unexplained) and consolidates the logic of the film's fictional world with the technology of its delivery. The reflexivity of the videolog, wherein Sully speaks directly to the camera (and to the viewer) and exposes the apparatus, participates in the larger scheme of the film's cinematic reflexivity, centered upon the central element of the fiction, which gives the film its very name. The fictional transport of mind by the technology of the avatar, visualized by the technology of the cinema, offers a reflexive image of the cinematic viewing experience, in which the viewer, physically passive and detached from her immediate surroundings, is transported to a world opened up by the images on the screen. The cinematic experience, optically placing images within us, also places our consciousness in the world of these images, transports us to this world, overcoming the distance between reality and fiction by means of technologically produced and delivered visual and sonic images.

The televisual, in other words, is not merely the theme of an elaborate fiction, nor simply the technological means by which this visual fiction is produced. It is the epistemological and ontological significance of the practice the viewer exercises in the act of viewing. It is that which enables viewing and grants its coherence as a blending of mind and image, consciousness and technology.

SAFIT

If *Avatar* is an allegorical film, telling a tale about the human exploitation of nature and the loss of its humanity, at the same time it is also very literal in aligning what it is doing with what it is showing. The mind-body technological transport of the story is akin to the mind-body transport of film viewing and of that relation we here have named the televisual. The *tele-* in the televisual relation is reduced, and the visual, the image, becomes near, present, co-present with the viewer's world in which it is featured; at the same time, the co-present image links the viewer to a distant, fictional world in a relation that exceeds co-presence. Incorporating the non-present, distant world, presented by image through the techno-human network, our world expands, our mental world transforms; we become other, posthumans. It has already happened.

Tele-Video-Phone

If the reflexive "videolog" in *Avatar* has drawn our attention to the use of technologically transmitted sound, I would like to briefly observe an interesting variation on the televisual theme and practice featured by the device of the videophone.

The videophone, which is a readily accessible tool of communication today, has been imagined and developed in both technoscience and fiction at least since the late 19th century. In films it appears as early as 1927, in Fritz Lang's *Metropolis*, and it plays on the theme of control from a distance, or tele-control, in the famous factory scene in Charlie Chaplin's *Modern Times* (1936), where the factory boss spies on his workers and barks his orders from an audio-video screen. But it is Stanley

POSTHUMAN LESSONS

Kubrick's genre defining *2001: A Space Odyssey* (1968) that gives this device its conceptual currency by featuring it in a film which can easily be seen as a series of visual meditations on the phenomenon and concept of space (including but not exclusive to "outer space").

An early scene in *2001* shows Dr. Heywood Floyd stopping at a phone booth at the space station where he is waiting for his connecting space-flight. The two-minute scene displays a videophone conversation between Floyd and his daughter, who is down on Earth, while a gigantic white Moon rotates outside the phone booth window. The absence of any important narrative function, as is the case with several other key scenes in this iconic film, directs our attention to the significance of that which is displayed: a technologically enabled act of audio-visual communication from the vicinity of the moon to Earth. The significance of the scene is precisely its display of the *televisual* significance.⁷ Space as distance is overcome in the videophone conversation not only by visual co-presence but also by the audio communication of speech, which is heard at the moment that it is uttered and which establishes communion through co-respondence. The televisual, i.e. the bridging over of a variety of distances by virtue of the image, is here deeply invested in the sound-image, or the *telephonal*, which brings father and daughter together in audio-visual tele-

⁷ In fact, when Floyd asks his daughter what birthday gift he should send her, her first reply is "a telephone!" directing attention to the very act (and instrument) displayed in the image. Floyd replies "we have lots of *telephones* already," and later asks his daughter to "tell Mommy that I *telephoned*, and I will try to *telephone* again tomorrow," emphasizing again and again what is important about this scene.

SAFIT

communication, even if their conversation is void of any significant content. The distances of time and space become subjugated to the human experience, here the communicative experience, which is enabled by technology, therefore making this experience a techno-human experience.

In the more recent *Oblivion* (Dir. Joseph Kosinski, 2013), the videophone conversation is a recurring device that is central to the ruse of the plot. Here we meet a team of two, Jack and Vica, who are manning a futuristic security post high in the clouds just above a post-apocalyptic, abandoned postearth, destroyed by a war with invading aliens that also caused the destruction of the moon, still rotating out there in its shattered form. Jack performs maintenance work on the robotic equipment, still battling what he believes to be the remaining aliens hiding on postearth, where Yankee Stadium, the George Washington Bridge, the Empire State Building, and the New York Public Library all feature as ruins or archeological sites standing out against the backdrop of a barren terrain.⁸ Vica, meanwhile, remains at the outpost, receiving daily orders and reporting back through her routine videophone conversations with her ground-control operator, Sally.

The videophone sound and image not only insert the spatially distant into the present but also, stylistically, suggest a certain synthesis of time periods, with Sally's black-and-white image, her Southern mannerism, and

⁸ This film takes its cue for this trope, in which architectonic icons of contemporary civilization appear as archeological ruins in a post-apocalyptic postearth, from the 1968 *Planet of the Apes* (Dir. Franklin J. Schaffner) and its first sequel, *Beneath the Planet of the Apes* (Dir. Ted Post, 1970).

POSTHUMAN LESSONS

her visible background invoking the historical images of NASA's Mission Control Center in Houston, which was a cultural staple of the late 1960s and early 1970s. The temporal synthesis – of the futuristic aesthetics and technology that characterizes Vica's post with the 20th century nostalgia of the ground-control image presented on the videophone screen – gains special meaning through spatial reversal, as ground-control is actually high above in space, while it is the mission post which is down below. This reversal is a precursor to the revelations that come about later in the plot, namely that Sally is just a simulacrum, that there is no human commander, that in fact the war was won by the aliens, who are never visually represented other than through Sally's televisual-telephoned image and through their machines (and indeed who might *be* machines). Furthermore, our human heroes are themselves not fully human but lab-cultured clones, a variant of the cyborg, working in the aliens' service, unaware of their own identity or the identity of their masters.

This film's exploration of the cyborgian thematics splits its hybrid characterization between Vica, who is portrayed as slightly robotic, cold, and unadventurous, and Jack, who experiences nostalgic flashbacks of a romantic scene on top of the Empire State Building and who sets up for himself a bachelor's pad in a wooden cabin next to a Walden-like pond, where he listens to vinyl records of *Led Zeppelin*, a sound coming from the same cultural timeframe to which the image of Houston's ground-control belongs. It is only later that both Jack and the viewers discover his fabricated identity, cloned along with thousands of others from the genetic material of the original Jack, who died at the

SAFIT

very beginning of the war. This means that the memories that are flashing back to Jack are not his own memories, that our hero has no previous experiences, and hence also no authentic identity of his own apart from the facsimile of a person he was programmed to be by non-human agents. But, as in practically all of the cyborgian posthuman science fiction plots,⁹ it is precisely the aspects of old school humanism that are still at work within this character – curiosity, a sense of individuality, a love for nature, sentimentality, and eventually sacrifice – that bring the plot to its conclusion and with it the victory of humanity over the mechanisms that have subordinated it.

While Jack's sentimental dreams and flashbacks function as internal-psychological televisual images that close the gap between his artificial origins and his sense of humanity, the videophone conversations function as an external-technological televisual and telephonal device, whose function is to transport a fabricated fiction into a visual-psychological reality, for the characters as well as for the viewers. Again, the distance between fiction and (fictional) reality, too, is transcended by the televisual image. The interesting variation offered in *Oblivion* is that the televisual device of communication, the video *tele*-phone, and the internal flashback images are exposed as tools of false mediation, a technological fabrication of a "reality" that is not there.

This, perhaps, is the greatest fear the televisual might instill in those still attuned to the Heideggerian kind of technophobia, that with the abolition of its various distances – spatial, temporal, ontological, psychological – the televisual undermines identity and

⁹ See Short (2005), 208, quoted in footnote 6 above.

POSTHUMAN LESSONS

authenticity, and belongs, therefore, to the hyper-uncertainty of what used to be called postmodernism.

Homo Technologicus

The preceding analysis of the means by which cinematic fiction is produced and received allows us to see what is already happening in reality: The two rovers sent to Mars in 2003, the *Spirit* and the *Opportunity*, offer a non-fictional case of a scenario inspired by science fiction in which images from Mars are televisually transported to us back on Earth, and in effect we are televisually transported to Mars.

Having now *real* images from Mars, we can say that *we are on Mars*, or that Mars is part of our world in a greater and different way than it used to be. The fact that there has not yet been a human body on the surface of Mars does not eliminate the significance of our gained access to Mars, a visual access. Images of Mars – technologically viewed and transmitted, rather than imagined and projected – are now part of our visual storage, of our knowledge, of the dimensions of our world. We are anywhere our tools are, and photographic and tele-visual tools have the added value of reporting back to us, showing us where they are and hence bringing us along across the distance they traversed. They bring us along as the seers, physically still down on Earth, of the images they produce and as the possessors of the knowledge they help construct. In the cybernetic loop of seer and sight, photo-graphically enabled and enhanced, we have transcended our humanity and our Earth even beyond fiction unto Mars.

SAFIT

Human expansion into the world has always been done through tools just as artistic visual representations of different sorts have always relied on *techné*. Humans would not have become a humanity without the existential and cultural reliance on tools. From the first stone made into a weapon to the power plant that allows for a technologically enabled contemporary life, and from the first use of charcoal to draw figures on a cave's wall to the most technologically advanced cinematic production – humans have been standing in the world as *homo technologicus*. Tools are not only a means for survival, advancement, and cultural evolution, they are also, precisely by serving as such means, a constructive element of a *species identity*. Inserting itself into the world with tools that reshape it and transform both humanity and its world, humanity's being-in-the-world is tooliological. Any understanding of the posthuman will have to acknowledge that its technological or tooliological essence, even if not its only essential feature, has been there in humanity from the very start, carving the path into the future.¹⁰ The tools that are devoted to bringing us information, indeed the Information Technology in its different formats, are

¹⁰ See Bruce Mazlish claim that humans “now can perceive their own evolution as inextricably interwoven with their use and development of tools, of which the modern machine is only the furthest exploration. We cannot think realistically any longer of the human species without a machine” (Mazlish 1993, p. 6). Note also Mazlish's reliance, immediately relevant to the claims I make above, on the conclusions arrived at by anthropologist Sherwood L. Washburn, who states, “it was the success of the simplest tools that started the whole trend of human evolution and led to the civilizations of today” (Washburn 1960, quoted in Mazlish 1993, p. 5).

POSTHUMAN LESSONS

epistemologically (and ontologically) constructive in expanding and adjusting the image of ourselves in the world, and with it of our being-in-the-world. And with the predominance of the visual in both the collection and projection of information, the televisual becomes a decisive mode of posthuman toolological thinking and being.

The medium of images that shows us a world in which distant images are incorporated into the present reality is not merely presenting fiction: it is engaged in a real act of instilling image as object in our world. It does what it shows, and it shows what it does. Bringing us the image of Earth from a point outside of Earth, it tele-visually and techno-logically projects us beyond Earth while forming a new relationship with (a new) Earth, with postearth. Through the technology of images from a distance (of different sorts), which become part of us and transform us, *homo technologicus* stands as the posthuman *on* or *in* or *at* postearth. The indeterminacy of the preposition is not accidental here, just as the verb “stand” is probably inadequate, belonging to a metaphoric of upright bodies in three-dimensional space. We could better say that *homo technologicus posthumanly sees postearth*. And if *saying* itself becomes suspicious as a term of relation to the world, of a conscious being in the world – and just listen to the language enacted in order to express all this with all its *posts* and *transes* and hyphens and neologisms – we eventually revert to *seeing* instead of *saying*. That is what the cinema helps us do: to see and to see ourselves seeing, where seeing is understood as a modality of thinking and of being, inextricably blended – now more

SAFIT

than ever it is made clear – with the technology that we invent and which reinvents us.

It is not fiction that these science fictions show, it is the thought and being of the posthuman.

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POSTHUMAN LESSONS

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You Have Your Fear: Radiophobia, Myth and Cultural Trauma in Ishiro Honda's *Godzilla* (1954)

Rick Wallach

As American military censorship ended in 1952, Japanese filmmakers began to address the psychological, spiritual and cultural dimensions of the atomic attacks on Hiroshima and Nagasaki, as well as the impact of the loss of the Pacific War in general. These had all been taboo subjects under the occupation regime since the end of the war. One of the earliest films to take on the various spectres of the atomic age and their effects on Japanese society was Toho Studios' epic 1954 monster movie *Gojira*, known in the west by its Anglicized pronunciation, *Godzilla*. Far from being a commercial science fiction potboiler like western monster movies of the same period, its scenes of radioactive devastation and human wreckage revealed *Godzilla* to be a serious meditation on national trauma. Speaking of nuclear technology not only in direct fashion but in the language of Shinto and Buddhist myth, the disintegration of traditional social norms and the breakdown of ancient family hierarchies. *Godzilla* was a scathing critique of how deeply the nuclear event had penetrated Japanese cultural conventions.

Keywords: Akira Kurosawa, atomic weapons, Buddhism, cinema, Japanese, cultural transformation, Eiji Tsuburaya, folklore, Ishiro Honda, Kaiju eiga, Kami, myth, radiation sickness, radioactive contamination, ritual, Buddhist ritual, Shinto, nuclear technology, nuclear testing

“Civilization is the ultimate destiny of the Culture... Civilizations are the most external and artificial states of which a species of developed humanity is capable. They are a conclusion, rigidity

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YOU HAVE YOUR FEAR

following expansion... petrifying world-city following mother-earth and the spiritual childhood.”

Oswald Spengler, *The Decline of the West*

In November 1954 Toho Productions released the first two Japanese films with powerful anti-nuclear messages since the atomic attacks upon their cities in 1945. The first was Ishiro Honda's *Gojira*, a conflation of the Japanese words for gorilla and whale, known in the west by its Anglophone pronunciation *Godzilla*,¹ and the other, less well known, was Akira Kurosawa's *Record of a Living Being*, released in the west as *I Live in Fear*. The nine year lapse in responding cinematically to the bombings is misleading on the face of it, though. It wasn't that the Japanese were slow to react to the apocalypse that had befallen them. Prior to 1954, under the stiff censorship regime imposed on Japan by the victorious allies, they had little, if any, creative leeway through which to interpret their collective nightmare. For over six years following the Japanese surrender, American military censors patrolled the nation's publishing and cinema to be sure that nothing would be made which was publicly conducive to insurrection, or which valorized the extinguished culture of imperial mysticism. At the same time, the occupation authorities set out radically to restructure key elements of Japanese social customs and even family life. As Chon Noriega (1987) pointed out, the occupation

¹ For my purposes here, unless I specifically state otherwise, I refer to Honda's original 1954 version of *Godzilla* instead of the bowdlerized 1956 American version, *Godzilla, King of the Monsters*, whose scenes with Raymond Burr were directed in Hollywood by Terry Morse, then insinuated into the original film.

WALLACH

dismantled and rebuilt the Japanese family and society....Reform gave women full legal equality and ended the authority of the clan over the family and the father over adult children. Compulsory education was extended to nine years, further reducing parental influence....For the most part, however, the Japanese cooperated with the Americans, bringing about enormous socioeconomic and political change during the relatively short occupation (1945-52). Such change, however much desired by both Japanese and Americans, required repression in order to succeed....(p. 65)

Even as the social policies of the occupation transformed the culture, the artistic response both to the disaster of the late war and to the imposed changes in Japanese political, social, and spiritual life gave voice to the anguish and disorientation the lost war and social deconstruction had caused and were still causing.

Japan's film studios – underfunded, technologically backward compared to Western studios – nonetheless got about the hard work of examining what was left of the country's prewar traditions. *Godzilla* and *Record* emerged almost as quickly as production schedules permitted once censorship ended in April 1952, as the Treaty of San Francisco took effect and restored Japanese sovereignty. Kurosawa, especially, had every reason to resent the censors. His 1945 film *The Men who Tread on the Tiger's Tail*, set in the late 12th Century, was banned for nearly seven years for supposedly extolling “feudal values” (Galbraith, 2001, p. 63). What

YOU HAVE YOUR FEAR

makes the tandem releases of these films even more interesting is that, aside from sharing key cast members, Honda and Kurosawa were close friends and collaborators. Honda was assistant director on Kurosawa's early classic *Stray Dog*, and later participated in comparably important ways in Kurosawa's last five films including *Kagemusha*, *Ran*, *Dreams*, one segment of which he directed, *Rhapsody in August* – which dealt directly with the Nagasaki atomic bombing – and *Maadadayo*. Kurosawa, in turn, would appear on the sets of Honda's later projects to serve as an uncredited assistant when his good friend's declining health made it increasingly difficult for Honda to carry his directorial burdens alone. Kurosawa delivered the eulogy at Honda's funeral in 1993.

The visions of both artists were conditioned by unsettling episodes from their youth. Both involved witness to unspeakable catastrophes. Honda had been a prisoner of war in China, which would have been punishing enough. However, after his repatriation to Japan Honda made his way back to Tokyo through Hiroshima. He was horrified by what he saw, which he recreated as the devastated Tokyo of *Godzilla* eight years later. Kurosawa, on the other hand, in 1923, at the age of twelve, was walked through the ruins of Tokyo by his older brother Heigo just a few hours after the Great Kanto Earthquake, which killed nearly 143,000 Japanese. He saw piles of human corpses set upon by birds and rats. Heigo refused to permit him to look away. The close friends shared experiences of horror, one manmade, the other natural.

Although Kurosawa experienced the anguish of Japan's defeat, he nevertheless came to believe, like

WALLACH

many Japanese, that the individual conscience must take precedence over the herd mentality of the *Bushido* code. He realized that traditions for which he still held affection would be lost in the cultural transformations then underway. At the conclusion of *The Seven Samurai*, for example, Shimada realizes that the real winners of their war with the bandits were the farmers, the orderly lives. He thereby acknowledges the end of the era of mystified martial glory. Shimada also appreciates that the demise of his own warrior class was the price of peace and security, to live creatively as opposed to destructively. This was a message as intensely resonant for the Japanese audiences of 1954 as *Gojira's* allusions to the late war would also prove to be.

Kurosawa's 1948 detective film *Stray Dog* restated his concern with the effects of defeat and imposed westernization. His friend Honda designed and shot the film's most celebrated sequence. Toshiro Mifune, as a young detective, searches the makeshift stalls and jerrybuilt black markets and back alleys of bombed-out Tokyo for his stolen pistol. A startling sequence with street sounds but no dialog, it took the pulse of a defeated Japan while ogling the wreckage of its social and cultural life. The directors' mutual sensitivity to the ebb of tradition is discernible in the narratives of both *Gojira* and *Record of a Living Being*. Both films are valedictories to traditional culture and both represent the decanted atomic genie as an encompassing menace. Nevertheless, what distinguishes them is the way *Record* focuses on the corrosive impact of selfishness, greed and western-style materialism on paterfamilial respect, while *Gojira* utilizes mythological, folk and religious imagery to bare a blistered national soul.

YOU HAVE YOUR FEAR

Much has been written about the historical and geopolitical themes so immediately apparent in *Gojira*: radiophobia, the dangers of nuclear testing, and the still-vivid memories of the destruction of Japanese cities by both atomic and conventional means. However, even though several critics have at least broached the subject of *Godzilla*'s indebtedness to Japanese myth, folklore and religious practice, much less has been written about the film's more subtle critique of traditions unraveling under the impact of enforced or consumer-driven westernization. For example, Tsutsui (2004) notes that

Japanese traditional art and literature, so scholars tell us, boasted bizarre supernatural demons and monsters....Giant serpent deities inhabited remote mountain valleys, and dragons moved across water, land and sky....In *Godzilla* one senses the echoes of such legendary beasts, awe inspiring and ever threatening, associated with the oceans, with longevity, and above all with ruin and calamity. (pp. 15-16)

Tanaka (2010) asserts that unlike other cinematic dinosaurs of the same period, "Godzilla is a malevolent deity or genie" (p. 161), and he further notes the suggestivity of the "God" in the anglicized pronunciation of the original Japanese *Gojira*. Joyce E. Boss (2006) goes further, asserting that *Godzilla* resembles traditional Shinto nature deities, or *kami*. The monster "is associated with *kami*-like qualities....(his) approach is signaled by shaking earth...and often by a howling storm of wind and water – in other words, earthquakes and typhoons, which enjoy a deeply

WALLACH

traditional association with *kami*” (p. 105). And for Michael J. Blouin (2013), Godzilla is “a giant amalgamation of the nuclear event and primal myths of Japanese lore” (p. 88). Ironically, then, Godzilla resurrects ancient beliefs whose hold on the popular imagination the Occupation reforms were intended to loosen, if not break.

Despite the cooperation cited by Noriega (1987), it would be naïve to assume that there was little resentment or resistance to the allied restructuring of Japanese society. In literature the urge to resurrect the militaristic nationalism of Japanese traditions repressed first by censorship, subsequently by consumerism, had its partisan in novelist Yukio Mishima. This phenomenon has been extensively remarked upon and dissected by literary and social critics alike. However, the subliminal deconstruction of pre- and postwar culture by *Godzilla* has rarely been discussed beyond the monster’s incarnation of the nuclear event.² Even less remarked is how consistently the movie alludes, whether deliberately or in those inescapable ways in which the cultural unconscious exerts its influence on the creative imagination, to elements of Japanese family mores, religious traditions and folklore.

Godzilla is noteworthy for the way in which Honda represents the family of its human protagonist, Professor Yamane. The film starkly foregrounds the conflicted character of an aging scientist between empirical

² It should be noted that the term “nuclear event” has come to mean rather more than the two specific bombings of Hiroshima and Nagasaki. In scholarly and critical discussion, it stands for the bombings and the entire range of discursive approaches to them, and to the nuclear threat in more general terms.

YOU HAVE YOUR FEAR

rationalism and deeply felt emotions inspired by tradition. Emiko Yamane, daughter of this eminent zoologist and paleontologist, rejects her childhood betrothal by her parents to the brilliant chemist Daisuke Serizawa and embarks on an illicit relationship with another. Her abandonment of Serizawa for the marine officer Ogata, which could easily have been made ancillary, actually becomes the film's most crucial narrative. Originally, Honda intended to include, and actually filmed, idyllic scenes of the young Emiko and Serizawa together before the war to add pathos to the disintegration of their relationship, but decided not to include these vignettes in the finished production. No doubt he felt that the message of those scenes would be elaborated more forcefully by the tragic resolution of their triangle than by glimpses of their youthful rapport. When the postwar government calls upon Emiko's father to join its blue ribbon committee studying ship disasters near the coast of Japan, his involvement in the Godzilla crisis unfolds simultaneously with Emiko's decision to defy his wishes, ignore her imposed engagement, and marry Ogata instead. On the cultural and emotional level, the unraveling of her arranged betrothal parallels the appearance and fate of the monster itself. Emiko's emotional awakening to *ren'ai*, or romantic love, in defiance of the four hundred year old Samurai class tradition of *omiai*, or arranged betrothal, coincides with Godzilla's angry resurrection from the Jurassic strata of the seabed. At one point in the film, her illicit lover insults her father by openly disputing the elder's desire to preserve Godzilla for science. Dr. Yamane orders the upstart from his home, stalking angrily off to his study.

WALLACH

Kurosawa confronted the breakdown of family traditions in *Record of a Living Being* even more forcefully. That film unblinkingly depicts the defiance of a paterfamilias by his mercenary children and in-laws. They attempt to have 70-year-old Nakajima, a wealthy industrialist, declared mentally incompetent to keep him from shutting down his factory and spending his own money to emigrate to Brazil, where he believes he will be safe from a future thermonuclear war. Surely, the similarities between the family crises in both *Godzilla* and *Record of a Living Being* cannot be merely coincidental. We could even view it as an inside joke between these close friends that the name of the protagonist of *Record of a Living Being* is Nakajima when the name of the actor who wore the Godzilla suit for most of the filming was also...Nakajima. Without gainsaying Honda's personal vision in the making of *Godzilla*, it is difficult to believe that he would not have discussed his film with his best friend and closest confidant. I am going to suggest, then, a shift of the lens through which we have habitually viewed this film. Let us consider the probability that *Godzilla* was as at least in part influenced by Kurosawa's discussions with his friend, and enjoy the revelatory distortions this shift in perspective affords us.

Despite the apparent differences in genre – one a *kaiju eiga*, and the other a family drama – these films are essentially similar. We are well aware that *Godzilla* incarnates nuclear anxiety and is a warning about the consequences of nuclear testing. Honda has said that in the figure of the monster he “wanted to make radiation visible” (Galbraith et al, 1998, pp. 21-22). Nevertheless, the family drama unfolding within

YOU HAVE YOUR FEAR

Godzilla bears much of its pathos and subtly communicates its extended warning,³ even as scenes of carnage and suffering inflicted by the monster communicate it overtly. Both films are intent to demonstrate that nuclear anxiety strikes as deeply into culture as radiation penetrates to the genome. In this connection the catastrophic war with the west always resonates evilly in the background, too. Japanese sensitivity to memories of the conflict erupts through the veneer of social progress in *Godzilla* most tellingly when the journalist Hagiwara tells Dr. Serizawa that he had discussed the chemist's research with a German scientist who knew of it. Serizawa snaps, "I don't *have* any German colleagues!"

Indeed, the humiliation of defeat, cultural disintegration and atomic apocalypse all become each other's objective correlatives in *Godzilla*. Deteriorating social norms unleash passions once canalized by custom and ritual, leaving them free to seek new and hitherto unguessed forms of expression or explode into violence. Although westernization is generically symbolized in *Godzilla* by radiophobia, with the retreat of the threat of global thermonuclear war and its attendant redshifting of our ways of viewing these films, we can see more clearly how anxiety about the technological threat becomes secondary to their representations of Japanese

³ *Gojira* and *Record of a Living Being* represent the nuclear threat as a family issue but they are not unique in this respect in Japanese cinema. Generations of illnesses and teratogenicity stemming from the atomic attacks made radiation poisoning a real-life family affair in Japan. The theme is restated vividly in Shohei Imamura's 1989 masterpiece *Black Rain*, based on the novel by Isuji Mabuse, which follows a *hibakusha* family with emerging symptoms of radiation sickness.

WALLACH

spirituality and social conduct in decay. Akira Ifukube, son of a Shinto priest and composer of *Godzilla*'s score, identified this key dichotomy in a BBC interview: "The Japanese had fought with all their spirit but in the end it was technology that defeated them. Godzilla is undefeated by technology."⁴ Yes, but as we shall discuss later, he is also an unintended *product* of it.

The icon of radioactivity announces itself at the outset of the film, simultaneously with the sinking of the Eiko-Maru, an allegory of the contamination of the tuna boat Lucky Dragon Five and its hapless crew by an American hydrogen bomb test in March of 1954.⁵ As the ocean beneath the ship erupts into a radioactive cauldron, the sailors tumble across the deck overturning a *Go* board and scattering its stones, dropping a guitar atop the overturned board. The camera lingers for a moment on this western instrument overlying the traditional Japanese martial game. This is a revelatory vignette. In a possible nod to the critical role played by Emiko's apostasy against her betrothal, matched or reciprocal arrangements of the stones in *Go* are also known as *miai*, the term for arranged marriage. In this scene, the stones lie scattered randomly about the deck. And one cannot help but muse that such allusiveness is a nicely Kurosawan touch.

⁴ See the N. F. Jones' BBC documentary which includes interviews with members of the original *Gojira* crew and cast.

⁵ See Galbraith (1998), pp. 215-16, for more details on the relevance of the Lucky Dragon Five incident to the making of *Gojira*. In the 'commuter scene' wherein several salarymen and women compare the advent of Godzilla to the Tokyo fire raids and atomic bombings, the contaminated tuna from the ill-fated trawler is specifically mentioned.

YOU HAVE YOUR FEAR

Much as these signifiers of popular culture alert us to what the film's concerns might really be, its persistent allusiveness to ancient Japanese religious myths and rituals expose its cognizance of social and spiritual transformation. These references depict how deeply the film's overmastering radiophobia has penetrated Japan's spiritual life. So where do we find religious elements in this classic monster movie? If as Ifukube infers Godzilla is a symbol of the Japanese spirit, what does his form and his behavior say about the state of that spirit at the time of the making of the film? Ifukube, no less than *Godzilla's* contemporary audiences, was surely aware that the popular term for the Japanese spirit, *yamato damashii*, had become ideologically loaded through political manipulation. Nationalists used the phrase during the 1930s and throughout the war as a rallying cry of militaristic fanaticism, epitomizing the indomitability of the *Bushido* code.⁶ To whatever extent Godzilla is a "warning" about the nuclear arms race, he is also a spiritual mirror Japan held up to itself, including, in Ifukube's sense, an incarnation of its own dark side, of the ideologically reconfigured medieval and Shogunate-era beliefs that promulgated its delusions of invincibility and led it into a disastrous war. The *kaiju* is, whatever else he may represent or mean, the revenant of *yamato-damashii* bearing the radioactive scars of its own unmaking.

Godzilla first appears in the waters off Odo Island, a fictional location whose position on the sea charts at the Nankai Shipping Company places it within or very near to the Izu archipelago, administrative outliers of

⁶ For an excellent treatment of this matter, see Roy Andrew Miller's *Japan's Modern Myth* (2006).

WALLACH

Tokyo Prefecture.⁷ The Japanese mainland is distantly visible when the Eiko-Marū explodes, as well as during the depth-charge attack against Godzilla by the Japanese navy. This geographical imagery is important because the despoilage of uncorrupted economic and religious culture of Odo by Godzilla is allegorically central to the film's complex message. Supported by traditional dragnet fishing, the Izu islands had no electricity until 1953. They embody the contrast between a still emerging modern postwar Japan and the fading away of more traditional cultural forms. "In the movie, the inhabitants of Odo Island actually have a long standing belief in the existence of a creature they call "Gojira" (Anglicized as Godzilla)," writes Stephanie Fay, and this creature "occasionally needs to be placated with a sacrifice when the fishing gets bad" (Deeper Than You Think).

The old fisherman Izuma's insistence that Godzilla has always been there, and had been propitiated with

⁷ A number of writers have placed Odo Island in the "south seas" or, in Noriega's case, "Micronesia" (1987, p. 69). This is clearly wrong, as the coordinates given in the film by political authorities for the destroyer fleet operating off Odo against the monster are 136-138.07 E – 33.04-33.08 N, a zone just south of the Izu Archipelago off the entrance to Tokyo Bay. Moreover, the islanders have distinctly Japanese, not Micronesian, names like Shinkichi and Izuma. This begs the issue of how Godzilla relocated himself from the immediate region of the nuclear tests thousands of miles to the south to arrive at Odo Island just off the Japanese coast. That Izuma insists that Godzilla has always lived in the sea near the island identifies him with traditional sea dragons of Japanese lore, like Ryujin, on one hand, but also suggests that the monster has traditionally navigated the sea bottom from his abyssal habitat to the south to, perhaps, his feeding grounds near the island, where his presence adversely affects the fishing.

YOU HAVE YOUR FEAR

sacrifices of young girls in the “old days” – which he discusses as though he can recall them – are among many allusions linking the monster with the Shinto *kami* Ryujin, greatest of the mythological sea dragons, as well as with the “spiritual childhood” of the culture. Ryujin means “luminous being,” a name which might well be parodied by the way Godzilla’s dorsal plates light up when he expectorates his radioactive aerosol. In Shinto myths Ryujin is said to live in the deepest part of the ocean. Indeed, Dr. Yamane, in his lecture to the government committee upon his return from Odo Island after first sighting Godzilla, points to the deepest part of the ocean on his geological chart to locate the “Jurassic strata” which is the monster’s native habitat. Mark Anderson (2006) sites this aspect of the creature within the context of a wartime debate between Japanese scholars about the role of folklore in maintaining morale and defining Japanese culture against the inroads of modernity. “[The Odo Island sequences suggest] the Yanigata Kunio school of folklore studies...[which] argued that Okinawa and the Pacific islands were likely origins of Japanese culture and should be studied as such,” Anderson notes. In this regard, Izuma’s comments gesture towards “the consequences of the loss that comes with neglecting traditional ways, and failing to respect and sustain indigenous, non-European-American identity” (Anderson, 2006, p. 27).

Dragons are important *kami* throughout Shinto. However significant the influence of western monsters like Willis O’Brien’s *King Kong* or Ray Harryhausen’s *The Beast from 20,000 Fathoms* were on the initial conceptualization and making of this film, Godzilla is represented by Izuma as a folkloric spirit of the waters

WALLACH

around Odo Island bearing, in perverted form, many attributes of menacing sea monsters long resident in the national lore. Ryujin is a lord of the oceans, patron of storms and floods, which he controls by the use of his magical "Tide Jewels," a creche of which he hides in his undersea lair. He is also patron spirit of fishing, good luck and fertility, in essence, functioning as symbolic of the most basic energies of nature, of the *elan vital*.⁸

Godzilla is, in effect, a malignant *parody* of this *kami*, horribly deformed by radiation. Whereas throughout his many legends Ryujin assures plentiful fishing, this particular unlucky dragon's appearance in the waters off Odo Island ruins the catch. In place of fertility, Godzilla brings radioactive contamination. His skin is textured like keloid scars, characteristic burns from nuclear flash and radiation, instead of scales. Moreover, like a spirit, Godzilla's very countenance is mercurial. His face subtly changes from scene to scene, appearing more or less symmetrical, less radiation-scarred in distance shots but becoming more scarred and misshapen in tighter frames. The face of the Godzilla who first rises above the hilltop on Odo Island is extensively scarred. It has a blunt snout, crooked jaws and teeth which protrude crocodile-like from an only partially closable mouth. The Godzilla who savages Tokyo, seen from a distance, has smoother features, with a more gently tapered snout and is able to close its mouth completely. The more closely the monster can be seen, the more clearly perceived its deformities. Godzilla's misshapen face in the close-ups is a telltale

⁸ For some general information on this, see, for example, M. Lindemans' entries on Ryujin at the *Encyclopedia Mythica and at* <http://www.angelfire.com/falcon/ecsc-fw/b/rj-md/DRAGON6.html>.

YOU HAVE YOUR FEAR

sign of the hydrogen bomb test predicating his emergence from his abyssal habitat. However, those distortions also signify much more than that in the context of the monster's incarnation of traditional folkloric and mythic beings. In the nighttime sequences of its dual attacks on the city, the frontal view of Godzilla's scarred face with its glaring eyes startlingly resembles an *oni* mask, a Shinto messenger from hell or the tormented afterlife. As a survivor of the Jurassic age and a dweller in abyssal regions, Godzilla is, after all, a messenger from the geological afterlife. Moreover, many types of *oni*, depicted in Noh dramas, Shinto ritual and dance, sport outsized glaring eyes, protruding fangs and jutting teeth. Godzilla's resemblance to those masks in his closeup views, especially in a few frontal scenes, would have had a powerful impact on Japanese viewers, who had since their childhood been exposed to such rituals and performances. Shinto spirits are notoriously mercurial, too, frequently changing shape or posing as other beings. Special effects master Eiji Tsuburaya utilized several different Godzilla heads and torso mannequins. He surely was aware of the different configurations of each. Tsuburaya and Honda leave us, quite deliberately, with the visual text of a shapeshifting spirit-monster. On yet another level, Godzilla's crooked jaw, seen clearly in his frontal closeup above the hill on Odo Island and on several occasions during his second excursion through Tokyo, might also be a sly reference to the *jira* or "whale" part of his name. Moby Dick, most monstrous of all fictional cetaceans, was also marked by his crooked jaw.⁹ A partial translation of the

⁹ Captain Ahab famously exhorts his sailors to identify Moby Dick: "Whoever of ye raises me a white headed whale with a wrinkled

WALLACH

novel by Tomoji Abe appeared in Japan in 1938, and the complete translation was published in 1946, so it is entirely possible that some of the key contributors to *Gojira* had read the novel and incorporated this feature into the monster's physiognomy.

Shinto themes are reinforced by several other images and allusions throughout the film. One is an exorcism ceremony the Odo Islanders perform in an attempt to rid the surrounding waters of their ancient *kami* and restore their fishing. This *Kagura* dance performance, represented by old Izuma as a *chinkon* or pacification ritual,¹⁰ consists of four dancing *yamabushi tengu*, spirits of warfare and of storms. Protectors especially of the forests and mountains, the islanders invoke them to protect their waters from their threatening local demon.¹¹ Later that same night an unanticipated storm lashes Odo Island. Ryujin, remember, is also a lord of tides and typhoons.¹² Rather than driving the troublesome *kami* from their waters, the rather poorly chosen *tengu* appear to have summoned it up with its accompanying tempest. Like Ryujin, Godzilla unleashes his typhoon, enshrouded by which he makes his first appearance on land.

Another Shinto allusion which has gone unremarked is the pivotal scene wherein Godzilla tears through a barrier of high-tension electrical lines which have been erected specifically to repel him and protect central Tokyo. The electrical lines function as

brow and crooked jaw, he shall have the gold ounce.”

¹⁰ For more on Kagura dance and its roots in ancient pre-noh Shinto ritual, see David Petersen (2007).

¹¹ See the *A to Z Dictionary of Japan's Buddhist Dieties*.

¹² See the homepage of the *Encyclopedia of Shinto* in English.

YOU HAVE YOUR FEAR

shimenawa, the ritual cords put up around shrines, sites of rituals and even new construction as a barrier against *oni* and evil *kami*. Many *shimenawa* are traditionally decorated with *shide*, or zigzag lightning bolt designs; when *shide* are attached to a wand, the resulting ritual implement, used in purification rituals, is known as a *haraegushi*, or lightning wand. Hence, the power lines and towers, which explode with electric arcs as Godzilla lumbers through them, allegorize Shinto ritual implements meant to keep the evil *kami* from the numinous heart of the city. Moreover, the postwar power grid in Japan, with its enormous towers crisscrossing the countryside, was symbolic of the nation's industrial and economic rebirth after the devastation of the Pacific war.¹³ Thus, in what is arguably the film's most memorable battle set piece, Godzilla's assault on the power lines – which he pauses as if to contemplate for a moment before ripping into them – also represents the triumph of the radiation-deformed, westernized *kami* over ritual ostracism for the *second* time. The first, of course, was his shrugging off of the Odo Island *yamabushi tengu* exorcism rite. Simultaneously, it is another instance of the ancient order lashing out at the new. Moreover, Godzilla fully exfoliates into his dragon *kami* identity precisely during

¹³ The power grid was also symbolic, in subtler ways, of some older traditions. Eastern and Western Japan actually have two separate power grids running on different transmission frequencies which were built by two different western companies, the American General Electric and the German AEG, during the late 19th century. The grids must be reconciled at their meeting points by transformer centers. After WWII, rather than modernize the two grids into a single system, the Japanese merely rebuilt them on their old, disparate chasses.

WALLACH

this scene, unleashing his atomic aerosol breath against the high tension towers. Having violated the *shimenawa* meant to protect a nascent Tokyo, the monster needs no further subterfuges and his identity as the spurned, damaged and vengeful dragon god of the ancient order asserts itself unalloyed.

When in motion the monster also stages multiple allusions to ritual and theatrical forms as well as to recent history. It walks slowly and stiffly like a Noh or Kabuki performer. Such postures and movements ameliorate the artificiality of the “Godzilla suit” effect by encouraging viewers to “read” the spectacle through a traditional theatrical aesthetic. Moreover, the solemn, resonating footfalls which precede Godzilla’s appearances – even before it has emerged from the sea – recall the immense *taiko* drums used in ritual and theater, a tradition of percussion with shamanic roots. The sound of the monster’s footfalls, then, is like a summons to ritual, ironically, into the sacred space the drumbeats define upon the stage or the temple portico. Depicted against a dark sky, the film also evokes the shadowy washes of Japanese brush and ink painting.

The creature usually carries his hands stiffly upraised like the burned survivors of the Hiroshima and Nagasaki bombings with their seared flesh, swollen joints and heat or radiation-deformed tendons. In this sense, Godzilla is also a *hibakusha*, an atomic survivor, whose skin is a texture of keloid scars instead of reptilian scales or scutes. Godzilla’s dragon breath is not so much fire as an aerosol of caustic, irradiated venom suggesting atomic rain. This interpretation of the “radioactive breath,” like many other aspects of this classic film, is rooted in ancient Japanese dragon lore.

YOU HAVE YOUR FEAR

According to Tsuda (1918), aquatic dragons described in the ancient collection of Shinto folktales and myths *Nihon Shoki* (720 AD) “emitted poisonous vapors and inflicted pains on the passers-by which often proved fatal” (p. 761). Godzilla is, in other words, mythic in the sense that he represents the very energy of nature with all of its benevolent functions perverted by atomic radiation or degraded into mindless hostility. The first Japanese emperor, Jimmu, was said to be the great grandson of Ryujin.¹⁴ The radioactive monster is thus linked by legend to the imperial bloodline of the nation, symbolic of how profoundly the atomic attacks have intoxicated its culture. *Godzilla* thereby incubates a bitter post-imperial irony: nuclear testing forces the imperial great-grandfather to the surface, whereas the first time ordinary Japanese citizens heard the voice of the Emperor was during his radio broadcast announcing the surrender of Japan, violating his ritual silence because of the dual atomic bombings.

Old Izuma, who explains the legend of Godzilla as well as the required ceremonies of expiation to the Odo islanders, may be identified with Ryujin’s mythical messenger Riuja, who is described in the *Nihon Shoki* as having “the face of an ancient man.” Izuma’s claim that he remembers when young girls were sacrificed to Godzilla is remarkable since human sacrifices had ceased in Japan in very ancient times. Of course we can interpret this as the confusion on the part of an elderly man of recollection of folk tales about such sacrifices with actual recollection, or as evidencing how strongly Izuma identifies with the ancient traditions, but his

¹⁴ See <http://www.ancientworlds.net/aw/Post/1261611>. This website relates various ancient folktales.

WALLACH

“memory” also locates him at least allegorically in the realm of the Ryujin mythos as the *kami*’s messenger. The wonderfully expressive face of the old fisherman, played by Kokuten Kôdô, is characterized by his starkly downturned mouth, a grimace suggestive of many Shinto and Noh spirit masks, as in various *tengu* depictions.

Ancient tales of sacrifices to Ryujin were commonplace. According to Naratake Tsuda (1918), the *Nihon Shoki* contains several such narratives:

When Prince Yamatodake was crossing the sea to subjugate a revolt in the east, his boat was nearly capsized by a sudden storm. But his consort, Tachibana-hime, thinking it to be a punishment visited upon them by the deity of the sea, threw herself into the deep to calm the agitation of the waves, and thus the life of the prince was saved.

There is a little different story in the *Tailieiki*, written in the fourteenth century. According to it, a passenger-boat was passing through Xaruto of Awa when it suddenly stopped and could not proceed. The passengers conjectured that this was caused by Riujin, the dragon deity, with the intention of getting something in their possession. So they threw their swords, arms and armor, and other things which they thought the deity coveted, into the water. But the whirlpool would not become calmer. Meanwhile a steersman crying out from below said that, the place being the eastern gate of Riu-gu ("Dragon Palace"), some precious thing should be

YOU HAVE YOUR FEAR

given the dragon for regaining their freedom. (p. 763)

Izuma/Riuja, then, constructs Godzilla, sacrifices and all, as a symbol of the lost innocence of his race. After warning his fellow islanders that they must have angered Godzilla, the fishwives standing behind him dismiss his concerns by laughing “Old Izuma and Godzilla – both relics of the past.”

Their exchange alerts us once again to how deeply this film operates in the realm not merely of recent history but of myth.¹⁵ Izuma’s “recollection” of maiden sacrifices also anticipates the scene wherein Godzilla leans over the crest of the hill above Odo Island’s sole village and roars down at the terrified Emiko Yamane, who has tripped over a root and fallen. Ogata races back to her, lifts her in his arms, and hides with her in the underbrush.¹⁶ Within moments of this horrifying episode Godzilla has disappeared back into the sea. There is no mistaking such an allegorical, if displaced, re-enactment of Izuma’s ancient sacrificial ritual. Of the common motifs of myths wherein maidens are sacrificed to dragons, many were also collected in the *Kojiki*, a compendium of myths and folklore from

¹⁵ See *Encyclopedia Mythica*, a website dedicated to Japanese folk deities.

¹⁶ This scene is also strongly reminiscent of Jack Driscoll’s rescue of perpetual blonde Anne Darrow from King Kong, in the eponymous film that strongly influenced so many aspects of the original Toho production of *Godzilla*. As another example, the very fact that Ogata is a marine officer parallels Anne Darrow’s romance with first mate Driscoll, whom she meets on the ship in route to Skull Island. That we don’t know how or when Emiko and Ogata met in the first place might be answered, “in *King Kong*.”

WALLACH

early in the 8th century AD. About these stories Tsuda (1918) writes:

There are three elements in these tales of a serpent being killed, viz., the monster wants human sacrifices, a girl to be sacrificed is rescued, and the rescued girl is married to the hero by whom she is saved. These elements reappear very often in the later folktales of a similar nature. (p. 762)¹⁷

That Emiko has her mythic correspondences is also suggested by her intercession with Dr. Serizawa to use the oxygen destroyer against Godzilla, which also identifies her with the Buddhist sea deity Benten. In various myths and legends, Benten is both the bride of a dragon and, as a folk derivation of the Buddhist *Taras* or tears of compassion – Emiko breaks down and weeps on several occasions – defends mankind against evil dragons.¹⁸ Benten is also depicted as a patron deity of music, and at the beginning of *Godzilla* Emiko is dispatched by Ogata, who must report to work due to the sinking of the Eiko-Maru, to a classical concert they had planned to attend together. Ogata is a professional salvage diver, which further links him to the sea spirits with whom Benten, as well as Ryujin, often consort.

¹⁷ Tsuda (1918) recounts that in addition to human sacrifices to aquatic dragons, the other common tale of human sacrifice in Japanese myth and lore involves malignant giant monkey deities (764-65). This is noteworthy because the monster's Japanese name, Gojira, is in partial deference to King Kong a contraction of the words for "gorilla" and "whale."

¹⁸ See the blog entry at "The Broomcloset," <http://broomcloset.wordpress.com/2013/03/08/benten-japanese-goddess-of-eloquence/>

YOU HAVE YOUR FEAR

Godzilla's/Ryujin's appearance in his irradiated, or westernized, form is a revisitation of "spiritual childhood," of "mother earth," to the Odo islanders. When a government official tells Dr. Yamane that if they can't find a solution to the Godzilla "problem," they will have to close all shipping lanes, he gestures ironically towards a return to the seventeenth century Tokugawa imposition of *sakoku*, or isolationism. This policy was meant to interdict Christian inroads against the nation's Buddhist and animist religious culture. It insulated Japan from western influence for nearly 250 years until Commodore Perry forced open the doors in 1853. Japan was celebrating the centennial of Perry's incursion, for better or worse, precisely as *Gojira* began to take shape at the Toho studios. The unmistakable parallelism between Odo and *sakoku* Japan thereby becomes a microcosm of Japanese religious history, the little island similarly isolated by sea. It is only when the government research vessel bearing Dr. Yamane and his fellow scientists and their Geiger counters breaks Godzilla's *de facto* blockade that contact with modernity can be restored. It is precisely with the arrival of these scientists that the monster finally shows himself in broad daylight, towering above the hills behind the island's village and roaring angrily, as if to protect his reestablished mythic ethos.

The contrast between the islanders' dismissal of old Izuma's conviction that Godzilla has returned to plague them and subsequent staging of an ancient ceremony to exorcise a Shinto demigod exemplify the modernized Japanese soul divided against itself. The famous commuter train vignette in the unbowlerized film, which was deliberately exorcized from the American

WALLACH

version, is a good example of this. An assortment of Tokyo salarymen and a secretary discuss the sea monster and instinctively link it to “contaminated tuna” from hydrogen bomb testing and to bomb shelters. It is a demonstration of how vividly contemporaneous Japanese, especially urban dwellers, remembered the war and its horrifying conclusion. Their modern western dress and their “commuter” working status demonstrate as powerfully as their mordant expressions of disgust and frustration how much they would like to move on from prewar Japan, with its anachronistic valorization of *Bushido* codes, and embrace the Spenglerian “civilized” phase of modern Japan. The radiation-deformed *kami* thus suspends history for them, as well as for the Odo islanders. *Godzilla* is a catalogue of the spiritual and psychological price the islanders, like the Tokyo commuters, would have to pay in order to rejoin the modern world.

The rustic world of Odo Island contrasts sharply with a Tokyo rebuilt in western mode, although the island is administratively infiltrated by “civilized” authority and dotted with telephone poles, many leaning woefully (and suggesting the exterminated Christians of the *sakoku* period) after the island has been battered by the storm-shrouded *Godzilla*. Moreover, the “research expedition” to Odo features a Geiger counter examination of a contaminated well and one of *Godzilla*’s footprints. Ironically, the tests lead to the discovery of a trilobite – another symbol of Spengler’s “spiritual childhood” and “mother Earth.” Warned by Professor Tanabe, a physicist, that the trilobite is radioactive, Yamane puts it in a box and immediately begins prowling the footprint for more of them. Mother

YOU HAVE YOUR FEAR

Earth is here directly contrasted with the modern instrument and its apocalyptic symbolism. We see the same Professor Tanabe taking an active Geiger counter reading on a refugee child after Godzilla's march through Tokyo, then shaking his head sadly, which must have jarred an audience barely nine years removed from Hiroshima and Nagasaki. Near the film's climax, Tanabe holds the sensor near the water's surface from the deck of the warship carrying the oxygen destroyer. The Geiger counter follows Godzilla about the narrative like Derrida's phallic indicator.

Given that both its director and the composer of its soundtrack were the sons of clergymen, it should come as no surprise that a deep skein of religious symbolism runs throughout *Godzilla*. In what seems to me a wonderful irony, Honda, the son of a Buddhist priest in a faith that acknowledges an essential void, approached Ifukube early in the summer of 1954 as the production of *Godzilla* was getting underway and asked him to imbue his monster with spirit. "I know very little about music, but I know I have created a fake monster," he told Ifukube, born into an animist faith. "Your music must breathe life into it" (Jones).

Aside from its religious and mythological allusions, the human drama of *Godzilla*, like that of its alter ego *Record of a Living Being*, is grounded in disintegrating forms of family and social relations. In this sense *Godzilla* is as much a product of the Taisho period, when Japan's westernization actually began in earnest, as he is of the Jurassic era. The narrative constructs Dr. Yamane as a *scientific* traditionalist. He is, ironically, as rooted in an empiricist ethos as blinkered and amoral in its way as that of any nuclear physicist. Yamane is

WALLACH

frustrated by the military's insistence on destroying Godzilla instead of conducting research into how he has survived the massive dose of radiation he received from the hydrogen bomb tests that have driven him to the surface. As if to emphasize that he relates to an irrecoverable past, the elderly scientist bolts from his dining room in despair after watching televised coverage of the naval bombardment of the submerged monster, retreating to his study where he is posed with his back to the camera – and to his modern audience – sitting in darkness at his desk chair, a *Stegosaurus* skeleton dominating the desktop to his left. Honda, as always, knows exactly what he's doing in the composition of this frame. Yamane's proximity to the skeleton emphasizes his links to the ancient past and to tradition, including the tradition of hospitality that Ogata shortly thereafter violates when the young sailor insists that the government is correct in trying to kill Godzilla, earning his would-be father-in-law's ire. The facsimile fossil with its smoothly ellipsoid dorsal plates, meanwhile, implicitly contrasts with Godzilla's jagged back. As the monster disintegrates at the bottom of Tokyo Bay under the impact of Serizawa's oxygen destroyer, he becomes a ghostly simulacrum of the skeleton on Yamane's desk. This constellation of symbols is yet another reference to a world as lost as the traditional Japan of art and ritual, just as Godzilla is a revenant from a world – both paleontological and mythological – that *refuses* to go gently into its own good night.

Emiko's engagement to Serizawa has not yet been broken as the film's narrative begins. Nonetheless her affair with Ogata disregards the betrothal her father and, presumably, Serizawa's father had arranged for them as

YOU HAVE YOUR FEAR

children, during or just before the war. Her bringing Ogata into her father's house flouts her defiance of traditional marriage customs. In the second scene of the film, directly following the Eiko-Marui disaster, we see Ogata in his apartment, emerging half-dressed and still toweling himself off from a shower while Emiko waits in the background, making plain that the two are lovers. When we next see them together, they are departing aboard a research vessel to study the unexplained destruction on Odo Island, standing together at the railing while Serizawa, standing on the pier, gazes up at them. In the next scene, Ogata tells Emiko that he was surprised to see Serizawa at the pier, indicating that he knew who he was and was personally familiar with him. Ogata then squints through a range-finder, as if to mimic Serizawa's trademark lost eye or eye-patch and establish some metaphorical relation between the two men, perhaps some shared moral shortsightedness. In a later scene, Ogata remarks on Serizawa's wound, as if he thought the loss of an eye was the reason Emiko no longer found him attractive. It is as if he is really searching his own conscience for a justification for their mutual bad faith. She reassures him that she had always regarded Serizawa as an older brother figure.

What is more interesting, though, is that Ogata seems to be a fixture in the Yamane household, and we must assume that Dr. Yamane is either aware of the relationship and tolerates it, or that he is unaware of its true nature and regards Ogata as a family friend. In the latter scenario, Emiko and Ogata would be showing *profound* disrespect to the elder Yamane. Given the professor's steadfast conservatism in his commitment to his scientific ideas, this seems to me the more likely

WALLACH

interpretation than that Yamane would merely wink at the defiance of the betrothal he had engineered. The scenario is also complicated by the arrival of Shinkichi, a teenager from Odo Island whose brother and his wife were killed by Godzilla during his march through the village on the night of the mysterious gale. Ogata helps Shinkichi with his homework at the Yamane home, which seems to indicate that he and Emiko, or perhaps the elder Yamane, have adopted him. It is as if an illicit family has taken shape outside the traditional family, irrespective of Emiko's betrothal. Very curious, very heterodox.

That Serizawa understands what is going on between Emiko and Ogata is apparent in three separate scenes. In the first, Emiko attempts to explain to him, privately, that she is breaking their engagement. However, the scientist sidetracks the conversation by offering to explain his research to her, cutting her off with some vehemence. Emiko is so overcome by the demonstration of the oxygen destroyer that she drops the subject of her betrayal altogether, which we may guess is exactly what Serizawa wanted. He then makes her promise never to reveal what she has seen, out of fear that his destructive secret could be misapplied by political and military power-mongers. Of course, by imposing this oath, Serizawa also believes that he binds his fiancée closer to him in the midst of his anxieties about her infidelity. Could we not read this as Serizawa's horror of disgrace trumping his concern about revealing his discovery, since it is by revealing his secret to his unfaithful betrothed that he sets in motion the ultimate disclosure to Ogata about the only weapon that could kill Godzilla? That disclosure is occasioned

YOU HAVE YOUR FEAR

by the horror of Godzilla's destruction of Tokyo. Working as a nurse's assistant in its aftermath, Emiko, devastated by the human wreckage all about her, reaffirms her identity with the *kami* of compassion, Benten. She takes Ogata aside and tells him what she knows about Serizawa's discovery.

When they visit Serizawa together to ask him to use the oxygen destroyer, the scientist is initially somber when he sees them together. He clearly believes that Emiko has come to end their betrothal, almost contemptuously acknowledging Ogata with "Oh, it's *you*," and, offering them seats at his parlor table. The chemist appears to be struggling to face the ordeal with some semblance of *noblisse oblige*. He is horrified when Ogata instead asks him for the weapon. Stricken by the realization of her betrayal both of their engagement *and* of her promise never to discuss the oxygen destroyer, he glares at her accusingly.

The weapon itself is a shiny metallic globe encased within a glass and metallic cylinder. This is Serizawa's answer to Ryujin's Tide Jewel. When Serizawa, having insisted upon submerging with Ogata to place the weapon, opens the globe using a trigger mechanism on the cylinder head, it initiates a vicious chemical chain reaction throughout Tokyo Harbor. After unleashing his weapon against the deformed *Ryujin*, in effect fighting nuclear fire with nuclear water, Serizawa commits a simulacrum of ritual suicide. He has managed to secrete a knife in a pocket of his diving suit, which he produces and holds like a *tanto*, the ritual dagger used in *seppuku*. He then cuts the line and hose which resemble entrails; Honda's camera focuses tellingly upon the blade slicing through the lines. Serizawa's last words to Ogata are

WALLACH

“Be happy together,” by which he acknowledges Emiko’s infidelity. The anguished scientist’s suicide is an ambiguous act. Most commentators have interpreted his death as fulfillment of his determination never to be coerced into revealing the secret of the oxygen destroyer, but we overlook its continuity with the film’s persistent allusions to unraveling codes of honor and respect if we do not also recognize it as his response to being dishonored by his fiancé. Within the mythic ethos of the story, we can also interpret his death as yet another ritual sacrifice to Ryujin, an ironic fulfillment of Izuma’s insistence that the *kami* requires human blood. As Tsuda (1918) writes,

The oldest record of the kind is also in the *Nihon Shoki*. According to this, while the Emperor Jimmu, the founder of the Japanese Empire, was crossing the sea on his expedition to the east, a typhoon broke and his boat was soon adrift on the waves. Then Ina-ihino-mikoto, deploring the disposition of the deity, sacrificed his own body to the deity of the sea; thus the emperor could proceed....There are many more traditions of this nature. (p. 763)

Dr. Yamane’s solicitude for the scientific opportunity he believes that Godzilla’s existence affords him correlates with Serizawa’s obstinate refusal to consider using his discovery against the monster. Yamane wants to understand how the monster survived the hydrogen bomb test that brought it to the surface, seething with radioactivity that should have killed it. In arguments with the military authorities and within his

YOU HAVE YOUR FEAR

own family, especially with the upstart Ogata, he insists that Godzilla should not be destroyed but should be studied. In this sense Yamane regards Godzilla, like the nuclear event itself, not as much as a concrete event or an entity as what Blouin has called “a nuclear text” to be explicated (p. 86). In this, as a representative of the waning years of the Taisho and onset of the Shōwa periods of Japan, Yamane personifies the empirical study of supernatural phenomena that acutely characterizes an era of modernization. He would, as it were, “naturalize” the supernatural force that has been unleashed against Japan. It takes the fiery destruction of Tokyo to place before Yamane, as well as before his young *doppelganger* Serizawa, the human suffering to which both men’s private concerns have blinded them. Yamane’s moral blindness is mirrored by Serizawa’s eye patch. This, Ogata tells us earlier, is from a war wound of whose precise nature we are not informed. The younger scientist is paralyzed by his apocalyptic fear that his oxygen destroyer might someday be deployed as a military option, of a chain reaction of disintegrating seas consuming all life in the water and, by extension, destroying all oxygen-releasing algae therein. He understands what this would mean for life on Earth. What awakens Serizawa from his fear that his terrible technology “should fall into the wrong hands” is a televised prayer service entitled “O Peace, O Light, Return.” Composed for the film by Akira Ifukube, the prayer is represented as a traditional hymn. Clearly, the title of the prayer implies the battle against Godzilla is a form of warfare; the full name of the original version of the film is *Gojira King of Monsters, Record of Great Battles*. Godzilla, then, allegorically hefts upon his

WALLACH

serrated back the detritus of the Bushido code and its modernist descendant, the ritualized militarism of the Shōwa era. The broadcast of the prayer juxtaposes images of crowded hospitals with pans of the Hiroshima-like ruins of Tokyo. Soon the mise-en-scene broadens to reveal crowds of people, clad in traditional robes and holding prayer beads in Buddhist supplicative poses, watching or listening to the broadcast as are Serizawa, Ogata, and Emiko in Serizawa's basement laboratory.

There's more, however. One cannot harness powerful archetypes out of the cultural unconscious without unintended consequences or unleashing unintended interpretations. Myths are if nothing else preeminently polysemous. They cut both ways, and then some. On New Year's day of 1946, under pressure by the Supreme Commander of the allied occupation, Emperor Hirohito had put an end to the ancient tradition of the Emperor as an incarnate divinity in his so-called "Humanity Declaration" (*Ningen sengen*). The linguistic sleight-of-hand by which Hirohito nevertheless maintained a tenuous link to the myth of his descent from the sun goddess Amateratsu need not concern us here. The exact wording of the declaration is still a matter of contention among linguists and historical analysts. However, the declaration coincided with an ongoing campaign by the occupation to dismantle the so-called "State Shinto" apparatus by which nationalists and militarists had enforced their mystification of the Bushido code and the Samurai spirit. Democratization of Japan, the allies believed, hinged on stripping away imperial mythology and secularizing Japanese society. In this sense, Godzilla ironically, if not vengefully,

YOU HAVE YOUR FEAR

forces the old myths back down the throat of a modernizing culture in a manner that it no longer suited to what it has become and is utterly destructive in its effects. The *kaiju/kami* objectifies, in addition to radiophobia, the national spirit deformed by defeat and westernization and ancient traditions abandoned. This is the same impulse towards self-sacrifice and the need for redemption also represented by the mystified atavism of novelist Yukio Mishima.

One could almost say, in retrospect, that the pounding Japanese cities have taken in *kaiju eiga* after *kaiju eiga*, even though by now reduced to kitsch-formulaic motifs repeated automatically with no conscious awareness of their roots in humiliation, mourning, and disorientation, represent a metaphorical form of *seppuku*, of atonement for defeat and, worse, for apostasy. These epicyclic catastrophes are like acts of *seppuku*, simultaneously punishments and redemption, that the nation commits with Godzilla as its *tanto*. Whether these contexts were deliberate storytelling strategies of Honda, his co-scriptwriter Takeo Murata or the original story contributor Shigeru Kayama is practically irrelevant; what matters is that in the social and political world of mid-1950s Japan they would play upon psychological and spiritual issues with which the film's audience would have been grappling and with which they would have been all too familiar.

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YOU HAVE YOUR FEAR

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**Technologies of Authority, Technologies of
Resistance: Power and the Urban Form in
*Transmetropolitan***

Evan Lampe

The cyberpunk comic series *Transmetropolitan* by author Warren Ellis and artist Darick Robertson describes an ongoing class war in a fictional urban setting known as the City between the underclass, known collectively as “the new scum,” and the political and economic elite. By following the career and exploits of the journalist Spider Jerusalem, the author and artist use the City as a gateway into the late capitalist city. Technological post-scarcity has helped create the conditions for a large and marginalized underclass, while also providing the tools to sustain the social divisions in the City. This elite uses both old strategies of urban “renewal” and institutional oppression and new technologies such as an omnipresent surveillance state. Meanwhile, the “new scum” embrace a variety of technologies in their vernacular strategies to survive, and even thrive, in a deeply unequal setting. Due to their flexible applications many technologies seem to empower the “new scum” in exposing government lies, cultivating subcultures, surviving, and transcending class boundaries.

Keywords: *Transmetropolitan*, Philip K. Dick, Warren Ellis, Darick Roberston, cyberpunk, authority, resistance, technologies

Introduction

This essay is interested specifically in how technology is used by those with political and economic power and

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TRANSMETROPOLITAN

used as a form of resistance by the underclass in the cyberpunk comic book series *Transmetropolitan*. Technology, despite having almost unlimited applications and potential, is not used equally by different classes. Here I look at those differences in access and use in *Transmetropolitan* with some eye to what this might tell us about the use of technologies in resistance and repression, as well as what it says about our present world under late capitalism.

In the course of the series, speculative technologies are often abandoned for old-fashioned tools of class war. Those in power use the technology of the surveillance state as well as low-tech options such as the bulldozer or the police club. At the same time, the forces arrayed against the ruling class have numerous technologies to avoid capture or to challenge the banalities of a homogenized global culture, but they still use classic survival techniques such as trading at pawn shops, illicit trade, and speaking truth to power. Throughout *Transmetropolitan* the underclass applies the various strategies of survival and resistance that James C. Scott has labelled “infrapolitics,” which he defines as often hidden strategies that when aggregated shape power relations (Scott, 1992). While Scott is primarily interested in questions of peasant resistance and rural social organization in opposition to the state, others have applied his ideas to urban forms. Robin D. G. Kelley has shown how the black working class have used infrapolitics as a daily survival strategy under Jim Crow and in the face of police repression and white racism in urban spaces (Kelley, 1996). Jeff Ferrell, author of *Tearing Down the Streets: Adventures in Urban Anarchy*, does not directly cite Scott but shows how

urbanites have used graffiti, underground radio stations, street music, bicycling, and a host of other strategies to oppose efforts by the state and capital to create the street in their image (Farrell, 2003). Farrell has defined the struggle over control of the streets as essentially a class war over who will define the nature of urban life. Will the future of the city consist of the “Disneyfication” of Times Square or the organic, vernacular experiences of the punks and the anarchists (Farrell, 2003, 4-12; Delany, 1999). *Transmetropolitan* takes these familiar battles and places them in a technological-infused cyberpunk environment.

Transmetropolitan and the Cyberpunk Genre

The cyberpunk genre of science fiction began with William Gibson’s *Neuromancer*, published in 1984, but it has its thematic roots in the socially-conscious science fiction of the 1960s and a growing fascination with the place of technology in human societies. Cyberpunk co-evolved along with transhumanist philosophies (Foster, 2005). Cyberpunk authors have tended to set their works in the near future, often using recognizable urban settings, but they have infested these locales with technologies. With the saturation of technology in all areas of human life, the boundary between the human and the transhuman is blurred. While engaging directly with questions of technological transhumanism, cyberpunk authors are interested in social questions, such as class divisions, the end of the nation-state, the rise of corporate power, and the proliferation of low cultures. “High-tech and low-life” are the two sides of cyberpunk, exploring first transhumanism and then

TRANSMETROPOLITAN

social breakdown. The cyberpunks view the important question of technology as concerning its application and tend to see technology as value neutral and as a tool of class war or liberation, depending on how it is used and how access to liberty technologies are distributed across society.

The comic book series *Transmetropolitan* is one of the boldest literary and artistic achievements of the cyberpunk genre, emerging in the aftermath of the genres' late 1980s heyday. It is also one of the most politically assertive cyberpunk works. In almost every of the sixty issues that made up the complete run of the series, we see the interplay of four major themes: technology, the urban form, political power, and "the Truth." That last of these themes is articulated through the protagonist of the series, the gonzo journalist *evocati* Spider Jerusalem, who spends much of the series attempting to undermine and discredit a new president, whose anti-democratic tendencies are hidden under an ever-present smile. Spider is also engaged in digging up the underground history of the city, exploring a variety of questions about inclusion and exclusion, class, social isolation, subcultures, the impact of new technologies, and the way the social order is maintained through the violence and the indifference of the political elite. His work is fully committed to documenting the "punk" side of life. In alignment with the cyberpunk genre, in this work, technology is at the heart of all of these themes, providing both weapons of social control and tools of creative resistance for the underclass. But, it is important to stress, technology is not the only weapon, nor is it either always used by either side in this class war. Sometimes low-tech solutions are more practical.

LAMPE

Furthermore, this essay will show the application of these technologies of authority and resistance in an urban context and the strategies individuals and institutions employ. In *Transmetropolitan*, the street becomes the center of class conflict and one of the major sites where technology is applied.

The Setting and Series Background

The setting of *Transmetropolitan* seems real to contemporary readers, filled with many recognizable settings and social questions; even the technologies seem extensions of what is now possible. Unlike the classical dystopia, which creates a horrible world that is actually quite unthinkable (*Brave New World* for instance), *Transmetropolitan* is set in a very familiar world, where the only major differences from our present one seem to be the wide variety of technologies available. Socially it is quite recognizable. The location, size, and population of “The City” – where the story is set – is unknown. In one issue an electoral map shows the United States with the current states, but no sign of the City, but it is discussed as a separate electoral unit. The City is drawn to resemble contemporary American cities, looking at times like Chicago and at other times like New York City. Almost the entire human population lives in the City or in similar urban centers.

Understanding how the City functions within the world of *Transmetropolitan* requires careful attention to the technologies of control and resistance, beginning with the use of techniques of control by the political elite, including but not limited to the brutal application of that power in urban planning and so-called “urban

TRANSMETROPOLITAN

renewal.” In addition to sustaining the power of the ruling class, the underclass uses technologies as tools of resistance. Here I will reveal three ways the authors use technology to establish cultures of resistance: the evasion of the surveillance state, exposure (through the work of the main character, a journalist), and the cultivation of subcultures. Finally, I will consider the limits of the technological surveillance state and suggest the possible triumph of the vernacular in the City. In short, the punks win at the end because their infrapolitics are more effective, in the context of the urban environment, than the uses of formal state power.

Transmetropolitan was created by writer Warren Ellis and artist Darrick Robertson and ran from 1997 until 2002. It consists of 60 issues. Two “books” collecting the columns or selections of columns by the protagonist, published in 2000 and 2001, make up a supplement to the series, highlighting its themes and interpretations, and are properly read as texts that exist in the universe of the series. The series is now available in ten trade paperback volumes. The 2012 reprint of the ten-volume collection forms the source material for this essay. As the series opens, we find former journalist Spider Jerusalem hiding from the City that he has learned to hate, living on a mountain in almost total isolation. His self-imposed exile has lasted five years. Spider reenters the city after being tracked down by his book publishers about the fulfillment of a contract. His arrival surprises the bored tool booth operator who quips that no one goes into the City anymore because everyone is already there. The world outside merely exists as a type of degraded wilderness, conquered by earlier generations and left for dead after being

LAMPE

exploited. We later learn that Spider felt he lost the ability to report “the Truth” due to the fame he gained covering the sitting president, “The Beast.” However, he owes his publisher two books, for which he had already received substantial advances. Spider seeks out his old colleague, now city editor for his old newspaper *The Word*. He quickly negotiates a job as a columnist, along with a hovel apartment and journalists’ insurance – a necessary legality that protects him from legal interference during the course of his work. His first column as a returned journalist documents the police repression of a dissenting subculture of genetic transients who attempt to remake themselves into an alien species. The three-eyed smiley face symbolizing this movement becomes a motif throughout the series, suggesting Spider’s conflicted alliance with the marginalized underclass, later identified as “the new scum.”

Spider Jerusalem is almost continually accompanied by his two assistants: Channon Yarrow, an ex-stripper and aspiring journalist, and Yelena Rossini, a woman from a well-meaning elite family. They reflect two sides of the City’s population. Like Spider, they are both of the City, but they are less conflicted about their place in it. At times, neither is able to understand Spider’s methods or even his sympathies. The relationship between Spider and his “filthy assistants” is often didactic. Yelena is annoyed at Spider’s focus on particular themes and initially has a more myopic view of journalism. She is extremely well-educated and resents being lowered to serving the capricious and often seemingly irrational journalist. She is incredibly embarrassed after having sex with Spider following a

TRANSMETROPOLITAN

night of heavy drinking, an act she sees as professionally compromising but also, given her strong class consciousness, as socially degrading. In a television interview she boasts that she could speak seven languages and that she has graduated from an elite college. In contrast, Channon eagerly explores subcultures, even joining a religious sect for a while.

In issue thirteen the plot shifts to the major arc of the series, concerning the rise of President Gary Callahan. Spider is initially supportive of Callahan largely due to his previous opposition to the sitting president he called “The Beast,” a conservative powerbroker that reminds the reader of Richard Nixon. While he quickly sees through Callahan with the use of “source gas,” a vernacular application of surveillance technology, his admiration for one of Callahan’s aides leads to his nominal (and temporary) support for Callahan’s campaign. Callahan, despite his smile, proves to be a much worse enemy to Spider. After Callahan takes office he pushes Spider out of his job as part of a general crackdown on civil liberties. Spider begins publishing with an underground newsfeed, *The Hole*, sustaining his life and that of his assistants with his savings. His contraction of a degenerative illness leads to a race against time, during which he commits to exposing the truth about the president’s crimes. After achieving this goal, he returns to his mountain retreat to await his almost inevitable death. Although he recovers from the normally fatal disease, he keeps his recovery a secret to ensure he will not need to return to the City.

Power and Class War in the City

LAMPE

The signs of a raging class war fought with various technologies are all over the City. Some of the technologies (or technics) of class war are old, such as the bulldozer, budget cuts, the police, and gated communities. Other require the science-fiction setting even as they simply extend the logic of contemporary city government, such as the pervasive surveillance state. It is important to get a sense of how the City functions as a site of class conflict before looking in more detail at the technologies that populate the City. Urban governance seems only obliquely affected by political revolutions at the top. The change in the presidency of the United States from “the Beast” to Gary Callahan (“The Smiler”) does little to end the class war, which is institutionalized in the structures, political organizations, and class divisions in the City.

“The Smiler” makes a promise at his nominating convention to address inequality, but from the mouth of a politician his promise is simply vapid. When accepting his nomination Callahan says: “The great press of this most wondrous of American cities had called attention to terrible inequalities perpetuated by lackeys of the President. . . . I will fix these things” (Ellis and Robertson, 2012c, p. 113). “The Beast,” instead of making such lies, was quite open about these inequalities and shows no remorse. He admits to Spider that he moved poor people – his political opponents – into “poisoned housing” out of sheer malevolence. He says: “What? They want to live off my tax money, they give me shit in the polling booth, and I should give them somewhere nice to live? Eat me” (Ellis and Robertson, 2012d, p. 69). He added that his job was just to keep fifty-one percent of the people alive. Everything else

TRANSMETROPOLITAN

was a pure political game. “The Smiler” replaces “the Beast’s” brutality with a morality-based class war that is much more odious in practice. “The Beast” saw the poor as a problem to be ignored, something much of the underclass relished. Callahan is more interested in disciplining the poor into acceptance of authoritarianism.

Technology plays a key role in this class war under both presidents. Much of the evidence for this is uncommented on and resides in the background of many frames. One park bench posts this warning: “This bench becomes red hot between 1 A.M. and 7 A.M. No sleeping” (Ellis and Robertson, 2012e, p. 35). In another location, writing graffiti leads to chemically induced blindness. Stealing shopping carts “releases an ebola level virus” (Ellis and Robertson, 2012e, p. 43). However, dumpsters, out of sight from most, are reserved for the homeless. On one is written: “Please keep your voice down! Your homeless neighbor sleeping inside will thank you!” (Ellis and Robertson, 2012e, p. 46). The homeless are forced out of sight. Meanwhile the police look the other way at violence and horrible suffering in poor communities, content to guard the political and economic elite. Such strategies are not unknown in the late capitalist city. Park benches have been redesigned to prevent the homeless from sleeping on them in many urban centers, and city governments often work to remove the homeless from the streets and parks in order to improve the “image” of the city for tourists, investors, and potential employers (Farrell, 2003, pp. 41-45).

For the most part technological devices are not needed to ensure the division of the City into slums and

LAMPE

gated communities. The near total misery of conditions in most of the City ensure class divisions with the simple addition of gated communities and building security. All that is required is to keep the misery out of sight. Such indifference horrifies the humanistic Spider, who writes: “Terrible goddamn place. Some days it’s like some bastard nailed a ticket for the bus tour down to fucking Hell to the front of my brain. . . . [F]or every beautiful woman stopping to feel the sun on her face and every child dancing in clean rain, there’s a kid living in its own shit in a dumpster somewhere while Daddy sells his ass for milk money, tanks breaking down unwanted houses just to stop homeless people squatting there” (Ellis and Robertson, 2012e, p. 52). In these conditions, the technologies of control only make these divisions more odious and deepen already existing class divisions.

Spider divides the City into two groups: “the new scum”¹ and those with money, power, position, and careers. The “new scum” are a very diverse group, made more diverse by the ability to purchase cheap “traits” (technological upgrades), but Spider suggests that they have a common perspective even if they can be easily co-opted by politicians like Callahan. In a column he writes: “These are the new streets of this city. Where the new scum try to live. You are me. And here in these streets are the things that we want: sex and birth, votes and traits, money and guilt, television and teddy bears;

¹ In the story, the term “New Scum” was originally the term given by members of Gary Callahan’s campaign to Spider Jerusalem’s audience, a group described as “losers, wannabes, white trash, hate addicts, children of nerve damage cases” and the City’s largest voting block. Spider later takes up the term to describe the sector of society he is most sympathetic to (Ellis and Robertson, 2012c, p. 50).

TRANSMETROPOLITAN

but all we've actually got is each other" (Ellis and Robertson, 2012d, p. 96). One of the unsuccessful politicians, defeated in the primaries by Callahan, is an open fascist who mobilized the people who look on the "new scum" with fear and hostility. This candidate, Heller, gains his popularity by opposing genetic transformation and "traiting." His ideal world is one of genetic purity, unaltered by technologies. At a quasi-fascist rally Heller says: "When man attempts to rebel against the iron logic of nature, he comes into struggle with the principles to which he himself owes his existence as a man" (Ellis and Robertson, 2012c, p. 66). The use of traits is one of the major signs of the class and ideological divisions in the City. The reader assumes that the elite who purchase traits place a premium on subtlety, for they rarely are seen with conspicuous upgrades or traits, while the "new scum" are often enhanced and celebrate their transhumanism and the transgressive opportunities technology offers them.

An important aspect of life in the City are the constant signs of institutional decay, as the state attempts to manage a large and increasing population of "new scum." Without funding and a weak commitment from the state to actually solving problems, programs created to administer social services are in rapid decline. The first of these state institutions that is introduced is the shelter for the reconstituted cryogenically frozen people (called Revivals). Because the people of the City live in a perpetual present, they have little interest in what the unfrozen can offer. Without skills or family, those taken out of cryogenic suspension become a profound social problem. Mostly they wander the streets

LAMPE

until the shelter pulls them back in at night. Spider reports: “Many Revivals go into light catatonia on the streets. The tougher ones traditionally round them up and drag them back home at mealtimes” (Ellis and Robertson, 2012b, p. 49). Another institution is the orphanages for the legions of foundlings created by inequality and a crumbling social order. This institution is not, strictly speaking, unfunded. A social worker at the orphanage blames parents for raising children without a vision of the future, viewing this as the reason most of the inmates inevitably turn to prostitution. Nevertheless, the orphanage is quite rundown, giving residents yet another reason to prefer the streets to the institution. Other institutions, however, do struggle for resources. One of these is the mental hospitals, which fall victims to cuts and the euphemistic reform initiated by Callahan called “Care in the Community,” but which is really meant to thrust the mentally ill onto the streets without a support network (Ellis and Robertson, 2012g, pp. 108–109).

In *Transmetropolitan* the City is many things. In addition to being the setting of the story, it is a center for political activity, the central nervous system of the media, and the site where perpetual class wars are being fought. It is not a site of material production. In this way, the City mimics late capitalist urban life. The place of production of the many technologies in everyday use is never really addressed, but only hinted at. In issues ten, eleven, and twelve we learn that Spider wrote a piece on the manufacturing of anti-cancer traits (something that Spider and his assistants rely on as they are heavy smokers). He reported that these traits are incubated within refugee children, suggesting to readers

TRANSMETROPOLITAN

our own conflicts over outsourcing the production of low-cost technological devices to exploited third world labor. The City residents get their traits with little worry about how or where or under what conditions they were produced. Throughout the series we see the strange foods people eat, such as monkey, seal eyes, or human meat. Most of these foods are grown, not raised. When Spider investigates the origins of Gary Callahan's running mate, he learns that he was produced at a "bastard farm" that produces human meat by cloning people without brains (they are also used as sex slaves and can be cloned with pre-programmed brains with personalities). This factory, however, has no workers except a sole overseer. Penis replacements are "made by an Uruguayan firm known . . . for having their products built by children working in dangerous conditions earning less than a dollar a month" (Ellis and Robertson, 2012e, p. 36). Likely, most of the production in the City or on the periphery does not require human labor. The production that does require labor seeks out easily exploited workers in the periphery.

Production is decentered due to technological innovation. The invention of "Makers" helps create a post-scarcity environment in the City. Makers – using either blocks of raw matter called "base blocks" or garbage picked up from the street – are essentially sophisticated three-dimensional printers, which can make household goods, clothing, meals, and even devices. The same technology is used by street cleaners, turning garbage into oxygen. A subtle class war is played out every morning when the precarious middle class collect garbage before the government street cleaners can get to it. The very poor cannot afford

LAMPE

Makers, but there is apparently a large population of people who can afford the machine but not pricey “base blocks.” Spider makes resupply of “base block” a negotiating point with his employers (Ellis and Robertson, 2012c, p. 33). The combination of technology and the export of work from the City explains the deep class division, which results from a low demand for labor.

Another thing to know about the City – and perhaps its most redeeming feature – is the active street. Despite his general hate for the City, Spider is first reminded of the life of his hometown when looking at the streets.² Spider has a dear love of the streets that conflicts with his hatred of the City and its banalities. Walking the streets is one of his continual sources of pleasure. In one column he claims that he falls in love 60 times a day just by leaving his building. More poetically, he writes “I hate the way it looks (except for the weird beauty that hits you in the eye every other second)” (Ellis and Robertson, 2012j, p. 156). While systems may decay and governments grow corrupt, the streets remain dynamic and alive. “This City never allowed itself to decay or degrade it’s widely, intensely growing. It’s a loud bright stinking mess. It takes strength from its thousands of cultures and the thousands more that grow anew each day” (Ellis and Robertson, 2012a, p. 18). It is

² Kim Stanley Robinson has criticized the fetish among cyberpunk writers for the street in his cyberpunk story “Down and Out in the Year 2000” (1986). In Robinson’s opinion, most cyberpunk writers misunderstood the day to day brutality of the street. For the true underclass, the city street is not a place of creative re-creation and technological, cultural and social transgression. Rather it is the location of brutal poverty, exploitation, and alienation (Blake, 2013, p. 11).

TRANSMETROPOLITAN

on the street that the City's vernacular, creative strength exists. Religions are born and die by the day. People break sexual taboos. "Foglets" (transhumanists who have turned themselves into clouds of small machines) celebrate the anniversary of their transformation. Even the occasional political protest takes place. In one example of a flash-mob style protest a group shuts down all electronic devices within a city block. Most importantly, we see the constant creative reconstruction of individuals through the consumption and application of various "traits." The City streets are the place to advertise new traits, abilities, and perversities. It is this aspect of the City that shocks the Revivals when they first gaze upon the City street. The part of the street life that Spider most aggressively praises are the parts of life that are more enhanced by technology being used autonomously by the people.

The Security and Surveillance State in the City

Surveillance technology in the *Transmetropolitan* universe is so sophisticated that no one can escape the gaze of the state. Even "foglets" are connected into communication networks and presumably can be observed. Fortunately for most of the "new scum," there is little interest among those watching over what people are doing, and the application of surveillance technologies only begins when someone has been cited as a problem. In short, everyone is under surveillance, but no one really cares. Fear about the public observation of sexuality seems restricted to the middle and upper classes. The "new scum" are often openly exhibitionist. Cameras the size of bacteria exist in the

LAMPE

atmosphere and can be harnessed with ease. People in the City have come to terms with a total lack of privacy, even if on any given day it is unlikely anyone is watching. This, of course, is the entire idea behind the Panapoticon, originally theorized by Jeremy Bentham and interpreted by Michel Foucault (Foucault, 1995, pp. 200–209). In a Panapoticon, a single watcher can observe all the inmates of an institution, without being observed. It is structured so no one in the institution can even know if they are being watched, so most will assume that they are being watched or at least act as if they are.

The surveillance state does not make people safe or lead to a total government regulation of society. This failure creates one of the central events of the series. After the election of Gary Callahan, Spider retreats from reporting on politics and goes back to considering the various aspects of street life. This withdrawal from targeting his political enemy changes with the G-reader murder. A gang of thugs beats to death a man on the street for being part of a new subculture that advocates dramatic bodily modification called Sexgang. Sexgang transforms people into hermaphrodites and is particularly hated by genetic purists (who seem to have replaced racists). The victim – who is identified with a new type of surveillance device, the G-reader, which registers genetic information – is beaten in full view of the police. Like most of the surveillance devices in *Transmetropolitan*, control of the application of the G-reader is not limited to the state. When Spider learns of the event he is shocked that no one was arrested. With possibly hundreds of cameras active near the murder site, it is unlikely that the perpetrator could not be

TRANSMETROPOLITAN

identified. As he points out, “[y]ou can’t take a dump without some floating bacteria-cam broadcasting your dangly bits to the world” (Ellis and Robertson, 2012e, p. 90). As Spider later learns, police cars are equipped with EMP bursters that can destroy any cameras that might pick up inconvenient evidence. The watcher only watches if forced to. In situations like the G-reader murder, the state prefers blindness because it is tacitly supporting the violence against the “new scum.”

That the state can harness this power of surveillance and wield it with deadly results becomes clear at the end of Spider’s investigation into the G-reader killings. The police, under the direction of the president, instigate a riot between the murderers and an angry public. They hope to catch not only the protestors but also journalists (particularly Spider) in the mix. Spider escapes and writes a column on his experiences, but even before he can send it to his editor, the president uses expanded legal authority to shut down Spider’s column as a risk to security. Thus it is clear that the government knows of his presence at the riot, his unplanned survival, and the content of his column all in real-time. After Spider goes underground as a result of these events, he is found in a dive bar in a poor neighborhood, where he narrowly dodges an assassination attempt. Even Spider is rather shocked at the pathetic assassination attempt and comments: “If you really wanted to kill me, you had much better opportunities to do it than this. . . I’m a drunk and a drug user. I have to spend three hours a day on the john. Kill me then” (Ellis and Robertson, 2012g, p. 31). The hidden message that Spider confesses is that he knows he is always under surveillance of the

government and lives only because the government has chosen not to kill him.

The surveillance state imagined by Warren Ellis is therefore limited not by technological capabilities. The state lacks only the will (and maybe the financial resources) to identify the location of each of its citizens. Its relative indifference to most of the people in the City limits the application of these technologies. At this level, the differences between “the Beast” and Callahan are slight. Both prefer the violence of social isolation, the withdrawal of support (such as police protection), and walls to direct repression. But when used, the technology of the security state has no limit. In this sense, the role of technology in the surveillance state matters because it makes its application much easier and invasive. Even if not always used, these technologies do create a potentially less free urban space, even if they are not the primary component of the urban class war.

The Liquidity of the Urban Form: Technology and Renewal in the City

The primary tool of class warfare in the City extends from the indifference of the political and economic elite. It is a rather conscious effort to control the development of the City in the interests of the political elite. The City is a playground for the ruling class, much in the way Mike Davis describes the gated communities and associated urban development schemes that create spaces that reinforce the logic of class division, consumerism, and gigantism (Davis and Monk, 2008). The most violent response by the state are against people who challenge the monopoly of the elite in

TRANSMETROPOLITAN

forming the purpose of the city. The very first arc of the series concerns the attempt by a population of “Transients,” people who used genetic engineering to transform themselves into an alien species. Their leader, Fred Christ, blocked off a part of the City as a refuge for Transients with the hopes of winning autonomy and annexation by an autonomous colony of aliens. Their attempt to barricade off a neighborhood is immediately exposed as false hope, in part because police power can easily overcome their barricades. The riot and its suppression constitute the first stage of urban development: the removal of the unwanted people. In Spider’s view, this is the fault of the large population of indifferent people who support the policies of the city government in respect to the demolition and removal of poor neighborhoods. People accept horrible acts of violence in exchange for stability in life.

Your boss does what he likes. The asshole at your tollbooth, the bouncer at your local bar, the security guy who frisks you at the clinic, the papers and feedsites that lie to you for the hell of it. They do what they like. And what do you do? You pay them. (Ellis and Robertson, 2012a, p. 67)

Marxist geographer David Harvey has studied the world’s cities as a major depository for excess capital. Urban development, in his view, functions both as a tool of social control by making it more difficult for urban revolt to take place and by destroying organic, vernacular communities, but cities also become places to invest the surplus controlled by the capitalist class (Harvey, 2013). The seemingly liquid nature of the

LAMPE

urban form, constantly remaking itself and its identity, is actually a product of the need of capital. On the ground, this investment of surplus capital destroys neighborhoods, homes, and businesses.

Warren Ellis gives much of the urban development in *Transmetropolitan* a political purpose. Issue sixteen largely explores the crimes of the then-sitting president “the Beast.” Spider takes his readers to a place called Redchurch. As he explains:

Welcome to the Cluny Square communist estate, I said to them. Also known as the Redchurch Housing Projects, depending on whose paperwork you read. Built and filled precisely one month after the Beast took power. One month after the city fell into the hands of the Party in Government. This estate was designed specifically for families in poverty, meaning families who traditionally voted for the party in Opposition. (Ellis and Robertson, 2012c, p. 91)

Urban renewal often promises new housing for the poor, especially those displaced by developments in city centers, but rarely is the reality of life in these new housing development fully appreciated by the voters who support renewal projects.

The manipulation of public space is therefore part of the efforts to secure and maintain political power. In this way, it is unlike some other cyberpunk literature, which abandons the idea that the state can function for good or ill due to the total rise of capitalist tyrannies. *Robocop*'s Detroit, run by the corporations, with privatized police forces at war with the criminal

TRANSMETROPOLITAN

underworld, is an example of this alternative view of the declining state. In *Transmetropolitan* political power remains intact and powerful enough to remake cities in its image.

Our fair City, of course, is run by the Beast's party. And you know how it's run? Schools fail to teach. Children in care are left unprotected from pedophile social workers. Millions wasted on pointless internal inquiries. Homeless families have been housed in asbestos-filled apartment blocks, an operation which an independent human rights agency found to be "politically motivated." (Ellis and Robertson, 2012c, p. 58)

Spider's often changing dwelling suggests an important theme in the book, the role of housing in the growing separation between the elite and everyone else ("the new scum"). When Spider first returns to journalism, he is given a small apartment in a bad neighborhood, a place he describes as a hovel. A drug dealer works in front of his door. With his later success his apartment is upgraded to an expensive place, but one that still has a connection to the City streets. "On a good day, you can see the rusty old bicycles and dead dogs floating on the surface [of the canal]" (Ellis and Robertson, 2012a, p. 76). With issue 19, Spider moves into his most upper class home due to threats to his life and his increasing popularity. This apartment is totally mechanized. The climate and air quality is internally controlled. All people and items entering are scanned for contaminants. The apartment is even capable of giving a full report on all things that happen while he is gone.

LAMPE

After the mid-point in the series, Spider is fired from his newspaper and driven underground; he returns to the streets. Arguably, his best work comes from this return “to basics.” Spider comments on this in issue 26.

I live behind a wall so high it gets more difficult each day to see over it. When I first returned to the streets of the City, I was put in a hopeless shithole. Once I'd made the *Word* some money, I got them to move me to Pupin Grove, which was nicer . . . that place turned out to be insecure, and I was moved to expensive, safe Chase Square. . . And now I can't see the street anymore. (Ellis and Robertson, 2012e, p. 45)

Spider is then thrust back to the level of the street and forced to engage in guerilla and underground journalism in preparation for his climactic contest with Callahan and his authoritarian government. Spider's changing dwelling and his journey into Redcastle show how simply and how viciously geography can be used to sustain class walls. However, it also creates a space of autonomy for the underclass to experiment in vernacular social organizations. In the City, “Disneyfication” is limited by the walls that the ruling class put up to protect their artificial paradises.

Issue 42 of the series, titled “Spider's Thrash,” is almost exclusively focused on the urban form, its liquidity, and the psychological trauma it causes among urban people. Spider notices that the city never gets better or changes much. One sees the same dirty streets, skyscrapers, child prostitutes, and such, but no one feels really tied to a place anymore because everything is in a

TRANSMETROPOLITAN

state of fluctuation. Projects come and go, changing the form of the City, if not its essence. Neighborhood histories are erased by development projects (or more brutally simply organization demolition). The issue is made of excerpts from one of Spider's columns intermixed with images of the city and the story he tries to tell of its forgotten history. Reminiscent of the recent Disneyfication of Times Square (although no one in "The City" would remember it), the "first porno street" is being revamped. "It got rezoned by Civic Center last week, following a change of Presidential [Callahan] policy. There's schools within sniper distance, so the porno zone is being squeezed to half a block" (Ellis and Robertson, 2012g, p. 123). The journalist muses:

My City changes by the second, but the history of the place is never erased. Cities wear deep scars. Come with me. The problem with no one knowing what year it is, is that we have to define backward as it were. . . . Therefore, because it's difficult to refer back to the past, we tend to live in the present moment a lot more then we used to. (Ellis and Robertson, 2012g, pp. 126-127)

As we are shown, historical landmarks can no longer say that something happened on a specific date. They take the more vernacular and more flexible convention of saying how many years ago something took place, or simply comparing it with other events. No amount of urban development fixes things. And in cases where it means a large part of the population is kicked out of their apartments, it makes things worse by making the underclass less visible, being outshined by the new

LAMPE

project or the new highrise, or the new star politician who promises to “take out the trash.” Spider’s advice to his readers is relevant to us.

But, as much as it hurts – look at it. Burn it into your eyes. Because it may not be the same tomorrow. And you’ll never get the moment back. Save your City in your memory because tomorrow some of it will be knocked down and rebuilt to match its own new moment. This place is constantly being remade. We ran out of new land a while ago. So we reuse and reinvent and revamp and lose track of time because we’re so busy trying to inhabit this single second of now as fully as we can. The past is in the way of the present. Kick it down, make way for right-the-fuck-now. (Ellis and Robertson, 2012g, pp. 136-137)

Urban planning is one of the technologies of power in the City. The architect, the urban planner, the bulldozer, and the wrecking ball challenge the new scum’s efforts to create the City on its own terms and in its own language. This is the very battle described by Ferrell’s anarchist interpretation of the struggle for the late capitalist street, which is ultimately a battle over who will define the city. Urban renewal creates false histories, abolishes space, and disrupts vernacular modes of living and finding pleasure in life (Ferrell, 2003, p. 221–246). While it does not need gadgets, urban renewal is the most powerful technology of authority in the City and the metanarrative of *Transmetropolitan*.

Gadgets as the Enemies of the State

TRANSMETROPOLITAN

Technologies are used throughout *Transmetropolitan* as tools of overt or covert resistance. The Maker – a major reason for the end of productive labor in the City – is an example of a technology that has a limited function for the state but that can be harnessed for a variety of creative purposes by the “new scum.” For the state, the technology behind the Maker is used largely to keep the City looking prim and proper. In the hands of the poor the Maker can be anything from a means to ensure survival to an impromptu printing press. In the first arc, Fred Christ uses Makers to create food for the Transient separatist community, many of whose members can no longer eat human food. Makers ensure that independence is conceivable for a group of marginalized outsiders. Near the end of the series, small hand-held Makers are used to distribute stickers to protests. They are pasted onto police officers’ riot gear as part of non-violent student protests (Ellis and Robertson, 2012j, p. 49). Surveillance technologies have a clearer purpose for the state, but even these are easily co-opted by the street. The student protesters, for instance, publicized their demonstration by hacking the campus security system (Ellis and Robertson, 2012j, p. 41). Spider shares the students’ enthusiasm for turning around the surveillance and security apparatus. Others, not engaged in open rebellion against the state, apply technologies to survival strategies in order to make life in the underside of the City livable. This section will describe just some of the technologies applied by the “new scum” over the course of the series.

A list of just some of the technologies of resistance and their use will make the point more clearly. “Feedsite

LAMPE

listeners” record vernacular culture and knowledge and distribute it freely in order to avoid the inevitable commercialization of culture (Ellis and Robertson, 2012a, p. 18). A bowel disrupter, shaped like a handgun, is used by Spider as a means to embarrass the powerful and sometimes as a means to disable enemies. It does not leave a trace so can be used without worries of legal reprisals. As Channon mentions, the disrupter can be homemade (Ellis and Robertson, 2012a, pp. 80, 96–97). Before participating in a riot, people can infect themselves with dangerous diseases in order to subtly weaponize themselves and oppose the power of the police (Ellis and Robertson, 2012a, p. 53). For people who find themselves committing crimes, a small pill can be deposited on the evidence (even a human body) in order to ensure that no trace of the act is left behind.

Many technologies play the role of equalizing the playing field, in terms of intellect or ability, if not in economic power. Drugs can enhance intelligence and keep people awake for extended periods of time. Upgrades can enhance mental capacities permanently and increase strength. Apparently they are affordable consumer goods. This puts the powerful in a very uneasy position. There is no evidence of the elite boarding schools that cultivate today’s elite in the City. Class lines are unstable due to the presence of technologies that make everyone potentially equal. This gives increased importance to the geography of the city and the physical construction of class-specific spaces.

Often technologies are used by the “new scum” in an effort not to directly confront those in power, but rather to create spaces of autonomy, transgression, and survival. Fullbody suits used to enhance sexual

TRANSMETROPOLITAN

experiences and temping (temporarily taking on the characteristics of an animal through genetic manipulation) are two examples of this form of pleasurable modification. More tragically, a trait that suppresses appetite is used by poor families to help them get through a rough time. We meet one child whose precious stuffed animal is pawned to help afford such a trait.

Taken together these technologies can be seen to supplement what James C. Scott calls “weapons of the weak,” the vernacular survival strategies and typically unseen (often on purpose) methods of protest and resistance. “Infrapolitics” is part of everyday life in the City. As Callahan and his staff know, the “new scum” are indeed a threat, but not a threat that can be easily defined and targeted, and they must be fought symbolically (by crushing Spider Jerusalem, the “new scum’s” voice) or structurally (through urban renewal, campaigns at moral purity).

The Media Environment in the City and High-tech Journalism

Media is a central theme of *Transmetropolitan*. Rather than becoming less important to people’s lives, the media environment in the City is seemingly boundless. This is due to the eternal present people in the City live in. They do not have a past, which is clear. But for the majority, there does not seem to be much of a future either. When asked what he wants to be when he grows up, a boy in an impoverished neighborhood responds: “Nothing.” Spider explains: “It’s fallen off the world, and they can’t find their way back on their own”

LAMPE

(Ellis and Robertson, 2012c, p. 94). With no future and no past, people consume the media ravenously. Some people make their living by wearing elaborate suits with recording equipment, documenting whatever interesting or mundane things take place on the streets. Microscopic cameras are everywhere. Media outlets exist on people's bodies. Some sit on the street as human televisions. The sidewalks have television feeds on the surface. Books can be purchased traditionally, downloaded, or imprinted onto the brain directly. However distributed, the media is both a tool of political power and a means of resistance, and its presence is unavoidable.

Spider sees his role as a journalist in the classical sense of opposing the political elite no matter their political party. He endorses candidates or politics with great reluctance and mistrusts all authority (even minute authority exercised by small-level officials). Spider explains this to his assistant Yelena after exposing the police cover-up behind the G-Reader murder. Yelena accuses Spider of interfering with police work by reporting on the case before the investigation is concluded. In other words, she has a basic trust in the police. Spider assumes the police are malevolent. "Our cops are not to be trusted. It is our very very [sic] important job to watch people like cops and ensure that they are working in our interest and defense." At the same time he exposes Yelena null position of respect for authority. She is "a believer in due process. A believer in social structure and authorities doing what's right (Ellis and Robertson, 2012e, pp. 106–107).

Spider mourns the end of investigative journalism. While the media is omnipresent in the City, very little real reporting is done. This is why Spider can always

TRANSMETROPOLITAN

surprise his audience by discussing unknown neighborhoods that exist only around the corner from a relatively well-off community. What counts for journalism in the City amounts to repackaging knowledge created by other people or simply recording the voices of others (whether marginalized or elite). It amounts to self-reporting and requires the reader or listener to seek out, organize, and interpret the information. There is also a great deal of commentary by important figures, but again very little knowledge about how the City or political systems function is revealed. It is for this reason that Gary Callahan almost gets away with using an artificially-cloned human, with programmed memories, as a “clean” vice-presidential candidate. Spider does not have trouble digging up the truth. What is shocking is that he is the only journalist to do more than the equivalent of a Google search after the candidate is announced.

The most conspicuous of Spider’s journalistic tools is his custom-made (by a Maker) glasses. Although originally disappointed with their mismatched frames (one is rectangular and green, the other circular and red), he never replaces them, and they become part of his public persona. Their most important function is to inconspicuously take pictures. Another tool in his arsenal is “source gas,” a microscopic listening device dispensed in gas form. Once released into a room, it can be tapped into from a nearby computer. Spider uses this to spy on the Callahan campaign after his first interview and again in his final interview with the president to record his confession of horrendous crimes.

Technology plays a key role in Spider’s search for “the Truth,” becoming the means by which he can

LAMPE

pursue his more classical approach to journalism. Rather than using technology to overload the audience with information, which is the approach of most of the media in the City, Spider uses technology as a scalpel to expose specific secrets. However, technology is just a means here. Spider shows that journalism that relies too much on technology misses the point. The means of the media have distracted from its purpose. He is as willing to use low-tech alternatives as he is to apply various gadgets.

Subcultures as Vernacular Resistance

After turning on the newsfeeds at his new apartment, immediately after his arrival in the City, Spider hears the following report: “Debate still rages over the dayfax religious census, showing that a new church is invested every six hours in the City” (Ellis and Robertson, 2012a, p. 26). Spider’s first story after returning from his exile is of the riot in Angels 8, a part of the City taken over by the Transient movement. From the start the series highlights the proliferation of subcultures, mostly among the “new scum.” The presidential candidate, Heller, a neo-fascist attractive to the middle class, has a more homogenous audience. The point, of course, is that consumer technologies and traits allow for people to cultivate diversity in ways previously impossible. The same logic that encourages new religions feeds into the rise of “foglet” and Transient communities. Spider relishes it and much prefers the street with all its diversity to the elite communities, but as an objective observer he cannot help but notice the ridiculous nature of much of the

TRANSMETROPOLITAN

fragmentation of society. However, the cultivation of subcultures is one of the most powerful weapons of resistance of the underclass in the City; it promises creativity in a world growing increasingly banal.

There are really two cultural superstructures interacting in the City, and we presume across the entire universe of *Transmetropolitan*. One is the homogenous Anglophone global culture. This culture is banal and long ago lost the capacity for creativity. Television is mostly commentary and re-runs. As in ecology, homogenization leads to sterility. All the creative energies are in the diverse subcultures that literally stand at the gates of the ruling class communities. These subcultures, often made possible by transhumanist technologies, ensure that creative energy is not lost.

Television provides a false type of diversity. Endless channels hide the lack of any new original content. In one journalistic experiment, Spider tries to watch television for twenty-four hours and report on his findings. The basic television package provides 2,000 channels. Some channels cater to nostalgia (“Anthrax Cat” is a popular show from Spider’s childhood), but mostly they exist in the same continual present as the rest of the City. Talk shows and reality shows seem the most popular. One of these channels includes a live feed of the actions of the Police Department. In the issue where we observe Spider’s television watching, we see no actual artistic works being aired (reruns and pornography aside). From television we learn that culture is dead. Much of what is unique material on the television consists of commercials.

However, the streets and Spider’s journalism teach us something different. Despite their naivety and their

LAMPE

leader's megalomania, the Transients are attempting to create a sustainable subculture within the City and pursuing an interesting transhumanist experiment. In response to job discrimination, the Transients pursue economic autonomy. The Transient movement is crushed, but the existence of many other vibrant subcultures in the City suggest they could have developed into an alternative withdrawn from the mainstream.

Issue six, "God Riding Shotgun," is about the numerous new religions rising and falling in the City on a daily basis. We learn overtly in this issue that Spider's hostility toward these religions comes not from a hatred for the "new scum," who are searching for meaning, but from a hatred for the parasitic rulers of these various cults. This becomes personal in issue eight when Channon quits her job as Spider's assistant to join Fred Christ's church, which is really an excuse for him to have sex with many women. The diversity of religions is fascinating. Some are extensions of conspiracy theorists who claim that humans have been grown by alien gardeners. Some have leaders openly seeking virgins. One church affiliated with Elvis has appeared. Another preaches cannibalism and harkens back to the Anaszasi. Yet another finds religious truth in reruns of twentieth century television. Since people no longer seem to inherit religious identity from their parents, the only limit on religious diversity is the ability of founders to market their faith.

Many subcultures in *Transmteropolitan* rely as heavily on technology as they do on marketing. In issue 7, Channon's boyfriend, Ziang, chooses to complete his transhumanist project and join the nanohuman ("foglet") community "Autumn Rainfall." Once the transformation

TRANSMETROPOLITAN

is made these “people” live on as collections of nanomachines, but they are apparently capable of infiltrating communication and computer systems. For Ziang, the transformation is about escaping from a world in perpetual decline. It is also one of the more pure subcultures presented in the book because there seems to be little in the way of force or exploitation. “Downloading” is another of the great equalizers in the book.

Yet another subculture that exists in the City as a byproduct of technology are the “Revivals.” These are the largely useless and alienated individuals reawakened from cryogenic freezing. Most were frozen in earlier centuries, but some continue to use cryogenics. Spider’s ex-wife, for instance, is to be revived only after Spider’s hopefully untimely death. Most enter into the revival process in the belief that they could be reunited with family or offer something of value to the future. As the City dwells outside of time, when awakened they become merely financial obligations that the company must honor. They paid to be revived. But the contracts did not say anything about finding them a job or getting them ready for life in the City. The one revival we get to know well is Mary, a twentieth century photojournalist. When she is awoken, the doctor sees her only as a possible sexual object to exploit. The Revivals live in government run hostels.

A final set of subcultures we can look at also exist only because of technologies: the reservations. While we do not see much outside of the City, the signs are clear that the global culture is homogenizing. Earlier in Spider’s lifetime, we learn that France lost a war which was fought with the singular goal of maintaining French

LAMPE

as the language of government in France. They lost (Ellis and Robertson, 2012b, pp. 101–104). In a column, collected in *I Hate it Here*, Spider explicitly argues that the world is a monoculture. “So out onto a street corner in London and you’ll see the same thing. Same in Prague. Same in São Paulo. Same in Osaka, and Grozny, and Tehran, and Jo’burg, and Hobart. . . . This is our future” (Ellis and Robertson, 2012j, p. 163).

Other cultures, even formally extinct cultures, live on in reservations. People who volunteer to enter the reservations have their minds wiped clean and are given the cultural software that will allow them to function in the reservation. Examples include reservations that recreate ancient Maya and Japanese cultures. One group – not quite a reservation – is called the “Total Solitude Culture.” It does not allow any interpersonal contact. Like the reservations, it depends on separatism; and like the new religious movements, it is an intentional community, produced by creative individuals.

Thus we see that even while the global culture in the world of the series is becoming more banal and homogenized, new diversity erupts from below. This has significance for how power functions. Some of these subcultures create competing hierarchies. Many promote values that are explicitly opposed to the homogenized culture of the political elite. Most striking, the Transients and Sexgangs and other advocates of transhumanist transformation see technology as a means of individualist expression, diversity, and autonomy. In contrast, Heller and the genetic purists work to create a more homogenous (i.e. more easily controlled) society. Others, such as those in the new religious movements and the reservations, are attempting to create spaces of

TRANSMETROPOLITAN

creative freedom, even when distributed or corrupted by internal hierarchies.

Limits of the Surveillance State and Political Power in the City

The result of the conflict between vernacular and state uses of technology is the overall muting of the power and ambitions of the state. The state may be able to level communities, but it can do little to prevent new vernacular street cultures from filling the void. While technology does not create economic equality, it does level the relationships between the people in power and the “new scum,” leading to a situation where those in power are quite unstable. From the onset of the series, the sense is conveyed that the political elite are entrenched. “The Beast” is many things (vulgar, authoritarian, uncaring, resentful), but he never doubts his lock on the political process. For a time, Spider buys into this image. One imagines that in his earlier columns he mourned the end of democracy as the inevitable result of his election. He is, however, quite easily taken in by a politician with a smile and a complete lack of moral restraint. For this “betrayal,” Spider blames the “new scum.” However, there is very much evidence that the people maintain a check on the political elite and could remove a sitting president through an election. This “smiler,” Callahan, is himself brought down by one journalist, some student protests, and a misstep during an interview.

Crucial to the limiting the technological reach of the state over the people of the City is information overload. There is simply too much to be exposed.

LAMPE

Partially this is the result of an inefficient saturation of information. Due to 2,000 television channels, numerous 24-hour news stations, and people on the street constantly beaming information into the commons, very few people (including the state most of the time) have the time and skill to process that information. So much gets left basically unknown. A running gag throughout the series is the media's fascination with Spider Jerusalem as a personality. His gonzo reporting style, use of violence and vulgarity, and his "back from the dead" story are of great interest to the media. His books are best sellers. However, the media almost never comment on what he reports in respect to urban poverty, government corruption, police violence, and the deteriorating situation of the "new scum." They are only interested in where he is, what he is doing, or they want to use him as a marketing gimmick. By the middle of the series, the journalist back from the dead is a commodity, famous for his antics and personality. The same type of information overload that turns Spider into a product leads the state, despite all of its impressive technologies, to resort to force.

The other major limit to the establishment of the security and surveillance state is the vernacular applications of technologies. Yes, cameras can record crimes and G-readers can identify the victim's blood, but a pill-sized technology can eradicate all evidence of a crime by almost instantly evaporating bodies. Cameras can be hacked by activists. Makers are the technology that can make the services offered by the state ultimately irrelevant.

Is it fair to say that in *Transmetropolitan* the cyberpunk environment and transhumanist technologies

TRANSMETROPOLITAN

are merely a device used by the writers to comment on late capitalism? It is true that Warren Ellis is drawing his major questions from the social, economic, and political environment of his time. Still, technology is itself a major question of analysis throughout. Even when it has limits, it is changing the playing field of power and relocating the sites of battles. The White House becomes less important than the media. The factory – almost completely eradicated – is replaced by the streets as a zone of class war. These shifts are products of technological change. Most importantly, these new zones are places where vernacular forces are more powerful.

Conclusion

One of the central themes of *Transmetropolitan* is the City as a center of social control and class conflict. Technology is one – but not the only – weapon used by both sides in this conflict. The triumph of Spider Jerusalem over his political enemy, Gary Callahan, suggests the victory of the “new scum,” armed with technologies, vernacular cultures, and the power to create alternative social forms. In this way, the comic series ends up being quite optimistic about the potentialities of technology for human freedom. However, neither the state nor the forces in opposition to it rely exclusively on technology. Technology is instead an extension of strategies already being applied. As one frame providing a passing glance at the inside of the police quarters showing cops washing blood off their riot shields during a shift change suggests, the state never really needs to resort to technological solutions to

LAMPE

the constant problem of class discipline and the control of urban populations. Spider's major character arc involves the increasing significance of his journalistic work despite his application of both high-tech and low-tech means of investigation. As his mid-series investigations into mental illness and child prostitution show, he does his best work simply by talking to people. It is the same with the technologies of resistance used by the broader population of the City. Whether forming subcultures, creating spaces of privacy, hacking the private sphere for use by the commons, or simply embracing pleasure in an increasingly miserable world, technologies are just extensions of old tactics. What matters is that by shifting the ground of battle to the areas where the “new scum” are in control, these old tactics are more successful.

At its core, this is the battle described by Jeff Ferrell in *Tearing Down the Streets* between the forces of “Disneyfication” and the prospering punk lifestyles. For Ferrell, the battle is over the right to an “open city.” More than a repackaging of the civic ideal of the “right to the city,” his “open city” is a space of creative disorder. He writes:

Discovering the beauty and promise of the city in its margins, crafting communities from the disorder of public space, embracing the adulterated identities of those who crisscross urban boundaries, we return once again to the festival of the oppressed – because, if today’s many illicitly intertwined moments of busking, skating, BASE jumping, bicycling, and microbroadcasting harbinger the open city, so does the carnival of public celebration

TRANSMETROPOLITAN

that emerged in the streets of Paris in 1871 [the Paris Commune]. (Ferrell, 2003, p. 242)

If Ferrell's diagnosis of the contemporary city is correct, it shares the same fault lines with the City described by Ellis and Robertson.

The series maps out the potential of the vernacular in a global economy where technology has given massive power to the political and economic elite and has contributed to the centralization of an increasingly banal global culture. Warren Ellis and Darick Robertson are also telling us where the battlelines of this war will be fought. It will be about the right of urban people to direct the development of their city against the forces of arbitrary and destructive development. The battle will be for diversity and solidarity across multiple communities (the ideology of Spider's "new scum") rather than about alienation within a singular culture. Most importantly, it will be a battle for truth and the end of government secrets. At a time when newspapers are at risk, governments claim special privileges to lock away information, and higher education is becoming commercialized and overpriced, someone on a relentless search for "the Truth," with the spirit of Spider Jerusalem, is much needed.

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LAMPE

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TRANSMETROPOLITAN

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Microbiopolitics: *Security Mechanisms, the HeLa Cell,* and The Human Strain

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This paper examines the notion of the biopolitical body from the standpoint of Foucault's logic of the security mechanism and the history he tells of vaccine technology. It then investigates how the increasing importance of the genetic code for determining the meaning and limits of the human in the field of 20th century cell biology has been a cause for ongoing transformation in the practices that currently extend vaccine research and development. I argue that these transformations mark the emergence of a new kind of medical subject – the stabilized and infinitely reproducible human cell line – and that the practices and markets exploiting this new form of organism have had a destabilizing effect on the very biopolitical structures that engendered them and, in fact, mark a new way of conceiving the possibilities of cellular life. I call these new ways of organizing power that intervene in the logic of the security measure by mediating the relationship between populations and persons the *microbiopolitical*.

Keywords: Microbiopolitics, security mechanism,s, the hella cell, Foucault, biopolitics

I. Introduction: Biopolitics and the History of *HeLa*

Between 1977 and 1979, Michel Foucault (1997; 2004) delivered a series of lectures analyzing the development of strategies for intervening in the

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MICROBIOPOLITICS

characteristics of populations. Over the course of these lectures he identifies in these techniques an approach to governance called *biopolitics* whose origins reside in the 18th century campaigns against contagions. Foucault identifies early vaccination campaigns as the first European *dispositifs de sécurité* (*mechanisms of security*) deployed to affect masses of people at the level of populations. The techniques of the early vaccination campaigns were *bio-political* in that, through them, the State for the first time directly assumed responsibility for the care of the biological life of its citizens as one of its principal tasks.

Foucault's analyses describe the first applications of vaccine technologies as a way of modifying the risk of contagion for whole populations. The efforts of virologists against polio in the 20th century were supported when these technologies were further refined through developments in the field of cell culture research. Cell culture research had as one of its first objectives growing and organizing individual human cells into sustainable cell lines for testing and developing vaccines. One of the first cell lines to be successfully grown in culture was the *HeLa* cell line crucial to the development of the first polio vaccine. Rebecca Skloot's (2010) book, *The Immortal Life of Henrietta Lacks*, tells the story of Henrietta Lacks, an African-American woman from Baltimore who died from cervical cancer when she was thirty and whose cancerous tissues served as the origin for this now ubiquitous *Hela* cell line. The history Skloot tells clearly shows that the peculiar properties of these cells were one of the principal causes for the spectacular growth and transformations that have occurred in the

ERWIN

fields of cell culture research and vaccinology from the 1950s to the present.

In this paper I read Skloot's history of 20th century vaccinology through Foucault's analysis of the notion of vaccine technology as a security mechanism. I argue here that Skloot's history, viewed through Foucault's biopolitical framework, describes a period of recent transition between two notions of the medical subject from one based on disciplinary approaches to contagion to one informed by the power of specific security mechanisms – principally those of inoculation and vaccination; I also suggest that Skloot's story describes the emergence of a new, third kind of medical research subject – post 1948 – one that exceeds the matrices of technico-practical power organizing 19th century security mechanisms like vaccinology. I argue here that through contemporary advances in the field of cell biology a new kind of human 'strain' has emerged that currently parallels, counters, and even converges with our judicial, disciplinary and normalized selves. In its encounter with contemporary techno-economic structures, this new form of ambiguously human, manufactured life is one where new ways of organizing and sustaining biological life at the level of 'bare life' have emerged (Agamben, 1998, 6). I term the principles and practices structuring this new field of techno-economic inquiry the *micro-biopolitical* (Paxson, 2008; Latour, 1988). (1) In clarifying this argument, I first outline Foucault's discussion of the emergence, meaning, and structure of inoculation and vaccination campaigns as security mechanisms targeted at the behavior and characteristics of populations. (2) I then read the history of the fields of cell culture research and vaccinology as told by Skloot and others through the

MICROBIOPOLITICS

framework of the practical power of this security measure. (3) Finally, I indicate how the notion of genetic identity, in its convergence with market forces like the patenting regime, have begun to mediate disruptively the relationship of population to case, implicit to the logic of the security mechanism.

II. *Les dispositifs de sécurité*: From Exile to Inoculation

During the 1978 lectures Foucault describes how the response to contagion shifts from a disciplinary to a security approach in the transition between the Middle Ages and the 19th century and how the medical techniques of inoculation and vaccination played a key role in forming the notion of population that emerged in the 18th century. In these lectures, Foucault first explores the difference between two forms of governance, that is, 1) the governance of subjects through *disciplinary techniques* and 2) governance as a set of strategies for intervening in the behavior of populations, which he terms the *security mechanism*. Thus, during the Middle Ages, the response to outbreaks of leprosy and the plague was very different from the way outbreaks of smallpox came to be handled in the 19th and early 20th centuries (Foucault, 2004, pp. 9-12 and Foucault, 1972, pp. 15-66). For Foucault the treatment of lepers during the Middle Ages exhibits a disciplinary approach in that the use of exclusion was a primary practical principle here. The techniques of exclusion and isolation of the diseased occurred through a regime of laws and regulations that relied on a sharp, binary division between those who *were* and those who *were not* lepers. The objective in the

ERWIN

treatment of leprosy was, “first of all to treat the disease in each patient, insofar as they could be cured, and then to prevent contagion by isolating the sick from the healthy” (Foucault, 2004, pp. 57-89).

The measures developed to contain the spread of plague also involved a set of disciplinary regulations formulated during the Middle Ages. By the 16th and 17th centuries responses to outbreaks of plague imposed a partitioning grid on the affected regions and then determined:

...when people can go out, how, at what times, what they must do at home, what type of food they must have, prohibiting certain types of contact, requiring them to present themselves to inspectors, and to open their homes to inspectors. (Foucault, 2004, 11-13)

Despite being deployed differently, each of these disciplinary approaches – *exclusion* and *partitioning* – proceed according to similar principles (Elden, 2003). Their objective was to eliminate the disease in each affected person and to prevent spread by isolating affected individuals, putting physical space between them and the healthy.

III. Populations and Vaccination

However, Foucault describes the emergence of the security measure as a new form of governance that appeared in the field of health care as a new way of responding to outbreaks of smallpox in the 18th century. In the case of smallpox, medical practices had already

MICROBIOPOLITICS

shifted away from the kinds of problems involved with the separation and containment of diseased individuals. In Foucault's (2004) estimation, the central problem here had become that of knowing the population:

...how many people are infected with smallpox, at what age, with what effects and with what mortality rate, lesions or after-effects, the risks of inoculation, the probability of an individual dying or being infected by smallpox despite inoculation, and the statistical effects on the population in general. (pp. 47-48)

These early campaigns of inoculation and vaccination did not suspend use of the disciplinary techniques developed in the fight against leprosy and the plague; they shifted the focus of those techniques from individuals to *populations*. Still, Foucault (2004, p. 12) argues that the earliest uses of vaccine technology cannot be explained away as simple adaptations of existing frameworks. They marked a genuinely new approach to the phenomenon of disease, a new approach he calls the *security measure* (Foucault, 1997, pp. 214-216).

So what then is the security measure in the context of vaccine technology? Foucault (2004) relates how, in Western Europe during the 18th century, smallpox was an endemic disease affecting 2/3 of children with a mortality rate of nearly 1 in 8. Further, outbreaks were frequent. London at the start of the 18th century experienced an outbreak every five or six years. At that time, inoculation and vaccination were new techniques, Lady Mary Montagu having only just brought the practice of inoculation back from Turkey to England in 1727

ERWIN

(Maitland, 1872). As ways of responding to contagion, these new measures exhibited three characteristics: The first difference was an understanding, implicit to the techniques themselves, of being capable of being generalized to everyone without great material or economic difficulties. Through these measures, the collectivity *as a whole* could be protected from contagion. Second, unlike many medical strategies during this time, these techniques were certain of attaining their objective in that their deployment absolutely prevented the occurrence of an outbreak and made it possible to consider the real possibility of one day eradicating it entirely (Foucault, 2004, pp. 59-60 and Plotkin, 2008, 1-16).

Thus, the certainty of the treatment's success and the prospect it held for one day entirely eliminating smallpox epidemics made these mechanisms acceptable despite the fact that they had the unusual additional third feature of being unthinkable in terms of the medical consensus of the time (Plotkin, 2008, p. 2). These techniques were deployed entirely on the basis of their practical, empirical success and *despite* the fact that the medical community of the time could not account for this success and was often hostile to adoption of these practices (Durbach, 2000, pp. 45-62; Plotkin, 2008, p. 6; Williamson, 1984, pp. 1195-1196; Wolf, Sharp, 2002, 430-432). For Foucault (2004, pp. 107-109), vaccine technologies were integrated into existing medical practices not because they were backed by existing medical authorities but because inoculation and vaccination *as techniques* had much in common with other newly emerging security measures that were being deployed and taking root at that time.

MICROBIOPOLITICS

Disciplinary regulations were established ways of responding to epidemic outbreaks like the plague or to endemic diseases like leprosy. These measures aimed to treat the occurrence of the disease in each individual patient and then to prevent contagion through isolating the sick from the healthy. On the other hand, inoculation and vaccination did not make separation and isolation their objectives. Rather, these measures took the sick and the healthy *as a whole*, conceiving their subject for the first time to be, specifically, a *population*. The newly emerging field of statistics would be crucial to the political acceptance of vaccination as an effective technique for responding to disease at the level of populations, with statistical analysis and measurement becoming the new modes for publicly presenting medical rationality (Foucault, 2004, pp. 107-109). What it meant to know ‘the normal expectation in the population of being affected by the disease and of death linked to the disease’ depended entirely on this fact being statistically expressed (Foucault, 2004, p. 59). Thus, the very first instances of the use of statistics in medical practice occur in this context and determined, for example, that the rate of mortality from smallpox in 19th century London was roughly 1 in 7.782. The fact that the threat posed by disease could be statistically expressed established the *normal mortality* for the population taken as a whole.

With finer and finer statistical analyses it became possible to tease out other “normalities” having a relationship to one another and to the whole. Thus, for the first time one could know the rates of infections and mortalities for different ages, different regions, different occupations, different zones of habitation (i.e., town

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versus country), and even for different neighborhoods within towns. Knowing this range of variations made it possible both to target those groups most unfavorably affected and to employ policies to bring them more into line with the overall normal levels of morbidity and mortality for the entire population. If there existed a high level of morbidity in children under 3 years of age living in towns in the neighborhoods close to a river, then specific measures went into effect to reduce the occurrence of smallpox within that carefully defined group.

Because those statistical outliers were dynamically related to the average rates of morbidity and mortality for the whole population, bringing them more in line would then register an immediate change in the average. Thus, as security mechanisms, the practices of inoculation and vaccination no longer relied on a sharp separation drawn between normal and abnormal, the healthy and the diseased, so essential to disciplinary responses to contagion. Unlike those techniques, security measures were organized to bring about an *operation of normalization* for the whole population that would increasingly lead all the distinct groups within it to reflect the normal trend-line. (Foucault, 2004, pp. 57-60).

Unsurprisingly, for mechanisms of security the details – i.e., the specific characteristics being examined in the population – were considered neither good nor bad in themselves. In fact for the successful functioning of security measures it was considered all-important to allow the noteworthy variations within the population simply to show themselves and ‘to let things happen.’ Further, these variations were not to be eliminated nor directly targeted. Rather, implicit to the logic of these

MICROBIOPOLITICS

new measures was the understanding that characteristics of the population could be changed by *indirectly* affecting those who composed it. Thus it clearly followed that vaccinating someone against smallpox did not treat their infection when the disease had already presented itself any more than getting a preventative flu shot is useful when someone is already suffering from fever and nausea. As a security measure, the vaccination campaign was understood to support and strengthen over time the most favorable normality without directly targeting or otherwise separating out diseased individuals within the population.

IV. Populations and the Individual – The *Medical Case*

So what then happens to the status of the individual person in this shift between disciplinary and security related techniques? In disciplinary techniques, affected individuals are conceived relative to the sharp divide drawn between normal and abnormal. For Foucault, one can still speak and think meaningfully in this context of an individual person who has been affected and requires direct treatment. Though the person afflicted with leprosy or the plague do, strictly speaking, fall within the category of abnormality it is through this categorical determination that the person in question is singled out from others, i.e., the *healthy*, for precisely *individual* treatment. On the other hand, what does it mean to be an individual within the framework of the security measure? As a possible entry point for and bearer of contagion, the individual becomes a fractional contributor to the statistical coefficients determining the morbidity and

ERWIN

mortality of the occurrence of the contagion in the population taken as a whole. However, the logic of the security measure *as security measure* only considers the characteristics of *populations*. Security mechanisms do not operate by *directly* treating individuals. Thus, in their relationship to the population the individual – the living person with a proper name – disappears into the life and mass of the population in the very process of making their statistical contribution to it. It is only the population – now as *itself* a subject for research and intervention – that serves as the target for the strategies and techniques that make up the security measure.

From the standpoint of the security measure the concern with individuals is *as cases*, which are important only insofar as they manifest the features attributable to *populations*. From the standpoint of the population, the individual is a quantifiable vector for universal factors that bear the processes or characteristics of that feature of the population being examined. Thus, these newly emerging forms of medical rationality translate the individual into a *case* whose relationship is now conceived to be with the population taken as a whole. The case is *not* the individual person. The case is the individual conceived as a member of a population. As Foucault (2004) describes it:

There is the appearance of this notion of case, which is not the individual case, but a way of *individualizing the collective phenomena of the sickness, or of collectivizing it but as quantified, rational and identifiable. Collectivizing the phenomenon occurred by integrating individual phenomena within a collective field [d'intégrer à*

MICROBIOPOLITICS

l'intérieur d'un champ collectif les phénomènes individuels]. (p. 62, my emphasis)

Mainly through the deployment of statistical practices, the security measure is organized around mechanisms for translating a person's characteristics and history into the range of variations exhibited by populations.

V. The Case of Henrietta Lacks

The distinction between disciplinary and security approaches to contagion continues to articulate the history of vaccine research and deployment through the late 20th century. Following closely the details of that history suggests that new forms of organization have begun to develop where the fields of cell culture research and virology intersect with a rapidly expanding market in human tissues. These changes have grown so pronounced that it may now be possible to speak meaningfully of a kind of politics – or *microbiopolitics* – emerging disruptively within the circuits of power organizing populations and individual persons, one that takes place fundamentally at the level of cell functions themselves (Paxson, 2003, p. 18; Latour, 1988, pp. 90-93). Rebecca Skloot's book, *The Immortal Life of Henrietta Lacks*, is in large part a history of vaccination as a security measure in its ongoing tension with notions of personal identity founded on discourses involving civil rights that emphasize the importance of consent. The book relates the personal-historical narrative of Henrietta Lacks, who, as both an African-American and a woman, encountered a set of complex racial and gender-related

ERWIN

barriers in seeking access to effective medical treatment in the United States during the 1940s. However, Lacks is also the source of the *HeLa* cell line, and her tissues to this day sustain an entirely new industry and market in wildly diverse human products that range from the cell-subjects necessary for effectively testing the first polio vaccine to the manufacture of *victimless leather* – the first leather-like jacket grown out of immortalized cell lines (Guertin, 2012, p. 25).

The history Skloot tells involves two narratives that at times parallel each other, at others run counter, and at still others converge. Henrietta Lacks is important to this story in two ways: both as an legal individual whose tissues, having been used as a research subject and source of medical profit without her consent, have provoked multiple judicial interventions in an effort to adjudicate this rapidly forming, but legally ambiguous, area of the law; and as the source of the *Hela* cell line which, as the most viable cell line to date, has continued to serve as the subject of ongoing medical research for countless researchers in countless research labs worldwide for over sixty years. Henrietta Lacks continues to figure in this story in at least three ways: (1) as an individual at the center of civil rights litigation whose story continues to raise the issue of the importance of patient consent in the employment of human tissues for purposes of medical research; (2) as a case study important to the ongoing development of more effective techniques for making vaccine interventions at the level of populations; (3) and as patient 0 for a new human strain – the *HeLa* cell – whose highly distributed medical existence in labs worldwide has entirely eclipsed the importance of Lacks's judicial and medical selves. Thus, at an

MICROBIOPOLITICS

important point in the book, Skloot (2010, ch. 23) describes the task of researchers engaged in the project of reconstituting the genotype of Henrietta Lacks 25 years after her death from studies of the phenotypes of her descendants and the *HeLa* strain itself (Landecker, 2007, ch. 4). This retrieval of her genotypic identity was made necessary following discoveries in 1967 that the *HeLa* cell line had contaminated and overtaken nearly all other cell lines recognized at that time, invalidating or at least throwing into question thousands of studies in the field of cell culture research whose conclusions were based on the characteristics of these other cell lines. The importance of the difficulties this had, and still has, for researchers in that field cannot be overstressed. However, by relating this story, Skloot shows how these apparently distinct and different aspects of the same person – Henrietta Lacks as a historical person whose civil rights may have been violated by the actions of medical researchers and Lacks as a subject of science and source of the *HeLa* cell line – remain tightly linked even after her death.

Much of Skloot's story, in fact, is about the clash between Lacks' descendants and the community of medical researchers grown dependent on an indefinite supply of *HeLa* for conducting research and synthesizing new therapies from it for profit. The core legal issue at stake in the clash between researchers and Lacks' descendants concerns the requirement for the consent, and potential reimbursement, of patients on the part of researchers engaged in the task of developing therapies based on tissues harvested during routine medical procedures. Researchers argue that requiring patient consent before utilizing these tissues will act to inhibit

ERWIN

scientific developments. However, the increasing commercialization of tissues over the last century, and the patenting regime that has accompanied this process, has already inhibited scientific research from an entirely different and unexpected angle. Now the *researchers*, upholding their individual patents, have clearly become obstacles to scientific advancements. For instance, the 1990 landmark case, *Moore v Regents of the University of California*, decided against John Moore whose spleen tissue had served to establish a new cell line subsequently patented by and profiting researchers without his knowledge. As Skloot (2010) quotes Lori Andrews, a lawyer working pro bono on most of the important biological ownership cases to date:

It's ironic...the Moore court's concern was, if you give a person property rights, it would slow down research because people might withhold access for money. But the Moore decision backfired – it just handed that commercial value to researchers. (p. 324; also, chapters 13, 25 and Afterword)

The decision of the Moore court effectively took patients out of the equation, and its later affirmation in *Greenberg v Miami Children's Hospital* has emboldened scientists to commodify tissues in increasing numbers through the powerful allure of substantial profits (Evans, 2006). Even the recent decision to include two members of the Lacks family on a committee to oversee N.I.H. funded research using *HeLa* only partially addresses the privacy and consent concerns involved in the Lacks case and does nothing to address the profit issues raised by the

MICROBIOPOLITICS

market in human tissues in general or for *HeLa* in particular (Boffey, 2013).

However, the legal battles over the contemporary commercialization of human biological materials are themselves entirely a consequence of the still relatively new notion of human genetic identity, conceived through the now routine capability researchers have for reliably *individualizing the human somatic cell*. This notion of genetic individuality is based on the simple historical fact that after 1948, and for the first time, the intact human body was not the only place for the large-scale generation of human cells (Landecker, 2007, ch. 4). The latter half of the twentieth century saw an explosion of developments in the field of cell culture research. These developments depended intimately on the perfection of techniques for cloning individual cells, the creation of standardized media for sustaining them, and the development of freezing techniques that made it possible to both store and easily transport somatic cells. The *HeLa* cell line was crucial to the development of each of these techniques. Moreover, this work allowed for the emergence of a notion of genetic identity for the human somatic cell rooted in clonal cell lines with distinct, heritable (and manipulable) characteristics. Cloning and freezing techniques made it possible to conceive of single somatic cells as individual entities in their own right and organized into ‘strains.’ Because cell lines were prone to change over the course of subsequent generations (Piotrowska, 2009, pp. 839-844), suspended animation techniques made it possible for the identity of individual strains to be stabilized through time by freezing samples from the first generation as a snapshot for comparison with successive ones (Landecker, 2007, ch. 4). This

ERWIN

means that the peculiar kind of *immortality* commonly ascribed to Henrietta Lacks both in the popular press but also among researchers simply due to the continued persistence of the *HeLa* cell line was theoretically a possibility open to anyone. A tissue sample taken from my body could now go on to have an independent and ongoing life as a biomedical subject, and it could do so indefinitely.

However, with this new notion of genetic identity rooted in *the individuality of the human somatic cell* has something entirely new emerged yet again? Has the logic of the security mechanism Foucault describes, reliant as it is on the relationship between populations and the cases they manifest, effectively been displaced? It is important to remember that for Foucault the security mechanism is a response to the problems of governing *populations*. In his analyses the security mechanism is essentially linked with this specific kind of subject. But with these advances in cell culture technology and their connection to cloning and freezing techniques are we seeing here the emergence of a set of techniques and a field of inquiry rooted in both cell culture research and the market in human tissues in which we are no longer concerned with the life of populations composed of autonomous persons *but a distinctly different kind of human existence that has recently acquired its own kind of autonomy*? As Landecker (2007) makes this point:

First through polio research, and then through the use of HeLa to figure out all kinds of tissue culture techniques, autonomously living human matter became widely used biomedical research material. More than that, it became possible for the first time

MICROBIOPOLITICS

for one specimen, taken from one body, to be present simultaneously in thousands of laboratories and thousands of experiments as well as diachronically and repetitively across the lifetimes of the scientists themselves. The possibility of life being removed from the body and never returning to it was contained in this [Henrietta's] story, an arrow that begins in the point of an individual person and continues without ever looping back. (ch. 4)

Landecker's description of the practical consequences of late 20th century developments in cell culture research points clearly in the direction of new structures of organization supporting and extending new, autonomous human strains with a new kind of human individuality defined through their distinguishable genetic identities.

Genetic identity figures as essential to the notion of human identity that emerges here for researchers working with the latest clonal iteration of an established cell line stabilized through advanced cell culture techniques. But does this relatively new form of technically produced human existence have implications for the claims Foucault makes about the shifts that have occurred in modern forms of governance? Foucault (2004) describes security mechanisms at the time of their emergence as new deployments of power that continued to act together with and alongside already established judicial and disciplinary mechanisms (pp. 31-45 and pp. 233-253). However, he is also clear that distinct security measures like the worldwide market in grain, vaccine technology, and the structure of the modern police mark a clear and decisive break from these other forms of organization and

ERWIN

in fact come to circumscribe, penetrate, extend and displace these earlier modes where they continue to persist.

Thus, during the 18th century, a series of transitions in traditional notions accompanied the first deployments of security mechanisms. The very notion of the family transforms at this time from being a model of and an apology for sovereign government to that of an instrument for intervening in the characteristics and behaviors exhibited by populations (Foucault, 2004, pp. 108-109). The progressive establishment of security mechanisms initiates a process where earlier forms of governance are circumscribed by newly emerging circuits of power. Even when judicial and disciplinary structures retain their place, they are effectively re-arranged, redeployed and rendered as different from their earlier functions as the 15th century *maréchaussée* (Foucault, 2004, pp. 343-344) differs from contemporary policing strategies for stopping gang violence.

Twentieth century cell culture research, together with closely related fields, would seem to be causing a similar process of dislocation and re-orientation. However, if these changes are read through Foucault's typology then these changes point to a process of reorganization occurring within the security mechanism of vaccine technology itself. They tend in the direction of kinds of organization that no longer rely on the population-case relationship. Given that this relationship is essential to the kinds of interventions security mechanisms perform, these new human strains emerging through the practices of late 20th and early 21st century cell culture biology can no longer be assimilated entirely within the framework of security mechanisms as outlined

MICROBIOPOLITICS

by Foucault. And yet new forms of organization have emerged from the practices and techniques of cell culture research that routinely affect persons in a variety of ways. In fields as diverse as animal husbandry, crop development, law enforcement, tissue research and advanced health care the notion of genetic identity has long performed an organizational function. Further, the very legal conflict over who owns the rights to patents and profits arising from research into human tissues is itself the consequence of the way research and market forces have effectively organized the exploitation of these tissues for research and development. Human cell lines represent here a mode of existence defined entirely by the notion of genetic identity. They represent then a new mode of existence for human matter whose contemporary production often has no other purpose than to render them into small, entirely predictable, factories for generating specialized and exotic proteins or other synthesized molecules through feeding them precise diets of cell culture media. Clearly one would not think of attributing to this kind of human existence characteristics like self-awareness or consciousness. Nor could we speak of such research subjects as in any way engaged in ‘technologies of the self’ but, as Landecker points out, researchers insist on maintaining a connection between the individual cell lines, no matter how altered, and the individual persons from whom they were taken. As Landecker (2007) argues:

The importance of *reciprocal* identification of cell to person was in other words not merely fanciful. In the structure of reasoning behind the use of the cell line, there is an absolute necessity for a link between *in*

ERWIN

vitro and *in vivo* life to be maintained; the information gleaned from cells is useless unless it eventually is related back to the biology and then the pathology of the patient. Through the individual patient, the information then becomes applicable to humans in general. (ch. 4)

Thus, the very rationale for using cells in place of the whole patient depends on maintaining a practical continuity between the individual person and the altered cell lines. This continuity between cell line and historical person – between, for instance, *Hela* and Henrietta Lacks – is crucial to supporting arguments made by researchers for the ongoing relevance of the discoveries of contemporary cell biology using cell line research to develop therapies for the general populations their lines of investigation are at least hypothesized to serve. If vaccine technology originated as a set of practices for intervening in the life of populations through indirect treatment of individual cases, then the relationship between population and case, so central to the logic of the security mechanism, has itself come to be mediated by this new, ambiguous relationship between historical persons and the cell lines developed from their tissues, cell lines which now serve as the experimental subjects for developing and testing both new vaccines but also a whole host of other biomedical products that often have only the most dubious utility for promoting the well-being of persons.

Thus, the question re-asserts itself here: in the emergence of this new kind of medical subject are we seeing the effect of a new kind of bio-political power that now intervenes within the juridical, disciplinary, and

MICROBIOPOLITICS

security frameworks Foucault describes? If the answer to this question is, ‘yes’, then the late 20th century developments in cell biology form a new chapter in the organization of power, the *micro-biopolitical*. These new organizational practices interrupt the logic of security mechanisms by mediating the relationship between populations and persons, breaking into the deployments of power organized by the practices and techniques of security mechanisms as these in turn were hypothesized by Foucault to have circumscribed the judicial and disciplinary structures of power that preceded them. A new kind of human identity emerged in cell biology after 1950, one that currently is in the process of rearranging both security and disciplinary forms of organization. The field of cell biology maintains both a theoretical and practical dependence on the ambiguities involved in treating stable cell lines as in fact a (new) kind of human individual. Here, perhaps, bio-power has generated a new kind of human strain sustained by the peculiar matrix of theoretical-practical power peculiar to contemporary cell biology. If this is the case we can no longer claim, as did Foucault (1976), that despite the absolutizing trends of modern biopower for administering life, “it is not that life has been exhaustively integrated into these techniques which dominate and manage it; it ceaselessly escapes them” (p. 188). Rather, remaining with Foucault’s logic, with the progressive stabilization of this new kind of human individuality, we witness in fact a critical moment when techno-economic matrices have converged, emanating a mode of human existence with no subjective awareness whatsoever whose ‘life’ occurs only as object of research. Analysis of these new *microbiopolitical* structures clearly shows biological life to be still at the

ERWIN

center of the process for modern extensions of power as was true, too, of security mechanisms. As Foucault (1976) first described this process in one of his first formulations of the meaning of the *biopolitical*:

If one can apply the term *bio-history* to the pressures through which the movements of life and the processes of history interfere with one another, one would have to speak of *bio-power* to designate what brought life and its mechanisms into the realm of explicit calculations and made knowledge-power [*pouvoir-savoir*] an agent of transformation of human life...modern man is an animal whose politics places his existence as a living being [*sa vie d'être vivant*] into question. (p. 188)

This description would seem to be entirely applicable even if the logic of power has changed. The logic of the security mechanism described by Foucault still aimed at promoting human well-being if only in the form of the health of the population and the progressive promotion of its 'normal' trend-lines. These new *microbiopolitical* structures identified here actively support and generate a new kind of genetic individuality based on the conception of human existence as a kind of infinitely manipulable matter in the aggressive pursuit of ends that may well be entirely detached from any notion of human well-being.

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ERWIN

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Misunderstanding the Internet

James Curran, Natalie Fenton, and Des Freedman
(authors)

New York: Routledge, 2012. 208 pages. ISBN: 978-0-415-57958-2 (paperback). \$39.95.

Reviewed by Randy Connolly, Mount Royal University,
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Since its inception in the early 1990s, the World Wide Web (and the Internet more generally) has been accompanied by a wide variety of often uncritical and anecdotal commentaries in the mainstream press. The academic community has also been quite interested in the Internet. There is now a vast amount of research about the Internet, not only in computing disciplines such as computer science and information systems, but also in communications, political science, sociology, philosophy, and psychology. As a consequence, trying to comprehend the entirety of this body of research and the broader consequences of Internet technology on the individual, social groups, businesses, and on society at large is quite daunting.

Indeed, the task of understanding the vast research literature on the consequences of the Internet may be seen to be analogous to trying to decipher the famously bewildering sixteenth-century painting *The Garden of Earthly Delights* by Hieronymus Bosch. This fascinating

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CONNOLLY

triptych contains three panels: on the left is Bosch's representation of Eden, the earthly paradise, the larger middle panel shows humanity after the Fall, while the right panel vividly portrays the punishments of Hell. The paradise and inferno of the painting's left and right panels seem to me analogous to the rhetoric of hope and despair that has been a constant feature of popular perceptions of the Internet. Boosters in the mid- to late-1990s (and perhaps as well during the web 2.0 fever of 2006-8) saw the Internet re-knitting broken communal life, inaugurating a new age of global peace, or constituting a new era of self-expressive creativity. Later, as a more prosaic reality began to emerge, other commentators saw the Internet in a more nefarious light, as a carnival of sin, as the embodiment of a global pantopticon of surveillance and control, or simply just as a massive waste of time. But for anyone who actively researches the Internet, this broad set of technologies and interrelated social practices seems a lot more like the vast middle panel of Bosch's masterpiece. This panel is a riot of beguiling, overlapping, hard-to-comprehend imagery: luscious fruits, strange sporting activities, cute animals, and lots and lots of naked bodies cavorting together in unending and enthusiastic abandonment.

The great strength of Curran, Fenton, and Freedman's excellent 2012 book, *Misunderstanding the Internet*, is that it brings some order and clarity to the cacophony of ideas, opinions, and research on the Internet. All three authors teach Communications at Goldsmiths College, University of London, and I suspect their geographic proximity has helped produce a book that speaks with a unified voice. The book itself is divided into four sections. Each author is the sole writer

BOOK REVIEW

of a section (with each section consisting of two chapters), and all three together have collaborated on the concluding chapter.

The first section, written by James Curran (who is also the editor for the Routledge Communication and Society series), focuses initially on dismissing the celebratory view of the Internet that is still quite pervasive. Indeed, the first chapter on “Reinterpreting the Internet” should be required preliminary reading for anyone about to write on the broader social implications of the Internet. It looks at some of the most common (and hyperbolic) predictions in the spheres of “economic transformation,” “global understanding,” “Internet and democracy,” and the “renaissance of journalism.” Each set of predictions is contrasted with actual research that tends to show the misguided nature of most Internet hype. Curran demonstrates aptly here the overall evidence-based approach taken by all three authors. He notes that the weakness of much popular (and even academic) writing about the Internet is that “it assesses the impact of the internet not on the basis of evidence but on the basis of inference from internet technology” (p. 8). This is a common problem with “impact” thinking about technology and society. Writers often infer outcomes from the functional capabilities of a technology. If a technology, such as the automobile, makes it quicker to get from point A to point B, “impact” writers will wonder what will be the societal impact of everyone arriving at their destinations quicker. If a technology, such as the web, makes it easier to access a wider range of knowledge sources, these writers will then hypothesize what will be the impact of everyone being more knowledgeable.

CONNOLLY

Of course the flaw in this type of thinking is that it assumes that just because a technology *seems* to enable a social outcome it *will* inevitably do so ... and that it will be main social outcome. No pundit in the 1910s predicted the traffic jam or the transformation of teenage sexuality as a consequence of the widespread adoption of the automobile, and few in the 1990s foresaw the decline in reading and the concomitant decline in the willingness of many to engage themselves in longer textual arguments that has arguably followed from the wide-scale replacement of paper-based reading with online scanning. In both cases commentators were focused on the functional capabilities of the new technology, but as Curran rightly points out, “the weight of evidence points to one firm conclusion: society exerts, in general, a greater influence on the internet than the other way around” (p. 59). By beginning the book with a critique of this type of technological-determinist thinking, Curran sets the stage for the rest of the book.

The next section of the book is written by Des Freedman and concerns itself with the political economy of the Internet. Like Curran, Freedman turns a skeptical eye towards the economic claims put forward by commentators such as Chris Anderson, Clay Shirky, Thomas Friedman, and Don Tapscott. This fashionable information society discourse tends to argue that a revolutionary new mode of production is underway, one that is creating an economy of abundance that is no longer dominated by a few gigantic corporations, but is instead filled with many thriving smaller niche organizations that succeed by engaging in a two-way dialogue of sharing with their customers – a transformative economy made possible of course by the

BOOK REVIEW

Internet. After scrutinizing this literature, Freedman summarizes that it is “based on a series of unsubstantiated claims, profound misunderstandings, and puzzling absences that render it incapable of providing a rigorous account of the dynamics of the web 2.0 environment” (p. 79). Subsequent examinations by Freedman of the actual business practices of companies such as Google provides a more detailed critique of the notion that the Internet has fundamentally changed the nature of the economy or the social relations within capitalism. While “the internet has thrown up a fast-changing array of sites destined to be the ‘next big thing’ ... one thing that has remained constant is the structure of a ‘winner takes all’ market which systematizes the need for huge concentrations of online and offline capital” (p. 115).

Freedman’s next chapter, on “Outsourcing Internet Regulation,” is much more prescriptive than a simple critique. He criticizes the libertarian pessimism that is such an enduring feature of Internet political discourse (that is, the widely-held belief that the Internet cannot possibly be regulated), and then finds that “despite different inflections in different countries, the Internet is implicated in a fundamental neo-liberal transformation of the power relations inside the regulatory process” (p. 97). However, given that the Internet is “a creature of public policy,” it is “entirely legitimate to propose that fully democratic states – and not outsourced private interests ... – should regulate the internet as a public utility that is accessible and accountable to their citizens” (p. 98).

The third section of the book is by Natalie Fenton and is devoted to the power relations circumscribing the

CONNOLLY

internet. It begins with a chapter titled “The Internet and Social Networking.” Perhaps nothing in the short history of the Internet has garnered as much scholarly and popular attention as social networking sites (SNS). Fenton tries to steer a path between those who see SNS as a novel and liberating way of creating, maintaining, and growing real-world social capital, and those who see SNS as simply an extension of a neo-liberal individualist ideology. She claims that each of these extremes “misunderstands the nature and impact of the media ... on the social and political contours of contemporary life, and in doing so misunderstands the nature of the social and the political and the complexity of power therein” (p. 125). Her approach, by contrast, is to critically examine the evidence for the four key assumptions at the heart of this misunderstanding, namely that social media are communication driven, that social media encourage deliberation and dissent, that social media is about self-communication to a mass audience, and that social media offers a new form of social telling. This evidence, says Fenton, shows that while SNS offers *possibilities* for power and social relations independent of capital and the state, their principle purpose is individual expression, and thus SNS “may be liberating for the user but not necessarily democratizing for society.” Indeed, a too great “emphasis on creative autonomy leads itself to individualistic politics that inhibit progressive social change” (p. 142).

The final substantive chapter in the book is also by Fenton and is entitled “The Internet and Radical Politics.” It concerns itself with two conflicting claims about one particular possible political consequence of the Internet: namely, claims made about the revival of

BOOK REVIEW

oppositional politics via the communicative capabilities of the Internet versus claims that the Internet is playing a key role in the growing disengagement of young people from politics. She examines two instructive political movements in which the Internet ostensibly played a key role (student protests in 2010-2011 in the UK and the Green Revolution in Iran in 2009), and finds that, “if there is a new politics emerging in new media it is a politics of non-representation; a politics of affect and antagonism. It includes a multiplicity of experiences that are contradictory and contingent” (p. 169).

While this book is a superb guide to some of the key debates and research on the reception, economics, and politics of the Internet, it is only a partial guide. Since the perspective of Curran, Fenton, and Freedman is generally media- and sociologically-focused, the growing research literature on the changing psychology of the individual in the Internet world is either ignored or only tangentially touched upon. Whether it be addiction studies of Internet porn, positive psychology research in gaming, usability studies about actual browsing behavior, or neurological studies on cognitive decline as a consequence of prolonged Internet usage, the widespread adaptation of Internet usage has arguably had just as much impact on the individual as on society at large. Similarly, like many other sociologically-oriented studies on the Internet, there is a striking (and disappointing) absence of relevant research from within the computing discipline itself. Current computing research in HCI (human-computer interaction) and web science utilizing eye scanners (and other devices), web server records, and massive data banks provides a parallel set of evidence that can enlighten (or confound)

CONNOLLY

the usual sociological and communications discourses about power, media effects, and economic relations. One of the virtues of this book is its conciseness (it is under 200 pages), and expanding its research scope would no doubt make it considerably longer.

These are, however, small quibbles with an otherwise excellent book. To be honest I do have one last major quibble. It lies in the fact that Curran, Fenton, and Freedman have written the book that I have always wanted to write since I first started researching the Internet in 1994. My professional jealousy is, of course, more than completely assuaged by the evenness and excellence of the book's coverage, and I do sincerely hope that this book will occasionally be updated with new research and revised editions. I will certainly try to help in that regard by assigning it as a required textbook for my own "Computers and Society" course.

This review began with an analogy between the visual tumult and pandemonium of Hieronymus Bosch's *The Garden of Earthly Delights* and the cacophonous and sometimes confusing research on the social consequences of the Internet. In reality, the two wings of Bosch's painting are actually a set of doors: the left and right panels (representing Eden and Hell) can close over the large middle panel. The back of these two panels are also painted, and they provide a striking contrast to the kaleidoscope of colorful imagery contained within. When closed, the back of these panels together combine to display a luminous but monochromatic vision of the sphere of the entire earth and its contents. Curran, Fenton, and Freedman's short book has done an admirable job akin to these painted back panels. It summarizes a wide variety of perspectives on the

BOOK REVIEW

Internet and cuts through the noise of its commentators to provide a historically and sociologically-informed book that allows the reader to better grasp and appreciate the entirety of the Internet as it actually is experienced.

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*Carnal Knowledge: Towards a New Materialism
through the Arts*

Estelle Barrett and Barbara Bolt (editors)

London: I. B. Tauris, 2013. 256 pages. ISBN: 978-1780762661 (paperback). \$25.12.

Reviewed by Selmin Kara, OCAD University, Toronto, Ontario, Canada.

As we leave the twentieth century and the social constructivist cultural turn that came to define much of critical and political theory in its later stages behind, disciplines across the Humanities are increasingly vouching for a return to materialist frames of thinking, seduced by the infusion of thought with matter. Recent theoretical currents like new materialism, neo-vitalism, the non-human turn, object-oriented ontology, agential realism, media archaeology, eco or materialist feminism, and most recently, anthropocene feminism are all different incarnations of the early twenty-first century's desire to move away from the representational framework of constructivism and re-acknowledge the materiality of human as well as nonhuman bodies, agency, technology, and nature. A common call in the materialist turn has been to bridge the perspectives of the Humanities and Natural Sciences in order to provide

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BOOK REVIEW

a more adequate and informed response to the latest discoveries in science, the emergence of new human-technological relationships, and the global ecological threats. *Carnal Knowledge*, edited by Estelle Barrett and Barbara Bolt, pushes this call further by bringing the Arts into the conversation as another major field of research and practice that has long been subsumed under the rubric of representational discourse, seen as antithetical to science/materiality.

Carnal Knowledge is a collection that presents in four sections fourteen articles by Australian and Finnish scholars, who incorporate new materialist frameworks into their research on various art forms and practice. Although the constraint of the discussion to the conversation between scholars and artists from only two countries sounds possibly limiting at the outset, the book covers a remarkably wide range of issues (such as agency, authorship, affect, embodiment, performativity, mediation, and biopolitics, etc.), art forms and technologies (ranging from painting, architecture, film, literature, and fashion, to digital 3D animation, stereo-immersive VR, and augmented dance performance) and theoretical as well as scientific perspectives. While Gilles Deleuze, Felix Guattari, Julia Kristeva, and feminist materialists like Elizabeth Grosz and Karen Barad are the recurrent voices that inform many of the chapters, the book is by no means committed to a single trajectory or historical lineage of materialism. Jane Bennett's recent claims to "pursue a materialism in the tradition of Democritus-Epicurus-Spinoza-Diderot-Deleuze" is mentioned and echoed at times, but the authors draw from a much richer archive of theoretical,

KARA

philosophical, spiritual, and scientific texts in addition to oral traditions like Australian aboriginal art.

Barbara Bolt's introduction provides a helpful survey of the various histories of materialism – with opening remarks on Epicurus and Democritus that resonate with Bennett's trajectory yet branch out to scholars like van der Tuin, Haraway, Kristeva, and Heidegger and the different strands of feminist materialism, as well as Deleuze & Guattari – and places the book “between a posthumanist neo-materialism and a corporeal materialism.” She argues that instead of questioning how “new materialism can actually account for the aesthetic dimension of things,” which would reinforce “a particular view of art that sees humans as the active creator in the creation of things,” the anthology foregrounds “the agency of matter in artistic and cultural practices.” This sets the book immediately apart from other recent writings on the relationship between the arts and new materialism, such as Andrew Poe's review of Diana Cole and Samantha Frost's book *New Materialisms: Ontology, Agency, and Politics* (2010). Bolt's clarification is significant here, as a common problem in new materialist debates is that theoretical arguments easily slip into a focus on humanism and humanist concerns (Poe's question of the aesthetic dimension inadvertently recalls Kantian humanism, for example) while aiming to address materiality. The roundtable discussion of the Anthropocene Feminism conference organized by the University of Wisconsin-Milwaukee's Center for 21st Century Studies in April 2014 has generated a debate between the posthumanists (including Stacey Alaimo, a feminist materialist that Bolt references) and scholars

BOOK REVIEW

interested in the nonhuman, with the latter arguing that posthumanist materialism's emphasis on post-cyborg humanity's capacities of adaptation to new technologies and climate change frequently leads to a humanist dismissal of the self-contained or brute agency of nonhuman matter. It is not clear whether Bolt sees a similar limitation in posthumanist neo-materialism's approach to materiality or not, when she mentions the book's partial alignment with its lines of inquiry at the end of the introduction, but her critique of Poe indicates that the collection puts the emphasis primarily on the agency of human and nonhuman matter as well as the "various bodies that enable art to come into being – the material bodies of artists and theorists, the matter of the medium, the technologies of production and the immaterial bodies of knowledge that form the discourse around art."

The four sections are organized around key themes like discourse and affect, filmic materialities, carnality, and the virtual-real coupling/binary. The chapters' coverage of a diverse range of issues works at a disadvantage at this point, as some of the essays can easily be placed under several of these themes, somewhat undermining the organizational logic. The section titled "Carnal Insistence" sounds most vague in this sense, considering that the title of the book suggests all of the articles are to be engaged with and insist on the question of carnal, embodied knowledge. A theme related to aesthetic categories would perhaps have been more suggestive in that the first two articles in the section deal with authorship and the sublime. Also, Llewellyn Negrin's essay on fashion is summarized under this section in Bolt's introduction while it is

KARA

(mistakenly?) grouped with essays on the virtual and the real in the table of contents. That said, the essays hardly require the aid of any sectional partition for the reader to trace the linkages, productive dialogues, and tensions among them. There is a strong sense of connection and commitment to embodied materiality that ties all of the chapters together smoothly regardless of the seemingly distinct cognitive, semiotic, psychoanalytic, hermetic, heuristic, or spiritual frameworks that each uses to foreground the primacy of matter in art practices.

Katve-Kaisa Konturi's opening chapter on the role of the nonhuman agencies in the creative process of painting voices a critique of representationalism that is a common concern of several of the essays in the collection. Taking into account that one of the editors, Barbara Bolt herself, has an eponymous book on "art beyond representation" reinforces the idea of a common anti-representational strand among the book's interlocutors, defining art as a process of constant becoming and material co-emergence rather than as expression and mastery of human and nonhuman matter by a representing subject. As Konturi argues, the agency of matter in artistic practices like painting offers an entrance "to the world of radical immanence where images connect with human bodies directly without the mediating work of representations."

Danielle Boutet's and Estelle Barrett's essays both take up art practice as a form of epistemology, pointing to another common thread in the anthology: art's capacity of producing material, in-situ, and embodied forms of knowledge. Differently from Konturi's insistence on the independent agency of art materials and Bolt's critique of viewing humans as the active

BOOK REVIEW

creators in the creation of things in her introduction, Boutet defines the creation of art (or any creation) as “a reflection, even a metaphor, of its author’s mind.” This establishes a “correspondence between the world and mind,” which is inspired by the homological thinking of hermetic traditions that foreground metaphorical correspondences between the mind and nature. Boutet’s chapter is the most humanist among the anthology’s essays in this sense and immediately sets the tone for a productive tension among alternative materialisms. Barrett, on the other hand, focuses on embodiment and performativity, bringing the discussion of knowledge back to the agency of brute matter through Kristeva.

Jondi Keane’s chapter draws from cognitive theory, revisiting Marx’s materialism to locate the seeds of a cognitive turn in his dialectics that bridges “political economy and an embodied understanding of distributed cognition.” His clever interpretation of Marx’s articulation of commodification as the objects’ partaking in an emergent set of relations of their extended reality allows Keane to make a connection between the distributed materialisms of Marx, James J. Gibson, and Deleuze & Guattari, helping illuminate the art of the architects Arakawa and Gins, which gestures towards not only a practice of embodied cognition but also “extended life.”

The three chapters on film, by Nicholas Chare and Liz Watkins, Dirk De Bruyn, and Ilona Hongisto, form the most cohesive and complementary cluster, focusing on the material surface or formal structure of film as its flesh or “a body that matters.” While Chare and Watkins read found-footage films, which foreground the analog film stocks’ destiny of decay through Kristeva’s theory

KARA

of the abject and de Bruyn similarly looks at found-footage films through the psychoanalytic framework of trauma theory, Ilona Hongisto investigates the transgressive role of re-framing in installation video art, which subvert testimonial videos' call of truth. In all three essays, the surface, skin, or structure of film are taken as a space of emergence for affect, independently from its content. There is a growing interest in new materialist approaches in film studies with only a small body of scholarship on the topic, so this section provides a much valuable source for both the researchers and students in the field, easily extractable from the book as a stand-alone collection of articles.

Kaisa Kurikka's chapter on the politics of polyonymous literary authorship, while placed under the next section, "Carnal Insistence," speaks to Katve-Kaisa Konturi's opening chapter more directly in that it challenges traditional notions of agency through the stratoanalytic framework of Deleuze and Guattari. By interpreting the polyonymous works of the Finnish author Algot Untola at the level of the multiple author names he uses, Kurikka contends that such molecular materialities open both the agency of the literary works and the writing agent behind them to "a series of becomings" and "non-personal individuations." Liza McCosh's following chapter, which proposes a materialist framework for the aesthetic category of the sublime, makes a similar argument by indicating that the artist and material co-emerge in McCosh's own practice, going against the traditional subject/object division. In this sense, these three articles also form a cohesive cluster among themselves, resonating more with the

BOOK REVIEW

materialism of the non-human turn than that of posthumanism.

The final section of the book deals with the virtual and the real. Llewellyn Negrin's chapter (if it does belong in this section) calls for a change in the modernist conceptions of fashion and a move towards modes of dress that engender "a dynamic sense of the [real] body as an active agent" instead of engaging solely with the appearance of abstract bodies. Here, Negrin's interest in virtuality, while unstated, is possibly rooted in his emphasis on expanding the body's potential for action through the agency of fashion materials. Cathryn Vesselau and Rose Woodcock address virtuality more directly in their respective takes on the 3D appearance modeling/animation and stereo-immersive virtual reality, both at the level of these technologies' use of simulation as a method and their potential for blurring the boundary between the real and the virtual. They both argue that material practices of seeing and depicting vision alter our notions of reality. The remaining two articles, by contrast, approach the question of the virtual from within ideological and political frameworks, making this section the most dynamic among the four with regard to its kaleidoscopic perspectives. While Brian Martin provides an interesting coupling between Heidegger and Indigenous Cultural Ideology conveyed through its arts practices, Milla Tiainen and Jussi Parikka turn to the biopolitics of movement in augmented dance performance via Deleuze, Brian Massumi, Nigel Thrift, and Elizabeth Grosz. Australian aboriginal art's inextricable connection to the land and the real presents a possibility for Martin to conceptualize art not as transgression but

KARA

as an articulation of collective identity. Tiainen and Parikka locate another kind of potential, a productive tension that is also possibly problematic, in the augmented bodies of Western multimedia and interactive performances, which foreground movement-as-action. That tension rests between the positive outcomes of an attention to movement's foregrounding of the virtuality of bodies – as constantly changing, transforming, and becoming – and the fact that “transformation, flexibility, and creativity are exactly the forces that the contemporary practices of advanced capitalism and post-Fordism favor and attempt to harness for various ends.”

In conclusion, the anthology provides a very rich and theoretically diverse set of essays that put art practice in dialogue with new materialism. As the artificial boundaries between the humanities, arts, and sciences slowly disappear in the 21st century, collections like *Carnal Knowledge* signal the synergies that will arise from the cross-pollination among these distinct fields of activity. The body of knowledge produced as a result is and will be a body that matters.

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Digital Exposure, Postmodern Postcapitalism

Raphael Sassower (author)

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Rumors of a digital utopia have been greatly exaggerated. Raphael Sassower, Professor of Philosophy at the University of Colorado at Colorado Springs, has broad expertise in many of the diverse areas of inquiry needed to fully contextualize postcapitalism within a political economy context, and does so with clarity and precision in his latest book. Sassower himself has broadly covered a wide swath of interdisciplinary thinking in his previous work, including the cultural critique of science and technology, postmodernism, the philosophy of the social sciences, as well as aesthetics and education. He is the author of eighteen books and numerous other types and forms of scholarly production. In *Digital Exposure, Postmodern Postcapitalism* Sassower has published a provocative and approachable proposal for how to critically negotiate postcapitalism in the digital age from his very postmodern point of view.

This book explores the cautiously skeptical inverse of the assumed social and economic freedoms afforded to us by the digital revolution from a very clearly

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NAY

postmodern perspective with a focus on the centralization, rather than the decentralization, of power structures and institutional control within today's global political economy.

Has the digital age achieved the “pervasive successes” promised? Has the great “paradigm shift” occurred that we have been told may have already occurred? Have we gone beyond capitalism, socialism, and postmodernity to reach a democratic economic utopia of networked peer-based interconnectivity? Can the digital age create the conditions for fairness and prosperity that capitalism and socialism simply could not as stand-alone systems? What is “fairness” in a postcapitalist market? How does the rhetoric of scarcity shape postcapitalism?

The issues and questions are abundant and very difficult to answer in a simple or linear way, but if there has ever been a need for a balanced and critical approach to understanding postcapitalism within a political economy context then it is here and now. Sassower’s book approaches all of these questions, and many more, by contextualizing such questions for those both inside and outside of the world of contemporary philosophy in his small, but mighty, text.

To many of us postcapitalism is a complex, unclear, often contradictory, and eternally daunting concept. It is a melding of models, methods, and ideologies. However, as Raphael Sassower describes postcapitalism in his book, it is an evolving process of economic and social evolution brought about by advances in digital technology that can be seen in the emergence of newly formed social, political, and economic realities – all shaped by a political economy context.

BOOK REVIEW

Sassower suggests postcapitalism's new hybrid forms and practices need to be viewed critically using a distinctly postmodern lens to fully understand both the potentials and risks that the digital age promises. Conscious of the risks of being manipulated into believing only the positive spin of the digital age and the abuse of too much overly optimistic verbal fluff and promises of paradigm shifting rhetoric, Sassower appears as the informed spoiler we need to speak for us in clear terms. He does not identify with the technophiles nor does he identify with the technophobes as he leads us through his skeptical reading of the ambiguities and contradictions of postcapitalism within a context of an appreciation of the history and traditions of philosophical thought used to create his framework. Ralph Nader provided a similar informed context for the American consumer with similar results by presenting a context shaped by history, technology, skepticism, and a rich context shaped by a critique of political economy.

In the "digital age" the pundits, prophets, and purveyors of hardware, software, and systems deliberately gloss over and often underemphasize the primal fears that we all have in seeing our worlds reduced to bits and bytes, ranging from pervasive surveillance to global market manipulation. Promises of democratized knowledge, perpetual innovation, inclusive entrepreneurship, and other techno-utopian chatter are dependent upon structures and mechanisms that we can locate in history and that are present as precedents and models for all of our divergent new behaviors and relationships. Things have changed and forms have morphed, and intentions have changed as well, but maybe not so much.

NAY

Sassower's pragmatic and critically informed interpretation of postmodern postcapitalism puts serious new wrinkles on many historical economic theories and subjects these theories to examination in light of current case studies and examples to address our fears and to express his own postmodern approach to postcapitalism as a remedy. The world of Bitcoins, Google, Julian Assange, the Patriot Act, and pervasive Internet surveillance needs to be historically and philosophically contextualized as each bit of evidence is teased out to detect its intentions and projected trajectories.

As a postmodernist, Sassower sees hope in the form of potential compromises in his version of postcapitalism. Sassower presents his arguments in clear terms using techniques like placing key tenets and terms related to capitalism in opposition to those of socialism in a comparative chart of terms and concepts to show us the flaws of such binary thinking for the ambiguous digital age. Sassower presents similar arguments in this form of binaries and comparisons, which he then fleshes out by discussing the greyness of key overlaps by using historical concepts, case studies, and current examples borrowed directly from today's headlines. The stories are familiar, but gain new meaning when exposed to Sassower's postmodern postcapitalist critique. This technique is a very useful and successfully democratizes his message by freeing it from the jargon of the philosophical world. I always admire those who can write for experts in their field, as well as those outside of their field simultaneously. Daniel Kahneman, Eric Kandel, and even the historical fiction writer, Erik Larson, share this ability with Sassower.

BOOK REVIEW

Sassower places the digital age within a context where he sees "postmodernism falls short," in which a "new political economy of information power is constructed, conceived, and defended." Sassower follows a clear trajectory, and he methodically runs through a number of precisely explored topics using his clear and concise method of contextualization, fleshing out ideas with contemporary examples, and then using postmodern analysis to understand the complexities, ambiguities, and contradictions inherent in each nuance. Digital evolution, materialism, decentralization, globalization, freedom, surveillance, entrepreneurship, legality, and morality are among the specific topics singled out for discussion. Sassower argues all of his points with a focus on political economy to provide a cohesive message and a thesis that is divergent, yet focused.

Without some form of thoughtful and useful unpacking of our current political economy in the digital age, most of us will only achieve a naïve and potentially incorrect understanding of our new digitally mediated worlds. Our misunderstandings may lead those of us who are neither philosophers nor political economists further into an abyss of ambiguity and even potential victimhood, as Sassower seems to suggest in his skepticism. Manipulation, new more nefarious power structures, and issues of control are all conditions that the messages of techno-utopianism gloss over. We could become, and maybe are already, subject to even more external controls and manipulation than ever before as a result of the promises of the digital age. The clear line between technophilia and technophobia is also unclear in the age of the digital communication revolution.

NAY

I am primarily a design historian and theorist, not a philosopher, so I cautiously approached Sassower's eighty-one-page book with more than a little trepidation and humility. My interest and fascination with the subject matter and the resulting accessibility and pleasure of Sassower's message and writing style made this book a pleasure to read, re-read and then read again. I knew from experience that small and powerful books, like this one, usually are far more worthy of added attention than the average academic paperweight. Sassower's book was a like a magic silver bullet destined to slay the nastiest digital vampires, technological warlocks, and philosophical wizards. Sassower's book was ultimately empowering.

To pursue a literal metaphor, as I was reading (and re-reading) Sassower's book I thought about the high-tech battery in my current Mac laptop that I cannot even access any more as a result of the latest design upgrades. The lightweight long-life battery is permanently glued to the inner workings of my laptop and made from magical kryptonite for better efficiency. It has been designed to be an integral part of the machine to prevent DIY battery replacement by people like me. My new Mac's battery is both technologically advanced and stiflingly controlling at the same time. I am both resentful and proud to own such technology. The parallels between my Mac laptop and Sassower's book were also becoming more literal by the minute.

By adding postmodernism's plasticity to everything we thought we knew from classical Marxism to the binary oppositions we thought we could depend upon, we now need a fulsome discussion of the new institutions and relationships that we see emerging in the

BOOK REVIEW

digital age. So many methods of social organization have become nothing more than impediments, and new modes of interaction and exchange will continue to appear. In spite of multiple resistances and internal contradictions, this is the underlying reality of postcapitalism that Sassower describes. The possibility of postcapitalism may create many very different economies within many different institutional relationships, ranging from social ownership of the means of production to the dissolution of ownership. Instead of markets, we could see a system of democratic or participatory planning and peer review in its place. Central planning and markets could all but disappear. Sassower's postmodern approach is arguably needed considering such potentially disruptive and liberating possibilities.

Sassower successfully taps into our most common digital fears very effectively, but he does not simply discount the hyperbolic messages of hope for an age of digital utopia as complete bunk. He finds relative truths, in spite of the perpetual rhetorical spin. Sassower rigorously unpacks the unforeseeable future using historical critique and re-contextualization based on models and theories framed within a context of postmodernism as a method of understanding. The digital age and the current state of the global political economy are linked through tangible examples and commentaries noting when political structures and institutions are potentially misleading and dangerous. Such examples and commentaries are interspersed throughout to keep it as real as possible.

Sassower is neither an advocate for a digital utopia, nor is he dismissive of the potential for technological

NAY

transformation. If McLuhan could foresee where television would take us, then Sassower can see how the digitization of knowledge and capital combined with new socio-economic structures may bring to fruition or even derail many of the canonical ideas and theories of those who came before him. This book has affected my understanding of the history of philosophy and helped me contextualize my own relationships with technological progress. Sassower presents the case for his version of postmodern postcapitalism with all of its ambiguously malleable possibilities within a rigorously constructed context that is legible and comprehensible across disciplines.

For my own conclusion, I will only say I would encourage this book to be included as essential reading for students of all types who are already living in the world Sassower describes and who need a context for their own postcapitalist realities. I would also like to thank Sassower for the small aside he added in his own preface in which he thanks his university for giving him the opportunity to pursue work like this as a result of the privilege of being a tenured professor at a time when tenured professors are being phased out. Sassower's personal message also resonates with his previous work and thoughts on the role of the public intellectual, which are both revolutionary and pragmatic at the same time, and worthy of more discussion as well. Raphael Sassower's book provides a useful roadmap and methodology to simultaneously appreciate, fear, and approach the disruptive shifts that we all are encountering in the digital age.