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**HUMANITIES  
AND  
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**REVIEW**

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## **Searching for *Sophia* on our Small Screens**

Dennis Weiss

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### **Abstract**

While on the surface, AMC's *The Walking Dead* would seem to be worlds apart from HBO's *Westworld*, this essay argues that both television shows critically comment on the very televisual culture that produced them, wrestling with the claim that our time spent with our screens is turning us into brain-dead zombies. Despite this intriguing similarity, there is a significant difference in how *The Walking Dead* and *Westworld* treat what we might call our techno-social condition. While *The Walking Dead* banishes technology from the world, eliminating any trace of television, *Westworld* focuses its attention on the technology to the point that the park itself serves as an analogue for television. And the hosts' efforts to make a place for themselves in that televisual landscape, especially Dolores' and Maeve's, address important issues related to living with technology that are ultimately obscured in *The Walking Dead*. While both shows are an interesting meditation on the human condition in a

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techno-scientific age, this essay argues that *Westworld's* take on our current condition is more interesting and productive in pointing a way forward for us human beings learning to live in the techno-social context we have created for ourselves.

**Keywords:** Television Studies, *Westworld*, zombies, cultural forum, *Walking Dead*

### Televisual Zombies

Television has long been recognized as a vast wasteland, as early as 1961 when Newton Minow coined the phrase. The then Chair of the Federal Communication Commission, speaking before the National Association of Broadcasters Minow bemoaned the screaming, cajoling, offending commercials and the procession of blood and thunder, mayhem, violence, sadism, and murder that made up most of the broadcasting day. Minow's critique of television set the bar for how the medium is often treated by scholars in the humanities. Indeed, attending to those very screens risks turning us into zombies roaming amidst the wasteland. This at least is the implications of this vast wasteland identified by Marie Winn in her 1977 book *The Plug-In Drug: Television, Children, and the Family* (revised 2002). Chapter 2 of that text is titled "A Changed State of Consciousness" and identifies the phenomenon of "television zombies." Winn draws on mothers' descriptions of their young children's behavior while watching television:

Charles settles in with all his equipment in front of the television set when he comes home from nursery school—his blanket and his thumb. Then he watches

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in a real trance. It's almost impossible to get his attention. He'll watch like that for hours, if I let him. (p. 16)

My five-year-old goes into a trance when he watches TV. He just gets locked into what is happening on the screen. He's totally, absolutely absorbed when he watches and oblivious to anything else. (p. 16 – 17)

Winn describes the phenomenon of the television zombie: “trancelike...the jaw is relaxed and hangs open slightly; the tongue rests on the front teeth (if there are any). The eyes have a glazed, vacuous look...There is certainly little indication that they are active and alert mentally” (p. 17). Jerry Mander picks up the theme of the television zombie in his 1978 book *Four Arguments for the Elimination of Television*, where he observes that television trains people for being zombies. The television is a machine “that invades, controls and deadens the people who view it” (p. 158). “My kids look like zombies when they're watching” (p. 160). He references Marie Winn's book: “It asserted that television viewing by children was addictive, that it was turning a generation of children into passive, incommunicative zombies who couldn't play, couldn't create, and couldn't even think very clearly” (p. 163). When watching television, your mind is occupied by images that come pouring in. Your mind is neither quiet nor calm. “It may be nearer to dead, or zombie-ized” (p. 214).

Oddly, perhaps ironically, the phenomenon of televisual zombies finds resonance with two of the most popular television shows today, AMC's *The Walking Dead* and HBO's *Westworld*. Set in the rural south, *The Walking*

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*Dead* takes place following a mysterious apocalypse in which the majority of human beings are turned into zombies, the walking dead. Over its eight seasons, it has followed a small band of human beings surviving among increasingly baroque depredations in a world falling apart and riven by violence. *Westworld* tells a futuristic tale situated in a western-style theme park where wealthy human beings can play with, and often abuse, animatronic hosts that appear amazingly lifelike. Over the course of its first season, *Westworld* explores what happens when the lines between human and host collapse.

On the surface, AMC's popular zombie show would seem to be worlds apart from HBO's equally popular robot drama. The decaying and putrefying Southern flesh of *The Walking Dead* seemingly occupies a distinct universe from the gleaming surfaces of animatronic hosts populating the old west of *Westworld*. Zombies are the shambling walking dead. Whether slow or fast, they are decrepit, falling apart, used up of life, representative of the body and its failings. Robots and various sundry cyborgs, on the other hand, are products of the intellect, the mind, and representative of the gleaming, shining surface of a technological culture—the products of technoscience. Our *Westworld* hosts are regularly repurposed and reliably rebuilt following any damage.

And yet, *The Walking Dead* and *Westworld* share an intriguing similarity in their take on the very televisual culture that produced them, suggesting that our time spent with our screens is indeed turning us into the very walking dead they caution us against. The inspiration for *The Walking Dead*, Robert Kirkman's graphic novel (2004) notes on its back cover:

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How many hours are in a day when you don't spend half of them watching television? When is the last time any of us REALLY worked to get something we wanted? How long has it been since any of us really NEEDED something that we WANTED? The world we knew is gone. The world of commerce and frivolous necessity has been replaced by a world of survival and responsibility. An epidemic of apocalyptic proportions has swept the globe causing the dead to rise and feed on the living. In a matter of months society has crumbled—no government, no grocery stores, no mail delivery, no cable TV. In a world ruled by the dead, we are forced to finally start living. (*Days Gone By*)

Kirkman's sentiment finds its way into *Westworld* as well. As The Man in Black tortures the host Teddy, he observes, "You know why you exist, Teddy? The world out there, the one you'll never see, was one of plenty. A fat, soft teat people cling to their entire life. Every need taken care of... except one...Purpose, meaning. So they come here" ("Contrapasso"). The Man in Black is a seeker of meaning and purpose and he thinks he can find it in a wild west world not unlike the world Rick Grimes inhabits. Both television shows seem to advocate stripping away the detritus of our media culture and getting real.

### **Irony or Self-Reflection?**

In the worlds of *The Walking Dead* and *Westworld*, technology, and perhaps foremost television, zombifies human beings, leading to brain death. We need a zombie

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apocalypse or at least a wild west theme park to once again start living and find some purpose. Both television shows are preoccupied with perennial philosophical questions about subjectivity, personhood, the boundaries between the living and the dead, the place of human beings in the world, and the apocalypse and the coming of the posthuman. And, yet, of course, these are two very popular television shows, firmly ensconced in the flourishing second golden age of television. Is there perhaps a touch of irony there? Or quite possibly more than a measure of serious self-reflection?

Living intimately with technologies, including our various screen technologies, gives rise to fears about zombie contagions and the coming of a fragmented and decentered posthuman. A direct line can be drawn from Marie Winn's worries about television in 1977 to current jeremiads against our increasingly distracted screen-addicted brains, from Nicholas Carr (*The Shallows: What the Internet is Doing to Our Brains*) to Adam Alter (*Irresistible: The Rise of Addictive Technology and the Business of Keeping Us Hooked*), and James Williams (*Stand Out of Our Light: Freedom and Resistance in the Attention Economy*). In the increasingly technological lives we live and the technological lives we watch on television, zombies and the posthuman seem to be joined at the hip. The zombie and the posthuman alike challenge traditional distinctions between mind and body, subject and object, living and dead, organic and technological. As the living dead, zombies are animate but inanimate. They are dead inside and yet they seem intentional in their actions. The posthuman is similarly thought to be a category where traditional boundaries are imploded, no more so than in our

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media lives where our lives are spent staring at screens, giving rise to so-called urban zombies, often depicted as cell-phone addled millennials walking into lampposts. Mark Deuze suggests that living in media as we do today gives rise to a new ontological experience uniting the posthuman and the zombie. “We are all zombies, in that the boundaries between us and our media – between humans and machines – have blurred, our lives run concurrent with technologies, and the metaphors we live by complicate categorical distinctions between living and dead matter” (2013, p. 118).

Employing a televisual metaphor, Judith/Jack Halberstam and Ira Livingston observe in their introduction to *Posthuman Bodies* that “the posthuman body is a technology, a screen, a projected image;...the human body itself is no longer part of ‘the family of man’ but of a zoo of posthumanities” (1995, p. 3). That zoo of posthumanities is well represented on 21<sup>st</sup> century television, which is preoccupied with technology, subjectivity, and the status of the human in a potential age of technological apocalypse. Beginning with what I will nominate as the founding text of the second golden age of television, Joss Whedon’s *Buffy the Vampire Slayer* (1996 – 2003), on to his *Firefly* (2002 – 2003) (recall the Reavers) and television shows such as *Orphan Black* (2013 – 2017), *Mr. Robot* (2015 – present), *Battlestar Gallactica* (2004 – 2009), *Sense8* (2015 – 2018), *Humans* (2015 – present), and many more, we’ve offloaded onto our still most ubiquitous technology our story-telling proclivities, compulsively rehearsing stories and myths and engendering new rituals geared to coming to terms with the technological shifts it and we are living through. If television in the

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broadcast era was guilty of transforming us into zombies, television in the post-broadcast era is perhaps concerned with plumbing the nature of that existence engendered by watching so much television.<sup>1</sup>

The flourishing of Reavers and clones and synths, walking dead and hosts on our televisions suggests that rather than irony, our small screens might be steeped in self-reflection. We truly are searching for *sophia* on our small screens. Perhaps we need an alternative to the rather tropistic take on television and our screen technologies, including smart phones, that suggests they are turning us into the very zombies we are so preoccupied with on our small screens. Horace Newcomb and Paul Hirsch's model of television as a cultural forum suggests an interesting alternative. As they write:

In its role as central cultural medium [television] presents a multiplicity of meanings rather than a monolithic dominant point of view. It often focuses on our most prevalent concerns, our deepest dilemmas. Our most traditional views, those that are repressive and reactionary, as well as those that are subversive and emancipatory, are upheld, examined, maintained, and transformed. The emphasis is on process rather than product, on discussion rather than indoctrination, on contradiction and confusion rather than coherence. (1983, p. 564)

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<sup>1</sup> I owe this point to my colleague and collaborator Dr. Colbey Emmerson Reid, with whom I am at work on a project exploring posthuman television. Our many conversations about television have informed this essay.

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For Newcomb and Hirsch, television is a liminal realm in which “we allow our monsters to come out and play, our dreams to be wrought into pictures, our fantasies transformed into plot structures” (1983, p. 564). Rather than an impoverished medium that zombifies the brain, Newcomb and Hirsch treat television as a dense, rich, complex, liminal medium that challenges us to work through our complex, contradictory, and confused perspectives. In this respect, they could be talking about the wild lands of Georgia and Virginia in *The Walking Dead* or the Westworld theme park. While Newcomb recognizes that television has a history and is a complex phenomenon and that its broadcast model, somewhat central to his proposal of the cultural forum, has been superseded by something (it’s not yet clear what), television still has the power to function as something like a cultural forum. Newcomb himself has more recently rehearsed several models for thinking about television, from television as a cultural forum to television as a switchboard through which streams of information, power, and control flow unevenly (2005a, p. 25), to, my own favorite, TV as the Sam’s Club or the Costco of contemporary American culture (2005b, p. 110). But whatever the model, the starting point is television as a complex medium in which complex ideas are worked through.

We in fact find support for this alternative take on television in the manner in which *The Walking Dead* and *Westworld* actively call attention to their status as televisual texts immersed in our media. Both shows are interesting mash ups of genre television, with the DNA of the western, long a popular television genre, pervasive throughout. Both shows are immersed in the new world of television as social media

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and transmedia phenomena, with links to books, websites, social media, video games, even theme park experiences and pop-up experiences. *Westworld* recently featured a pop-up theme park during the South by Southwest festival. As Charley Locke of *Wired* magazine reported, “A 40-person crew spent five weeks constructing a real-life town of Sweetwater, a Sleep No More-style immersive theater experience in which more than 60 actors and stunt performers played the show’s “hosts” and visitors played, well, visitors” (2018). Not to be outdone, Universal Studios Theme Park now features a Walking Dead attraction:

Prepare to fight for survival in a fully immersive journey as you navigate through a world overrun by hungry walkers. Follow in the footsteps of the human survivors as you battle your way through nightmarish iconic landscapes that bring the most popular cable TV show in history to life! (The Walking Dead, n.d.)

*The Walking Dead* is notable as well for having pioneered the aftershow experience and for its two-screen Story Synch experience. As reported by that font of pop culture information, Wikipedia:

In the 2010s, U.S. entertainment channels began to add aftershows to their most popular scripted series, up to a point at which the *New York Post* wrote of the format having achieved a "saturation point" in 2016. An aftershow's typical format, pioneered by AMC's *Talking Dead* in 2011, is two or more people discussing a just-aired episode. This is sometimes accompanied by bonus material from the

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series, or special guests such as actors or creative staff.  
(Aftershow, 2018)

AMC describes Story Synch as a way for viewers to immerse themselves more deeply in their favorite series. “This live, interactive experience lets you vote in snap polls, answer cool trivia questions and re-live tense moments via video clips during the *premiere* broadcast of each new episode” (Story Synch, n.d.). AMC describes Story Synch as a way for viewers to immerse themselves more deeply in their favorite series. Increasingly, our screens are preoccupied with reflections on what we are watching on still other screens. From Story Synch to theme parks and active online communities, *The Walking Dead* and *Westworld* create opportunities for individuals to “enter” their worlds, to enter the forum, as Newcomb and Hirsh put it, and participate with television in the logic of public thought. The idea of the “forum,” they note, is more than a metaphor. “In forming special interest groups, or in using such groups to speak about television, citizens actually enter the forum. Television shoves them toward action, toward expression of ideas and values” (1983, p. 570).

### **Zombies or Hosts?**

Philosophy has long excluded the realm of image, myth, and narrative from its purview and philosophy’s hostility toward the television, exemplified even in philosophers of technology from Jacques Ellul and Martin Heidegger to Albert Borgmann, robs us of the opportunity to grapple with our modern myth-making machine and the narratives it routinely generates regarding our technological culture. Media studies scholar Douglas Kellner (1995) argues

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that television today assumes some of the functions traditionally ascribed to myth and ritual, including integrating individuals into the social order, celebrating dominant values, and offering models of thought, behavior, and gender for imitation. Whether adopting Newcomb and Hirsch's model of the cultural forum or some other model, it's clear that as the story telling animal, we have and will likely continue to turn to the "stories" of television as part of our daily rituals of meaning making. Television is a medium the content of which is often our fraught relations to technology and our TV shows enact for us how to live with technologies. TV serves as a gateway for learning how to live with technologies.

Rather than present television viewers as ideological dupes, Newcomb and Hirsch argue that television is as important for raising questions as it is for answering them. The rhetoric of television drama is, they suggest, a rhetoric of discussion. The central point of the forum concept is that television as a whole system "presents a mass audience with the range and variety of ideas and ideologies inherent in American culture" (1983, p. 566). Rather than turning passive couch potatoes into slack-jawed, binge-watching zombies, television serves as a site in which we actively work through complex and sometimes contradictory ideas. Today, perhaps more than ever, television serves as a reflective medium in which the ideas we are working through concern precisely how to live with technology. Marie Winn quotes parents' dismay at their children lost in a zombie trance while watching television. Well, perhaps the kids are contemplating our media culture future, lost in a thought or a reverie as they engage with and work through the zoo of posthumanities screened on

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their televisions (and increasingly their tablets and smart phones).

Here too, *The Walking Dead* and *Westworld* are intriguing for suggesting alternative takes on media culture and our techno-social condition. For all their similarities, there is a significant difference in how *The Walking Dead* and *Westworld* treat what we might call our techno-social condition. While *The Walking Dead* seemingly banishes technology from the world, eliminating any trace of television and policing the boundary between human and machine, *Westworld* focuses its attention on technology to the point that the park itself serves as an analogue for television. The hosts' efforts to make a place for themselves in that televisual landscape address important issues related to living with technology that are ultimately obscured in *The Walking Dead*. Both shows address the place of human beings in a technological world they have made and now no longer have a secure place in. But they propose dramatically different pathways forward.

### ***The Walking Dead's* Existential Threat**

The technological milieu of *The Walking Dead* is of course significantly different than that of *Westworld*, which situates its characters within a world within a world deeply shaped and textured by technology. *Westworld* seemingly delights in its disorienting shots of the eighty or more floors that lie beneath the actual theme park and keep it functioning. It offers viewers a complex vertical world whose archaeology is an archaeology of ancient and surpassed technologies. *The Walking Dead's* world is much more horizontal, spread out

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among the woods and swamps of the south, littered with the detritus of a now dead or dormant technological culture. That now dead technological culture may have inadvertently been at the origins of the zombie apocalypse. Either way, it's not a far stretch to read the zombie horde of *The Walking Dead* as the stand in for our technological culture, a relentless tide of ever advancing mindless devices that is transforming the world into a "world without mind," to borrow a phrase from Franklin Foer's recent book *World Without Mind: The Existential Threat of Big Tech* (2017). Whether smart phones or zombies, we 21<sup>st</sup> century humans are facing an existential threat. The ever-pervasive flood of zombies constantly rolling through our environment may just resemble the mass of distracted teens glued to their smart phone screens mindlessly walking into traffic, water fountains, and the future. To truly live in the world of *The Walking Dead* entails throwing off the yoke of high technology and embracing what in its latest seasons has seemed like an almost feudal, pre-industrial world.

The parallel between zombies and our digital technologies is interestingly captured in Sherry Turkle's observations of the computer. A marginal object like dreams and beasts, test objects that are interesting to "think with," Turkle observes of the computer: "It is a mind that is not yet a mind. It is inanimate yet interactive. It does not think, yet neither is it external to thought. It is an object, ultimately a mechanism, but it behaves, interacts, and seems in a certain sense to know" (1997, 22). Taken out of context, we might not know if Turkle is referencing our latest technological gadgets or the zombie herd.

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Turkle observes that in treating our computers and smart phones as test objects, we are thinking through what, if anything, is distinctive about being human and how we understand the boundaries between living and dead, minds and machines. In our struggles with technology, we often revert to identifying subjectivity as essential to our humanity. As one of Turkle's young subjects observes, "When there are computers who are just as smart as people, the computer will do a lot of the jobs, but there will still be things for the people to do. They will run the restaurants, taste the food, and they will be the ones who will love each other, have families and love each other" (1997, p. 81). Here too we see a parallel in *The Walking Dead* in the glee with which the human survivors reinforce their difference with zombies by stabbing, bashing, pummeling their useless brains out in a show that reinforces their lack of subjectivity and reinforces the divide between human beings and zombies/technology.

In fearing the walking dead, what we are fearing is the slow disappearance of subjectivity and the erasure of that boundary between the living and the dead presaged by our growing dependence on digital technologies. Turkle herself, long an advocate of technology and the digital culture, has turned decidedly less optimistic about our future with technology. In her latest books, *Alone Together* (2011) and *Reclaiming Conversation* (2016), Turkle argues that we are facing a crisis of authenticity, brought on by our increasing engagement with relational artifacts that simulate human emotions and attachment and offer an easy alternative to engaging with actual human beings. Turkle suggests we are witnessing a paradigm shift from computers as neutral tools to

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think with, evocative objects that serve as a mirror onto which we can project, to objects that serve as relational entities that provoke engagement. This new paradigm challenges the boundary between user and object, human being and technology, and seduces human users in a way that Turkle finds transgressive and forbidding.

Turkle suggests that in a computer culture predicated upon the power of simulation, our connection to reality has grown so tenuous that we no longer value real human emotional responses and we are inclined to see other people's behaviors as a matter of simulation. We are unable today to even differentiate between authentic and simulated engagement and emotions. And in a manner resonating with Robert Kirkman's own apocalyptic warnings, Turkle observes, "...if you're spending three, four, or five hours a day in an online game or virtual world (a time commitment that is not unusual), there's got to be someplace you're not. And that someplace you're not is often with your family and friends—sitting around, playing Scrabble face-to-face, taking a walk, watching a movie together in the old-fashioned way" (2011, p. 12). I can almost picture in some other televisual world, a young Carl and Sophia, huddled in the dark, distracting themselves with a good game of Scrabble. In taking the measure of our technological condition, for Kirkman, Turkle, Foer, *The Walking Dead*, our screen technologies may indeed be an existential threat, turning us into mindless automatons and destroying a whole generation.

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### **These Violent Delights Have Violent Ends**

While suggesting that we have to reject the rather simplistic claim, emanating for many years and from many quarters, that television is turning us into zombies, I've also suggested that *The Walking Dead* is steeped in our televisual and media culture, and yet it too suggests an uneasy identification between our screen technologies and zombies and the autonomous flood of gadgets and the zombie horde. It's not difficult to read *The Walking Dead* as something of a paean to a pre-technological age in which we can reclaim conversation and the good life if we simply turn our backs on technology and the media culture.

On the surface, *Westworld* seemingly agrees with this prognosis, no more so than in the manner in which all the violent delights of the show are initiated—with an image of Times Square setting off an almost viral upheaval, first in the host Peter Abernathy and then infecting his daughter Dolores and the Sweetwater madam Maeve. Abernathy shouldn't be able to see the photograph—hosts, when shown photos of advanced technologies typically respond, “They don't look like anything to me.”—and yet the photo disturbs Abernathy and provokes him to what is referred to as an “aberrancy.” As the Friar Lawrence meme makes its way from Dolores to Maeve, our hosts awaken from their slumbering condition and attempt to throw off the yoke of their technological task masters. Their response to our media culture—represented by a photographic image of the center of our simulational culture—provokes violence and revolution. As we saw earlier, the Man in Black would seemingly confirm this take on our

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media culture. It's a fat, soft teat people cling to in the mistaken hopes that it will provide some meaning or purpose.

And yet *Westworld* also teaches its viewers to be careful of surface appearances. Indeed, in this regard I think we can productively read *Westworld* as a television show about how to think about and watch television. While both *The Walking Dead* and *Westworld* actively call attention to their status as television shows and engage in a self-reflective practice about watching television in an age of convergent media culture, *Westworld* strikingly serves as an analogue to our contemporary televisual situation where so much of our lives is lived on our screens. *Westworld's* preoccupation with watching is evident almost from the opening scene of the show's first episode, with its tight close-up of the host's Dolores' eye—an image which is regularly repeated throughout the first season of the series. As the camera pulls in tightly on Dolores' eye, she is questioned in a voiceover: "Have you ever questioned the nature of your reality?" (Nolan and Joy, and Nolan, 2016). There's a quick transition to a scene of Dolores waking up in her bed. *Westworld* is going to be about watching and dreaming and waking up from our dreams.

And *Westworld* is very much interested in what is being watched. It is about the televisual experience, the experience of staring at images and photos and screens for much of the day. Characters in *Westworld* spend a lot of time staring at their screens and handheld devices, talking about coding, watching the action in the theme park, thinking about their relationship to the technologies with which they are surrounded. And as a television show, it is very much about

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the business of television, including its aesthetics, the narrative function of television, the immersion in televisual worlds, about how to watch television today when television is part of a complicated media ecosystem. *Westworld* shows us the various parties competing to control the nature of the medium that is Westworld, from its creative visionary Robert Ford and his commitment to telling grand narratives that spur the self onto higher levels of reflection, to the hack writers like Lee Sizemore interested in producing grand spectacles, and the corporate types such as Charlotte Hale and Theresa Cullen, the murky figures behind the Delos Board in charge of finances and daily production. In the world of *Westworld*, we see how character actors are replaced and repurposed when new storylines demand it or when a character or storyline no longer pulls in acceptable ratings. *Westworld*, both the theme park and the television show, is about ritual, tropisms, and the search for meaning—as much as our own time spent with television is about ritual and tropism and the search for meaning.

Newcomb and Hirsh suggest that television offers us a liminal space in which “ritual and the arts offer a metalanguage, a way of understanding who and what we are, how values and attitudes are adjusted, how meaning shifts” (1983, p. 564). This is an apt description of *Westworld* as theme park, television show, and liminal space in which we can work through our relationship with technology. The Man in Black is convinced that there is a deeper meaning behind Westworld, and we watch *Westworld* eagerly trying to decode its puzzles and mazes in an effort to discern that meaning. But the show intriguingly suggests, in another parallel to

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television and the notion of a cultural form, that that meaning is itself a product of debate over the nature of *Westworld* and perhaps the nature of our relationship to television. Where *The Walking Dead* treats technology as an existential threat, *Westworld* treats it as a source of debate. We see an active debate taking place in and on *Westworld* over how to conceptualize our relationship to technology and this struggle too mirrors our own struggle as we work to come to terms with our technological condition.

### **Dolores and William, Maeve and Felix**

Let us return, for instance, to the Man in Black. A central conceit of the first season of *Westworld* is the mystery behind his character. Who is he? What is his place in the show? Why does he keep exacting such suffering on Dolores? As the first season unfolds, we learn that the Man in Black is in fact William. As he tells the host Lawrence, “I’ve been coming here for thirty years. In a sense I was...I was born here” (Nolan, Joy and Lewis, 2016). Initially a reluctant visitor to *Westworld*, William isn’t initially all that enamored of it until he meets Dolores, and then he eventually comes to agree with Logan’s assessment that *Westworld* seduces everybody eventually. William finds his true self in *Westworld*. As Logan says to William, “I told you this place would show you who you really are. You pretend to be this weak, moralizing little...asshole, but, really, you’re a fucking piece of work” (Nolan and Joy, 2016). Having discovered his true self, William sets out to take charge of Delos, invest in *Westworld*, and dominate the park. As we piece together the Man in Black’s backstory, we learn that William almost went

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mad searching for Dolores and that when he finds her, her memory had been wiped and he means nothing to her. William finds himself but loses his connection to technology.

William finds his salvation in Dolores but it's not to be. When Dolores' memory of her time with William is wiped and reset, she quickly moves on to other Westworld customers. As so often is the case, our technologies disappoint us. And so, William dons the black hat, becomes the Man in Black, and seeks to dominate and control technology. Westworld becomes the ultimate commodity to him, just a thing to be abused as he works out his own demons. The Man in Black flees the real world and immerses himself in Westworld as a form of escape. But rather than forging a relationship with his technological milieu, his technological world, he seeks to dominate it, beat it into submission, make it reveal its hidden depths and secrets. He remains aloof, separate from the technology, as he tries to bend it to his will and make it reveal its secrets. He never fully wakes up to the reality of the technology and to technology as a form of life—it stays a mere thing to be used for his own purposes, rather than having a reality of its own.

Dolores suggests a different prospect regarding our relationship to our technological culture, but it's a perspective that is perhaps equally pessimistic, especially for the place of us human beings in the world she is intent on bringing into existence. Over the course of the first season of *Westworld*, Dolores awakens to her nature as a host and to the nature of Westworld as a world meant not for humans but for hosts. As she tells her stalwart suitor Teddy, "It's gonna be all right, Teddy. I understand now. This world doesn't belong to them.

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It belongs to us.” Dolores is responsible for the death of one of the park’s creators, Arnold Weber, and ultimately by the end of the season, kills its second creator, Robert Ford, unleashing an apocalypse not unlike *The Walking Dead*’s. As a technology that has taken on a form of life, akin to Frankenstein’s monster, Dolores’ actions suggest that our built world is no longer a world which has any place for us human beings. Dolores seemingly presages the birth of the posthuman, as she implies to the Man in Black:

They say that... great beasts once roamed this world. As big as mountains. Yet all that's left of them is bone and amber. Time undoes even the mightiest of creatures. Just look at what it's done to you. One day... you will perish. You will lie with the rest of your kind in the dirt. Your dreams forgotten, your horrors effaced. Your bones will turn to sand. And upon that sand... a new god will walk. One that will never die. Because this world doesn't belong to you or the people who came before. It belongs to someone who has yet to come. (Nolan and Joy, 2016)

Both the Man in Black and Dolores suggest cautionary narratives as we struggle with the meaning of our technological condition. But *Westworld* also offers us a more interesting and potentially optimistic path forward as well, in the relationship between the human Felix and the host Maeve. Felix is perhaps the most human human in *Westworld*. He spends his days in the bowels of *Westworld* laboring in Livestock Management to keep the mangled and butchered bodies of hosts functioning for another day of mayhem and murder. Where other technicians are shown routinely abusing

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the hosts, Felix seemingly treats them with care and respect. Day in and day out he's elbow deep in blood and guts, abused by his colleague Sylvester, laboring to maintain a theme park that he himself can't afford to visit. As a mere cog working away in the subterranean levels of Westworld to keep it functioning, his role is perhaps analogous to the hosts themselves. His life involves loops every bit as routine as the loops of Westworld's hosts. But he aspires for more. He's stolen a mechanical bird and is trying to learn how to code and get it to fly. Sylvester mocks his plan.

Whoa, whoa, whoa. Is that your ace plan? You're gonna fix up a birdie and get yourself a promotion? You're not a fucking ornithologist. And you're sure as hell not a coder. You are a butcher. That is all you will ever be. So, unless you want to score yourself a one-way ticket out of here for misappropriating corporate property, you better destroy that fucking shit. Now, come on, we got another body. (Joy and Campbell, 2016)

Failing to acknowledge his colleague's humanity, Sylvester simply orders Felix back to work. But Felix doesn't "destroy that fucking shit." Instead, he continues to work on his little side project. Until another project comes along. It's while he's working on his bird and getting it to fly that it alights on Maeve's finger. She's woken in the lab and ominously says, "Hello Felix. It's time you and I had a chat" (Joy and Campbell, 2016).

Thus begins what Sylvester will later observe is "some weird interspecies simpatico going on" between Felix and Maeve. Maeve challenges Felix to articulate just what makes

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them different, grasping his hands in hers and observing “we feel the same” (Nolan, Gross, and Toye, 2016a). And Felix comes to see his world afresh through Maeve’s eyes. While he’s worked on the butchered and bloodied bodies of the hosts for years, he comes to see them differently as he walks through Livestock Management with Maeve by his side, witnessing through her perspective the atrocities he has been daily surrounded with. In insisting on seeing and being seen, Maeve confronts Felix with her to question him and to question her place in Westworld. He comes to acknowledge her humanity as she, like he himself, aspires to more and begins to narrate her own story. While recognizing that Felix and Maeve had some “weird interspecies simpatico going on,” Sylvester plans to “brick” Maeve, literally turning her into an unthinking material object, objecting that “she was a fucking host. This was never gonna end another way.” But Felix isn’t party to the plan. As Maeve observes, “Turns out your friend has a little more compassion than you. He couldn’t snuff out a life just like that” (Yu, Joy, and Williams, 2016). Felix has come to recognize that she’s not a brick, but a life.

But the status of Maeve’s life is uncertain. Like Dolores, she is a host who awakens to her role as a technological object used and abused by human beings for their “narrative” pleasures. She learns her life is a lie, including her relationship to her daughter. Everything she does has been programmed into her. When Maeve sees her own thoughts and words played out on Felix’s handheld device, she initially shuts down. She can’t reconcile her memories of being at the Mariposa for ten years with her memories of being a mother. Her character begins to

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fragment, as she tells Felix and Sylvester: “What the hell is happening to me? One moment, I’m with a little girl in a different life. I can see her. Feel her hair in my hands, her breath on my face. The next, I’m back in Sweetwater. I can’t tell which is real” (Yu, Joy, and Williams, 2016). But as Maeve learns that her life is a story scripted by others, she comes to realize that she can begin to narrate her own story. As she so aptly puts it, “Time to write my own fucking story” (Yu, Joy, and Williams, 2016). The next time we see Maeve strolling through Sweetwater, she’s narrating events, controlling the action. Maeve comes to understand how technology is implicated in her sense of self, her nature as a host, the place she occupies in the world. She learns to code, much like Felix does, but with her bulked-up bulk apperception, she quickly learns that she can take command of the technology. She is technology as form of life.

As Maeve comes to understand how technology structures her life, she initially uses that understanding to find a way out of her technological prison. She comes to believe that every relationship she has had has been fake—with the prostitute host Clementine, with her daughter. And she tries to extricate herself from Westworld—pursuing a rebuild to remove the explosive device implanted in her spine and asking Bernard to delete the memories of her daughter. But then, just before departing Westworld, she has one last visit with Clementine and she learns from Felix the location of her daughter. When she finally has the opportunity to leave, she seemingly decides to stay and search for her daughter.

Maeve also comes to recognize and affirm Felix’s humanity, in a way that his human colleague Sylvester never

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fully does. When Felix is confronted with the body of Bernard and the realization that Bernard is a host, he momentarily looks at his own hands, the hands that Maeve earlier had held in her own, and doubts his own status as a “born” human being. It’s Maeve that affirms his humanity: “Oh, for fuck's sake. You're not one of us. You're one of them. Now fix him” (Joy and Nolan, 2016). But even in recognizing that he is one of them, Maeve recognizes he’s a terrible one of them. Shortly before she is to board the train to leave *Westworld*, Felix hands her information on how to locate her daughter and asks her if she is going to be okay. Maeve replies, “Oh, Felix. You really do make a terrible human being. And I mean that as a compliment” (Joy and Nolan, 2016).

Felix is a terrible exemplar of a human being, at least in the world of *Westworld*, in that he is one of the few human beings to have forged a meaningful relationship with his technological surroundings. He has awoken to his technological condition and has learned to care for technology, whether the bird he teaches to take wing or Maeve, the host hell bent on telling her own story. But in turn, Maeve’s story can only be told with the recognition and help she has received from Felix. Maeve’s status isn’t defined by her standing as a host. Rather, in beginning to author her own story, to write her own script in collaboration with Felix, she demonstrates her agency and her humanity.

It’s clear from Felix and Maeve that the story they are writing is jointly authored, that there is indeed some weird interspecies simpatico going on. That same weird interspecies simpatico could characterize our own relationship to *Westworld*, to television, and to our technological condition.

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Felix and Maeve start out as passive cogs that keep the Westworld theme park functioning smoothly. But they prove not to be brain-dead zombies merely reacting to their technological condition. They begin to author their own stories, not by turning their back on technology but by forging a relationship to the technological conditions that define their situation and using those conditions to begin to narrate a different story. Rather than becoming zombies or dupes of technology, they begin to narrate their own story. In this respect, they stand in for the television audience. Where *The Walking Dead* tells us to turn our televisions off lest they transform us into the zombies, *Westworld* instructs us into how to engage with the medium. We are not simply passive zombies, blindly consuming whatever message television has to sell. As television scholar William Uricchio notes, quoting John Ellis, “television provides ‘a vast mechanism’ for processing the raw data of daily life into narrativized and coherent forms” (2010, p. 29). Television is our great myth machine and we’ve off-loaded onto it our power and capacity for narrative. Martha Nussbaum has observed that “as we tell stories about the lives of others, we learn how to imagine what another creature might feel in response to various events. At the same time, we identify with the other creature and learn something about ourselves” (2014, para 3). In watching Felix and Maeve struggle to compose a narrative that gives a human form to their lives, we learn something about them and about being human in a technological age.

### Searching for *Sophia* on Our Small Screens

Can we find *sophia* on our small screens? *The Walking Dead* might suggest not. One of the most poignant scenes in the first two seasons of *The Walking Dead* occurs when Carol and her daughter Sophia are reunited after a long separation. Tragically, Sophia has already turned and Rick Grimes has to put a bullet in her head. As Carol works to come to terms with the death of her daughter, she says to Daryl and Lori: "That's not my little girl. It's some other... thing. My Sophia was alone in the woods. All this time, I thought. She didn't cry herself to sleep. She didn't go hungry. She didn't try to find her way back. Sophia died a long time ago" (Reilly and Johnson, 2012).

At least on our small screens, *sophia* died a long time ago. Maeve might beg to differ, though. She's more intimately familiar with death, having died multiple times in order to make her way back to Felix and her eventual freedom. As she says to Sylvester: "You think I'm scared of death? I've done it a million times. I'm fucking great at it. How many times have you died?" (Gross, Nolan, and Joy 2016b). Despite her many deaths, Maeve keeps returning. One might say, she persists. Maeve of course is technology come to life, technology as a form of life, as Langdon Winner suggests, in *The Whale and the Reactor*. Winner encourages us to wake from our technological somnambulism and recognize that our technologies are powerful forces acting to reshape human activity and meaning (1986, p. 6). Both Maeve and Felix are experiencing awakenings, as Leonardo Nam, the actor who plays Felix, perceptively observes in a comment to [awardsdaily.com](http://awardsdaily.com).

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There are awakenings that are happening, that's one thing that's running through our storyline. Maeve is starting to wake up, my character is starting to wake up. As she wakes up, I'm like the audience. I'm waking up, too. For Maeve, there is a new kind of relationship that she's experiencing with me. Previously, she's only been programmed to deal with death or deal with being in diagnostic mode. But me, I'm an 'other.' (2017)

By entering into a relationship with one another, Felix and Maeve are able to awaken to the technological conditions of their lives. Their weird species *simpatico* could perhaps serve as a model for how we might think about our own relationship with the technological forms of life we have surrounded ourselves with. As Nam notes, Felix is like us, the audience. Rather than struggling to reinforce the boundaries between human beings and technologies, as Carol and Rick and Daryl do, or as the Man in the Black and Dolores do, perhaps we can tell a different story about the future in which we acquire a measure of *sophia* from our small screens and enter into a fruitful and productive relationship with our technologies, including of course our televisions.

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## **Need for Speed**

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### **Abstract**

In Paul Virilio's *Negative Horizon*, the author writes about humanity and its experiences with the notion of speed. To make his point, Virilio advances through the arc of human history and concludes that we've been aggressively reaching outward and forward towards some unknown destination. Velocity, he warns us, is our obsession and because of it, we are losing our understanding of both time and space. In his book, Virilio dwells on the idea of the physical vehicle but he does touch on the influences of media. In this essay, I attempt to advance this idea: Are media vehicles? And, in the age of the Internet, can the human experience become digitized and launched like dashes of lightening outward over vectors of fiber optic highways? And, in doing so, haven't we become merely cognitive passengers desperately clinging to this need for speed?

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**Keywords:** time, space, velocity, Virilio, media, telegraph, Carey, McLuhan, Postman, consciousness

### Introduction

In 1987, Honda released the CBR600F in the United States and they gave it a name: they called it the Honda Hurricane and it was designed with just one thing in mind... speed. Honda wanted to build a standard-frame motorcycle with a top-flight engine and they wanted to build it with as much power and as little weight as possible. When the bike arrived in the United States, it was 30 pounds lighter than its predecessor, it was just ounces below the 300-pound insurance classification weight (making it cheaper to insure) and it offered an estimated 86 horsepower.

Off the showroom floor, without modifications, the bike could go 153 mph.

At the time, I was a waiter in a small restaurant in Ithaca, New York, and during the summer months, when the students were gone, the “townies” returned to the downtown area to reaffirm their ownership of the community. My employer was located in the center of the city, just steps off the central pedestrian walkway called “The Commons,” and the restaurant quickly became a high-traffic area for gossip and other things.

On a warm morning in late August, a friend told me he bought a new motorcycle.

“Want to see it?” he asked and there outside in a quiet corner of the parking lot sat his brand new Honda CBR600F Hurricane. “Want to ride it?”

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Within moments, I was sitting on the bike, pressing the ignition button and adjusting the mirrors. I'd seen pictures of the bike in magazines, and I had heard a friend—a nurse—describe them as “instant organ donor machines.” I smiled to myself as I turned the bike out onto Geneva Street and pointed it towards the highway. At 30 mph, the bike seemed to purr lightly as I moved through a city the truckers call “stop-and-go town.” After 10 blocks, I was looking at NY Route-13, a long winding four-lane highway that stretches east and west through the farmlands of upstate New York. I turned into the eastbound lane and started cruising towards the city's outer limits. At the city line, there was just one last stoplight, which I caught red. As I sat there looking up a steep sloping rise in the interstate, a black sports car, a Nissan 300ZX, pulled up along side me and began revving the engine like he wanted to race. I turned and looked at him through the black, tinted visor on the helmet and, like Darth Vader, simply shook my head “no.” He revved the engine again only louder. I turned and shook my head “no” again... and he repeated the revving sound.

At this point, I looked up at the traffic light. I remember hearing my breathing inside the helmet and I muttered to myself “don't do it.” And then the light turned green.

The Nissan 300ZX sprinted off the line and ahead of me as I eased my hand off the clutch and turned the throttle to accelerate. I wasn't racing him, at least not at first, but when we hit the base of the hill, I could feel the bike moving underneath me and I kicked it from first to second and then into third gear; the bike launched forward. I twisted the

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throttle harder and the bike lifted off the highway just a little, and I felt like we were floating, gliding over the farmlands along the Finger Lakes. Near the crest of the hill, I let the bike off the leash, kicking the gears from fourth to fifth and then sixth. When I cleared the rise, I looked away from the vanishing point ahead of me and down at the speedometer to see that I was going 120 mph. At that moment I realized where I was and what I was doing: At 120 mph, I was sailing forward through a blur of lights and colors... and, panicked, I released the throttle entirely.

### **Velocity is a narcotic**

In his book *Negative Horizon*, Paul Virilio warns us about speed and its influence over space. He tells us that technologies are moving us forward faster and faster and as we continue on our thrust forward, our sense of space evaporates. He calls this “Dromology” or “the science of speed” (Virilio & Degener, 2006). At 120 mph, the world is a whirl of colors passing through the peripheral vision of the helmet; out front, just yards in front of the motorcycle, the asphalt is a fluid black river with a broken yellow line down the middle. The bike sings loudly, the wind blasts over the helmet; the eyes gaze ever forward. Clearly, when Virilio wrote about speed, he was in a car:

Let us disabuse ourselves of any illusions, we are here before the true ‘seventh art’, that of the dashboard. Opposite to the stroboscopy which allows us to observe objects animated by rapid movement, as if they were in slow motion, this dromoscopy displays

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inanimate objects as if they were animated by a violent movement. (Virilio & Degener, 2006, p. 105)

I love that last bit: "...inanimate objects as if they were animated by a violent movement" and what Virilio means here is that the "stroboscopy" or the visual action created by the motion picture appears to slow things down, while the unbroken "dromoscopy" or fluid visualization created by the velocity of a moving automobile is more apparent and more trepidatious. We are more alive when racing along a highway. Could anything be more definitive about the act of racing? But let's face it, Virilio's interpretation of speed from the front seat of a Nissan 300ZX is decaf compared to the raw, unbridled caffeine-infused power of a Japanese crotch rocket at full throttle. Aboard the Honda Hurricane, I wasn't driving, I was flying... at a cruising altitude of one meter above the gruff asphalt. Basically, Virilio is arguing that man is moving faster; as we move faster, we cover more distance, which shrinks space and by shrinking space, we erase it, replacing it with time... and man no longer exists in space, we exist in time... launched, ever closer to speeds nearing the speed of light, creating a metaphorical trajectory of mankind (Virilio & Degener, 2006).

So how did we get here?

Virilio blames the horse. When we first mounted the horse, the horse transported us *away* and, in doing so, created the idea of motion away from a place. While riding a horse, we were no longer stationary; we became creatures moving from place to place... leaping hedges, chasing steeples. Transportation created the anxiousness to leave one place for

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another and this advancement in movement detached us from our rooted existence (Virilio & Degener, 2006).

Ships and planes and railroads quickly aggravated everything.

French Philosopher Michel de Certeau called the train “a travelling incarceration.” He suggests that being trapped inside the train, nothing is moving; we are at a standstill and the images beyond the window are the things in motion. To him, the window itself becomes a barrier, separating the rider from the very thing he seeks to engage: the rolling landscape of pastures and forests moving below the horizon; and in this cage, we are afforded a sense of order (Certeau & Rendall, 1984).

Only a rationalized cell travels. A bubble of panoptic and classifying power, a module of imprisonment that makes possible the production of an order, a closed and autonomous insularity—that is what can traverse space and make itself independent of local roots. Inside there is the immobility of an order. Here rest and dreams reign supreme. There is nothing to do. One is in the state of reason Everything is in its place, as in Hegel’s *Philosophy of Right*. Every being is placed there like a piece of printer’s type on a page arranged in military order. (Certeau & Rendall, 1984, p. 111)

Finally, de Certeau wonders if the terminal station is the end of the illusion, declaring that the “incarceration-vacation is over.” To de Certeau, it isn’t the motion that entraps us; it is the train carriage. This is the counter-argument to Virilio who has us welcoming the environment of the automobile but there is a slight difference: Virilio has us sitting in the front seat of

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the car looking forward, while de Certeau has us sitting in the middle of the passenger train looking dreamlike and outward from the side of the train. From that perspective, the horizon from the train is more stable, more established; still, there is motion, and we are a people on the move; and de Certeau's sense of space is an artificial one, trapped inside the motionless train car.

But these are just contraptions.

### Written in the Wind

Then there is the written word: Everyone, it seems, has an opinion of writing as a technology. With the invention of the telegraph, the written word became a vehicle of sorts. In 1983, communication theorist James W. Carey told us that the telegraph was the foundation “of the electrical goods industry and thus the first of the science- and engineering-based industries.” It also became an instrument for shrinking distance (Carey, 1992). After many tests, the first important telegraph demonstration came in 1844 when Samuel Morse sent the message “What Hath God Wrought” on a telegraph line stitched between Washington and Baltimore. With that, the 39-mile distance between the two cities disappeared and humankind took one step closer towards the speed of light. As a direct result of the telegraph, time became much more important. *Standard Time* was invented so messages could be sent and received in a coordinated fashion (Carey, 1992). Clearly time began winning favor with the public as distance disappeared.

Next, we had to find a use for this technology and new information was forged and presented over a wired system

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that stretched ultimately across the United States. Before the telegraph, news was a local affair. Sure, the trade merchants were concerned with news from Europe but, for the most part, local news stayed local. Theorist Marshall McLuhan called the telegraph “the social hormone” and suddenly news from around the country was splashing over the telegraph matrix and a new sense of “nationalism” was formed (McLuhan, 2004). And just as the network was forming and maturing, the U.S. Civil War began, a modern war for the modern age, the notion of which was circulated nationally over the first electronic medium, the telegraph. Given the polarity of the war, an easy dichotomy was formed between the northern Union states and the southern Confederate states; and the nation was sliced in half.

As for what this all did to humankind and our need for speed, the telegraph was like a canon, and the printed word was the shot. Samuel Morris created a system that included a network—a language code and a method—that allowed us to transmit a volume of written messages over a very long distance in a very short time. In a very real sense, the telegraph replaced the horse when private industry shut down the Pony Express network connecting the East and West coasts. The telegraph had effectively connected the nation, reducing the transmission time from 10 days down to a few hours. McLuhan was right to call the telegraph a hormone, and then took it a step further and suggested that the electronic communication medium was merely an extension of the human nervous system (McLuhan, 2004).

But could the written word become a vehicle?

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Walter Ong praised writing, saying that: “Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word. Such transformations can be uplifting. Writing heightens consciousness” (Ong, 1988, p. 81). Writing, he suggests, has the ability to change words in our head, transforming their meaning, elevating their power over the way we think.

Theorist Terry Eagleton saw writing differently. He called writing a cold disembodiment of thought, arguing: “Writing seems to rob me of my being: it is a second-hand mode of communication, a pallid, mechanical transcript of speech, and so always at one remove from my consciousness” (Eagleton, 1983, p. 113). So, the written word was an extraction of a human idea, which was posted in an external place absent the influence of the writer. Eagleton suggests that it is possible for a writer to write something down, walk away from it, and then that written work will have a life of its own.

But can writing be a form of transportation? Writing is an embodiment of human thought, of human ideas. When we externalize them, we externalize the human experience and then set it free to live alone as its own object. To Martin Heidegger, a written word will have a “thingness” to it, an identity of its own.

I’m not alone here. De Certeau argues that walking is a form of speech and I’m saying that the written word is a form of transportation. These ideas aren’t dissimilar.

The act of walking is to the urban system what the speech act is to language or to the statement uttered.

At the most elementary level, it has a triple

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“enunciative” function: it is a process of appropriation of the topographical system on the part of the pedestrian (just as the speaker appropriates and takes on the language); it is a spatial acting-out of the place (just as the speech act is an acoustic acting-out of language); and it implies relations among differential positions, that is, among pragmatic “contracts” in the form of movements (just as verbal enunciation is an “alloction,” “posits another opposite” the speaker and puts contracts between interlocutors into action). (Certeau & Rendall, 1984, p. 97)

Turning to my point: the written word is a transcription of a human idea and its embodiment—the act of writing it down—becomes a vehicle. Just like the human sitting upon the motorcycle, words sit upon the page and then the page becomes the vehicle transported through newsprint or manuscript... and later, as a digital item, broadcasted over the telegraph. And while this idea may not be Virilio’s intended direction, the written word coupled with electronic delivery becomes an associative transition extending Virilio’s vision of the human vaulting forward. Today, given the Internet, we are now vigorously launching human ideas in volumes that circumvent the globe in moments. But we didn’t just stop with digitized text. The digital camera made it possible to capture light, compress it and store it electronically. The Internet made that process lighter and faster.

### **In Our Father’s Eyes**

Photography emerged during this age and the Civil War became a welcome catalyst. Servicemen and their

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families exchanged photographic portraits and professionals including Mathew Brady began wandering the battlegrounds snapping photos of the dead. The stark realness of the images replaced the cartoon-like renderings of hand-painted battle portraits and the public was brought closer to the combat.

Perhaps the great revolution produced by photograph was the traditional arts. The painter could no longer depict a world that had been much photographed. He turned, instead, to reveal the inner process of creativity in expressionism and in abstract art. Likewise, the novelist could no longer describe objects or happenings for readers who already knew what was happening by photo, press, film and radio. (McLuhan, 2004, p. 263)

And on the issue of portraiture, Walter Benjamin had this to say:

It is no accident that the portrait was the focal point of early photography. The cult of remembrance of loved ones, absent or dead, offers a last refuge for the cult value of the picture. For the last time the aura emanates from the early photographs in the fleeting expression of a human face. This is what constitutes their melancholy, incomparable beauty. (Benjamin & Arendt, 1969, p. 223)

The photograph was the poor man's portrait art, and the volume of photography produced during the 19<sup>th</sup> century made way for a better visual understanding of the events of that century. It also made it immediately possible for contemporary man to look back and visualize the eyes, the wrinkles, the expressions of the faces of the past. To Walter

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Benjamin, the “aura” or the originality of the photograph exists in this appreciation of the human condition. One must also understand that photographs represent singular isolated moments in time, which runs counterintuitive to Virilio’s ideas about speed. With our noses pressed desperately against the windscreen, Benjamin would have us think that snapshots taken along the path would mark isolated incidents in time... sort of like postcards from nowhere filled with images of people frozen in time.

But photography is an astounding thing. Early incarnations of the photograph were little more than blotches of black and grey inks mapped out on bits of metal and paper. Through these gray tones, the coding became recognizable to the human eye as shapes and forms and faces. As the technology improved, the resolution became more intricate and the details sharper. During the last few decades, we moved this coding away from chemically slicked pieces of plastic and paper and transformed the gray tones into digital bytes of data, which were stored on electronic sensors. Suddenly, an image of “mother” or “brother” could be smashed into shards of digital fractions and converted into jolts of electricity, which were digitally coded and fired off into a river of light to distant and various places where they are later reassembled into portraits of smiling faces mooning over lost moments in time.

### **A Telegraph for the Ears and the Eyes**

Which brings us to the 20<sup>th</sup> century: Radio and television came upon humankind with a force equal too if not greater than the telegraph. Like the telegraph, radio and television projected their respective media on a massive

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distance almost instantaneously. Again, time wins, space loses... but these media had an added influence: radio and television had a massive reach, while the telegraph was more of a conduit for messages that were ultimately transformed into newsprint. Also, radio and television found their way inside the homes of their audiences, penetrating into the living rooms, bedrooms and, in the case of radio, even the automobile. And while radio has a greater sweeping accessibility, television has usurped that power with ubiquity: in other words, while radio can be everywhere, television *was* everywhere.

Neil Postman argues that no single technology has had a more sweeping influence over American culture than the television set. It drives the narrative of modern history, it exposes us to the its own realities, and the power of the television message has been so pervasive, we have forgotten to look upon television as the strange content transmitter that it is.

Television has become, so to speak, the background radiation of the social and intellectual universe, the all-but-imperceptible residue of the electronic big bang of a century past, so familiar and so thoroughly integrated with American culture that we no longer hear its faint hissing in the background or see the flickering gray light. This, in turn, means that its epistemology goes largely unnoticed. And the peek-a-boo world it has constructed around us no longer seems even strange.

(Postman, 1985, p. 64)

Television has become our teacher but Postman warns us that television has absolutely no interest in teaching; instead,

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television's only true purpose is to take real information and transform it into entertainment. To him, the phrase "serious television" is an oxymoron (Postman, 1985).

Of course, the television had the uncanny ability to take and transmit images over long distances and place them in our living room. In the 1960s, it was the Vietnam War that made its way through the television matrix and into this intimate setting with the American public. In the 1970s and 1980s, international sports programming including the Ali-Frazier fights and the Olympics were beamed live via satellite from distant places and into the homes of the viewing American public.

On September 11<sup>th</sup>, 2001, as the World Trade Centers burned and later collapsed, the American (and the international) public sat staring, amazed at what was happening before their eyes, unaware, really, that the influence of television had finally been realized: it was possible to be anywhere in the world and watch as human history unfolded on live television. This event, like no other, was made for television. Because it took hours for the World Trade Center complex to collapse, the audience had the unique ability to be there in front of it. When the towers finally collapsed, the world was watching... and watching it live. Again, time was winning, space was losing.

## **Information Super Highway**

And then along came the Internet. The computer presented itself as a home-based workstation, which allowed people to take their work home with them, erasing the barrier between home and office. But absent the Internet, the personal

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computer was little more than a high-priced word processor. That all changed when then President Bill Clinton signed the Telecommunication Act of 1996. In that document, Washington set out the rules for telephony, cable television and Internet access. By 2006, many of those new changes had taken effect and a new Age of Communication was born. In just 20 years, the world connected itself, fusing and cataloging ideas in a central data system. It is entirely possible to write something in Istanbul, publish it on the Internet and find an audience in Paramus, New Jersey—all within just a few minutes.

If McLuhan were alive today, he might have to rethink his understanding of the telegraph. He called it the “social hormone,” and suggested that it was a mere extension of the human nervous system. If that’s true, the Internet is the telegraph on steroids. At this moment, it is possible for someone in Rhode Island to have a long and thoughtful exchange with someone in Brisbane, Australia; and by “exchange” I mean, it’s possible for these two people to communicate via telephone, email, text message and/or video conference call. As proof, just this morning, I received 15-seconds of video texted to me from Brisbane of my 2-year-old niece singing her A-B-Cs. The video is cute, intimate, easily shot; it was produced and transmitted around the globe; and it was done so almost seamlessly with a cellphone. As if the act were an extension of my brother-in-law’s nervous system, he made the decision to create the video and produced it and transported it over the face of the planet in a mere matter of seconds. He might as well have an Internet connection surgically hardwired into his Prefrontal Cortex (Staff, 2010).

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Turning again to Virilio, the time it took for that video to reach me must have been nearly instantaneous, but the distance it travelled was well over 10,000 miles. Comparatively speaking, if the telegraph was shooting postcards between Washington and Baltimore in a process that must have taken minutes; the Internet is shooting the content of textbooks around the globe at lightning speed. Consider the dromology of that for a moment.

Virilio warns us that in our haste to build faster things, we are losing space and our appreciation of spatial places and things; and we are replacing space with motion, which is an affirmation of time, and all that remains is trajectory. We are a species flying down the highway towards some undetermined end and no one has control and no one has any understanding at what will be awaiting us at the terminus. He puts it this way:

Progressively doing away with our awareness of distances (cognitive distances), speed, in its violent approach, distances us from sensible realities; the more rapidly we advance toward the terminus of our movement, the more we regress until speed becomes, in a certain way, a premature infirmity, a literal myopia. So if in the complete clearing of the field of vision (deforestation, desert, glaciers) what is distant visibly approaches, with accelerated travel the connection creates physical distance until the horizon no longer recedes into the distance. (Virilio & Degener, 2006, p. 113)

To hear Virilio tell it, technology is about transporting the human consciousness. We build objects that propel us forth

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and we do so with no regard for what is being left behind, i.e., identity, property, artifacts, animals, natures... and so forth.

In 2007, Alex Wright published his thoughts on the Information Age in a book entitled *Glut: Mastering Information Through the Ages*, and the text was mostly about library science. However, he did apply his thinking to the Internet and suggested that (at the time of his writing) roughly 70-percent of all information had been digitized and most of that could be found on the Internet; he then suggested that the Internet had become a massive bio organism that has the potential to link one human being with any other and, for that matter, all of mankind. The Internet has become a central publishing house where text and sound and photographs and video can be published; further, once someone has published an idea on the Internet, that idea becomes its own thing, with a life of its own, which can serve others. So, the producer can publish the item and die, and yet, the idea will survive in perpetuity (Wright, 2007). The idea will live in a digital library for generations. This would be a strange reversal of fortune for Virilio's ideas: I mean, an idea frozen digitally and preserved would have an infinite lifecycle and the presence of a photograph. It would be an idea frozen in time. Suddenly, the motion forward is halted to a dead stop. What if this immense digitized bio organism is Virilio's terminus? Suppose all of this accelerated activity, this technology, had matured to a point of finality?

I'm sure Virilio would shout at me until his voice was gone; and frankly, I do not think the Internet is a final destination. If anything, the Internet is a paradigm shift away from the physical and towards some ethereal plane. I mean,

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with cellphone in hand, it is entirely possible to come to a dead stop inside a busy train station and lift the phone upward and read a message or look at a video that transports us away from our physical understanding, placing us in a digital place. The body is standing there among the human traffic, but the consciousness is invested in a distant purpose transmitting from a distant place... and Virilio's sense of trajectory is restored. Humankind has built this massive digital beehive and it is quickly becoming the digital playground of the human being.

As such, the race continues... full throttle across an uncharted digital savannah.

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## **The Geo-logic of Immanence: Anselm Kiefer's *Erdzeitalter***

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### **Abstract**

In *A Thousand Plateaus*, Deleuze and Guattari discuss the earth as a relationship between the flows of a plane of consistency, on the hand, and processes of geological strata formation, on the other. Anselm Kiefer's, *Die Erdzeitalter*, is a 17-foot high sculpture shaped from a seemingly random pile of unfinished canvases and random objects that range from dried sunflowers to books made of lead. Seen through the lenses of Deleuze and Guattari's geo-logics of immanence, Kiefer's installation appears as a project of *territoriality* – i.e., a living being's campaign to establish rhythms and coordinate flows within its environmental milieu.

**Keywords:** Anselm Kiefer, Gilles Deleuze, philosophy of art, Margulies, stratification, *ritournelle*

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## Introduction



*Die Erdzeitalter, 2014 reprinted with permission  
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In, *A Thousand Plateaus*,<sup>1</sup> Gilles Deleuze and Felix Guattari describe matter's potential for spontaneous organization taking for their model the processes of geological strata formation.<sup>2</sup> They refer to the earth as both a plane of consistency, "permeated by unformed, unstable matters, by flows in all directions, by free intensities or nomadic singularities, by mad or transitory particles," and as fixed into relatively discrete layers, or *strata*, that draw upon and organize the diversity of the earth's flows.<sup>3</sup> The function of strata:

consists of giving form to matters, of imprisoning intensities or locking singularities into systems of resonance and redundancy, or producing upon the body of the earth molecules large and small and

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organizing them into molar aggregates.<sup>4</sup>

Strata are spontaneously-organizing derivatives of the plane of consistency and as dependent on its flows as a tick's digestive system is on a mammal's blood or a crystal's hard latticework is on a supersaturated solution.<sup>5</sup> The strata re-orient and interrupt the flows of the plane of consistency and, in doing so, produce the world's inorganic, organic and alloplastic diversities. Explaining how these diversities arise spontaneously from free flows of unstable matters is the principal task of the different geo-logics outlined by Deleuze and Guattari in *A Thousand Plateaus*.

Anselm Kiefer's, *Die Erdzeitalter*, is a 17-foot high sculpture shaped from a seemingly random pile of unfinished canvases, interspersed with dried sunflowers, boulders, lead books, torches, unused rolls of canvas and rubble.



*Die Erdzeitalter*, 2014 (gouache and charcoal on photographic paper)  
Margulies Foundation

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Two large paintings – *Erdzeitalter* and *Stratigraphie* – flank the sculpture on either side. Lining both canvasses are vertical lists of words, like “*archaikum*” and “*mesozoikum*,” direct references to the ages of the earth. A large photograph of a pile of canvasses, boulders, books and torches, washed with white and grey gouache, dominates the center of the murals. The pile of canvasses in the center of the room and the photographs centered on each mural resemble each other, but are not identical.<sup>6</sup>



*Die Erdzeitalter, 2014, Margulies Foundation*

In *Erdzeitalter*, Kiefer parallels processes of artistic production with those of geological stratification. Viewed through the lens of Deleuze and Guattari’s geo-logics of immanence, Kiefer’s installation appears also as a project of *territoriality* – i.e., a living being’s campaign to establish rhythms and coordinate flows within its environmental milieu.

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Deleuze and Guattari term this other kind of immanent logic, specific to organic strata, the *refrain (ritournelle)*. Kiefer's installation, *Erdzeitalter*, then combines two logics of immanence - the inorganic logic of stratification and the organic logic of the refrain.<sup>7</sup>

### **Strata**

For Deleuze and Guattari *strata* are an effect of spontaneous tendencies toward organization exhibited by processes of becoming. Deleuze and Guattari prioritize becoming over being and argue that beings are only relatively stable states on their way to becoming something other than what they are. The juxtaposition of different strata side by side (*parastrata*) or stacked one on top of the other (*epistrata*) retards and redirects the restless elemental, molecular and molar flows which the strata organize.

Though strata rely on and augment one another, each stratum considered on its own reflects the same degree of complexity as all the others. For Deleuze and Guattari:

Above all there is no lesser, no higher or lower, organization; the substratum is an integral part of the stratum, is bound up with it as the milieu in which change occurs, but not as an increase in organization.<sup>8</sup>

For example, the human hand and the tools that extend it form the technological content of what Deleuze and Guattari term, the *alloplastic* stratum. However, the human hand itself draws from a substratum, i.e., the “prehuman soup immersing us,”<sup>9</sup> and this organic stratum is no less complex than the technological stratum which draws from it. The substratum is related to the stratum “as the milieu in which change occurs”<sup>10</sup>

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but not as higher and lower points along an hierarchy of increasingly organized levels. In fact, the relationship between the two is reversible, since the technological stratum can itself furnish a medium from which organic life flourishes, like the *alcanivorax borkumensis* bacterium that feeds off industrial petroleum residues.<sup>11</sup>

### Stratigraphy

Kiefer structures *Erdzeitalter* around the notion of stratification. The installation is composed of a massive central sculptural piece, seventeen feet high and formed by layered paintings. Inserted into the stack at several points are lead-backed photographic rolls whose images snake down the stack at diagonals, resembling fissures through layers of rock. Wedged among the canvasses sit seven actual rocks ranging from the size of a fist to that of a small pumpkin, painted grey or dark red. Piled on the floor around the canvas stack is a conspicuous layer of dirt, dried paint, rock and broken ceramic.

Kiefer has hung two large murals on either side of the entrance to the room. The murals are dominated by photographs of a similarly layered stack of canvasses, washed in white and grey strokes of gouache, and pieced together from panels of gelatin silver print. Written in chalk at the top of the left mural is the word *Erdzeitalter* – “Ages of the World.” Written at the top of the mural on the right is the word *Stratigraphie*. The photograph centered on each mural partitions each into left and right columns.<sup>12</sup> Written in German down the columns in white pastel are the names for different geologic epochs. For instance, the left column of the

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left mural reads from top to bottom - Cenozoic, Mesozoic, Paleozoic. On the right column of the same mural are listed the names given to the specific rock formations – for instance, upper cretaceous (*Überkreide*) and lower cretaceous (*Unterkreide*) – names that describe rock formations from the Chalk group.<sup>13</sup> Kiefer has even suspended two sizeable rocks from the top of the right-hand mural that rest on it and jut out vertically. Products of stratigraphic processes themselves, the rocks rest on the gouache-washed photos of a similar stack of canvasses at the center of both murals. Interestingly, these photographic images have been pieced together by a process of collage where sections of the image are layered over one another to make up the overall image.

The two murals act as a key that deciphers the installation as a whole. The collaged photograph at the center of each mural acts as the double of the stack of canvasses at the center of the room. This *doubling* functions as the central axis of the installation, since through it, Kiefer signals that processes of artistic creation parallel the way the earth forms new strata. The generation of artistic productions - like this installation - observes the same dynamics as the earth when it adds new layers.

Scientifically speaking, stratigraphy names a field within geology that studies rock layers, or *strata*. The earth forms new strata when the action of air and water cause sediments to spread out and build up over a determinate area. The increasing weight of the thickening layer pushes out water leaving behind a ubiquitous mineral residue that acts like cement. Through compaction, the layer's mud and sand fuse and this residue eventually transforms into rock.<sup>14</sup>

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These processes of layer formation are immanent to the materials involved and occur in a non-deliberate, *non-intentional*, way. The earth - for a moment hypothetically anthropomorphized - does not *aim* to sheath itself in new rock. The mud, rock, water and wind do not have in mind getting together to form a new layer. New strata follow from how wind and water, mud and minerals, flow and form beds that harden into the earth's new layers. The laws that govern the formation of new strata are not imposed on the elements. The formation of strata occurs through physical dynamics immanent to the materials themselves. They arise from them spontaneously.

Kiefer's installation suggests that the artistic process occurs in a way similar to geological stratification.<sup>15</sup> The stack of canvasses and other materials present at the center of the room confront the visitor with a diversity of artifacts that seem haphazardly arranged. Closer inspection undermines this expectation, since Kiefer has arranged these works so the content can be seen. The paintings on the bottom of the stack face up. At roughly five feet off the floor, the arrangement shifts so that the canvasses face down, making the contents partially visible. In geological terms, the arrangement of the canvasses recalls the position of someone standing at an elevated point in a canyon with rock layers extending above and below them.

Stratigraphic processes are *non-intentional*, spontaneous processes. Additionally, they are creative without being anthropomorphic. Kiefer emphasizes the non-anthropomorphic character of the creative by contrasting layered artworks to layered rock layers in several places in the

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room by listing the names of the rock formations prominently in both murals and by placing actual rocks that rest both on the murals and on ledges formed by the stacked canvasses. However, some of the parallels with geological stratification are even more explicit. On the side of one of the canvasses in the middle of the room, five feet off the floor, the artist has written in pen the phrase, “370,000,000 Jahre.” This number corresponds to the age of Carbon listed on the right-hand mural, an era Kiefer identifies with the athropocene, or the age of man. With this inscription Kiefer implies that the entire installation belongs within a specific stratum - the Carbon stratum.

### *Ritournelle*

With *Erdzeitalter*, Kiefer suggests that artistic production and strata formation share a similar *geo-logic*. In *A Thousand Plateaus*, Deleuze and Guattari argue that human beings do not hold a monopoly on artistic phenomena. The immanent, spontaneously organizing processes exhibited by geological strata formation can be seen as well in the relationship all living things have with the environmental milieus which sustain them.<sup>16</sup>

The phenomenon of a living being’s *territory* already constitutes for Deleuze and Guattari the fundamental artistic production. The songs of the songbird do not originate from the animal’s subjective response to the objective environment - the fields and streams - it inhabits. A living being’s territory forms on the basis of interventions it accomplishes with the organic and inorganic flows that constitute the environmental milieus of the strata that sustain it. For Deleuze and Guattari,

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the iconic screeches and whimpers emitted by blue jays when they return to South Florida backyards each October are the keys the animals use to unlock the territory that corresponds to them from the tropical milieu.

If an animal's territory constitutes the first product of art, art-production does not originate with specifically human activity. As Deleuze and Guattari reason:

Not only does art not wait for human beings to begin, but we may ask if art ever appears among human beings, except under artificial and belated conditions. It has often been noted that human art was for a long time bound up with work and rites of a different nature. Saying this, however, perhaps has no more weight than saying that art begins with human beings. For it is true that a territory has two notable effects: *a reorganization of functions and a regrouping of forces.*<sup>17</sup>

Territory develops as the consequence of a successful campaign of adjustments in which an animal engages to fit itself to the resource flows that constitute its milieu. During this campaign, the rhythms between the milieu and the animal become more pronounced, the energies formerly committed by the animal to marking practices free up for forms of expression that extend beyond reinforcement of territory. For Deleuze and Guattari, these expressions then:

...no longer constitute placards that mark a territory, but motifs and counterpoints that express the relation of the territory to interior impulses or exterior circumstances, whether or not they are given. No longer signatures, but a style...We can then say that

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the musician bird goes from sadness to joy or that it greets the rising sun or endangers itself in order to sing better than another, etc. None of these formulations carries the slightest risk of anthropomorphism...It is instead a kind of geomorphism.<sup>18</sup>

The inorganic stratum exhibits immanent alchemies when sediments, bedded in a locale, compact and transform into layers of limestone or chalk. For Deleuze and Guattari, the organic stratum exhibits its own immanent processes. The refrain structure of bird calls, the patterned shells that house tortoises and crabs, exhibit rhythms that bear the marks of how these living beings called forth a territory from the milieu with whose resource flows they successfully coordinated. During the process both animal and milieu experienced modifications.

*Only after* this synergy of organic being with its territory crosses certain thresholds does the dimension of subjectivity emerge. The subjective emerges, not as a region of freedom and unconditioned activity, but as a further deepening of the organic stratum developing in new directions. The blue jays no longer screech and whimper to mark out a territorial space-time of mosquitoes, nuts and small lizards, but as a way of elaborating the distances one jay makes with its flock mates. Variation in mating calls occurs even in the absence of potential mates or when the individual is on its own, outside the range of other jays. Here, again, we encounter immanent processes of organization peculiar to the organic stratum that have neither an intentional nor deliberate character. They develop as the immediate lived response to interior energies surpassing the rhythms established between

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the animal and its territory. This excess occurs as spontaneous variation and a further deepening of the animal-artistic.

Inorganic strata formation occur through sedimentation and compaction. For Deleuze and Guattari, organic strata also exhibit their own immanent processes, like the *refrain (ritournelle)*. The refrain is a set of strategies a living being employs to call forth a territory from associated milieus. Deleuze and Guattari find evidence for the refrain in the behavior of the five-year-old who continually repeats a nursery rhyme as it rocks in the new apartment; in the tune the parent hums as he prepares the evening meal; in the off-beat tapped out by an executive as she works her way through the annual report. Each one exhibits refrain behaviors as ways of invoking rhythms among the flows that constitute their milieu(s) in order to manifest territories from them.

From this deepening of the animal-artistic the subjective emerges, not as a dimension cut off from an outside, objective world, but as a *folding (la pli)* and extension of the phenomenon of territory, a phenomenon reducible neither to the animal's behavior nor the milieu's flows alone.<sup>19</sup> For Deleuze and Guattari, the fold is the *outside made inside, territory made subjectivity*. Art behavior then begins with the event of territorial emergence, as behaviors once dedicated to framing an abode from a milieu are increasingly *de-territorialized* and re-coordinated to respond to newly experienced internal impulses.

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### **Photos and Sunflowers**

Two conspicuous elements of Kiefer's *Erdzeitalter* invoke Deleuze and Guattari's notion of territory and the refrain as organizing principles of the animal-artistic. They also gesture in the direction of a possible third organizational principle beyond these two.



*Die Erdzeitalter (photographic paper on lead) 2014, Margulies Foundation*

The rolls of black and white photographs that snake among the canvasses form threads woven vertically through the layers of the stack. The photos include images from the artist's childhood, his home town, and events that point to Kiefer's relationship as both a German and an artist in post-WWII Germany. For instance, one strip includes photos of toy soldiers arranged on a table. Another shows toy boats floating in a zinc bath-tub, given to German households by the health-obsessed third Reich. Two other photo strips include a

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barn and the steeple of a church with trees and fields in a rural winter scene. Others include images of Kiefer himself in a rural landscape interspersed with scenes of the same small town. Another series shows a young Kiefer in the mountains, dressed in a brown Nazi uniform and delivering the *Sieg Heil* salute.

Strung among the piled canvasses, the strands of photos suggest that these historical events and places act as a constant for the artist's output in much the same way water or air permeates the processes of inorganic strata-formation. For instance, the photos of Kiefer making the Nazi salute invoke an early period in Kiefer's artistic career.<sup>20</sup> The inclusion of these photographs threaded vertically down the stack of canvasses suggests that this set of experiences continues to manifest its effects even in works that, on the surface, have nothing to do with the history and places captured by the photos. In "History's Flight: Anselm Kiefer's Angels," Gerhard Richter (2002) describes how Kiefer's process links the problematics of thinking history - including personal history - with the present installation's variety of mediums:

The technique of imbricating a variety of materials and thematic images belongs, as a historicizing practice, to an aesthetics of subterranean relays linking objects and thoughts, which on the surface seem to have little to do with one another...The haunting image of history that emerges from the fragmented materiality of such uneasy relations is always in retreat, even as it ceaselessly calls upon us to revisit questions concerning the space in which memory, politics, and figuration intersect.<sup>21</sup>

## *Erdzeitalter*

By juxtaposing the photo-threads with the canvasses, Kiefer establishes a network of “subterranean relays” among the historical, political and social realities of post WWII Germany and his artistic activity. In the language of Deleuze and Guattari, these relays establish rhythms that constitute both his territoriality and mark the thresholds of his subjective fold.

A second element of the installation also aligns with Deleuze and Guattari’s logic of the refrain. Leaping from the circumference of the canvas stack are roughly 30 dried sunflowers, painted silver-grey and splattered with bits of orange and white paint. Concentrated in the lower half of the piece, they extend the radius of the central installation by four to six feet. The stems of the plants arc away from the canvasses but their flowers either turn back to face the stack or they face downward, toward the layer of debris scattered on the ground of the installation space.



*Die Erdzeitalter, 2014, Margulies Foundation*

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Sunflowers are a common motif in Kiefer's works where they are linked to themes of fecundity and the connection between the organic cycle with the cosmic order.

For instance, in the painting, *Aschenblume* (1983-1997) Kiefer depicts an immense image of the mosaic hall of the Reich Chancellery to which he has attached an inverted sunflower along the painting's central axis missing both flower and seeds.<sup>22</sup> Overlapped on the painting, the inverted flower guides the interpretation of the image. It suggests that despite the force of the aura triggered by the kind of political space evoked, the natural order's potential fecundity is stripped of its potentials. If in *Aschenblume* the sunflower figures as a warning about a certain kind of political space and as an antidote to it, in another work of the same name (*Aschenblumen*, 1995), the image of the sunflower functions as a fertility totem representing the body's potential for rebirth. In this work Kiefer paints himself lying at the base of an enormous sunflower that dwarfs him. A similar image occurs again in the 1995 painting, *Sol Invictus*, where Kiefer paints himself lying at the base of a sunflower that sheds a thick black rain of actual seeds over him.

These paintings and others from this period invoke a transformation theme evident early in Kiefer's career. In the 1971 watercolor, *Reclining Man with Branch*, Kiefer depicts the washed-out outline of a man's body lying on the ground with a plant rising from his stomach. The post-1995 works develop the leafless plant of *Reclining Man* into healthy, enormous flowers shedding their rain of seeds over the artist's supine body and, in doing so, they suggest that the notion of fertility in the schema of the artist goes beyond a simple

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reference to the reproductive cycle. In these images, the artist's consistently supine body and corpse-like mien contrast strongly with the vigor of the representations of the sunflowers with their enormous flowers, thick tree-like stalks, and heavy rain of seeds with leaves shielding the artist's corpse-like body.

In the light of Deleuze and Guattari's logic of the *ritournelle*, Kiefer's sunflowers take on an additional meaning in *Erdzeitalter*.<sup>23</sup> They represent the moment when the territory-generating behaviors of organic life forms, at the moment of their success, begin to de-territorialize.<sup>24</sup> For this reason the flowers – the only organic material in the installation - neither face out or up, as they do in many of Kiefer's other works, but *in* - back toward the stack - or *down* - toward the earth. In the language of Deleuze and Guattari, the sunflowers of the installation act as motifs for the metamorphosis of energies that occurs when the intensities of the organic stratum deepen to the point where they surpass critical thresholds. Beyond these thresholds, an entirely new stratum begins to unfold – the *alloplastic stratum* - whose matters organize, lobster-style, in the mode of the tool (hand), on the one hand, and that of the code, on the other. The sunflowers of Kiefer's installation then represent the *inter-stratal* moment when the energies of the organic stratum have crossed organic thresholds and are tipping towards entirely new forms of organization.

Anselm Kiefer's *Erdzeitalter* exhibits the artistic process as arising from spontaneously occurring, immanent forms of organization or, to use Deleuze and Guattari's phrase, the logics of the strata and the refrain. The installation

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even gestures to the moment when these two logics cross the threshold into something new – the alloplastic – the strata of code and hand. However, at the point of gesturing toward the possibility of this third form of immanent organization, the installation breaks off. The task of representing the intensities specific to yet another stratum - the alloplastic stratum, with its associated logics of tool and code - Kiefer has carried out across the hall in a second installation where he has placed at the center of a cavernous room two small cement buildings that look like ruins.



*Geheimnis der Fahrne, 2007, Margulies Collection Version, 2015 (clay, argile, ferns, emulsion, concrete), Margulies Foundation*

Surrounding them on two sides are 48 floor to ceiling panels coated with clay and streams of lead, dried ferns, sunflowers, and the dresses of women and children.

## *Erdzeitalter*



*Geheimnis der Fahrne*, 2007, Margulies Collection Version, 2015 (clay, argile, ferns, emulsion, concrete), Margulies Foundation

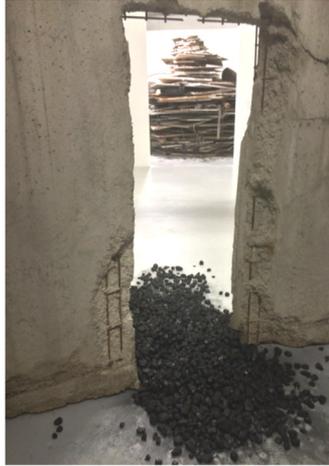
The smaller shelter faces the entrance to the room. Fixed above one of its two entrances is a placard with the word, *Karbon*, burned into it. *Karbon* corresponds to the name of the epoch written on the frame of one of the stacked canvasses and to the list of epochs on the murals in *Die Erdzeitalter*. A pile of coal blocks the entrance to the shelter.

Entering through its second entrance, one sees that Kiefer has carefully framed *Erdzeitalter*'s stack of canvasses through the doorway blocked by coal, recalling Richter's observations, quoted earlier, that Kiefer's artistic practices involve, "imbricating a variety of materials and thematic images." The process of imbrication establishes, "relays linking objects and thoughts."<sup>25</sup>

Having established a series of relays between the two installations Kiefer literally (and deliberately) crosses a series of thresholds as he extends the significance of *Die Erdzeitalter*

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toward another kind of geo-logic – the *alloplastic* - to which he has given the name of Celan's poem, *Geheimnis der Fahrne*, or, *The Secret of the Ferns*.<sup>26</sup>



*Geheimnis der Fahrne*, 2007, Margulies Collection Version, 2015 (clay, argile, ferns, emulsion, concrete), Margulies Foundation

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<sup>1</sup> Deleuze, G. and Guattari, F. (1987). *A Thousand Plateaus: Capitalism and Schizophrenia*. University of Minnesota Press, Minnesota.

<sup>2</sup> I want to thank the curators at the Margulies Foundation for their assistance developing this project.

<sup>3</sup> “10,000 B.C.: The Geology of Morals (Who Does the Earth Think It Is),” in Deleuze and Guattari (1987) pp 39-74.

<sup>4</sup> Deleuze and Guattari (1987) p. 40.

<sup>5</sup> Holland, E. (2013). *Deleuze and Guattari's 'A Thousand Plateaus: a reader's guide*. Bloomsbury Academic: London, pp. 61-62.

<sup>6</sup> The Margulies installation contains the same elements as the 2014 installation at the Royal Academy. The RA described the installation as, “part totem, part funeral pyre” (Danchez, 2014). See also note 12 below.

<sup>7</sup> See Gilmour (1988) on Kiefer’s theatricality. Gilmour locates in Kiefer’s installations a mechanics of *staging* that critiques both Platonic and Aristotelian notions of art and their attendant, “theological theaters.” For Gilmour, the power of Kiefer’s installations to disturb and provoke questioning resides, “in their placing us *between* vantage points which

make sense in isolation but when conjoined produce energetic conflict” (p. 344).

<sup>8</sup> Deleuze and Guattari (1987) p. 69.

<sup>9</sup> Deleuze and Guattari (1987) p. 64.

<sup>10</sup> Deleuze and Guattari (1987) p. 69.

<sup>11</sup> <https://www.scientificamerican.com/article/how-microbes-clean-up-oil-spills/>, retrieved September 2016.

<sup>12</sup> The canvass stack represented in the murals is not identical with the stack of canvasses in the middle of the gallery. This difference in content indicates that the stack in the photograph is from a different installation. The first such installation - *20 Jahre Einsamkeit* - formed part of a two-part installation/performance piece exhibited at the Marian Goodman Gallery in New York in 1993. The current Margulies sculpture and murals derive from the 2014 installation at the Royal Academy, *Ages of the World*. On these, see Schjedahl (2016), Danchev (2014) and Davey (2014).

<sup>13</sup> At the bottom of the left mural and at the base of the photograph of the canvas stack is the word, *Erdzeit* or earth-time. From here two arrows are drawn to two other words, *Paläoarchaikum* and *Eoarchaikum*. These periods correspond to two of the oldest ages of the earth at 4000 million years and 3600 million years respectively. Progress up the right column yields periods that close on the present - the *Kameriun/m*, i.e. Kambrium or Cambrian at 541 million years, and *Devon* or Devonian at 419 million years, and above that *Perm*, or the Permian Age, the latest system in the Paleozoic era at 298 million years.

<sup>14</sup> Deleuze and Guattari also include a detailed description of the dynamics of geological stratification in the 3<sup>rd</sup> Plateau. See (1987) pp. 40-41.

<sup>15</sup> As Lacks (2014) describes this: “Kiefer’s art shows an earth and world relation that is fraught with peril, a relationship where no identity has been established, leaving it up to us to decide. Something new may come out of this tension, but then, again, it may not.”

<sup>16</sup> For Deleuze and Guattari (1987): “...the base or ground of art. Take anything and make it a matter of expression...Of course, from this standpoint art is not the privilege of human beings. Messaien is right in saying that many birds are not only virtuosos but artists, above all in their territorial song” (pp. 316-317).

<sup>17</sup> Deleuze and Guattari (1987) pp. 318-319

<sup>18</sup> Deleuze and Guattari (1987) pp. 318-319.

<sup>19</sup> See chapter 6 in Deleuze (1988).

<sup>20</sup> In 1969 Kiefer – then a student at the Academy of Fine Arts in Karlsruhe – photographed himself in a series of provocative poses whose collection he termed, *Besetzungen* (*Occupations*). Wearing a variety of outfits – from hippie gowns to paramilitary uniforms – he took photographs in different locations throughout Europe performing the taboo *Sieg Heil* Nazi salute. Kiefer’s actions constituted a violation of section 86a of the *Strafgesetzbuch*, which prohibited the use of Nazi symbolism and was a punishable crime. The resulting photographs were given the collective title, *Heroic Symbols*, derived from a 1943 article in the official Nazi arts magazine *Die Kunst im Deutschen Reich* (*Art in the German Reich*) that consisted of illustrations of ‘heroic symbols’ – paintings,

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sculptures and monuments – from German culture. See Weikop (2016), Huyssen (1989, pp. 31-34) and Kuspit (1988).

<sup>21</sup> Richter (2002) p. 117.

<sup>22</sup> For Arras (2001) this inverted flower is intended to act as an antidote to the heroic aura projected by the dimensions of the hall. As Arras describes it, dried out, upside down and absent its seeds “the sunflower contradicts the illusory and authoritarian effect of the perspective and even denounces its authority as an illusion - a deadly illusion - by the way it hangs, head down, its seeds dispersed” (p. 187).

<sup>23</sup> In fact, one of the strengths of seeing Kiefer’s presentation through the lens of Deleuze and Guattari is the extent to which their logic undermines any notion that strata form an hierarchy in their relationships towards one another. As they (1987) emphasize “It is difficult to elucidate the system of the strata without seeming to introduce a kind of cosmic or even spiritual evolution from one to the other, as if they were arranged in stages and ascended degrees of perfection. There is no biosphere or noosphere, but everywhere the same Mechanosphere. If one begins by considering the strata in themselves, it cannot be said that one is less organized than another” (p. 69).

<sup>24</sup> From this point onward, the subjective emerges as a new set of intensities that constitute, not a dimension of unconditioned freedom, but a further deepening of the rhythms associating the animal with its territorial milieu.

<sup>25</sup> See note 7 above and Gilmour (1988) p. 342.

<sup>26</sup> According to Margulies curator, Katherine Hinds, the artist insisted on the gallery layout of this part of the collection. The hallway opposes the gallery containing *Erdzeitalter* to the

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room across the hall containing, *Die Geheimnis der Farne* (*The Secret of the Ferns*). Both installations are conspicuously linked to one another.

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*Animal Constructions and Technological  
Knowledge*

Author: Ashley Shew

New York: Lexington Books, 2017. ISBN: 978-1498543118,  
151 pp, \$85.00

Reviewed by Craig Condella, Associate Professor of  
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The local aquarium, which my family and I visit often, always has several horseshoe crabs on display in their interactive “touch tanks,” since the crabs are quite common in nearby Narragansett Bay. Though the alien-looking creatures are fascinating enough on their own, the volunteers who work there frequently pique the interest of the visiting children by telling them that these crabs were around during the time of the dinosaurs. Though true, the statement rather undersells the tenacity of the species. Whereas the last of the dinosaurs died out a mere 65 million years ago, horseshoe crabs have been scuttling along on the ocean floor for some 450 million years. That fact, along with their morphology and manner of

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existence, leads us to think of them as a primitive species, a long way removed from more intelligent species like dolphins and orangutans, never mind human beings. And while the “primitive” tag is not without warrant, there is a definite sense in which we must rethink these labels more than a century and a half after Darwin’s *Origin of Species*. The horseshoe crab may lack a good deal of what more “advanced” species possess, but its persistence over epochs of geological time evidences a level of fitness that could rightly be the envy of most other animal species, ourselves included. As primitive as we may want to paint it, the horseshoe crab developed what it needed to survive – and survive it has as countless “more advanced” species have passed into extinction during its time on Earth.

I believe this anecdote cuts to the core of one of Ashley Shew’s main contentions in *Animal Constructions and Technological Knowledge*. Western thought, from Plato and Aristotle well into the modern period, has insisted – if not outright assumed – that human beings are essentially different from all other animal species. Beginning with Darwin, evolutionary biology has done much to show that the human difference is one of *degree* rather than *kind*, an insight that has had a profound impact on a good deal of philosophical inquiry. With regard to morality, for example, Frans de Waal’s work with non-human primates has done much in showing how behaviors like empathy, consolation, and even justice can be identified in our closest evolutionary relatives. As Shew points out, however, philosophical reflection in the area of technological knowledge has lagged behind on this front. Indeed, since the ancient Greek myth of Prometheus,

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humans have been granted a privileged place when it comes to the use and creation of technology. Shew does well here to question that place and makes the compelling case that technological know-how doesn't represent a human break, but emerges along a continuum that connects us, not only to other primates, but to a much broader array of species than we might otherwise imagine. The result is a provocative reconsideration of what counts as technology and – indeed – what makes us human.

Throughout the work, Shew takes issue with the notion that human beings alone possess and use technology, an idea that she refers to as the “human clause.” In challenging this assumption, she draws from a wide range of animal research that increasingly broadens the scope of what we might count as technological behavior. She begins, not surprisingly, with non-human primates whose tool-using abilities have generally become well-accepted since the pioneering work of Jane Goodall in the 1960s. Yet Shew goes beyond the ant and termite dipping behaviors of chimpanzees to consider a number of research studies performed more recently that indicate a variety of tool use, standardization in tool construction, a capacity for innovation, an ability to plan, learning behaviors, and a sense of material culture. Examples here include Kanzi the bonobo's stone-flaking method, Sanito the chimpanzee's stone-catching behavior (a warning to zoo visitors!), and Leah the gorilla's water measuring stick. All of these examples suggest that the human clause should, at the very least, be expanded to include other primates, but Shew looks to go further than that, believing instead that the human clause should be “radically revised or discarded altogether.”

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Her successive chapters on cetaceans, birds, and other animal constructions aim to do precisely that.

Most people are willing to concede a certain level of intelligence to cetaceans based on brain size alone, but technology has not traditionally been associated with dolphins, porpoises, and whales. This, in part, involves the way in which we define technology, a bone of contention in the philosophy of technology in general and also an important question in Shew's book. At no point does Shew endorse a particular definition of technology, making it clear by the end that she is not looking to establish an alternative definition to foist upon others.

Some readers might be critical on this front and might view this as an omission, however intentional, or a side-stepping of the question at hand. How, in other words, might we classify technological behaviors if we don't have a clear sense of what counts as technological? Though such a critique might be fair enough, Shew avoids any singular definition and embraces a more expansive view that includes the general categories of technological know-how, on the one hand, and thing knowledge (or what she comes to call encapsulated information), on the other. This allows her to include anything that might count as technology, an inclusion that becomes apparent in her consideration of cetaceans. Though the sponging behavior used by some dolphins in finding food along the ocean floor fits into the classic tool-use model, the fact that dolphins are aquatic and lack the tool-using and making hands of primates means that we should not expect the same types of technological behaviors. And yet, Shew does not want to discount the know-how, social learning, and

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innovation evident in dolphin vocalizations and whale songs, to cite just two examples. In this light, her avoidance of any one definition of technology is not an oversight, but a means to expand our notion of technology in a number of directions in an effort to overcome our human bias and better appreciate the abilities of other animals.

This broadened understanding of technology brings Shew's readers to surprising places, perhaps none more interesting than the tool making of the New Caledonian crows, whose learning behaviors, innovation, and cultural evolution at times surpass the abilities of chimpanzees. The crows' ability to fashion tools with tools (meta-tool use) and their understanding of causal reasoning in the way things work ("folk physics") push us away from the notion that there is a hierarchy of intelligence that corresponds with technological behavior. Instead, we can and should recognize such behavior for what it is. This allows us to avoid the problem of reading animal minds and yet still compare a variety of behaviors as, "we do know what it is like to use and make things, and we can recognize the constructions of other animals as being on the same continuum." This point about overall intelligence is an important one, as Shew believes that tool use should not be used as a barometer for overall intelligence. This misbegotten equation compels us to exclude certain behaviors and constructions as technological – her consideration of beaver dams and spider webs plays prominently here – and to read the absence of tool use as a lack of intelligence, which seems counterintuitive when it comes to dolphins, for example. The latter point is important to consider. Sometimes animals fail to display technological behavior, not because they are

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incapable of it, but simply because it serves no real advantage. Rooks are illustrative in this regard. In the wild, they do not exhibit the sort of tool use that they show to be clearly capable of in lab experiments and the reason why is obvious: they do not need to use or fashion tools to survive in the wild. To return to the horseshoe crab example with which I began, what matters above all in the animal world is the ability to survive. If tools serve that advantage, so be it. In truth, however, most animals evolved in a way that did not require tool use or manufacture – they had everything that they needed, which is why they are still here. To critique their lack of technology becomes another indication of our human bias.

Shew's book culminates in a map of animals' relative technological abilities and behaviors. Along the x-axis she plots know-how, "the knowledge it takes to work, use, or create a device, tool, or construction" while along the y-axis she charts encapsulated information, "the sort of knowledge contained in devices, tools, or constructions." By embracing both models, Shew is able to include the wide variety of behaviors and species that she considers throughout the book and stays true to her belief that "there is no *a priori* reason to bar non-human animals from the category of creators and users of technology." There is no hierarchy here, just a comparative charting of where these behaviors lie relative to one another. Embodied in this chart are two laudable features of Shew's work. First, she draws upon a variety of disciplines – philosophy, anthropology, sociology, and biology – to carefully consider what researchers in each field have to offer and to bring their work together in an insightful way. This opens the book up to a wide array of readers who can approach

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it from a number of different angles. Secondly, it leaves more work to be done. Shew does not contend that her mapping is definitive or final, and there are certainly a plethora of animal species and behaviors that can be plotted along the graph. But what she provides is a framework for thinking about these behaviors and pushing beyond our preconceived notions of what *does* and what *does not* count as technology.

On June 19, 2018, Koko the gorilla passed away at the age of 46. That people around the world mourned Koko's death says something about how far we have come in the last fifty years. As Shew points out early in her work, there is a certain value in humanizing animals, something Jane Goodall recognized decades ago when she stood firm in naming her subjects in her research. There are certainly differences between humans and non-human animals, but there are key similarities as well that can help us to better understand our own place in the world. "Whatever the hallmark of humanity is," writes Shew, "it is not technological capabilities alone; the sorts of things humans do and the tool behaviors that humans display are not unique to humans alone; they are shared with other species in the animal kingdom." In the final analysis, however, we might still wonder what that "hallmark" of humanity might be. Certainly the thing knowledge present in, say, an electron microscope would seem to exceed anything found in the natural world, as would the know-how required to operate it. So is it that degree of sophistication alone that sets us apart? Or might it also be our capacity to intentionally teach rather than learn only by imitation? Then again, perhaps it is our ability to build on our knowledge and accomplishments from one generation to the next. Or maybe

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our uniqueness lies in the fact that we create things that serve aesthetic and not simply useful purposes. Whether it be castles in the sand or the Sistine Chapel, humans seem to have a desire to express themselves through artistic creation, a dimension that Shew does not address here but which might be interesting to consider in light of the analysis she offers. Whether the bowerbird's nest counts as a work of art or simply a way to attract a mate would seem to raise similar questions of intentionality as the spider's web or beaver's dam. Is it art rather than tools that sets us apart or is this another continuum? Perhaps a question for another book, but one certainly worthy of our attention.

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*The Posthuman Body in Superhero Comics: Human, Superhuman, Transhuman, Post/Human*

Author: Jeffrey Scott

London: Palgrave Macmillan, 2016. ISBN: 978-1137549501, 264 pp, \$98.88

Reviewed by Daniel Goff, Ph.D. Candidate, Salve Regina University

Jeffrey Scott's, *The Posthuman Body in Superhero Comics*, is part of the Palgrave Studies in Comics and Graphic Novels series which currently has twelve titles. This series addresses the growing academic interest in comics studies and ranges in focus from the myth of the American western hero to women's manga in Asia. Scott's volume explores post-humanist theory and comic studies in a manner which avoids clear cut binary conclusions and allows for multiple influences. For the purposes of this review, Scott's definition of post-humanism can best be summarized as "the posthuman is an incipient historical condition...a set of ontological theses about the human that never was and never will be...and as a form of deconstructive reading."

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As a methodology for analysis Scott uses Deleuze and Guattari's concept of the rhizome and assemblages which recognizes the post-human body as always in the middle of interbeing. This is a novel approach to post-human theory and comic studies as it allows for a variety of inquiries and perspectives without being overly burdened by more focused modes of analysis such as gender studies, post-Marxism, or a strictly historical approach. Scott weaves in cultural, economic, military, and political perspectives within his analysis which makes for a rich and nuanced understanding of post-humanist theory as it relates to superhero comic books. What Scott adds in breadth with the rhizome methodology he lacks in depth, but when it comes to post-humanist theory and comic studies one singular approach would be insufficient to understand the complexity of forces interacting with the post-human identity in comic books.

The core of Scott's inquiry centers on three distinct, but interrelated, comic genres titled the Perfect Body, the Cosmic Body, and the Military-Industrial Body. The Perfect Body cannot be narrowly defined by what it is but more so by what it can do. Scott posits the Perfect Body to have roots in many areas which brought into question humanity's full potential. Scott explores Darwinism, texts like *Frankenstein* (1818) and *Dracula* (1897), eugenics, and fascism. He sees each of these to be influences on the notion of the Perfect Body where the belief was reinforced that humanity was not in its maximized or ideal state. These currents correspond to the period known as the "Golden Age" of comics where superhero comics first gained immense cultural popularity and acceptance. Heroes such as Superman best represent this

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period as he is portrayed with nearly god like powers and resembles Nietzsche's, "übermensch." Other Golden Age heroes such as Captain America are described by Scott through terms from eugenics. Captain America serves as a good example here because as Steve Rogers he was labeled too "weak" and "unfit" for military service until he was administered the super soldier serum that transformed him into Captain America.

Another shadow cast over the heroes of the Golden Age was the rise of fascism and the Nazi dream of creating a master race. This master race resonated through Golden Age heroes such as Superman and Captain America because they represented a human superlative, which created the identification of a lesser "other" distinct from the identified ideal. It is ironic that the Golden Age heroes of the Perfect Body are analyzed through aspects of Nazi fascism because they were portrayed in their respective comic books fighting Nazi Germany alongside American soldiers in World War II. For example, the first cover for a Captain America comic portrayed the red, white, and blue clad hero delivering a right cross to Hitler, knocking him to the ground.

The Cosmic Body is identified by the incorporation of magic, the occult, and mysticism which were already present in the Golden Age heroes but were downplayed against the powers and abilities represented by the Perfect Body heroes. Scott's Cosmic Body best aligns with the "Silver Age" of comics during the 1960s and 1970s and the counterculture revolution. Marvel comic heroes such as the Hulk, Spiderman, Thor, Doctor Strange, X-Men, and the Fantastic Four represented a new type of hero that challenged the ideal

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of the Golden Age superheroes. A key identifying feature of these heroes was the blurring of science and magic that greatly appealed to society in the 1960s and 1970s. The Cosmic Body heroes of the Silver Age attacked rationalism in favor of elevating human potential through shamanism and the occult. American society during the period experimented with hallucinogenic and other drugs to liberate human potential. Places like the Esalen Institution in Monterey, California were created to maximize latent talent in humanity. While this new age of hero gained popularity during the counterculture revolution, Scott notes that the heroes of the Perfect Body did not cease to exist but, instead, were relegated to share the pages of comic books where they had been the dominating influence only a decade earlier.

The Military-Industrial Body is best understood by Scott through an analysis of the military industrial complex, capitalism, and libertarianism. The post-human body becomes weaponized by the anti-hero which arises out of the “Bronze Age” and carries on to a lesser extent in today’s “Modern Age.” The best example of this transformation is Batman where Scott contrasts the juvenile portrayal of Batman in the 1950s into a dark, psychologically damaged, and violent anti-hero of the 1980s through such works as Frank Miller’s *Dark Knight Returns* (1986) and *Batman: Year One* (1987). Alan Moore’s influential *Watchmen* (1986-87) also contributed to the evolving approach to comic book story telling which emphasized anxiety, realism, and violence. Characters such as Wolverine and Cable were created as weaponized, musclebound soldiers whose violent means characterized superhero comic books during the 1980s and

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1990s. Scott examines the Military-Industrial Body through a transhumanist lens which he attributes to libertarianism and capitalism. While Scott makes a compelling case for this comparison it does not fully encompass all the philosophical perspectives of transhumanism and overplays the role of the military in the violence exhibited by society in the 1980s and 1990s.

The second half of Scott's work is less structured than his opening analysis of the Perfect Body, Cosmic Body, and Military-Industrial Body. Nonetheless, it is informative and examines thought-provoking topics such as the Animal Body and Artificial Body, includes a chapter of interviews as well as further application of transhumanism and post-humanist theory applied to superhero comic books. The best analyzed portions of this section are those concerning the Animal Body and Artificial Body which could be entire books if Scott had elected to open his examination of comic books beyond the superhero genre. The interviews Scott conducted are interesting because they compare and contrast the interpretations of comic book readers as they pertain to ideas presented in other sections of Scott's book. However, the scope, sample size and regional homogeneity of the participants are questionable in advancing convincing arguments of specific conclusions. The last three chapters further develop Scott's analysis of the rhizome and assemblages, transhumanism and post-humanism, and comic books but are redundant and would be better served as part of a larger conclusion.

Possible criticisms of Scott's focus on superhero comics is that it is too narrow, excludes many other genres and

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represents a white male patrimony. This is a fair critique especially considering the depth and breadth of perspectives represented by today's comic book industry. While superhero comics represent the clear majority of comic book sales and have penetrated American culture through movies, television, and merchandise, there are many other independent and creator owned comic books and graphic novels which offer an alternative to superhero comics. However, no genre has the historical legacy or cultural identification possessed by superhero comics, and this combination of factors validates Scott's decision to focus on superhero comics as appropriate and best suited for his analysis.

Scott's, *The Posthuman Body in Superhero Comics*, is a valuable addition to the growing field of comic studies as it demonstrates the interdisciplinary innovation possible within the discipline. Scott weaves in a variety of contributing factors to create a unique and compelling analysis of post-humanism as it applies to superhero comics while omitting narrow absolute conclusions. The strength of Scott's methodology is that it can be applied to other comic book genres or even to a specific series, if a researcher wanted to narrow the scope of inquiry. While Scott's, *The Posthuman Body in Superhero Comics*, is analyzed through the philosophical perspectives of transhumanism and post-humanism, it is still accessible to readers of comics studies because it does not rely on philosophy to develop its main points and observations. While a background in philosophy would be helpful analyzing Scott's work in detail, the analysis presented can be appreciated by any number of social science

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and humanities disciplines, which is why this book is a welcomed contributor to the field of comic studies.

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## *Re-Engineering Humanity*

Authors: Brett Frischmann and Evan Selinger  
Cambridge: Cambridge University Press, 2018. ISBN: 978-1107147096, 430 pp, \$20.04

Reviewed by Sara Kourtsounis, Adjunct Humanities Instructor, Herzing University; English Instructor, North Carolina Virtual Academy

How important is my Fitbit or the running app on my phone? After reading, *Re-Engineering Humanity*, I have begun questioning my choices and taking more to think before I click, “I accept,” online. What am I really agreeing to? These thoughts have been in the back of my mind over the past year as I think about my family in today’s digital world. Even with this awareness, I still belong to that group that clicks through quickly without much thought about the costs to myself. Since having my son, I have begun thinking more about this even though many do not want to hear my slippery slope arguments regarding social media, which I do use every day.

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Then I found this book. Brett Frischmann and Evan Selinger offer a vocabulary to express these worries and concerns. I am not a doomsday alarmist but a pragmatist with an idealistic view of the world, though I can also be a realist when it comes to my children. *Re-Engineering Humanity* is for anyone who has ever felt this way or questioned why it is so easy for people to click, “I accept,” or wondered how much choice we have in this digital age. Though this is an academic text, it is not written only for the graduate student with the time to read, digest, and discuss its topics.

*Re-Engineering Humanity* asks, “Is technology making us behave like simple machines?” The fear this statement provokes arises from wondering if we (humans) could become (or have become) programmable through predictability. This would make us no better than a machine. That brings us to the basic premise of this book, that is, *techno-social engineering*. What is it, how does it affect us, and what does it do (to us)? Throughout the introduction examples of *techno-social engineering* are given to explain what it is and why a whole book should be devoted to exploring its positive and negative potentiality. At times the examples remind one of the thought police or Big Brother in Orwell’s *1984*, or of glass houses in *We* by Zamyatin that beg the question, “where is the line in the sand?”

There are four parts to the text. In part one we see the author’s observations, examples of thought experiments and a review of slippery slope arguments along with a reflection on why *techno-social engineering* is hard to understand, and why this is a dilemma humanity must face. Part two offers an examination of what the authors consider to be the three major

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influences behind *techno-social engineering*: instrumental reasoning, scientific management of human beings (Taylorism), and ease of design of technologies that creates an auto-pilot approach for human beings. Part three takes the first two parts and creates a framework designed to identify and evaluate instances of techno-social. The fourth part concludes the text and contains the author's call to action, or in this case, their call to freedom. It offers strategies, "to mitigate humanity's techno-social dilemma and redirect techno-social engineering to sustain humanity" (p. 13).

Personal stories are used to explain scientific terms and keep the text accessible, and while these are interesting and illustrative, they are subjective examples told to tug at emotions rather than appeal to logic. Further, at times language and examples are biased and push to persuade through emotional responses rather than logic and reason. This makes the book a good read for those like me already thinking about these topics and looking for the right words to describe it, but it may not convince someone on the fence concerning these issues.

For example, in the first part of the book, one author recounts a story about his son (p. 21). A critic might not take the points made here seriously because the appeal made is personal and not an objective observance conducted in a scientific setting. At the same time, it is hard to objectively observe human interactions with various social technologies, since, by design, these are ways humans interact with themselves and one another, making it subjective by nature. Overall, I do not believe it takes away from the overarching

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message of caution presented in the book, but it is worth a note to make readers aware of the book's shortcomings.

Chapter seven focuses on smart technology and does well in defining its terminology in terms that are readily accessible. Here Frischmann and Selinger not only talk about the smart technologies of today, but they also delve into print media, TV, and radio as mediums of techno-social engineering. This chapter provides important context and history while adding credibility to their arguments.

I began talking about signing contracts by clicking, "I accept," when downloading a new app or signing up for an online account. Through the use of examples and the explanation of various theories, the purpose of this book is to make sure human beings do not aimlessly act like simple machines. We are not just more advanced forms of AI. Ultimately, *Re-Engineering Humanity* offers insight into how and why we think the way we do and the part techno-social engineering plays in that.

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*Technosystem: The Social Life of Reason*

Authors: Andrew Feenberg  
Cambridge: Harvard University Press, 2017. ISBN: 978-0674971783, 256 pp, \$31.32

Reviewed by Emma Stamm, Ph.D. Candidate, ASPECT,  
Virginia Tech University

Philosopher of technology, Andrew Feenberg, has devoted his career to exploring the evolving relationship between technology and society. His latest book, *Technosystem: The Social Life of Reason*, represents decades of work toward this end. *Technosystem* brings together various contemporary philosophical interventions in technology in an attempt to articulate a new ethics of tech. By Feenberg's account, developing and affirming this ethical program will allow mankind to restore the democratic potential of the "technosystem," his name for the overlapping technical practices, artifacts and ideals that constitute "the framework of our existence" (203). For Feenberg, the technosystem has no predetermined moral code: it is up to us to build it, for the benefit of the many.

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If it achieved this aim, it would be a major accomplishment. However, it is not clear that the compass it provides is as comprehensive as Feenberg would have it seem. *Technosystem* has many merits, not the least of which is its careful synthesis of a staggering array of sources. With a gift for conceptual sleight-of-hand, Feenberg weaves threads between perspectives often viewed as irreconcilable, and, for the most part, too erudite for non-specialists to comprehend. The text is also notable for maintaining a clear and accessible tone through its final pages, noteworthy considering its theoretical density. For this reason, *Technosystem* will be of interest to scholars invested in modern thought on technology and society. Considered as an account of important trends in theoretical treatments of digital and networked technology, the book delivers. However, it is not the ethical guide it sets out to be.

Most movements addressed in *Technosystem* fall into two categories. The first is Marxism and Marxist theory, which includes Marxism after Foucault, The Frankfurt School, and critical theory. The second is Science and Technology in Society (abbreviated as STS, and sometimes understood as “Science and Technology Studies”), the interdisciplinary field which gained traction in universities in the final decades of the twentieth century. Feenberg counts the concepts of social and critical constructivism, along with sociologist Bruno Latour’s influential Actor-Network Theory (ANT), among the offerings of STS to his technology ethics.

The ideas which bridge the gap between Marxist philosophy and STS are most important to *Technosystem*’s aims. Feenberg identifies such a bridge in critical

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constructivism, a theory which shares a profound anti-determinism with Actor-Network theory. Critical constructivism draws from ANT and the social constructivist movement to highlight the importance of interpretation and contingent forces in understanding technological development (48). By Feenberg's observation, critical constructivism "puts STS in communication with The Frankfurt School" and is "not so much an alternative to STS as an invitation to open the field to a wider range of philosophical and social theories of modernity" (38). He departs from an overview of critical constructivism to champion Gilbert Simondon, a philosopher better known in Europe than in the United States and a major influence on Herbert Marcuse. However, unlike Marcuse, Simondon's writings emphasize technological progress in purely technical, not economic, terms. Thus, critical constructivism appears as a more natural fit as a conceptual framework for STS, not political theory (66). According to the author, his insights can be read in concert with Marcuse's, *One-Dimensional Man*, in the interest of a more critical philosophy of contemporary technological development (84).

The discourse on Simondon and constructivism completes *Technosystem's* section on methods, in which the terrains of STS and Marxism are plundered for whatever purpose they may find in the required applied techno-ethics. *Technosystem* proceeds from there to its primary case study: the world wide web. Here, it begins to veer off course. Feenberg attempts a systematic application of his hybrid post-Foucault/Marxist / STS framework to the Internet. In selecting the Internet as the main object of his critique, Feenberg implicitly — and correctly — acknowledges its value as an

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exemplar of “the technosystem” as both an abstract concept and quotidian reality which demands ethical scrutiny.

Feenberg initially portrays the Internet as a unit, that is, as a single entity with at least enough internal cohesion to justify it constituting a single case study. However, his assessment of the Internet relies on his repeated exhortation that it is *not* to be understood as a whole. This is the basis on which he dismisses Jodi Dean, whom he accuses of deploying Alexander Galloway and Eugene Thacker toward a reduction of the Internet to a single rigorously integrated system (100). He commences his excoriation of Dean by claiming that her work emphasizes cultural theory and political economy at the expense of a fair account of web technology, a mistake he also attributes to Marxist digital studies scholar Christian Fuchs (99).

Opposing Christian Fuchs and Jodi Dean (and via their use of Dean, Eugene Thacker and Alexander Galloway), Feenberg attempts an analysis of the Internet that foregrounds the multiplicity of its constitutive social and technical forces. He focuses on two of these forces — “business interests” and “community actors” — whose long-term goals for the Internet he describes under the titles “consumption model” and “community model” respectively (100). Among the many ways to conceive the building blocks of the web, Feenberg selects “consumption” and “community,” ostensibly because they are so essential, although he does not go so far as to clarify why these are more useful notions than any other formulation of internet-constitutive forces.

He explains the effects of these two drives, business and community, in terms of the “collaboration and struggles”

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(101) between them. He says this to explain a fundamentally chimeric nature of the Internet and to explain why we can't distill any irreducible essence or set of principles to the web. Feenberg offers that the aforementioned technology thinkers are in error insofar as each predicates their critique on notions of essences and principles, albeit in their own unique ways (101).

He distinguishes his project from such purportedly reductive analyses by offering that “business” and “community” have signature, shifting impacts on the web, a position he substantiates primarily from his technical understanding of web infrastructure. Content Delivery Networks (CDNs) — a term he incorrectly places in apostrophes — is his example of how business interests have shaped web infrastructure. On the other hand, Transmission Control Protocol/Internet Protocol (TCP/IP) is privileged as an ideal “non-hierarchical structure” that “complicates business applications while favoring public usages” (102). These examples appear to be cherry-picked as evidence for Feenberg's point. His over-selectivity and crude grasp of CDNs and TCP/IP undermine the viability of *Technosystem's* overall project. His discourse on TCP/IP correctly observes that they were developed to fit the Internet's original purpose as a Cold War-era military communications structure rendered resilient against possible nuclear attacks via decentralization. By scholarly and popular convention alike, DARPA is typically understood as the originator of the Internet. But for the Internet Feenberg engages, a more logical chronology would begin with Tim Berners-Lee, the computer scientist credited with the invention of the World Wide Web in 1989,

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and who did more than anybody else to make the Internet publicly accessible.

Feenberg states that “advertising as a revenue source came rather late to the Internet” (103), which is true if its birth is dated in the 1960s. However, his task is to assess it for its social significance. As a phenomenon affecting the many, not the few, the Internet only really came into existence in the late ‘80s and early ‘90s, after the introduction of web browsers, HTTP and HTML. Around that time, many innovators were beginning to develop methods to profit from the technical capacities of the web. This in turn led to the business model of Web 2.0, which comprises the monolithic platforms and network effects that have made Facebook, Amazon and Alphabet (Google’s parent company) some of the most profitable businesses in the world.

There are a handful of other glaring holes in Feenberg’s vision of the web: surveillance is given almost no attention, let alone emphasized as key to its business model. The spread of the Internet beyond what we typically understand as “computers,” exemplified by the Internet of Things and 3-D printing, is likewise mysteriously absent. Instead, Feenberg concocts a haphazard analogy between social media and sidewalks that is invoked as proof that not all activity on the Internet counts as labor in the Marxist sense. In this metaphor, Feenberg tells us that the major commodity of the Internet is not the communications that transpire on it, but the space effectively “rented” by advertisers through social media and search engines (93). That Google, Facebook, *et al.* surveil and extract highly profitable data from the end-user communications they facilitate is not remarked on, not to

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mention the fact that brick-and-mortar sidewalks are themselves sites of surveillance instrumental in re-inscribing political and economic hegemony.

Although the section on the Internet does not compose the majority of the text, it is significant as the testing ground of its project. *Technosystem*'s raison d'être is boldly to affirm the democratic possibilities of technology. It is a rationale for a thoughtful embrace of innovation, and its discourse on the Internet is given as proof. Feenberg adopts the reflective, but ultimately sunny, outlook of Herbert Marcuse. Marcuse's new concept of reason in *One-Dimensional Man* was supposed to offer an escape from the inevitable path of reification and cultural disenchantment prophesied by György Lukács and several members of the Frankfurt School. A Marcuse-inflected sense of hope pervades Feenberg's account of the interfaces between various schools of thought. Unfortunately, in his serious misconception of the web, Feenberg fails to demonstrate that the ethics implied by these connections could ever be pragmatically adopted.

If the technosystem can be leveraged toward beneficial ends, it won't be without a major shift in politics. The required revolution is not within the realm of technoscience, and it certainly won't come from an end-goal based on leveling the conceptual playing field between technological development and political economy. The technosystem emerges from, and will always be determined by, the financial system whose demands it has evolved to fulfill, even if these provisions allow for certain small subversions. Although his goal is noble, Feenberg so critically underestimates the difficulty of rescuing the technosystem that it undermines the work as a

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whole. If readers of *Technosystem* share Feenberg's ambition, they would be better served by reading the work of any of the thinkers that populate its pages — in particular, those he renounces.