

# The EXTINCTION IMAGE

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**Abstract** This essay explores the artist Gregory Chatonsky's development of a new type of image—the extinction image. Emerging as a by-product of new technologies such as deep learning and neural nets, this nonoperative image is typified by a painstaking attempt to come to grips with the current threat of human extinction. It arises as a symptom of numerous crises endemic to the Anthropocene, providing a speculative tool for planetary thinking to develop alternatives in and through what has been called *postcinema* by scholars such as Steve Shaviro and Shane Denson. For Chatonsky, the Earth itself must now be imagined as a disarticulate user of postcinematic media, producing images that display a stunning indifference to the presence or absence of the human species. Close examination of Chatonsky's work will reveal a radical ecopolitics defined by a concern for what Alexander Galloway has called *whatever being*. Urging us to think carefully about the planetary emergency presented by climate change and geopolitical unrest, the extinction image serves as a reminder that the future of life on Earth is not a foregone conclusion.

**Keywords** Gregory Chatonsky, Harun Farocki, operative image, Alexander Galloway, Bernard Stiegler, Benjamin Bratton, planetary design

## ***Extinction or Interaction?***

In his recent book, *Uncomputable: Play and Politics in the Long Digital Age*, Alexander Galloway (2021: 236) identifies what he calls a “tragedy of interaction” endemic to contemporary computational environments. Rather than realizing an emancipatory politics through the creation of a digital commons, personal computers, smart phones, and the internet are used to exploit, extract, and surveil their users. As described

by the likes of Shoshanna Zuboff (2019) and Bernard Stiegler (2019), computational technology has become synonymous with financialization and control, overshadowing previous dreams of liberation from industrial discipline through networked modes of becoming. For visual culture, the birth of surveillance capital coincided with the artistic and theoretical interrogation of images deemed operational by media scholars and artists such as Harun Farocki (Hoel 2018; Pantenburg 2017). The explosion of drone footage and surveillance images onto TV and computer screens during the Gulf War led to the realization that images served no longer to just represent reality. They started acting on it in astounding ways. Images began “recognizing and tracking targets,” an intertitle from Farocki’s *Eye/Machine I* (2001) explains, as drone missiles are guided on the battlefield with surgical precision. While the everyday circulation of machinic images serves to invoke “empathy for the technology of war” and capitalist production, Farocki imagines a mode of counteroperation that would provide increased transparency and participation for inhabitants of new media environments (*Eye/Machine II*, dir. Farocki, 2002). Highlighting the ways in which relations between image and world might be reorganized through a manipulation of the interface, Farocki captures an approach to artistic production and critique that emphasizes connectivity, interaction, and participatory design (*Schittstelle/Interface*, dir. Farocki, 1995). Such connectivity, as Galloway explains, is no longer viable. Engagement on screens now exposes users to endless layers of control, surveillance, and exploitation on a level that seemed unimaginable a few decades ago. In light of this “tragedy of interactivity,” what possibilities for image production remain?

This article discusses the emergence of a new type of image that is neither operative nor counteroperative. It is distinctly nonoperative, and I propose calling it the *extinction image*. Exemplified by the work of artist-theorist Gregory Chatonsky, the extinction image is created in and through the artistic exploration of automated modes of visual production enabled by state-of-the-art tools such as neural nets and the DALL-E 2 artificial intelligence (AI) system (fig. 1). Bypassing the human as the privileged site of artistic production, the extinction image appears at first glance to be nearly identical to the operational image. Both operative and extinction images emerge as products of machinic perception, on the one hand, and each inhabits a world appearing hostile to human presence. On the other hand, while Farocki’s operational image confronts us with the possibility of a devastating “war without humans” that results from advanced military technology (*Eye/Machine I*), Chatonsky’s art confronts us with the endgame of human activity as a whole during the Anthropocene: a world without us, in which we have gone extinct. Leaning into the surrealist trope of the machine-artist, Chatonsky develops an image-making practice he refers to at times as a “planetary surrealism” (Broeckmann 2019). The extinction image, as we will see, aligns the machinic perspective of the algorithm with the inhuman perspective of the planet. While provoking affective responses to such perceived indifference to the viewer, the extinction image presents a rare glimpse of our own planetary crisis from the imag(in)ed perspective of the Earth itself. Rather than attempting to organize and reorganize human perception, the extinction image forces its viewers to begin wondering how a world without human modes of perception might



**Figure 1** Gregory Chatonsky, *Landfill 2* (2022). Digital print produced by a neural net, <http://chatonsky.net/landfill-2/>.

actually appear. Refracted through the lens of computational tools, these images present nothing short of a demand, simply put, for the planet to be let be as humans try to survive the end of the Anthropocene.

***Kant and the Tragedy of Interactivity:  
From the Imagination to the Technic  
of Nature***

I first experienced Chatonsky's work in person during a visit to his studio in 2022.

He showed me his latest sculptures, a new 3D printer, and a book of images he produced using a method he playfully calls "recursive cinema" (Chatonsky 2022a). Using a neural net to create text descriptions of iconic works from the history of art and cinema, Chatonsky employs a modified version of the DALL-E 2 system to produce new images based on the initial picture's description. As I flipped through the book of uncanny reinterpretations

of Max Ernst paintings and Alfred Hitchcock stills, the inhuman nature of these machinic visions struck me as cold and distant. The neural nets that had created these images provided no resting point for my eyes. No recognizable distinction between foreground and background provided orientation or perspective. I could not dissociate figure from ground. As Chatonsky began showing me more of his work, our conversation turned to something wholly unexpected: the Kantian faculty of the imagination. In what was perhaps the first modern theory of the interface, Immanuel Kant ([1781] 1998: 225) suggested in the first edition of the *Critique of Pure Reason* that a spontaneous capacity for raw expressivity might be key to closing the loop between the faculty of empirical observation (sense intuition) and the faculty responsible for producing concepts and knowledge (the understanding):

There are, however, three original sources (capacities or faculties of the soul), which contain the conditions of the possibility of all experience, and cannot themselves be derived from any other faculty of the mind, namely sense, imagination, and apperception. On these are grounded 1) the synopsis of the manifold a priori through sense; 2) the synthesis of this manifold through the imagination; finally 3) the unity of this synthesis through original apperception. In addition to their empirical use, all of these faculties have a transcendental one, which is concerned solely with form, and which is possible a priori.

Fearing creation without representation, Kant famously removed this discussion of the imagination in the second edition. This disavowal of the imagination created two distinct problems that Kant ([1790] 1987) would try to solve later on, particularly

in the *Critique of Judgment*: how do we account for the apparent freedom and spontaneity of organic life, which appears in excess of mechanical determination? Similarly, how do we build political community around a common understanding of the world, while also acknowledging divergences of opinion? (Arendt 1989; Förster 2009). What did the Kantian imagination have to do with these images? I wondered as I continued talking with Chatonsky in his studio.

In recent years, scholars of digital media have turned their attention to the ways in which the “tragedy of interactivity” in contemporary media environments forces a return to the core questions posed by German idealism: namely, what is the connection between the spontaneity of consciousness and the passive receptivity necessary for experience of the world? What is the relationship between part and whole in art, political community, and nature? And, most pressingly, what effect does new technology have on these organic, social, and ethical processes? (Denson 2023; Žižek 2020). “Whether or not critique remains viable,” Galloway (2021: 225) explains, “one must still ponder the original Kantian question: is thought as such dictated by the regularity of an inherited structure, or is thought only possible by virtue of an asymmetrical and autopoietic posture vis-à-vis the object of contemplation? Having inherited the future, are we obligated to think with it?” To formulate adequate responses to these questions, we must understand the crucial moment in which Kant reintroduces the problems he attempted to solve with the imagination in his exploration of the mode of *Wechselwirkung*, or *reciprocity*, in the *Critique of Judgment*. The mode of reciprocity plays a central role in Kant’s ([1790] 1987: 272) attempt to settle a dispute

between realism and idealism in what he calls the technic of nature:

The systems that deal with the technic of nature, i.e., with nature's power to produce [things] in terms of the rule of purposes, are of two kinds: one interprets natural purposes idealistically, the other realistically. The idealistic interpretation maintains that all purposiveness of nature is unintentional, the realistic interpretation maintains that some of this purposiveness (the purposiveness in organized beings) is intentional, from which we could then infer, as a hypothesis, the consequence that the technic of nature is intentional, i.e., a purpose, even as concerns all other products of nature in their relation to the whole of nature.

This reformulation of the imagination as a potentially externalized technic of nature will serve as an aid in thinking through the pressing issues concerning the relation between computation and ecology in the face of current threats to human existence. As Chatonsky's work suggests, the possibilities for a nonhuman, machinic sort of spontaneity opened up by new media technology play a central role in determining how human beings respond to the possibility of a world without us in the middle or even near-term future (Chatonsky 2018).

Often translated as interaction by scholars of computation and digital art, the mode of reciprocity offered by Kant is a delicate compromise between thinkers who ascribe spontaneity to external phenomena, such as organic life, and those who see such claims as mere projections of human freedom onto the external world (Kwastek 2013). While *reciprocity* is initially presented as an isolated feature of consciousness, Kant's description of aesthetic experience in the *Critique of Judgment* shows that its operations lead to wide-ranging material consequences for politics,

ethical life, and the entire planet. Mediating between part and whole, the mode of reciprocity articulates the complex balance between self and community defining the *sensus communis* (Arendt 1989). This mediation provides the basis for what Yuk Hui (2019, 2021) has called *cosmotech-nics* in recent years, using Kant's mode of reciprocity to call attention to the relationship between the material operations of technology and the production of cultural identity and difference. Galloway's tragedy of interactivity, on the one hand, details the tragedy of a particular dream of networked digital community resulting from certain types of reciprocal relations (Turner 2008). Although the global scale of computational media provides the infrastructure necessary for the construction of a more sustainable *sensus communis*, digital tools are used instead to spread hate and misinformation and to accelerate the breakdown of existing social structures. On the other hand, this contemporary situation presents yet another iteration of the dilemma already posed by Kant between idealism and realism: as consciousness peers out onto the world, it is ultimately left unable to decide if nature's perceived spontaneity is a projection of its own felt agency (idealism), or if spontaneity might exist outside this mode of spectatorship (realism). The chasm identified by Kant at the beginning of the *Critique of Judgment* between reason, acting as its own lawgiver, and understanding, which aims to grasp "nature as an object of the senses," is left fully intact (Guyer 2003; Kant [1790] 1989). Is Kant not describing our own lives in digital environments, where any desire to distinguish the real from the virtual is just an instance of the inability to grasp the thing-in-itself? Do philosophers not ask these same questions of artificial intelligence, machine learning, and neural nets?

Scholars such as Luciana Parisi (2013) have drawn careful attention to the remarkable similarity between the status of spontaneity within computation architecture and the Kantian architecture of the understanding. “Computational aesthetics,” Parisi explains, “is the manifestation of an elegant compression of complex data, which coincides with the synthetic point of perception (or the subjective synthesis) of random information. In other words, this model of computational aesthetics is defined by an act of cognition, the compression of data through perception” (69). It is now more pressing than ever to reconsider the status of nature itself within this technic of nature. What is the relationship between spontaneous uncomputability and the increasingly unstable activity of the Earth? While thinkers such as Benjamin Bratton (2019) have likened the relationship between technology and nature to a new planetary state of emergency, Galloway suggests that it is first and foremost the survival of disarticulate whatever-singularities that is at stake in this crisis. Do we use digital tools to completely redesign life on Earth from the ground up, as Bratton urges, or do we “let beings be,” as Galloway (2021: 240) suggests? Although at first glance, the proposal to simply care for the disarticulate nature of whatever-singularities appears inadequate in the face of the threat of extinction, the next section will highlight the ways in which the incomputable basis of survival or extinction unexpectedly offers a new point of entry into the active role played by the Earth itself in this emergency. By urging humans to care for disarticulate singularities, Galloway leans into the undecidable character of Kant’s technic of nature, drawing attention away from human judgment and toward the alterity of the planet itself.

### ***Reciprocity and the Ecopolitics of Whatever-Being***

Care for what Giorgio Agamben ([1990] 1993: 87) calls “whatever-singularities” emerges as a vital component of Galloway’s politics of uncomputability: “Whatever singularity, which wants to appropriate belonging itself, its own being-in-language . . . rejects all identity and every condition of belonging.” The mode of resistance provided by whatever-singularity will prove central to the aesthetics and ethics of indifference provoked by the extinction image’s development. Already in *The Interface Effect*, Galloway (2012: 143) begins suggesting a mode of disarticulated presence as an alternative to the optimistic engagement of interaction, which he likens to the defeatism of simply playing the game as it is presented through the black boxes of computational capital. In terms of visual production and design, the counteroperations that Farocki and others proposed at the interface level have become little more than thinly veiled operations of surveillance and control. In light of the plea for a return to Kant in the face of this “tragedy of interactivity,” it might be possible to say that the singularity of whatever-being presents what German idealists called the point of spontaneous production—that ineffable quality of life existing in excess of receptivity and causal determination (Pippin 1989). As ever more of the lifeworld becomes overdetermined by the operations of digital media, spontaneous expression retreats. Just as it mattered greatly for idealists whether the spontaneous operations of the technic of nature belonged exclusively to ourselves as human actors (Johann Gottlieb Fichte), or whether this movement of reciprocal relations between part and whole can be attributed to organic nature as a whole (Friedrich Schelling), it makes a vast

difference whether we locate the unpredictable contingency of the uncomputable in the material operations of computational media, the presence of users, or the activity of the Earth (Hegel [1801] 1977). For Chatonsky, there exists a vital link between the incalculable activity of digital media and the uncomputable productivity of the planet itself. Operating above and below the mesoscopic scale of the human sensorium, geological processes and planetary-scale computation appear to be conspiring together to make the human obsolete.

In light of the controversy surrounding Agamben's paranoid response to the COVID-19 pandemic, we might first begin by asking whether the singularities embraced by Galloway will not lead us back to a form of entrenched political conservatism: doesn't mourning the "tragedy of interaction," after all, shield passive subjects from active engagement in the world? (Berg 2020; Bratton 2021). While at first glance this seems to be the case, it is important to further extrapolate the analogy that has begun to take shape between the disarticulate singularity of nonindividuated beings and the dilemma between realism and idealism Kant associates with the technic of nature. Both situations pose questions that seem to have no possible answer. They impose themselves on consciousness in the form of decisions that are necessary but impossible to make. While for Kant, the mode of reciprocity allows for a permanent state of indecision between realism and idealism in aesthetics and the philosophy of nature, Galloway puts forward the rough outline for a politics and ethics of care for singularity in the face of automated decisions that are constantly made for subjects on their own behalf. In this way, care for the future of whatever-being presents itself in the form of anxiety around the possibility of a contemporary

technic of nature. The analogy between the uncomputable and Kant's technic of nature looks drastically different when we turn our attention away from the post-9/11 sovereign state of exception haunting the politics of Agamben and toward the more pressing emergency facing human life today: the threat of extinction resulting from climate change or geopolitical catastrophe. In the face of the dual threat of biosphere collapse and infrastructural breakdown, how do human beings, simply put, survive? While this situation seems to no longer concern the abstract philosophical question of the nature of consciousness and its relationship to the world, the temporal urgency with which this situation appears provides the basis for a new planetary *sensus communis* constituted by affective relations that the extinction image provokes (Denson 2020: 194). Chatonsky's artistic and theoretical work reintroduces the vital issue of the imagination to discussions of planetary-scale design, for one. What I am calling the extinction image in the work of Chatonsky emerges as a wedge between the appearance of a threat to this community and the thing-in-itself of the planetary crisis's actualization. For advocates of planetary design such as Bratton, the possibility of extinction is opened up to highlight a gap between the actuality of the planetary emergency and the structure of possibility we inherit from this emergency. Either humans redesign the planet or go extinct, Bratton (2019: 22) urges in *Terraforming* (see also Gill 2020). Like the self-positing *I* of Fichte, we must embrace the operational aspects of computational media and geoengineering in order to feed-forward our survival (Bratton 2019: 59).

A remarkable statement made by Chatonsky (2021) in his introduction to the French translation of *Terraforming*

sheds a different light on the relationship between computation, ecology, and the indecision at the heart of the Kantian technic of nature. In the face of planetary catastrophe, should we not simply “watch our coming extinction like we watch the black hole through the Earth-camera” (30)? Rather than trying to feed-forward our survival by forcing a new collapse of possibility and actuality, Chatonsky urges us to return to the Kantian imagination in order to envision a strange, uncanny world that is bereft of our species. Producing a sort of photographic negative of the intellectual intuition, we are confronted with an image of our own absence, rather than traces of our ongoing presence. In referencing the Event Horizon Telescope, Chatonsky also provides two important reflections on the relationship between his own work and the project of planetary design. As the disarticulate site of its own spontaneous production, the planet presents itself as the indifferent host of our extinction. Chatonsky perspicaciously aligns the cause of “whatever-being” with the activity of the planet itself, drawing attention to the medial and technical conditions underwriting the shift in environmental consciousness Bratton sees as prerequisite for planetary design (Groo 2021). The project of terraforming, as explained by Bratton, requires a turn away from seeing the globe as a holistic and all-encompassing totality, a view symbolized by the famous *Blue Marble* photograph from 1972 and the ecological movement it inspired (Bratton 2019: 16). We should instead imagine the Earth as a giant, cosmic camera, like the Event Horizon Telescope, a foreign entity that careens through the universe like a floating, sensing spaceship. “The Black Hole image is a kind of ‘world picture’ that is crucially not a picture of our Earth, but rather a picture taken by the Earth of

its surroundings—for which we served as essential enablers” (18). This shift in perspective is enabled only by state-of-the-art digital media, however, as the Event Horizon Telescope employs radio telescopes and computational tools that have been called *postcinematic* by scholars such as Steve Shaviro (2010). Appearing in excess of any indexical relation between world and image, the fragile and inhuman sensing provoked by the operations of the Earth camera necessitates careful reflection on the possibility of human absence.

In a recent exhibition at the Cité des Sciences in Paris, Chatonsky portrays three possible scenarios for the future of life on Earth. Three screens dispersed throughout the gallery space’s long, narrow hallway reveal three digital avatars of the artist in different stages of life. On the first screen, an aged Chatonsky speaks of a distant future in which human beings have abandoned the Earth and live on Mars. In this version of the future, the tech oligarchs who bear so much responsibility for trashing the planet have achieved a sort of Kurzweilian singularity. Digital portraits of the likes of Jeff Bezos, Mark Zuckerberg, and Elon Musk line the gallery wall, and we are told they have “transferred their memories to an artificial intelligence in order for their avatars to survive and keep alive what they once were” (Chatonsky 2022b). Their consciousness has been uploaded to the cloud, as their bodies live on for centuries in a mute zombielike state (figs. 2 and 3). Chatonsky’s avatar tells a story of innovation and optimism in the face of the planetary crisis we call the Anthropocene. A much different scenario is narrated on a second screen, however, placing the spectator firmly back on Earth. An adult rendition of the artist describes an annihilated planet exhumed by carbon emissions and toxic



gases. "Aren't we transforming the earth by extracting materials in order to produce waste that will be the only thing remaining of us?" the avatar asks, entering a lengthy monologue devoted to Jean-François Lyotard's concept of the *differend* and the relationship between the observer and the observed in systems theory. Turning to a third screen, we see a digital rendering of Chatonsky as a small child. He speaks of a utopian future, one in which machines communicate seamlessly with plant and animal life (fig. 4). The opposition between *technē* and *physis* has been overcome, and the formerly antithetical relationship between technology and nature has given way to a dreamlike scenario wherein the planet is no longer subordinated to the capricious impulses of our species. Have humans managed to terraform their way out of the Anthropocene? Have we created a more sustainable future through planetary design?

This seems to be the obvious conclusion to draw at this point. For a moment, the extinction image seems to present a successful counteroperation to the threat of catastrophe in the spirit of Erkki Kurenniemi's *2048*. In this scenario, humans live off-planet in a "digital format that takes a curious place of extinction; extinction becomes actually a threshold in the material form supporting so-called intelligent life in this anthropocentric imaginary" (Parikka 2018). Intelligence has superseded the biological constraints that are generally associated with life on Earth, for Kurenniemi in his *Documenta 2013* exhibition (Krysa 2015). But this is not the case with Chatonsky's installation. When we take a step back from this third screen, we hear again those two other voices from the other screens. Drowning out the child's voice, the other avatars tell us again about a future life on Mars and of a universe that

lives on after the self-inflicted annihilation of the human species. As the avatars' narratives are rendered anew each time by a neural net, visitors never know what to expect from each instantiation. Spectral portraits of the oligarchs of digital capital still line the gallery walls, as the ghostly, centuries-old faces of Zuckerberg and Musk float softly by. On another wall, a ravaged landscape speaks of inhuman destruction of the planet. We are no longer in the utopia of the third scenario, and our visit to the site of edenic bliss was just a temporary sojourn. What has happened to the prospect of planetary design? What are we to make of the dreams of singularity and transcendence realized in the first scenario, the faces on the wall, glaring hauntingly, or the obliterated landscape, so indifferent to our presence?

The whatever-being of the Earth presents nothing less than a wholesale rejection of the sovereign design imposed on the viewer by digital interaction. Rather than forcing a choice between the three scenarios portrayed by the avatars, Chatonsky allows spectators to occupy multiple points of view simultaneously. In this way, *Dysnovation* stages what Galloway (2021: 57) calls the computational "view from everywhere": while "photography says *here is a view* . . . computer vision says there is no point of view because *here are all of them*." The radical redistribution of sense enabled by computational media provides the basis for a radical redistribution of the ways in which contingency, virtuality, and reality can be conceived for inhabitants of the late Anthropocene. Leaning into the future orientation of technical media, the extinction image presents viewers with a horizon that is both open-ended and fabricated, and in which no imagined scenario is a foregone conclusion. Portraying mass extinction alongside planetary



**Figure 2** Digital portrait of an aged Elon Musk in Chatonsky's *Dysnovation* exhibition (2022) at the Cité des Sciences in Paris. Courtesy of the artist.



**Figure 3** Portrait of an aged Mark Zuckerberg in Chatonsky's *Dysnovation* exhibition (2022) at the Cité des Sciences in Paris. Courtesy of the artist.



**Figure 4** Avatar of the artist as a child in *Dysnovation*. Courtesy of the artist.

relocation, Chatonsky's digital avatars bear witness to the ways in which dreams of utopian flourishing and nightmares of dystopian despair coexist as by-products of ubiquitous computation and its effect on the imagination (fig. 5). The thread of each narrative unfolds into dozens of other emergent stories, each irreducible to a master text or programmable source code.

***Planetary Surrealism; or, the Postcinematic Technic of Nature***

It is indifference, rather than indecision, that constitutes the relationship between

the spectator and the Earth for the extinction image. As illustrated by Chatonsky's *Dysnovation* exhibition, the disarticulate singularity of whatever-being presents a necessary ecological supplement to Bratton's project of planetary design, presenting what might be called a postcinematic technic of nature. Just as Galloway's computational view from everywhere presents a planetary mode of imagination refracted through digital tools, Chatonsky refers to this situation as a "planetary surrealism," wherein a new relationship between technology and the Earth is opened up by the



**Figure 5** The extinction image in *Dysnovation* (2022), provoking visitors to imagine a future in which humans are no longer around on Earth. Courtesy of the artist.

suspension of human judgment (Hansen 2015: 33–81). Historically, surrealism has evoked this suspension of judgment to present the machine itself as a creative agent capable of replacing the individual artist (Broeckmann 2016: 9–11). Chatonsky, however, goes one step further. He suggests that digital media are part and parcel of a greater energetic productivity attributable to the Earth itself. The planet has now become an artist, and any distinction between ecology and computation is no longer tenable.

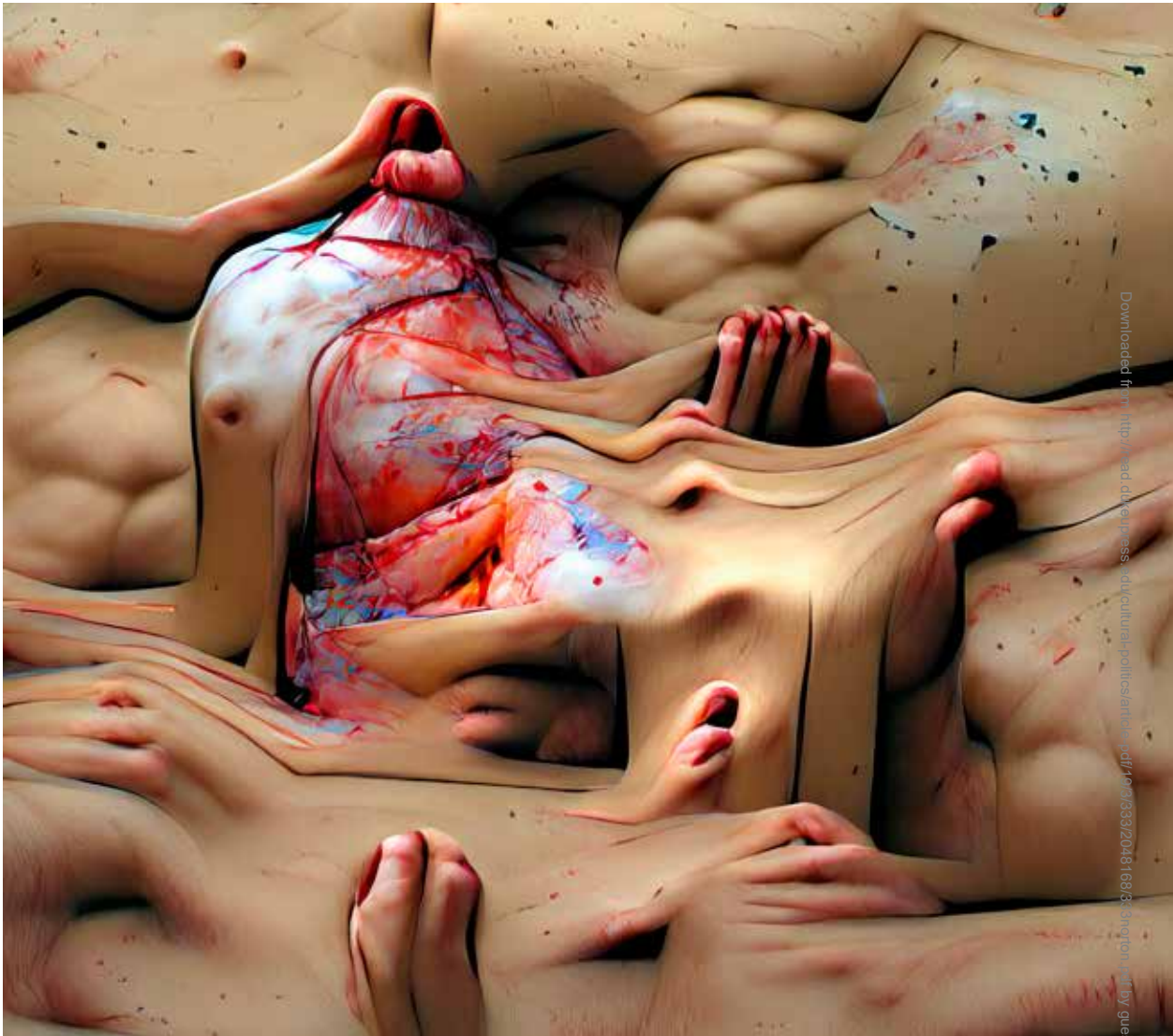
Chatonsky (2022c) casts this reciprocity between digital media and the planet as a “desfactual” relation, wherein the images produced by neural nets are both “real” and “ideal” at once. While our current relationship to the planet is certainly shaped by computation, planetary design must come to terms with the ways in which uncomputability provides a feature, not a bug, of digital media. As an expression of the incalculability of the future, the extinction image cannot be reduced to the schematism of operation and

counteroperation presented by the interface. The defactual relations produced by these images, of course, also return image production to the “mummy complex” that thinkers such as André Bazin (1960: 8) see as endemic to all visual culture. Only now, humans strive for survival not just through the “continued existence of the corporeal body” in virtual afterlives (Chatonsky 2022b). We hope for survival off-screen as well, returning the cinematic index back to its origin in the ontology of sense (Cribb 2021). In this way, the extinction image employs AI and deep learning to produce an algorithmic archive that is both speculative and irreducibly material and political. Supplementing Bratton’s analysis of the redistribution of sovereignty enabled by computation, Chatonsky’s planetary surrealism highlights a new relationship between sense and index emerging through postcinematic forms of reciprocity. “Open the so-called body and spread out all its surfaces,” writes Lyotard (2004: 1) in *The Libidinal Economy*, “not only the skin with each of its folds, wrinkles, scars,” but each subsequent layer as well.

This unfolding of planetary layers into further epidermic surfaces represents an important shift in how we understand the role of ecology in the extinction image within and beyond what Bratton calls the cloud polis (fig. 6). In Bratton’s (2015: 109–45) political treatise, *The Stack, cloud polis* refers to a novel distributed form of sovereignty enabled by computational architecture, providing an outline for new forms of political decision-making. By refusing to portray the planet as a holistic body, as in the *Blue Marble* photograph, the extinction image envisions the Earth as a series of dissimulating surfaces produced in and through the indeterminacy of technical media. The extinction image, however, consists in nothing less than surfaces and

slippages, refusing calculation and control. Chatonsky (2017) presents the Earth itself not as a body without organs but as so many uncomputable “organs without bodies.” The pictorial distinction between subject and background is blurred, and we begin to see the Earth imagining itself as a powerful user of new media. Bypassing conscious reflection, the extinction image provokes further engagement with the role of the planet in the central line of questioning for scholars of postcinematic media technologies: what do concepts like sensing and spectatorship mean when we are dealing with technologies that operate automatically and at scales or speeds that cut human cognition out of the loop? (Denson 2020). No motion sensor is used in *Dsynovation* to trigger new events or turn screens off or on. No button can be pressed to select a more favorable scenario than the one we are currently watching. The avatars relate orthogonally to viewers, speaking from a distant future that may or may not come to pass.

Here we see the political payoff of the postcinematic technic of nature presented by the extinction image. By decentering the human viewer as an active participant in the landscape, the extinction image offers the unlikely possibility of survival in and through the embodied act of spectatorship. While we watch our extinction as it is presented through the planetary telescope, we remind ourselves that we are, despite it all, still here. At this point we must nevertheless ask: what has happened to the *sensus communis*, that other vital product of the imagination, over the course of these transformations? The invocation of a planetary imagination throughout the extinction image’s development must lead to a new type of *sensus communis* that might be organized around the perceived threat of extinction. How do the



**Figure 6** Unfolding the skin of planet Earth in *E-Phemeral Skin* (2021), using a DALL-E 2 AI system to produce images from the first sentence of Lyotard's *Libidinal Economy*, <http://chatonsky.net/ephemeral-skin/>.

operations of the cloud polis relate to this community of sense, and what role does image making play in its development?

Bernard Stiegler (2018b: 134), in a late reflection on Bratton, begins laying the groundwork for how we might conceptualize a planetary *sensus communis*, which turns our attention from the cloud polis and toward concern for what might be

called the cloud *khôra*, a mode of existence that exceeds computational sovereignty and control. In his "Five Theses on Schmitt and Bratton," Stiegler reminds us that computational operations remain in a necessarily parasitic relationship to users of digital media. Making the familiar gesture of extending Jacques Derrida's thesis on the production of difference in

writing to include all forms of technical media, Stiegler argues that the incalculability of digital tools provokes a relationship between politics and sensing that appears slightly different from what Bratton proposes. Rather than forcing the creation of a new political body through a fed-forward emergency, the interrogation of the cloud polis requires a supplemental account of the “illegible secret” underwriting all forms of community (134). The secret, we have seen, is held by the Earth, as the extinction image is a product of the planetary imagination. Stiegler’s five theses, in order of their appearance, are as follows:

1. “The question of law is the question of the regulation of relations between exosomatic organisms.” (133)

As political relations are materialized and operationalized through technical infrastructure, the development of platform capitalism and the appearance of the cloud polis have a profound impact on how we approach questions concerning governance today, as Bratton’s work suggests. This leads to a second thesis, however:

2. “Unlike Bratton,” Stiegler “argue[s] that this question must be approached from a perspective that is not only negentropic, but neganthropological, and which requires a neganthropology.” (133)

Here we begin to see how the apparent misanthropy of the extinction image functions according to what Stiegler (2018a), after Claude Lévi-Strauss, calls *neganthropy*. It is neither operational nor counteroperational, but *nonoperational*. It reveals nothing, while “in a totalitarian regime, transparency is required and the secret is systemically eliminated” (Stiegler 2018b: 133).

3. “The juridical question and the economic question are not separable, because, while the law is what produces values beyond all calculation, the economy calculates values on the basis of a standard that itself has no price, since it constitutes the canon of any evaluation.” (134)

In this third thesis, Stiegler recalls the passage from *Timaeus* where Plato (2008) states that if everything were “made of gold, the only thing that would be invisible would be gold.” Not only would gold be invisible, but it would also be devoid of all value. The juridical operations of computational media, by analogy, are neither natural nor self-organizing. Digital environments have been arranged for a specific political economy of surveillance and profit and can be rearranged toward different ends.

4. “To carry out such aims, we must profoundly rethink the architectonics of digital networks, both at the level of data formats and at the level of the conditions for the building of social networks.” (Stiegler 2018b: 135)

While the cloud polis articulates boundaries between inside and outside for the computational state, a new planetary *sensus communis* must be organized around the protection of the secret. To protect this secret, Stiegler ultimately proposes

5. “redefining computational processes and technologies of scalability, such that they ought never short-circuit deliberative processes. . . . They should never, in other words, proletarianize decision-making.” (136)

To encourage participation in a political project of planetary proportions, something that the scale of computational media and the climate crisis require, we must demarcate a new space that exceeds the bounds of computational sovereignty. This outside,

the cloud khôra, corresponds to the position of the Earth itself. The planet not only inhabits but also exceeds the frame of digital environments. How can we hope for survival without *proletarianizing* the entire planet, subsuming it to processes of surveillance and control as proposed by advocates of planetary design?

***The Planetary Sensus Communis: Five Theses on the Cloud Khôra***

By way of conclusion, I would like to proffer five additional theses, which serve as an ecopolitical supplement to Stiegler's own. Although highly speculative, these theses will trace the contours of the cloud khôra and its relation to the extinction image, in an attempt to shed light on some of the most pressing issues concerning planetary politics in the late Anthropocene.

1. To redesign the cloud polis, we must care for the maintenance of its outside, the cloud khôra.

While this may seem obvious, it becomes more crucial than ever to recall the necessity of this outside in the face of growing calls to submit the planet to what Bruno Latour (2017: 255) calls a "new nomos of the Earth." This thesis also cuts to the heart of Bratton's political philosophy as it is articulated in *The Stack*, as his vision for a more sustainable political architecture enabled by computational media is grounded in an originary divide of political geography into two types of space: the polis and khôra. Following Carl Schmitt, for whom the distinction between polis and khôra presents a terrestrial spatialization of the existential difference between friend and foe, Bratton (2015: 10) suggests that the modern state has been upended by the operations of platform capital and planetary-scale computation. Political geography, as a result, needs

to be redesigned. A new cloud polis has materialized from the distributed forms of sovereignty enabled by computational architecture. Emerging in and through what Gilles Deleuze ([1990] 1992) called control societies, this cloud polis is articulated through the stack's layers of distributed agency. While Bratton briefly mentions that the functionality of the stack is predicated on the existence of the khôra, he leaves this outside overlooked and under-theorized. This outside remains one of the most urgent aspects of planetary politics today, however. For the Greeks, *khôra* referred to the untamable ocean and the layers of space enveloping the planet in Plato's demiurge mythology (Siegert 2015). It continues to provide a substantial link between *phusis* and *technê*, not from the perspective of human extraction but from the perspective of the Earth, a point of contact through which a more sustainable planetary community might be created and maintained.

2. The cloud khôra puts image production by the Earth-user at the forefront of cultural politics in the late Anthropocene.

Chatonsky's extinction image refuses the feed-forward logic of hyperstition, wherein the possibility of survival is actualized through intentional design. Rather than offering virtual alternatives to the Anthropocene in order to find an exit from the present moment of uncertainty, the extinction image serves as a reminder that planetary design will never operate smoothly along a straight line. This indeterminacy of our planetary situation also escalates the politics of image making, creating an endless supply of automated virtualities. A by-product of the planetary state of suspension, the extinction image presents a series of self-portraits created



by a cosmotechnical Earth. Like the myth of the demiurges portrayed by Plato (2008: 18–21) in the *Timaeus*, the cloud khôra is embedded within an intricate recursive process through which idea and its material manifestation, planet and creator, become conjoined terms in an infinite series. Incalculability will never halt the production of images by a neural net. The Earth is embedded in the automated recursivity of technical media, and khôra presents the ongoing site of uncomputability that holds the future at bay.

3. Relating the suspension of judgment regarding the planetary future to the suspension of spectatorship by postcinematic media, the Earth-user operates in and through the interstitial space of surfaces.

Between living wound and postmortem biopsy, the extinction image opens up the skin of the planetary surface. Recalling the first lines of Lyotard's (2004: 1) *Libidinal Economy*, the deposits revealed beneath the planetary epidermis suggest an uncanny surrealism underlying claims to cinematic indexicality. The *differend* becomes a point of indeterminate anxiety hovering between presence and absence, survival and extinction. The ubiquity of computation takes the ontology of sense to an unforeseen planetary scale. Operating through sets of organs without bodies, this medial cloud khôra presents a supplement to the self-articulation of the cloud polis described by Bratton. The Event Horizon Telescope is turned around to examine the Earth itself, creating a new type of image irreducible to the blue marble or black hole. Only ever seen from an angle, the extinction image appears out of the pharmacology of computation to produce a negentropic state of suspension for human beings. While this state of suspension may

be perceived as a threat, what is held in abeyance through these unfolding surfaces is nothing less than the sovereign status of calculation itself.

4. The distinction between cloud khôra and cloud polis is created in and through computational media.

The medial conditions of sovereignty have been carefully examined by legal scholar Cornelia Vismann (2008, 2013). But now, rather than drawing a line on the ground to create a terrestrial boundary on the planet's surface, computational media operate in an extraterrestrial manner to create and maintain new divisions between polis and khôra. Operating in the cloud and deep underground, the ontology of sensing enabled by planetary computation suggests a new type of medium neutrality: technical media are entirely indifferent to human existence. A politics geared for survival must emerge in and through this organology of inhuman sensing. Created by the grammatological processualism of computational media, the production of difference extends into an endless play of synthesis and bifurcation between khôra and polis, absence and presence. For a concrete politics of survival, this means that it is very much beside the point to declare ourselves free of the state or of the planet, like PayPal founder Peter Thiel's delusional attempts to create "startup governments" at sea, or to attempt to launch humanity into outer space (*The First Seastealers*, prod. Seasteading Institute, 2019). The extinction image operates in liminal spaces that refuse this reactivation of colonial dreams of freedom through subordination. The extinction image presents a new sense of neutrality and an urgent call to care for the whatever-singularity of the Earth, even if this means

living with its stoic indifference to the human species.

5. The postcinematic redistribution of sense creates a planetary ethics of indifference.

The ontology of sense inaugurated by contemporary media environments necessitates the articulation of a redistribution of postcinematic exposure following the new ontology of sense. Hinted at by Corey P. Cribb (2021) with reference to Jean-Luc Nancy, this postcinematic exposure accomplishes two things. First, by responding to the need for political theorists and legal scholars to understand how algorithms can “give an account of themselves” and their decision-making processes, the extinction image enables the planet to bear witness to its ongoing devastation while pointing to the anthropogenic nature of such destruction (Amoore 2020). The endgame of extinction or survival is held in suspense, as a new play of materiality and virtuality defies feed-forward logic. Presenting a redistribution of possibility and actuality, contingency and virtuality, the extinction image portrays a future that is both an open horizon and a gaping wound. Most importantly, the redistribution of sensing can help activate a new ethics of planetary exposure following from this redistribution of sense. A new mode of exposure presents an ecological supplement to the tragedy of interactivity. It is the indifference of the Earth-user that humans must ultimately face. This indifference to our species, as we have seen, is aesthetically configured by the planet in the extinction image.

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### **Works Cited**

- Agamben, Giorgio. (1990) 1993. *The Coming Community*. Translated by Michael Hardt. Minneapolis: University of Minnesota Press.
- Amoore, Louise. 2020. *Cloud Ethics: Algorithms and the Attributes of Ourselves and Others*. Durham, NC: Duke University Press.
- Arendt, Hannah. 1989. *Lectures on Kant's Political Philosophy*. Chicago: University of Chicago Press.
- Bazin, André. 1960. “The Ontology of the Photographic Image.” Translated by Hugh Gray. *Film Quarterly* 13, no. 4: 4–9. <https://doi.org/10.2307/1210183>.
- Berg, Anastasia. 2020. “Giorgio Agamben’s Coronavirus Cluelessness.” *Chronicle of Higher Education*, March 23. <https://www.chronicle.com/article/giorgio-agamben-coronavirus-cluelessness/>.
- Bratton, Benjamin. 2015. *The Stack: On Software and Sovereignty*. Cambridge, MA: MIT Press.
- Bratton, Benjamin. 2019. *The Terraforming*. Moscow: Strelka.
- Bratton, Benjamin. 2021. “Agamben WTF; or, How Philosophy Failed the Pandemic.” Verso blog, July 28. <https://www.versobooks.com/blogs/news/5125-agamben-wtf-or-how-philosophy-failed-the-pandemic>.
- Broeckmann, Andreas. 2016. *Machine Art in the Twentieth Century*. Cambridge, MA: MIT Press.
- Broeckmann, Andreas. 2019. “The Machine as Artist as Myth.” *Arts* 8, no. 1. <https://doi.org/10.3390/arts8010025>.
- Chatonsky, Gregory. 2017. “Organs without Body.” <http://chatonsky.net/category/corpus/bodies/>.

- Chatonsky, Gregory. 2018 "L'image artificielle de l'imagination ("Imagination, Intuition, Entendement, Raison"). Presentation, University of Paris VIII, December 12. <http://chatonsky.net/image-artificielle/>.
- Chatonsky, Gregory. 2021. "Préfaces." In *La terraformation*, translated by Gregory Chatonsky and Yves Çitton, 9–32. Paris: Les Presses du Reel.
- Chatonsky, Gregory. 2022a. *Disnovation: An Installation in Three Episodes*. Gallery brochure, exhibition, Cité des Sciences et Industrie, Paris, March 22–October 9.
- Chatonsky, Gregory. 2022b. "The Kiss 3: Recursive Cinema." May. <http://chatonsky.net/kiss-3/>.
- Chatonsky, Gregory. 2022c. "Réalisme contrefactuel." Presentation, École Normale Supérieure, Paris, June 15. <http://chatonsky.net/contrefactuel/>.
- Cribb, Corey P. 2021. "To Believe in an Image (Again): The Politics of the Index, André Bazin's Ontology of Sense, and the Antidote to Digital Skepticism." *Cultural Politics* 17, no. 3: 314–32. <https://doi.org/10.1215/17432197-9305391>.
- Deleuze, Gilles. (1990) 1992. "Postscript on the Societies of Control." *October*, no. 59: 3–7. <https://www.jstor.org/stable/778828>.
- Denson, Shane. 2020. *Desfactual Images*. Durham, NC: Duke University Press.
- Denson, Shane. 2023. *Post-cinematic Bodies*. Leuphana, Germany: Meson.
- Förster, Eckart. 2009. "The Hidden Plan of Nature." In *Kant's Idea for a Universal History with a Cosmopolitan Aim: A Critical Guide*, edited by Amélie Oksenberg Rorty and James Schmidt, 187–99. Cambridge: Cambridge University Press.
- Galloway, Alexander. 2012. *The Interface Effect*. Cambridge: Polity.
- Galloway, Alexander. 2021. *Uncomputable: Play and Politics in the Long Digital Age*. New York: Verso.
- Gill, Indermit. 2020. "Whoever Leads in Artificial Intelligence in 2030 Will Rule the World until 2100." *Future Development* (blog), January 17. Brookings Institute. <https://www.brookings.edu/blog/future-development/2020/01/17/whoever-leads-in-artificial-intelligence-in-2030-will-rule-the-world-until-2100/>.
- Groo, Katherine. 2021. "At the Gates of Hell: Indexical Pasts, Black Hole Futures." Paper presented at "Media Theory Colloquium," Humboldt University Berlin, December 1.
- Guyer, Paul. 2003. *Kant's Critique of the Power of Judgment: Critical Essays*. London: Rowman and Littlefield.
- Hansen, Mark B. 2015. *Feed Forward: On the Future of Twenty-First-Century Media*. Chicago: Chicago University Press.
- Hegel, Georg Wilhelm Friedrich. (1801) 1977. *The Difference between Fichte's and Schelling's System of Philosophy*. Translated by Walter Cerf and H. S. Harris. Albany: State University of New York Press.
- Hoel, Aud Sissel. 2018. "Operative Images: Inroads to a New Paradigm of Media Theory." In *Image—Action—Space*, edited by Luisa Feiersinger, Kathrin Friedrich, and Moritz Queisner, 11–28. Berlin: De Gruyter. <https://doi.org/10.1515/9783110464979-002>.
- Hui, Yuk. 2019. *Recursivity and Contingency*. London: Rowman and Littlefield.
- Hui, Yuk. 2021. *Art and Cosmotechnics*. Minneapolis: University of Minnesota Press.
- Kant, Immanuel. (1781) 1998. *Critique of Pure Reason*. Translated by Paul Guyer. Cambridge: Cambridge University Press.
- Kant, Immanuel. (1790) 1987. *Critique of Judgment*. Translated by Werner S. Pluhar. London: Hackett.
- Krysa, Joasia. 2015. Foreword to "Artistic Practice." In *Writing and Unwriting (Media) Art History: Erkki Kurenniemi in 2048*, edited by Joasia Krysa and Jussi Parikka, 85–88. Cambridge: MIT Press.
- Kwastek, Katja. 2013. *Aesthetics of Interaction in Digital Art*. Cambridge, MA: MIT Press.
- Latour, Bruno. 2017. *Facing Gaia: Eight Lectures on the New Climatic Regime*. Translated by Catherine Porter. Cambridge: Polity.
- Lyotard, Jean-François. 2004. *Libidinal Economy*. Translated by Iain Hamilton Grant. London: Continuum.
- Pantenburg, Volker. 2017. "Working Images: Harun Farocki and the Operational Image." In *Image Operations: Visual Media and Political Conflict*, edited by Jans Eder and Charlotte Klonk, 49–62. Manchester, UK: Manchester University Press.

- Parikka, Jussi. 2018. "Planetary Memories: After Extinction, the Imagined Future." In *After Extinction*, edited by Richard Grusin, 27–51. Minneapolis: University of Minnesota Press.
- Parisi, Luciana. 2013. *Contagious Architecture: Computation, Aesthetics, and Space*. Cambridge, MA: MIT Press.
- Pippin, Robert. 1989. *Hegel's Idealism: The Satisfactions of Self-Consciousness*. Cambridge: Cambridge University Press.
- Plato. 2008. *Timaeus and Critias*. Edited by Thomas Kjeller Johansen, translated by Desmond Lee. London: Penguin Classics.
- Shapiro, Steve. 2010. *Post-cinematic Affect*. Ropley, UK: Zero.
- Siegert, Bernhard. 2015. "The Cultural Techniques of Seafaring." In *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real*, translated by Geoffrey Winthrop Young, 68–69. New York: Fordham University Press.
- Stiegler, Bernard. 2018a. "The Anthropocene and Neganthropology." In *The Neganthropocene*, translated by Daniel Ross, 34–50. London: Open Humanities.
- Stiegler, Bernard. 2018b. "Five Theses after Schmitt and Bratton." In *The Neganthropocene*, translated by Daniel Ross, 129–39. London: Open Humanities.
- Stiegler, Bernard. 2019. *The Age of Disruption: Technology and Madness in Computational Capitalism*. Translated by Daniel Ross. Cambridge: Polity.
- Turner, Fred. 2008. *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago: University of Chicago Press.
- Vismann, Cornelia. 2008. *Files: Law and Media Technology*. Translated by Geoffrey Winthrop-Young. Stanford, CA: Stanford University Press.
- Vismann, Cornelia. 2013. "Cultural Techniques and Sovereignty." *Theory, Culture, and Society* 30, no. 6: 83–93. <https://doi.org/10.1177/0263276413496851>.
- Žižek, Slavoj. 2020. *Hegel in a Wired Brain*. London: Bloomsbury.
- Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs.

### **Filmography**

- The First Seastealers*. Produced by the Seasteading Institute. YouTube video, 4:33, 2009. <https://www.youtube.com/watch?v=tTXhgcXA1pM>.
- Eye/Machine I*. DVD. Directed by Harun Farocki. 2001; Chicago: Video Data Bank, 2005.
- Eye/Machine II*. DVD. Directed by Harun Farocki. 2002; Chicago: Video Data Bank, 2005.
- Schittstelle/Interface*. DVD. Directed by Harun Farocki. 1995; Chicago: Video Data Bank, 1995.

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