Glacial Time and Lonely Crowds: The Social Effects of Climate Change as Internet Spectacle

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ABSTRACT This paper is part of my larger project to underscore the significance of critical theories of mass society for the environmental humanities. I offer a reading of James Balog’s Extreme Ice Survey (EIS), in particular the time-lapse films of glaciers receding, which I argue present a unique example of what Guy Debord calls the “tautological” nature of spectacle, its capacity to serve as its own evidence at the same time as it becomes a mode of relation among people. My questions concern the political potential of the EIS. As the effect of the real created by time-lapse technology locates itself in the optimistic promise of Internet community, what kind of collective relation is produced? My key interlocutors are Timothy Morton, who claims that ecological thinking effects a loss of authentic world, and Jonathan Crary, who argues that late capitalism robs us of shared time, thus precluding the possibility of organized resistance. I argue that, despite the unprecedented challenges faced by the “we” that Balog’s project calls to action, the form of sociality produced by the technologies on which the EIS relies has its own political potential.

James Balog is a scientist-turned-landscape photographer for National Geographic. While on an assignment to photograph ice in 2006, he came up with the idea to use time-lapse photography of receding glaciers as evidence of climate change. The resulting Extreme Ice Survey project, sponsored by The Wild Foundation, is “a long term photography project that merges art and science to give a ‘visual voice’ to the planet’s changing ecosystems.”¹ The factors that come together to create this visual voice include the images themselves, which consist of both single-frame photos “celebrating the beauty … of ice” and time-lapse photos generated by 28 cameras located at 13 glaciers, recording every half hour during daylight, and yielding about 8,000 frames per camera per year, which are then edited into videos by Balog’s team. Since 2007 the project has grown to include the EIS website, a Google Earth page, the documentary Chasing Ice (dir. Jeff Orlowski, 2012) and the Chasing Ice website on which users may “get plugged in” by signing an online petition and tweeting celebrities and politicians about climate change.²


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The project’s strong web presence is no accident. As Balog makes clear in his TED talk, all of this is about consciousness-raising and policy change, and he deliberately uses platforms like TED in order to reach as wide an audience as possible. His single-frame photos are about beauty, but the time-lapse videos are about something else, and it is this part of the Survey that requires ongoing dissemination. The attempt to show the reality of the abstraction called climate change by means of “capturing” it photographically is intimately related to the project of Internet distribution. It is all part of settling the debate once and for all, by making visible and easily accessible a reality that, due to its time scale, is otherwise invisible to the human eye and, due to its remoteness, physically inaccessible for viewing by most people.

This paper is part of my larger project to underscore the significance of critical theories of mass society for the environmental humanities. I am beginning from the position that the Extreme Ice Survey, understood as both its imagery and its online presence, presents a unique example of what Guy Debord calls the “tautological” nature of spectacle, its capacity to serve as its own evidence at the same time as it becomes a mode of relation among people. My questions concern the political potential of this project. As the effect of the real created by time-lapse technology locates itself in the optimistic promise of Internet community, what kind of collective relation is produced? My key interlocutors are Timothy Morton, who claims that ecological thinking effects (or even requires) a loss of authentic world, and Jonathan Crary, who argues that late capitalism robs us not just of time, but of shared time, thus precluding the possibility of organized resistance. These crises—of authentic world and of time in common—and the passage between them are at stake in EIS’s call to action, which is a call to collective action.

“Seeing is Believing” and the Effect of the Real
Balog makes an interesting claim in his TED talk, namely that it was when he accepted that climate change was real that it occurred to him to take its picture: “When I realized that climate change was real and it was not based on computer models I decided that one day I would do a project looking at trying to manifest climate change photographically.” Indeed, the extraordinary lengths to which he and his team have gone to produce the images of glaciers receding over time show precisely that this could never have been a case of simply “capturing” an a priori reality on camera. Instead, Balog had to invent the particular technology that would make it possible for him to come up with this much content in such extreme physical conditions. Editing the photos into video is necessary in order to show the receding process as a process. From this perspective, the time-lapse part of the EIS has less in common with its single-frame part, which straightforwardly documents something, and more with photographs of Bigfoot or the Loch Ness Monster, which attempt to convince us that something exists by means of the ultimate substitute for the thing itself, the ultimate fake: the photograph. And yet Balog seems completely unfazed by the problematics of photographic evidence. As the website states:

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Seeing is believing. Real-world visual evidence has a unique ability to convey the reality and immediacy of global warming to a worldwide audience. The Extreme Ice Survey provides scientists with basic and vitally important information on the mechanics of glacial melting and educates the public with firsthand evidence of how rapidly the Earth’s climate is changing. EIS is a voice for landscapes that would have no voice unless we humans give them one.\(^5\)

But the cliché “seeing is believing” requires some examination. There is something here of Alain Badiou’s notion of the passion for the real, the absent center around which a situation is organized and action may be mobilized. Badiou’s real is always beyond reach, unrepresentable, referred to by emancipatory projects but never directly accessed.\(^6\) Climate change, which Balog describes as “abstract,” is a perfect example. Glaciers, however, are a different issue, as Balog repeatedly states in his TED talk and all of his public and TV appearances: they are really real, the concrete place where abstract climate change becomes real.

For Balog, as for most people, this sense of “real” means the opposite of “ideological.” However, according to Slavoj Žižek, when organizing around the abstraction that was once called “global warming” is no longer enough, when we need instead to show the reality of climate change, we encounter a paradox. What results from our efforts to show the real is a theatrical spectacle creating the effect of the real, transforming whatever we are taking pains to expose—in this case, climate change—into an instrument of ideology. His examples of theatrical spectacles that create the effect of the real are the Stalinist show trials, which were heavily publicized precisely because they were essentially staged, their outcomes decided ahead of time, and visually spectacular terrorist acts like 9/11.\(^7\) My point in this piece is not that time-lapse landscape photography is necessarily akin to either Bigfoot photos or Stalin’s fake trials, but these examples, as well as the spectrum of possibilities between them, help to problematize the idea of visual evidence in environmental consciousness-raising. Furthermore, to argue that Balog’s project is ideological is too easy and obvious, and not especially useful for critics like me, who happen to share his particular ideological commitments and support this project on many levels. What interests me instead is what is created when Internet technology and time-lapse photography intersect, and the effects of this intersection on collectivity. The “we” that Balog’s project calls to action faces unprecedented challenges, like the loss of an authentic world, as well as the loss of shared time, but there is political potential in the form of sociality produced by the technologies on which the EIS relies.

**Time-lapse and the Loss of World**

Let us begin with a more modest, less dramatic claim about the nature of scientific imaging. Electron microscope images also show “invisible” things, thus changing our ideas about reality. This is why visualizing technologies exist, and we typically do not question the reality of what they allow us to see, especially in scientific contexts. The connection between time-lapse photography and reality is unique, however. Time-lapse does what it does precisely by means of the lapses in what is visible. The lapses in time, or everything that is left out, is precisely

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\(^5\) Extreme Ice Survey.


what creates the effect of sped-up reality. Were the EIS conducted simply with digital film cameras and played back in real time, we could not observe the reality of the glaciers receding. The negative time, or what is missing from the imagery as it plays back in real time, is necessary for climate change to become positively present in real time before our eyes.

According to Timothy Morton the mode of attunement he calls “the ecological thought” is governed by technologies, especially visualizing technologies. Rather than a return to a pre-technological nature, the ecological thought is so ravenous for exhaustive knowledge of the environmental crisis that it requires the complete technological mediation of reality. The effects of this are transformative on the ontological level: “When the environment becomes intimate—as it is in our age of ecological panic—it no longer remains an environment.”8 The ecological thought thinks nature in terms of a reality that essentially overflows itself, becoming at once intimate and strange (because intimacy is a precondition of estrangement, as anyone with family knows). It requires the receding of the world as authentic and coherent. Time-lapse photography is thus a paradigmatic case of ecological vision, he writes.

When you can see like this, the reality of our ecological disaster becomes vividly real, and at the same time, the literal ground disappears before our very eyes ... The more information we acquire in the greedy pursuit of seeing everything, the more our sense of a deep, rich, coherent world will appear unavailable: it will seem to have faded into the past (nostalgia) or to belong only to others (primitivism).9

In time-lapse images, the literal ground disappears most radically because mundane (pre-ecological) reality must be made literally incoherent, split into segments divided by intervals of non-seeing, in order for ecological reality to emerge. Pre-ecological reality is exposed in its original incoherence in order for the crisis to show itself:

The ecological thought understands that there never was an authentic world. This doesn’t mean that we can do what we like with where we live, however. Thinking big means realizing that there is always more than our point of view. There is indeed an environment, yet when we examine it we find it is made of strange strangers. Our awareness of them isn’t always euphoric or charming or benevolent. Environmental awareness might have something intrinsically uncanny about it, as if we were seeing something we shouldn’t be seeing, as if we realized we were caught in something.10

One of Morton’s favorite examples of our loss of authentic world is Google Earth. It is easy to see how this particular technology is (arguably, like all technologies) a mode of social relation. Though it is shot through with the fantasy of a world in common in the environmental sense, namely the very Earth that users are navigating, Morton points out that “we have gained Google Earth but lost the world.”11 He seems to mean this simply in terms of location. Like the iconic photograph, “Earthrise,” taken by astronaut William Anders during the 1968 Apollo 8

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9 Ibid., 56.
10 Ibid., 57-8.
11 Ibid., 30.
mission to orbit the moon and hailed as the most influential environmental photograph ever,\(^{12}\) the Earth that Google Earth allows us to have in common requires that we be away from home, like astronauts. The EIS Google Earth site, which allows users to “visit” the locations of the time-lapse cameras and “get a through-the-lens view of the glaciers the cameras are watching,” requires the same kind of displacement.\(^{13}\)

However, the big difference between “Earthrise” and Google Earth is that while viewers experienced the former relatively passively, users experience the latter actively, as agents of a technology that requires their participation, rather than as inert receivers of information. So, though Google Earth is a poor substitute for a world, it provides something else: a space democratically in common, arguably in unprecedented ways. It is a new form of public common, Morton might argue, or perhaps even a super-level meta-common, the fusion of the environment and the Internet. We have lost the authentic world, the one we never had, but we have gained the Earth as an Internet application, and this, one could argue, is its own world, a new world, even a less inauthentic world than the lost one.

The EIS certainly seems to be banking on the political power of the Internet as a common, given its demand for collective mobilization particularly in its online life, which makes the melting glaciers into subjects of information sharing, in which “spreading the message” automatically links to Twitter, and of the democratic process in general, with the relevant Twitter accounts being those of President Obama, Senator James Inhofe (R, Oklahoma), conservative media personalities Sean Hannity and Glenn Beck, and famously soft-liberal celebrities Angeline Jolie, Jessica Alba, Leonardo DiCaprio, and Oprah. We are all in it together, even if the Earth turns out to be a Google product. Or, if Morton is right, it is because the Earth is a Google product that we are able to think ecologically, free of primitivist notions of capital-N “Nature,” tuned into the intimate-and-mediated interconnectedness of everything, awestruck by its strangeness.

**Non-time and the End of the Social**

Jonathan Crary’s book *24/7*, however, argues that the Internet poses unique challenges to the possibility of collective experience. Ironically, the very medium that purports to connect us to others, to plug us into the world itself, is the one that creates conditions of unprecedented separation, docility, and abdication of responsibility for living. Marx knew that the first requirement of capitalism was “the dissolution of the relation to the earth,” precisely because this creates social conditions in which people are less likely to organize for any reason other than labor.\(^{14}\) Crary argues that late capitalism achieves this dissolution by means of technologies that change our relation to a world-in-common not necessarily in terms of space, but in terms of time. “24/7” temporality, or the “non-time of late capitalism,” is a loss of world. “Non-time” because the stream of time no longer has any relationship to the rhythms of human life, understood as essentially shot-through with lapses in operativity, but instead we inhabit “a switched-on universe for which no off-switch exists.” Crary writes:

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Of course, no individual can ever be shopping, gaming, working, blogging, downloading, or texting 24/7. However, since no moment, place, or situation now exists in which one can not shop, consume, or exploit networked resources, there is a relentless incursion of the non-time of 24/7 into every aspect of social or personal life. There are, for example, almost no circumstances now that can not be recorded or archived as digital imagery or information.\(^\text{15}\)

As the breakdown of time in common, and unsustainable by definition, 24/7 is also the temporality proper to ecological crisis. It is “inseparable from environmental catastrophe in its declaration of permanent expenditure, of endless wastefulness for its sustenance, in its terminal disruption of the cycles and seasons on which ecological integrity depends.”\(^\text{16}\) Thus, Crary would agree with Morton that the loss of world is an essential part of the ecological thought. But for Crary, this leads directly to “non-stop consumption, social isolation, and political powerlessness,” social effects that are exacerbated precisely by the promise that these technologies will do the opposite of what they actually do.\(^\text{17}\)

One inhabits a world in which long-standing notions of shared experience atrophy, and yet one never actually attains the gratifications or rewards promised by the most recent technological options. In spite of the omnipresent proclamations of compatibility, even harmonization, between human time and the temporalities of networked systems, the lived realities of this relationship are disjunctions, fractures, and continual disequilibrium.\(^\text{18}\)

The idea of the Internet as a public common, then, is part of the problem, as it precisely fails to deliver on its promise of shared experience.

This last part is important: the Internet itself is not the culprit, at least not the original one. It was invented to serve the needs of 24/7 capitalism. Debord wrote about spectacle in the late 1960s in terms of the technologies that the system selects: “From the automobile to television, all the goods selected by the spectacular system are also its weapons for a constant reinforcement of the conditions of isolation of ‘lonely crowds.’”\(^\text{19}\) Forty years earlier, in his 1927 work The Mass Ornament, his forerunner Siegfried Kracauer described photography as a “secretion” of capitalism.\(^\text{20}\) Motivated by the fiction of their own agency, users of these technologies end up actively contributing to the conditions of their own docility. Likewise, in the case of the Internet, “the illusion of choice and autonomy is one of the foundations of this system of auto-regulation. In many places one still encounters the assertion that contemporary technological arrangements are essentially a neutral set of tools that can be used in many different ways, including in the service of an emancipatory politics.”\(^\text{21}\) But the issue is not

\(^{15}\) Crary, 24/7, 30.  
\(^{16}\) Ibid., 10.  
\(^{17}\) Ibid., 40.  
\(^{18}\) Ibid., 31.  
\(^{19}\) Debord, The Society of the Spectacle, 28. Debord borrows “lonely crowds” from the 1950 sociological study The Lonely Crowd by David Riesman, Nathan Glazer, and Reuel Denney.  
\(^{21}\) Crary, 24/7, 46.
whether the good guys or the bad guys are using the technologies—it is 24/7 temporality itself that colonizes our time and renders us socially isolated. Isolation becomes our common condition. To invoke Debord once more, “What binds the spectators together is no more than an irreversible relation at the very center which maintains their isolation. The spectacle reunites the separate, but reunites it as separate.”

The EIS, of course, is a paradigmatic example of the notion that we can use these tools in the service of an emancipatory politics. But the project’s rhetoric of 24/7 surveillance by means of cameras, as well as the injunction to look, to watch closely (including watching the films in reverse in the EIS website), to keep close watch even from afar (Google Earth), to spread the word on all the social networks—all of this takes on the flavor of Crary’s description of 24/7 as a permanent state of emergency, as “when a bank of floodlights are suddenly switched on in the middle of the night, seemingly as a response to some extreme circumstances, but which never get turned off and become domesticated into a permanent condition.”

The Politics of Lapsing

Kracauer wrote about the relationships between photography, collective self-understanding, and power. “Never before has an age been so informed about itself, if being informed means having an image of objects that resembles them in a photographic sense.” At the same time, he warned, “never before has a period known so little about itself. In the hands of the ruling society, the invention of illustrated magazines is one of the most powerful means of organizing a strike against understanding.” Long before the invention of television, magazine photographs allowed the world to disappear into its images, which were omnipresent and contiguous, leaving no space for the world itself. This exhaustive visibility intersects with a particular relationship to the present which photography encodes: “In the illustrated magazines the world has become a photographable present, and the photographed present has been entirely eternalized.” The spatial and temporal totalization that takes place in a world that sees itself in images makes true self-understanding impossible according to Kracauer.

In this tradition, thinkers have sought to articulate the liberatory potential of the interval, lapse, break, blink. Heidegger’s Augenblick and Benjamin’s Jetztzeit both harness the power of the present moment understood as a break in continuous, homogeneous time for something like authentic experience. For Benjamin, the notion of a present in which time has come to a stop is a necessary condition for the possibility of revolution. But this way of thinking about the interval remains grounded in the idea of an agential subject fully in possession of his faculties, “in control of his powers, man enough to blast open the continuum of history.” Crary differs from Heidegger and Benjamin in that the break on which he focuses takes place in sleep, our least agental state. The mysterious value of sleep saves his position from falling into an uncritical, quasi-primitivist romanticizing of a bygone Earth understood as a natural space-time

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22 Debord, The Society of the Spectacle, 29.
23 Crary, 24/7, 17.
24 Kracauer, 58.
25 Ibid., 59.
in which humans were once transparently *chez eux*. Sleep is the one thing that frustrates capitalist control despite capitalism’s endless attempts to optimize and commercialize it. It is one break we get from “the global system that never sleeps” and the “uncompromising interruption of the theft of time from us by capitalism.” Its value for Crary is not even negative, in the sense of rejecting capitalism. Sleep evades every oppositional logic. Infinitely underdetermined, it never does more than remind us that there are limits to how well our lives can be made to fit the mechanisms of modernization. It is annoyingly without value, except insofar as it restores us (but does it?) for the parts of life that generate things of value. It is, furthermore, our most vulnerable state, in contrast to the invulnerability presented by the surveillance, heightened security, and endless auto-regulation of 24/7 time, with its “fraudulent brightness that presumes to extend everywhere and to preempt any mystery or unknowability.”

For this reason, Crary argues, sleep stands for the durability of the social in the face of the breakdown of collective experience. Not only because it’s something we all in fact do—this could be said of other things as well—but because it frustrates the mechanisms that ensure our separation from one another. It seems counterintuitive to imagine sleep as the condition for the possibility of collective experience, since it is so deeply private. But this is precisely the point: in an era in which our time belongs to the forces of modernization and development, with their accompanying social isolation, whatever is most private is what manages to escape those forces, thus providing at least the possibility of shared time. And time in common, for Crary, is the reminder of a world before 24/7. Clearly, we do not all sleep at the same time. But if sleeplessness is “continuous with a generalized condition of worldlessness,” sleep marks the possibility of a world in common, “a ubiquitous but unseen reminder of a premodernity that has never been fully exceeded, of the agricultural universe which began vanishing 400 years ago. The scandal of sleep is the embeddedness in our lives of the rhythmic oscillations of solar light and darkness, activity and rest, of work and recuperation, that have been eradicated or neutralized elsewhere.”

In 24/7, sleep can only exist in this scandalous state, as a remainder in a logic that allows of no remainder.

Sleep, that “interval of time that cannot be colonized,” still happens (if we’re lucky). What makes the EIS interesting is the tension between its commitment to state-of-emergency, 24/7 surveillance on one hand and its dependence on the uncolonizable interval that makes the time-lapse imagery possible in the first place, on the other. The camera may not be sleeping is the literal sense, but it must stop looking for a moment in order for the whole thing to work. Its active watch is interrupted, necessarily so. Unlike Benjamin’s revolutionary protagonist, in full possession of his faculties, the not-recording camera does not blast open the continuum of history. Time-lapse is not the same as other technologies that rule today’s nature imagery market (the HD technologies used to make the “Planet Earth” series, for instance), precisely because it depends so heavily on time and, unlike its sister technology, high-speed

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27 Crary, 24/7, 24, 10.
28 Ibid., 19.
29 Ibid., 25.
30 Ibid., 19, 11.
31 Ibid., 10-11.
photography or “slow motion,” on what is not seen. While Morton would lump both together under the category of our hunger to see everything at the cost of losing the world, they are actually quite different from the perspective of shared time. It is the lapse, the uncolonizable moment of not-looking, that holds political potential in conditions of 24/7 capitalism.

**Conclusion: Paranormal Activities and Other Sleep Scandals**

Despite his invocations of ancient festivals and agrarian rhythms of life, Crary’s position commits him neither to a natural, unconstructed Earth, nor to an essential, ahistorical form of temporality of collective experience. However, his position does raise some questions. One thing Crary takes for granted without arguing for it is that we must have time in common in order to do politics. But this is perhaps not as obvious in environmental contexts. In their editorial preface to a recent issue of *Environmental Philosophy*, “Temporal Environments: Rethinking Time and Ecology,” for example, Jacob Metcalf and Thom van Dooren point to the possibility of thinking time and the political in precisely the opposite terms. They write that “attention to the political dimensions of temporality enables a recognition of multiplicities of lived time, and the ways in which justice can only come when we do not refuse other beings’ capacity to have their own time.”

Thus, one important objection to Crary is that shared time is not self-evidently a minimum condition for politics, or at least for environmental politics. Furthermore, it remains to be shown that time in common is a necessary condition for collective experience at all. Ultimately, however, what interests me is the relationship between seeing, temporality, and collectivity, and Balog’s project spectacularly performs the complex, strange relation in which this cluster stands to the politics of climate change, regardless of how we imagine the conditions of environmental politicality.

“That landscape is gone. It may never be seen again in the history of civilization. And it’s stored right here, in a photographic artifact.” So begins his short vimeo demo, which opens with stunning footage of a glacier calving in real time and switches to footage of Balog holding a memory card between his thumb and index finger. The statement is, of course, disturbingly not-false and confirms Morton’s claim that the ecological thought does not return us to a pre-technological world. The emancipatory potential of time-lapse is fully technological. The rhythmic oscillations of which Crary speaks are embedded in the technologies themselves. Thus, collectivity in conditions of 24/7 capitalism depends on technology’s capacity to engage with the spectral. Crary writes of a premodernity that has never been fully exceeded, but is present these days only in the form of a remainder, in conditions when we cannot actually get at it: during sleep. Whatever it may be said that we have in common, whether or not we choose to call it “the world,” we cannot get at it by “thinking big” and seeing “the big picture” on which Morton insists. The world (?) we have in common is also, and perhaps even more significantly, in the small, disconnected, interstitial spaces between seeings. Its uncolonizable incoherence becomes the possibility of shared experience in late capitalism, and while Morton is correct in saying we get at it non-innocently, by means of technologies, it is also true, pace Morton, that this incoherence remains uncolonizable only insofar as it constantly overflows the technologies and their totalizing logics. The Extreme Ice Survey demonstrates this in spite of

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Balog’s articulated desire for proof of climate change, exhaustive in content and indisputable in form. The total, coherent picture he aims for is possible only thanks to lapses in totality and coherence.

The enormous commercial success of the *Paranormal Activity* films, all directed by different directors between 2007 and 2014, is proof of the age’s anxiety about the role of surveillance and communication technologies during sleep. The films take place entirely “on camera”—everything is seen either through hand-held camcorder, security cameras, found VHS tapes, or on Skype or Facetime-like communication software—the viewer’s gaze basically becomes the camera, and the paranormal activities are visible only when the cameras are on and the protagonists are sleeping. But these films consistently exploit the breakdown of seeing in multiple ways, from the use of time-lapse in all the footage of the couple’s bedroom in the first movie, to more subtle use of interstitial space in the second and third (cameras moving away from and back to a particular space in such a way that the “activity” appears abruptly, but we have no idea how it got there because this has taken place while the camera wasn’t “looking”). It is not entirely clear whether these kinds of cultural moments should be classified under Badiou’s passion for the real—because they seek to make the invisible visible—or something else entirely—because at the same time as they substitute cameras for the naked eye, they clearly demarcate the camera’s limits, frustrating the viewer by precisely not showing everything.

Perhaps the best (if most bizarre) comparison to Balog’s glacier videos is neither photos of Bigfoot nor Stalin’s show trials, but the videotaped activity in the *Paranormal Activity* series, currently on its fifth film, which seems to point to the possibility of something beyond the passion for the real—because they seek to make the invisible visible—or something else entirely—because at the same time as they substitute cameras for the naked eye, they clearly demarcate the camera’s limits, frustrating the viewer by precisely not showing everything.

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Bibliography