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Climate Aesthetics in the Ablation Zone

On June 17, 2019, a photograph of a dogsled team driving headlong into a lake of bright blue water in Greenland went viral.[1] Headlines announced an unprecedented "melt event": the Greenland Ice Sheet had lost two billion tons of ice *that day alone*. For months afterward reports followed with stories that the Ice Sheet was melting at a pace far beyond what scientists had calculated, most of them punctuated with data about the immense volume of ice loss. The rise of climate crisis images and headlines such as this express a double failure: the failure of ecological balance and the failure of scientists to account for these seemingly incalculable environmental consequences. Climate change has ushered in a penchant for a new sublime visuality. Environmental science produces environmental data that demarcates tipping points, averages, and predictions, and then climate conditions seemingly break all the records, producing unprecedented planetary phenomena that range from the uncanny to the catastrophic.

What makes this scene of ice melt sublime, however, miscasts the scientific and lived reality of climate change in Greenland. The photograph, taken by Steffen Olsen, a climate scientist from the Danish Meteorological Institute, tells of a more complex situation. The photograph does indeed depict the effects of the steady rise in global temperature. But while that measure is a cornerstone for rethinking all the world's ecologies, its effects are not necessarily as simple, directly causal, or as visible as this scene of melt suggests. Though the photograph depicts an unusually warm day, and an unseasonably high degree of melt, as Olsen tweeted, the image is "more symbolic than scientific for many."[2]

Olsen and his dog team were in the ablation zone of the Greenland Ice Sheet, at Inglefield Bredning, near Qaanaaq, in Northwest Greenland. The ablation zone is a glaciological term for the low-altitude areas at the edge of a glacier, where melt causes a net loss of ice. Activity in the ablation zone is central to the measure of the Ice Sheet's surface-mass balance, and by extension the effects of climate change. Olsen and his research team were retrieving weather station equipment, a journey he navigated with the help of Inuit hunters in the area, satellite imaging of the ice, and the highly trained sense capacities of the dogs. The group is one of several forms of geo-assemblage that congregates in Greenland to create a complex synthesis

1. Alison Rourke and Fiona Harvey, "Photograph lays bare reality of melting Greenland sea ice," *Guardian*, June 17, 2019, www.theguardian.com/world/2019/jun/18/photograph-melting-greenland-sea-ice-fjord-dogs-water.

2. Steffen Olsen, quoted in Alison Rourke and Fiona Harvey, "Photograph lays bare reality of melting Greenland sea ice," *Guardian*, June 17, 2019, www.theguardian.com/world/2019/jun/18/photograph-melting-greenland-sea-ice-fjord-dogs-water.

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IMAGE 1. The dogs ran into a lot of standing water on the sea-ice, June 13, 2019; photograph by Danmarks Meteorologiske Institut/Steffen M Olsen.

of scientific data and cross-cultural knowledge, particularly in consultation with the Inuit, while grappling with the real consequences of climate change.[3]

While it appears from the photograph that Olsen's dogsled is headed into a blue lake, in fact the team was driving across ice that was over a meter thick, but which had collected a surface layer of ankle-deep meltwater. This phenomenon occurs annually, though usually not until July or August. But Olsen's reflection on this scene is more concerned with warming sea temperatures and the decline of sea ice formation, than with glacier melt per se. The ecology of sea ice has profound consequences for Inuit hunters who must travel out on the ice to reach areas that are rich with animal life. Animal migration patterns are changing too, so that what was a stable livelihood for the Inuit has become increasingly precarious.

Many of the planet's glaciers are indeed disappearing, but the Greenland Ice Sheet cannot be understood as a singular disappearing entity like other glaciers. It is the world's second largest ice mass, yet its transformations express in strata and zones, largely at its periphery where there are surrounding ice caps and subsidiary glaciers. The Ice Sheet is therefore both a totality (a land mass) and an entity that plays an integral part in the conditioning of the ecologies that surround and enfold it, particularly the temperature of the sea and air. The Ice Sheet is a key agent of the planetary cryosphere, effecting further positive feedback loops such as changing animal migration patterns and permafrost thaw. Its melt is therefore not merely a consequence of global warming—as though a singular and eventful

3. Klaus Dodds and Mark Nuttall explain the numerous forms of "geo-assembling" that are taking shape in Greenland. See Klaus Dodds and Mark Nuttall, "Geo-assembling narratives of sustainability in Greenland," in *The Politics of Sustainability in the Arctic: Reconfiguring Identity, Space, and Time*, ed. Ulrik Pram Gad and Jeppe Strandsbjerg (New York: Routledge, 2019), 224–41.

extinction that could be summarized by the image of an iceberg calving—but an occasion of further planetary climate effects. Since the Ice Sheet is in a state of perpetual transformation, glaciologists study unprecedented variances within already variable patterns of seasonal, annual, and geological recession and growth.

The unexpected volume of melt of the Greenland Ice Sheet in the summer of 2019 made for shocking headlines, but it was nevertheless not an unprecedented occurrence. That season was the seventh highest rate of melt since 1978, not nearly as high as the rate of melt in 2012, and showed "less-than-record number of melt days," according to the National Snow and Ice Data Center.[4] In other words, within the context of climate catastrophe, the melt was relatively unremarkable and consistent: normal within abnormal planetary activity that animates the era of climate change. But as Olsen suggests, the concerns of climate scientists are also lived realities; they are not just data, nor are they alarmist political demands. The "symbolic" value of his photograph does not lie in the question of whether or not it demonstrates an exceptional variance in scientific terms; it represents the immediacy and urgency of a global ecological reality. Even an unremarkable year of melt is an expression of a larger pattern in which the behavior of the cryosphere dramatically alters livelihoods and even fragilizes the scientific infrastructure and equipment by which glacier ice is studied. The image therefore provides a visibility to climate change in ways that scientific information and its interpretation simply cannot. The photograph, both in its subject matter and in its environmental mise-en-scène, visualizes the limits of science and the aesthetic possibilities of political ecology. The object of scientific study—the ice itself—is an unstable and unpredictable ground. Not only does it melt, but its very dynamics enact and animate the eclipse of the scientific episteme with the political concerns of climate change.

This confrontation with the limits of scientific representation, and concurrently the politicization of science, is consonant with the emergence of political ecology, as defined by Donna Haraway, Bruno Latour, and Isabel Stengers, among others. The failure of both scientific and political expertise to account for or respond to planetary crises has led to a demand to rethink living systems, interspecies relations, geological time spans, and importantly, legacies of the imperialist and industrial global apparatus. As philosopher Kyle P. Whyte argues, the penchant for apocalyptic or dystopian representations and narratives of climate change that position it as an impending *future* scenario is a hallmark of settler epistemology.[5] Such representations overwrite the reality that centuries of colonialism and genocide have already enacted such apocalyptic scenarios for Indigenous people and for the planet. Colonialism produced the ecological perturbations that have culminated in climate crisis. In other words, from an Indigenous perspective, climate crisis is an intensification of the already operative epistemological and environmental perturbations of colonial territorialization and resource extraction. It is not a future apocalypse but a historic one that is still unfolding. "Settler apocalypticism"

4. Ted Scambos, Julienne Stroeve, and Lora Koenig, "Large ice loss on the Greenland ice sheet in 2019," National Snow and Ice Data Center, November 11, 2019, http://nsidc.org/greenland-today.

5. Kyle P. Whyte, "Indigenous science (fiction) for the Anthropocene: Ancestral dystopias and fantasies of climate change crisis," *Environment and Planning E: Nature and Space* 1 (2018): 224–42.

forcefully situates Indigenous tribes as people of the Holocene who are in an inevitable decline, thereby projecting onto them a fantasy of finitude.[6]

The representation of climate change often risks overwriting planetary knowledge with these latent colonial fantasies of finality: the extinction of species, the end of Indigenous people and knowledge, total economic control of environments. As Whyte points out, the political resistance of the Standing Rock Sioux Tribe to the Dakota Access Pipeline is not a new battle but one in a longstanding and historic struggle against settler legal systems, cartography, and terraforming.[7] It is only under the drive of colonial fantasy and its overwriting of history that the politics of the pipeline would appear as newly charged by climate change, that the tribe would appear to have a precarious foothold on the territory (rather than having successfully maintained this land for centuries despite colonial siege), or an endangered position in human history from which they must be saved or redeemed.

Is the sublime appeal of glacier melt in a photograph like Olsen's a settler environmental schema akin to the apocalyptic scenario Whyte describes? Or more pointedly, is it a representation that *overwrites* the colonial history that produced climate change in the first place? Olsen's comment, that the image is more symbolic than scientific, suggests that it does indeed fall prey to the visual conventions of apocalypse: a scene of flood at the veritable end of the human world coupled with the signifier of Indigenous lifestyle (the dogsled). It is composed, after all, as a movement toward a seemingly infinite receding horizon that is obstructed by the magnitude of ice melt. The photograph is not just generally symbolic, then—it is squarely situated within the affectively charged codes of representation that have come to dominate climate change discourse.

How then to reconsider climate aesthetics without defecting to the fraught history of apocalyptic ends? How can a planetary sensibility be forged from a response-ability (to use Haraway's term) for the roots of climate crisis in the imperial and industrial episteme? And how might this response-ability be attuned to ongoing Indigenous political resistance, and an ethics of allyship and environmental stewardship? Do such demands overdetermine aesthetics altogether? Or is it possible to imagine that images such as Olsen's are pushing toward a global political ecology, by which the aesthetic tradition itself must contend with the new epistemologies of climate change? In the history of aesthetics, particularly in the Kantian and modernist traditions, the theorization of the sublime experience goes to exceptional lengths to divest itself from the immanent danger of "nature," to say nothing of its severing from other categories of knowledge, faculties of thinking, and operations of knowledge production. The machinations by which theory divests aesthetic experience of the embodied sense and thinking of the environment leads to a form of willful ignorance of Indigenous history and political claims to the land. As Jacques Derrida argues, there is an implicit violence in Immanuel Kant's cutting (*coupure*) of sense from its heterogeneous roots in the body as it is disciplined into the latter's theorization of the categories of

6. Whyte, "Indigenous science (fiction)": 236.
7. Whyte, "Indigenous science (fiction)": 237.

aesthetic experience.[8] The severing of sense that produces the aesthetic experience is, not surprisingly, part and parcel of the imperial environmental framing and capitalist drive to extract that ultimately perturbs the "web of life."[9]

Yet, the conditions of climate change bring an imperative to perceive and interpret the environment from epistemic standpoints that are historically and immanently entangled with those environments. As Latour suggests, it is precisely the recourse to specialization and disciplinary expertise that produces the gaps in which environmental crisis appears. Climate aesthetics, if there is such a thing, is precisely this thinking and experience that is taking place in the unthought critical domain where crisis makes its appearance. Olsen's photograph is an image concatenated across forms of knowledge, taken by a climate scientist traveling with Inuit hunters in the heart of a glacier melt event. It is an image taken in the ablation zone, where latent colonial fantasies become slippery, where scientific claims must work against the inertia of aesthetic schemas, and where new perceptual orientations must be forged in the epistemes that emerge from the cross-sections of experience. ■

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8. Jacques Derrida, *The Truth in Painting*, trans. Geoffrey Bennington and Ian McLeod (Chicago: University of Chicago Press, 1987), 83–118.

9. Jason Moore, "The Capitalocene Part I: On the nature and origins of our ecological crisis," *Journal of Peasant Studies* 44, no. 3 (2017): 594–630.