

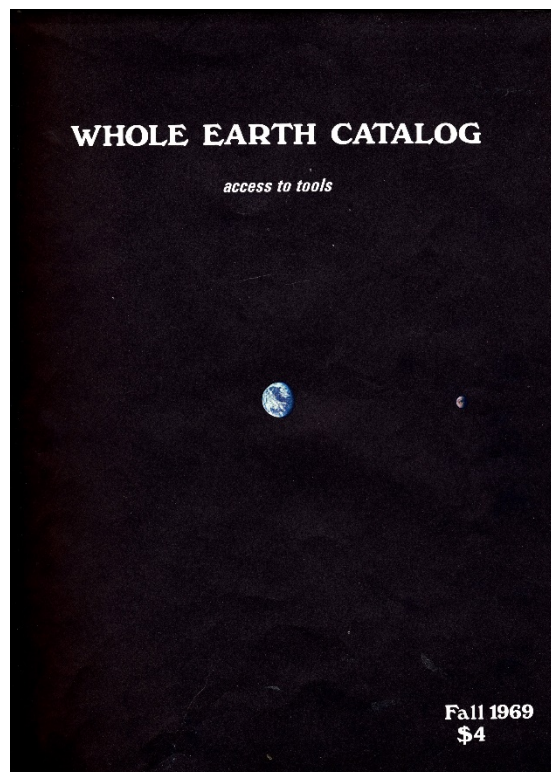
# Disappearing Ice and Missing Data: Climate Change in the Visual Culture of the Polar Regions

Lisa Bloom and Elena Glasberg (2010)

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## THE WHOLE EARTH ICON

The now familiar 1969 NASA satellite image of Earth as seen from space might have remained a state secret if not for Stewart Brand's public campaign. Inaugurating his *Whole Earth* catalogue with the first satellite photo of the sphere earth as seen from space, Brand's activism transformed the image of a fragile earth once censored by Cold War secrecy into a symbol of responsible environmental practice. [1]



**Fig. 1: *Blue Marble* photograph of Earth, taken from Apollo 17, 1969.**

Yet as lasting as this earth image may be, the environmental concerns it symbolizes have shifted. No longer organized by the threat of nuclear annihilation, contemporary environmentalism focuses more often on resource and water safety and on issues of justice in climatically changing environments. With the focus on climate change comes a marked concentration in the way the earth is being represented. Brand's iconic whole earth has today been displaced by just two regions — the Arctic and Antarctic — parts that now stand in for a whole on the verge of catastrophic disintegration.

Accordingly, the tracking, measurement, and visualization of polar ice – sea ice, ice caps, and glacier ice – has become a focus of struggle against government control and popular misrepresentation. This paper shows how artists such as Subhankar Banerjee, Annie Pootoogook, Lillian Ball, Roni Horn, and Andrea Bowers rework the political and visual drive of Brand's whole earth in the context of a revival of interest in environmental activism and art movements of the 1960s and 1970s and the goals of that period to save the planet. [2] We are primarily interested in how the artists are analyzing for a wider public what we are broadly calling data to intervene in official government and corporate information on climate change and to speak for Native people or places that have been under- or mis-represented. [3] The artists are in a way creating evidence of climate change and in the process questioning the way data is collected, analyzed, and circulated in order to open data to new forms of interpretation as well as a whole new set of interpreters concerned with climate change. [4]

### **COUNTER VISUALIZATIONS**

Brand's earth once provided a holistic retrospect of earth, not simply in its naturalized vision of earth from the impossible vantage of space, but for its hopeful transformation of state to public knowledge. Not surprisingly, though, more recent popular culture tends toward the apocalyptic. The new icons are the stranded polar bears from the cover of *Newsweek*, [5] and documentary films such as Al Gore's *An Inconvenient Truth* (2005), *Oil on Ice* (2005), and *Out of Balance: ExxonMobil's Impact on Climate Change* (2006) as well as fictional films such as *The Day After Tomorrow* (2004) imagine climate ravaged futures. Contemporary ecoart too often depicts a planet in decline. But government and private industry denial and suppression of evidence of damaging practices — a history dating back to the 1960s — continue to characterize the context for envisioning the earth under industrial-ecological duress.

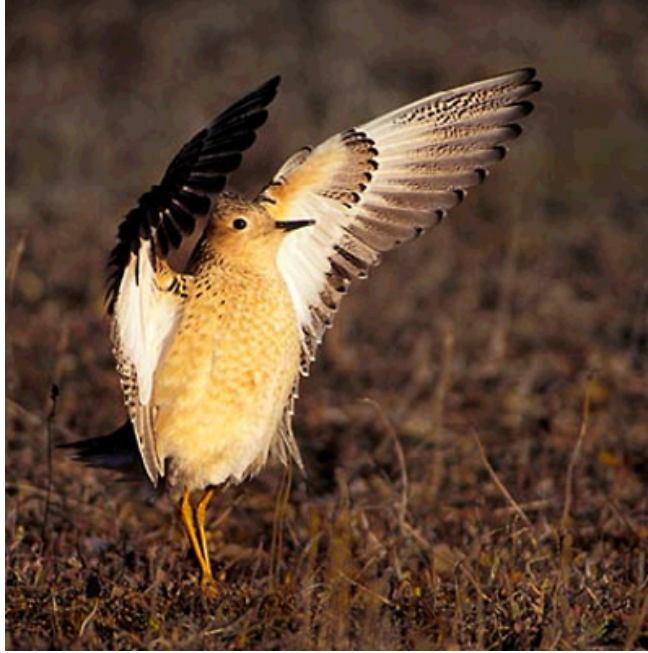
Subhankar Banerjee's photographs entered the controversy about whether the Arctic National Wildlife Refuge (ANWR) should be opened up for oil drilling during a bitterly contested Senate debate in March 2003, which itself took place within a history of active censorship of climate change data during the Bush years from 2001-2008. [6]



**Fig 2: Subhankar Banerjee, *Caribou Migration I*, from the series *Oil and the Caribou*, Photograph, 2002, 86 x 68 inches.**

This censorship took many forms, sometimes involving tacit media complicity, and other times more direct suppression of military satellite images[7] and even reports — as was the case with the Bush administration’s censorship of the landmark 2008 report compiled by scientists from eight Arctic nations to give policy makers recommendations on safer extraction of energy resources from the Arctic. [8]

The unusual move to censor Subhankar Banerjee’s photographs of the Arctic National Wildlife Reserve at the Smithsonian in 2003 suggests the power that big oil had during the Bush administration in the US, and how art work was as liable to censorship as the reports that ran counter to Bush administration interests. For example, one of Banerjee’s original captions for a close-up image of a sandpiper read: “This species, a long distance traveler, migrates each year from Argentina.”



**Fig 3: Subhankar Banerjee, *Sandpiper*, 2002.**

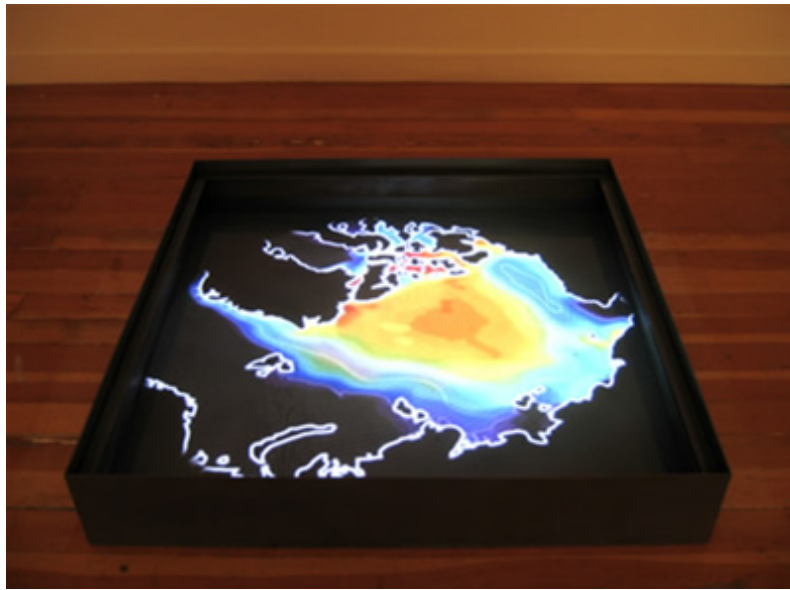
Stripping away its reference to migration pattern, the censored caption description of “a buff-breasted sandpiper” artificially highlighted the photograph’s realist aesthetics.[9] Further, the edited captions narrowed attention to the merely taxonomic aspects of the aerial panoramas of animal migration and effectively curtailed recognition, much less analysis, of Banerjee’s bold integration of visual data, aesthetics, and political concern for the lifecycle of the animals inevitably migrating beyond both the photographic frame and the Smithsonian’s framing.



**Fig 4: Subhankar Banerjee, *Brant and Snow Geese with Chicks*, 2006. From the series *Oil and the Geese*. Photograph, 2006, 68 x 86 inches.**

Like Banerjee, Lillian Ball in her 2007 project “66,32,50” also sees the Arctic as a key site in the negotiation of global environmental politics as well as a space on the verge of catastrophe. But rather than work with the way that photography can indicate presence and the permanence of its

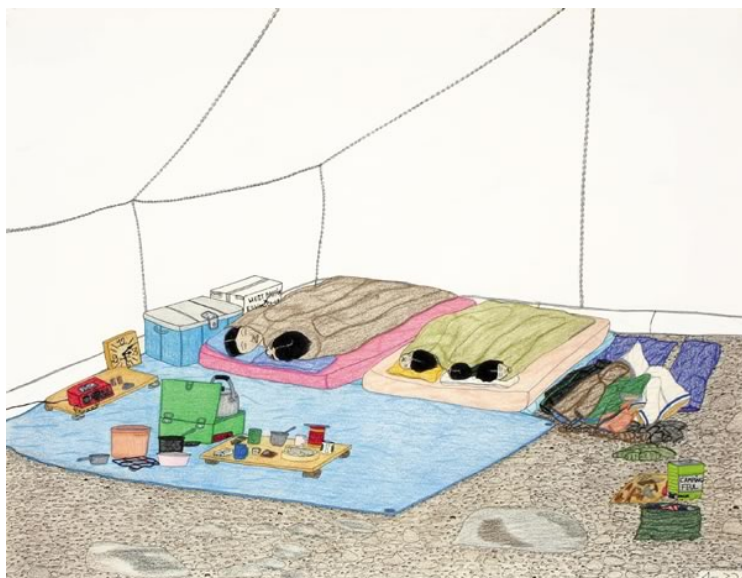
subjects, Ball underscores the fragility and ephemerality of ice by creating her work as a video projection on a block of melting ice, whose relation to progress is one of disappearance.



**Fig. 5: Lillian Ball, 66, 32, 50, Video animation of Arctic Ice melting maps projected on ice sculpture, 45cm high x 1 meter x 1 meter, 2007.**

Like Banerjee, Ball compiles and analyzes data — in her case, of the dwindling Arctic ice cap from 1990-2040. Ball also integrates the Sami people and the local reindeer, who provide food and transport, through connecting the longitude and latitude of the piece’s title “66,32,50” to ambient sounds recorded at that precise location.

Annie Pootoogook’s work provides a new frame for connecting visual documentation to the production of Native knowledge in the Canadian Arctic. Isolated domestic items like eyeglasses or a bottle of Tylenol loom dreamily in some images, while in others the eerily captured face on a television screen, or a discordant scene of a woman smashing bottles in her backyard attest to a Native way of seeing their environment in the process of irretrievable change causing great social disruption.



### **Fig. 6: Annie Pootoogook.**

Pootoogook's evidence of the "Arctic Paradox," or the ways the most remote spots on earth turn out to be among the most polluted [10] might remain inscrutable read only within a tradition of Native handicraft or even as western personal expression. Seeing through Pootoogook's glasses frame, however, suggests her images are otherwise uncollected and unacknowledged data of a changing environment within a Native frame.

Roni Horn's 2007 multi media installation *Vatnasafn: Library of Water* in a refunctioned library in Stikkisholmur, Iceland reinvents data on glacier melt – how it is collected, displayed, connected to other modes of data, circulated, and analyzed. Consisting of 24 glass tubes filled with water collected from glaciers set in a former stacks whose windows looking out onto the shore has been widened, and including a collection of local stories about weather which the public is encouraged to add to as well as public rooms and an apartment for housing a visiting writer program, *Vatnasafn* is a cultural ecosystem inviting and producing Iceland. Forthright about her "absurd" ambition to catalogue every stone, drop of water, word spoken on by the former isolates now involved in a global economic meltdown, Horn creates an affective capacity or even possibility for data. *Vatnasafn* offers hope to those who circulate among its exhibits, who add to its library of water their own stories of weather, who literally walk among the words for personality and weather cut into the waterproof flooring, and whose images are distorted through the deliquesced former glaciers turned by temperature and containment into statuary that if the data is us we can relate to it (and ourselves and our climate-disturbing actions) as other than disembodied facts to be analyzed in labs. Rather, *Vatnasafn* offers to link the liquidities of literature, language/ story, economics, industrial fabrication, and bodily movement to a hope that people can recognize themselves in the data – or, as data – and respond in a way to at least recognize the menace of anthropogenic climate change. *Vatnasafn* pressures connection to, in Horn's phrase, "recognize the water in us" beyond the surface tension of convention, discipline, national difference, or geographical boundaries to multiply identification and sympathy beyond the strict definition of data in science.

More a surrealization of data and the museum experience, *Vatnasafn* is a protest piece that protests being read as protest art. Yet a younger generation of artists directly reference the visual style and the politics of 1960s protest art. One such artist is Andrea Bowers, whose 2009 mixed media gallery show "Mercy Mercy Me" echoes in its title Marvin Gaye's 1971 anthem subtitled "The Ecology." The power of Bower's tattered protest banner from the 1989 Exxon-Valdez oil spill protests stems in part from the amateurish quality of its recreation of the Brand Whole Earth icon, and thus its rescue of the icon from decades of over-slick marketing, as well as from the material fraying of the banner itself.

The damage it has sustained – the material holes and incompleteness, as well as the paradox of its memorializing an ephemeral or "dated" event – stands in for the violence of an incomplete "clean up" forgotten by the world so hopefully evoked by the Whole Earth icon. Although seemingly addressed by progressive law and improved environmental technologies, the on-going effects of the spill remain inassimilable from the point of view of the people who must live with the damage.

Materials are not so much re-functioned but refashioned in the beadwork banner "Ken Saro-Wiwa's Last Words," who was murdered in 1995 (along with eight others) by the colonialist Nigerian government for colluding against Shell Oil's strong-arm tactics in maintaining their economic empire. [11] Enlisting the skills of G'Wich'in artists in creating the banner, Bowers enacts the visual logic of the connected, integrated earth in her art practice as well, by stringing together

Alaskan Native histories of resistance to similar struggles of the Nigerian people against Shell Oil. The outcome of the legal case against Shell and their payment of 1.5 million in reparations further opens up questions around the status and use of evidence within the context of law. The language and regimes of the state and the oil companies who devastate indigenous lands can work both ways – to kill and to repair. Yet the revisualization of the protests of past eras – the re-functioning of a banner of an icon of the ecological moment and the capturing of lost protest words into a beadwork banner that makes global connections between anti oil company struggles – suggest that data and its modes of production, presentation, and circulation will always exceed the systems, whether of visual meaning or justice, in which they are either instrumentalized, or worse, unreadable or even non-existent.

A February 28th *New York Times* op-ed by Al Gore argues for renewed faith in cap and trade policy to manage anthropogenic climate change. What is most striking for our consideration of the legacy of the Whole Earth as an icon of ecological protest is the image that accompanies the op-ed, troping “Earthrise,” the other famous image from 1968, of earth seen from the vantage of the moon. The new version (by a design studio, Open NY) also aligns earth and moon so that earth is “rising” in the far view. But the moon has been replaced by another earth. The doubling of the earth visually and conceptually pressures human-centered technologies of vision and perspective by manipulating an image that has itself been de-naturalized through its own over-circulation. [12] Seeing earth from earth – through the lens of Brand’s icon and its history of appropriation of the once-suppressed satellite imagery, as well as the other newly-mediated practices and images discussed here – offers a new vision of earth as a technologically and anthropogenically producible site. This is a hopeful, unnatural closing vision for this essay on how artists concerned with the politics of climate crisis are pushing representation and data beyond familiar, realist locations and beyond the mediated and disciplinary rationales of art and science.



Fig. 7: [www.nytimes.com/2010/02/28/opinion/28gore.html?hp](http://www.nytimes.com/2010/02/28/opinion/28gore.html?hp).

## ENDNOTES

1. Stewart Brand interview for the PBS documentary program American Photography: A Century of Images at [www.pbs.org/ktca/americanphotography/filmandmore/index.html](http://www.pbs.org/ktca/americanphotography/filmandmore/index.html).
2. The desire of environmental artists such as Newton and Helen Harrison, Bonnie Sherk, amongst others, from the 1960s and 1970s, to draw our attention to the relation of humans to specific sites, constructed environments, and the “development” of land to transform public policy through artistic practice has been an important influence on some of the artists whose work will be examined in this article. Also see “A Conversation with Peter Fend” with David Joselit and Rachel Harrison in October 125, Summer 2008, pp. 117-136 for an extended conversation about Peter Fend’s work with satellite images through Ocean Earth in the 1980s.
3. This paper develops topics initiated in a special issue of *The Scholar and the Feminist* (71.1, Fall 2008) co-editors Lisa Bloom, Elena Glasberg, and Laura Kay: [www.barnard.edu/sfonline/ice](http://www.barnard.edu/sfonline/ice) which includes texts and images by some of the artists and writers discussed in this article as well as articles by Bloom and Elena on polar representation.
4. Although the Treaty defends territorial claims, scientific activity has long been understood as its stand in. And station building, ever on the rise — literally, in the case of Japan’s new highest base achievement — attracts little questioning.
5. See Geoffrey C. Bowker and Leigh Starr, *Sorting Things Out: Classification and Its Consequences (Inside Technology)* (MIT Press, 2000). The authors argue that categorization is both strongly influenced by and reinforces ideology: “revolutions (political or scientific) must change the way things are sorted in order to throw over the old system.”
6. Newsweek featured two cover stories on Arctic polar bears during the summer of 2008 on June 9th, Jerry Adler, “The Race for Survival,” and again on Jul 28th by Daniel Stone, “On Thin Ice.”
7. The documentary *Hot Topic* (Peter Bull, 2007) explores how bi-partisan political and economic forces prevented the U.S. government from confronting global climate change during the Bush era. Also see Naomi Oreskes, “Beyond the Ivory Tower: The Scientific Consensus on Climate Change” *Science* 3 December 2004: Vol. 306. No. 5702, p. 1686, and Naomi Oreskes, “Global Warming – Signed, Sealed and Delivered,” *The Los Angeles Times* Monday 24 July 2006.
8. More recently, in July of 2009, the Obama administration declassified secret spy satellite images of the Arctic that the Bush administration had also censored to galvanize Congress and the American public to take action to halt catastrophic climate change caused by rising levels of carbon dioxide in the atmosphere. These images in higher resolution than images already available through NASA censored for military concerns if not directly by desire to suppress evidence of warming clearly reveal the impact of global warming in the Arctic since the satellite images taken in July 2006 and July 2007 show the ice dramatically retreating during the summer.
9. Suzanne Goldenberg and Damian Carrington, “Revealed: The Secret Evidence of Global Warming Bush Tried to Hide,” *The Observer* UK, 26 July 2009. See: [www.truthout.org/072609T](http://www.truthout.org/072609T). Also see, Daniel Glick, “Polar Distress,” May/June 2008, *Audubon Magazine*, see: [www.audubonmagazine.org/features0805/habitat.html](http://www.audubonmagazine.org/features0805/habitat.html); See Daniel Howden, “US censors Arctic scientists’ findings as it prepares for oil and gas auction,” *The Independent*, January 22, 2008. Howden details how the US blocked the release of an important assessment of



oil and gas activity in the Arctic. Kassie Siegel, the climate director at the US-based Center for Biological Diversity, claimed that the censoring of the Arctic Council report “fits a pattern of downplaying, denying and suppressing climate science . . . part of the Bush-Cheney strategy of handing out as many fossil fuel entitlements as quickly as they can in their final months in office.

10. See Ingrid Sischy. “The Smithsonian’s Big Chill.” *Vanity Fair*. December 2003: 242-6; and Suzanne Boettger, “Global Warnings,” *Art in America*, June/July 2008: 154-161, 11. Maria Cone, *Silent Snow: The Slow Poisoning of the Arctic*, (Grove Press, 2005) for a comprehensive description on the “Arctic paradox.”
11. See: Joshua Hammer, “The Making of a Legend: A Dissident’s Ghost is Still Rattling the
12. Junta,” *Newsweek* 18 December, 1995; William Boyd, “In Memoriam: Death of a Writer,” *The New Yorker* 27 November, 1995; Ed Pilkington, “Shell Pays out 15.5m over Saro-Wiwa Killing,” *Guardian* 9 June, 2009.
13. See Denis Cosgrove, *Apollo’s Eye*, Poole, Glasberg , “The Intimate Sphere” *Genre* 2003 on Gore’s satellite-internet globe vision circa 1993.