

DIANE BURKO SEEING CLIMATE CHANGE

August 28 – December 12, 2021

American University Museum at the Katzen Arts Center

Washington, DC

Curated by Mary D. Garrard and Norma Broude

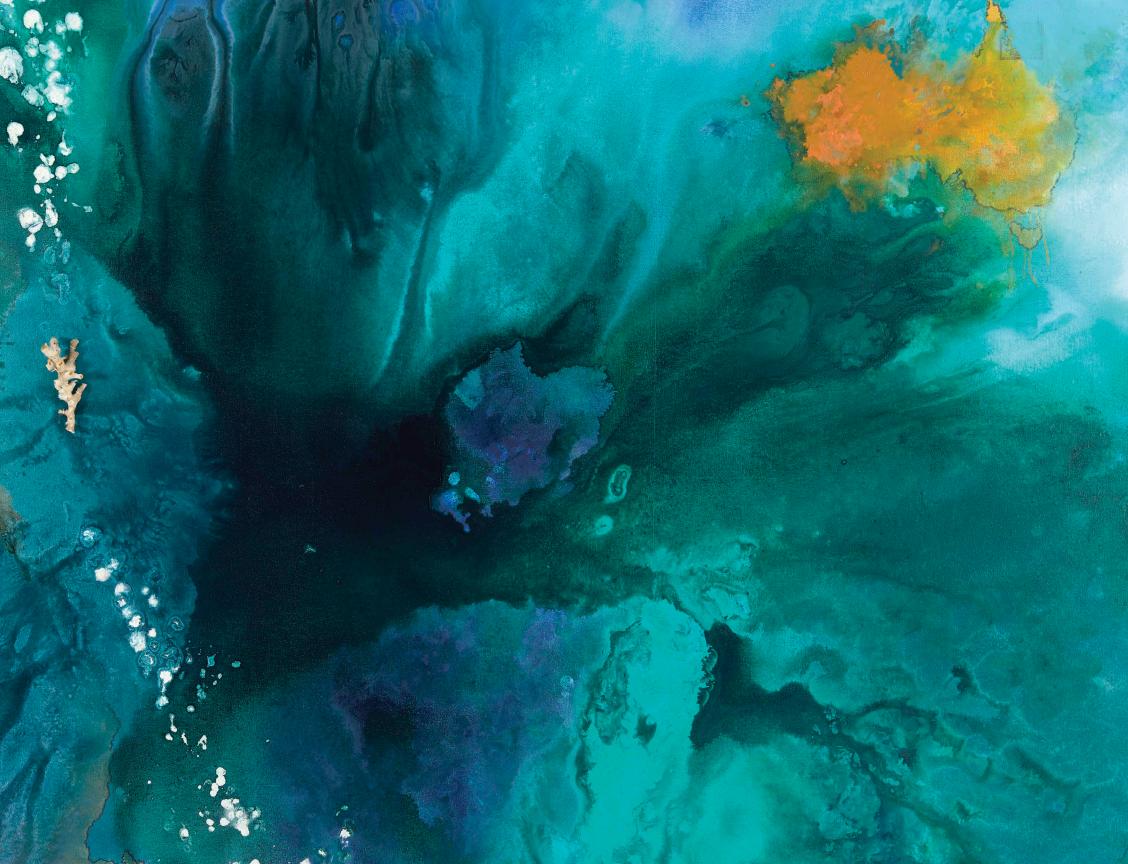


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FOREWORD

Fall 2021 marks the beginning of American University's Year of Climate Action. It builds on our shared commitment to engage students, faculty, staff, and our community at the intersection of scientific insight, artistic imagining, political struggle, and public interest; to take action against the existential threat of climate change. It began with an exhibition proposal from two pioneering feminist scholars, AU Professors Emeritae Mary D. Garrard and Norma Broude. They proposed the museum present the exhibition *Seeing Climate Change* by the painter, photographer, and climate activist Diane Burko.

Burko has long been a prominent and persuasive advocate for art's role in addressing climate change, and the American University Museum has several times been the beneficiary of collaborations with Garrard and Broude. Their provocative teachings have inspired generations to resist the masculinist tendencies of modern and contemporary art, and their legacy continues to influence artists and scholars

today. Garrard and Broude's involvement convinced me that this is the right time, and that we must use this opportunity to educate, to understand the broader socio-political implications of environmental degradation, and to place Burko's important work on climate change in its larger art-historical context.

Burko expressed the need for a university-wide symposium to augment her exhibition, to make sure we moved from the realm of objects hung on walls into the realm of action. Thanks to an anonymous donor, the museum was able to fund the symposium and bring to the event the talents of activist art critic Eleanor Heartney and the distinguished author and environmentalist Bill McKibben.

Contributions also allowed us to appoint art historian Sarah Leary as Climate Action Manager to work across campus, deepening our collaborations with faculty, integrating museum programming with curricula and research, and coordinating across-campus climate initiatives during this Year of Climate Action. Our programming became the springboard for a university-wide mandate to bring the arts, sciences, and policy communities together for exhibitions, events, workshops, and a film festival designed to spark dialogue, educate, engage, and prompt action.

As Garrard wrote at the conclusion to her catalog essay, "Diane Burko and Climate Change: The Voyage Out:" "Whether the path that humans have set our planet on will lead to extinction, or to a course correction that will keep it alive, depends on how we macro-organisms handle climate change now." There is real cause for fear and concern, but the art of Diane Burko and the commitment of her collaborators in and outside of academia and the art world give us hope.

JACK RASMUSSEN
Director and Curator
American University Museum
Washington, DC



FULLY VISIBLE

By Bill McKibben

Having written the first book about climate change way back in 1989, I found myself fairly lonely for many years; there were far too few other non-scientists taking on this crisis. So in 2005, I wrote an essay for *Grist* magazine, the online environmental journal, that began like this: "One species, ours, has by itself in the course of a couple of generations managed to powerfully raise the temperature of an entire planet, to knock its most basic systems out of kilter. But oddly, though we know about it, we don't know about it. It hasn't registered in our gut; it isn't part of our culture. Where are the books? The poems? The plays? The goddamn operas? Compare it to, say, the horror of AIDS in the last two decades, which has produced a staggering outpouring of art that, in turn, has had real political effect. I mean, when people someday look back on our moment, the single most significant item will doubtless be the sudden spiking temperature. But they'll have a hell of a time figuring out what it meant to us."

As it happens, it was right about that point that Diane Burko was beginning to focus her formidable vision on this crisis. She was one of the early figures in what has become a welcome

army of artists, poets, musicians, novelists, librettists, and photographers who have tried to make sense of our new reality.

It's not always easy: climate change is so massive (the largest thing humans have ever accomplished) that it's frustratingly hard to see. It happens just a little too slowly—over months or perhaps decades—unless it happens so fast (think hurricanes or firestorms) that we are distracted by the erupting symptoms, not the underlying condition. And artists in any event are more used to finding drama in the conflicts between people: the natural world has always been a stable backdrop to the human play, scenery in which we enact the struggles of our lives. It is disconcerting to have the backdrop suddenly become the foreground, and the main emerging conflict of our world be humans versus physics.

But Burko figured out ways around those problems, which is why the images contained in this exhibition are so important. She figured out how far back you need to stand to bring things into workable focus. I mean this both figuratively and literally. Take her remarkable work on glaciers. The thing that gives these images









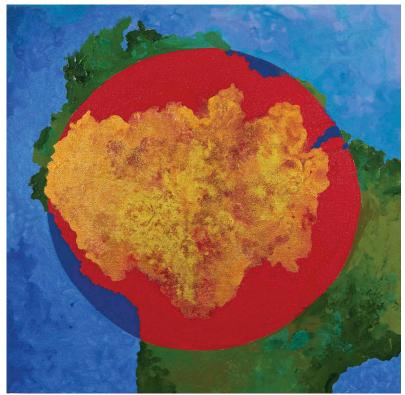
Diane Burko, Grinnell Mt. Gould #1, #2, #3, #4, 2009. Oil on canvas, 88 x 200 in. overall.

their meaning, of course, is time: the difference between what the Grinnell Glacier looked like in the 1930s and the 2010s is the story of climate change brought down to a grok-able scale. The absence of ice, the void being filled by spruce forest or sandbank, works better than any device I know to tell us what we've done. It explains, silently, that the molecular structure of carbon dioxide traps heat that would otherwise radiate back out to space, and instead spends it on the tasks inside our narrow envelope of atmosphere—in this case changing ice to water

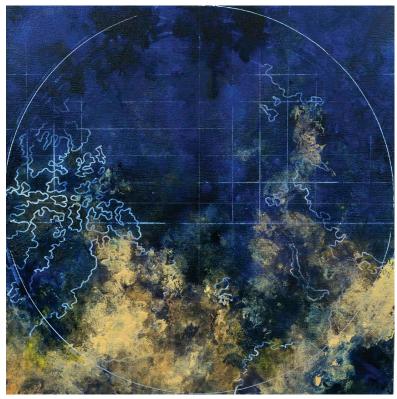
which then flows away. There are other ways of saying it. I'm a writer, so I sometimes tell people that the energy we trap each day with our carbon is the heat equivalent of 400,000 Hiroshima-sized bombs, and that helps people grasp the scale too. But there's something about the magic show that Burko conducts—here this, and now this—that connects on a visceral level. The rabbit has disappeared, almost literally in a puff of smoke.

There is no shortage of other systems for artists to go to work on. We know, for instance,

that cyclonic storms draw their energy from the heat in the upper meters of the sea surface and then translate that into majestic rampage. We understand now that a rainforest manages to move moisture inward across the continent in a series of exhalations and inhalations, and that when we cut even a small fraction of that forest we begin to interfere with that mighty circulation. The creep of deserts, the spread of shrubs across what should be tundra, the death of the great kelp forests that fringe many of our shores, the disruption of the giant currents (a







Diane Burko, Sphere 5, 2019. Mixed media on canvas, 20 x 20 in.

hundred times the volume of the Amazon) that move water through the oceans, the rapid reconfiguration of the jet stream as the Arctic melts all these almost unseeable changes need to be brought before our eyes as well.

And the artists taking on those tasks would do well to study Burko's work, both the parts that you can see on the wall, and the parts you can't. She's made it a condition of exhibitions, for instance, that they include public education about the crisis, and she's been a friend of the movements that have built over the last decade and a half. That kind of commitment seems to me necessary—necessary because we are in the fight of our lifetimes, and really of all lifetimes, and everyone is required to be a responsible citizen, quite beyond whatever we do with our particular gifts. (That's why, sadly, we've needed to recruit scientists to demonstrate and go to jail with us; in a rational world they'd be back in the lab doing what they do best, just as artists would be at the easel. But this is not a rational world).

That kind of engagement is also necessary for the art to work as well, I think. Our attitude

toward approaching material this dark and deep is crucial: fair enough if it's born of despair, but if it's rooted in cynicism then that is a denial of the moment and of the world. We understand that we will never see the world more intact than it is right now. Even if we do everything right from here on in, even if we muster the will to survive, the damage will be enormous. So, as creatures who bear witness, part of our job is simply to get across how inexplicably beautiful our planet is. In that love lies the possibility of action.



DIANE BURKO: THOUGHTS ABOUT THE PAINTING PROCESS Artist's notes, Summer 2019

What is so amazing about my studio practice now that I'm in my 70s is the new kind of freedom I feel to do whatever—to experiment and play with new materials and tools.

New possibilities opened up with my using ACRYLIC PAINTS instead of oils, with the current Reef project. And with the CANVAS REPOSITIONED HORIZONTALLY—no longer vertically on a wall, has come radical changes in my PROCESS. I no longer stand before a blank surface with brushes. Instead I am bending over large canvases held up between two chairs or sawhorses as I spill, throw, tilt, wipe and use an air compressor to spread the liquid layers. I'm pouring paint in a range of thicknesses. I'm blowing paint across a span with a compressor, I'm sanding layers away whenever I feel like it—I'm wiping, blotting, using luminescent pigments, a range of mediums, plastic beads, salt, glitter, sand—whatever. I am hardly using brushes—but find tissues to be very helpful absorbing and wiping out areas as well as squeezing out paint onto other parts of the surface. These actions with new material and tools have introduced possibilities I had never imagined.

That is what a studio practice should be. It provides a space to discover—to connect new visual dots to try things for the hell of it. It is the magic all artists relish to go forward and be surprised. All this action has of course resulted in the most abstract work I've done in decades. Yet I figured out a way to insert into the mix layers of meaning, prompts, symbols, maps that speak of climate change. That call attention (subtly) to issues about saving our planet.

Ironically, as a young artist I began doing abstract work inspired by Arshile Gorky, Matta, Joan Mitchell, de Kooning etc. I was fascinated with the mark, surface, ambiguity of space all those formal matters—and of course color amounts of color, intensity, shades. Those concerns never left my practice but receded to be overshadowed by issues of the glacial content. I think the introduction of a new material, "crackle paint," in the final stages of the glacial project in 2016-17 reignited that love of the painted surface, the mark. But that whole series about ice, melting—forced me to reduce the palette to blues, blacks, and whites while integrating the symbols of recessional lines, etc.

With this new content, my Bearing Witness in terms of underwater rather than over ice has forced the explosion of COLOR which I am enthusiastically embracing! I am exploring the depths I've seen in terms of paint layering flows of transparencies over lines, map edges, symbols of measurement referencing marine biology: polyps, algae, symbionts. But never describing—always alluding. My work is metaphorical. Illustrating a dystopian narrative is not for me. I want to do it with seductive beauty.

My path is embedded in the world of painting. It's the only way I know how to be. I struggle to use the language of paint—to develop new vocabulary to make visual poetry imbuing it all with something that draws you in—compels you to look more closely and then reveals some ugly truths. That is why in my latest painting I've inserted an actual piece of dead coral—contrasting it again with the beauty of the paint referencing large areas of the wide ocean bottom.



DIANE BURKO AND THE CATASTROPHE LANDSCAPE

Beyond Romanticism and the Abstract Sublime

By Norma Broude

It is desirable for a Painter, at least once in his life, to witness the Eruption of a volcano.¹

> — Pierre-Henri de Valenciennes. 1799/1800

Central to Diane Burko's artistic practice has been a lifelong attraction to monumental geological sites and phenomena [figs. 1 and 2]. But in recent years, as climate change activism has definitively shaped both her identity and her art, the snow-capped mountain peaks and volcanic craters of her earlier landscape paintings have been transformed with suggestive allusions to scientifically-sourced data: data that maps the planetary dimensions and dire effects of global warming, from the flooding and erosion caused by melting glaciers to the destruction of the coral reefs and the vital ecosystems they sustain. As the planet relentlessly warms, Burko's art has responded with increasingly abstract and dramatic visualizations of these and other effects of climate change. Among those linked and cascading effects inspiring some of her recent work are the raging megafires that raced through areas of Australia and the American West in 2019 and 2020, reducing vast tracts of timber as well as homes, schools, and businesses to smoldering ash; and the devastating spread of the COVID-19 pandemic around the globe [fig. 3].



Figure 2. Diane Burko, Vesuvius Study 2, 2001. Oil on canvas, 24 x 24 in. Art Collection of the Community College of Philadelphia.

Behind the abstract landscapes that constitute this highly original body of work lie echoes, I will here suggest, of past traditions and art historical antecedents that range from Romantic landscape painting in the late eighteenth and early nineteenth centuries to Abstract Expressionism

Opposite: Figure 1. Diane Burko, Kilauea's Overflow Hawaii, 1968, #1, 2000. Oil on canvas, 60 x 84 in. Collection of Joe Zarett.

I have always been fascinated with the dramatic landscape.... My artistic investigations have led me to the far reaches of the earth where I could witness firsthand a range of terrains that have been altered through momentous geological events.²

— Diane Burko, 2014

in the twentieth. Resonating with, but also transcending, the aesthetic response to nature that the eighteenth-century British philosopher Edmund Burke dubbed "the sublime," Burko's art addresses climate change in the languages of the Romantic era's "catastrophe landscape" and the twentieth century's "abstract sublime." With her personal blend of the languages of science and abstraction, she has effectively brought those earlier traditions back to life in the twenty-first century, with a renewed passion and relevance for the unique physical and metaphysical conditions of our era.

THE CATASTROPHE LANDSCAPE AND THE "SUBLIME" AS AN AESTHETIC CATEGORY

The impulse to record on the site and to recreate in the studio some of the most dramatic and awe-inspiring phenomena of nature is a familiar one among late eighteenth and early nineteenth century Romantic painters. In England in particular, an important change in landscape sensibility took place in the late eighteenth century,

as artists, motivated by the growing taste for the "sublime," began to gravitate toward the thrilling and remarkable in nature instead of the ordinary and commonplace. An early example is by Richard Wilson (1714-82). His view of the mountain of Cader Idris in North Wales (c. 1770) is a rugged scene of jagged silhouettes and altitudes not commonly experienced or formerly depicted by artists in the British Isles [fig. 4]. Even more dramatic sites could be found on the continent by artists intrepid enough to search there for the spine-tingling and unfamiliar. One of these was Joseph Wright of Derby (1734–97), who traveled to Italy and to Naples in particular, where he set himself to depicting the glowing light of mysterious grottos in the Bay of Naples and the dramatic volcanic eruptions of Mount Vesuvius [fig. 5].

This growing taste for views of uncommon spectacles in nature also drew artists to the Swiss Alps and to the excitement generated by the enormous and irregular formations of ice and rock that they encountered there. These



Figure 3. Diane Burko, OR Burning, 2020. Mixed media on canvas, 20 x 20 in.

provided the backgrounds for popular scenes of helpless and terror-stricken humans, threatened by falling boulders and collapsing terrain in deadly snowstorms and dramatic avalanches, scenes that were designed to function cathartically by making viewers gasp in awe and fear before the destructive and malevolent powers of nature. Among the major practitioners in Britain of this highly theatrical genre, whose popularity lasted well into the first half of the nineteenth century, were Philip James de Loutherbourg (1740–1812), John Martin (1789–1854), and Joseph Mallord William Turner (1775–1851) [figs. 6 and 7].









Top left: Figure 4. Richard Wilson, Llyn-y-Cau, Cader Idris, exhibited 1774. Oil on canvas, 20.1 x 28.7 in. London: Tate Britain, Presented by Sir Edward Marsh 1945. Photo: Tate.

Top right: Figure 5. Joseph Wright of Derby, Vesuvius in Eruption, with a View over the Islands in the Bay of Naples, c. 1776-80. Oil on canvas, 48 x 69.4 in. London: Tate Britain. Purchased with assistance from the National Heritage Memorial Fund, the Art Fund, Friends of the Tate Gallery, and Mr. John Ritblat 1990. Photo: Tate.

Bottom left: Figure 6. Philip James De Loutherbourg, An Avalanche in the Alps, 1803. Oil paint on canvas, framed: 61.5 x 80.8 in. London: Tate Britain. Presented by the Friends of the Tate Gallery 1965. Photo: Tate.

Bottom right: Figure 7. Joseph Mallord William Turner, Snow Storm: Hannibal and his Army Crossing the Alps, exhibited 1812. Oil paint on canvas, framed: 74.5 x 110.2 in. Tate Britain, Accepted by the nation as part of the Turner Bequest 1856. Photo: Tate.

The terrifying and uncontrollable forces of nature, seen in the mountain avalanches and volcanic eruptions that were recorded or imagined by these and other artists in the Romantic era were often framed and understood in Biblical and Apocalyptic terms, as divine judgment and retribution for human misdeeds, as in John Martin's stunning and dramatic depictions of *The Destruction of* Sodom and Gomorrah (1852) [fig. 8] and The Great Day of His Wrath (1851–53) [fig. 15].3 In a less common use of the painterly language of natural catastrophe, de Loutherboug also depicted the surging flames and spewing smoke produced not by one of nature's volcanoes, but by manmade factories and furnaces. His Coalbrookdale by Night (1801) creates what we would now perceive as a prescient and alarming scene of industrial pollution and decay [fig. 9].

More generally, however, artists and viewers alike would have enjoyed and admired scenes of natural catastrophe in this era as one of the highest forms of aesthetic experience, the "sublime," so named and defined in 1757 by the influential philosopher Edmund Burke (1729–97) as follows:

Whatever is fitted in any sort to excite the ideas of pain and danger, that is to say, whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion



Figure 8. John Martin. The Destruction of Sodom and Gomorrah, 1852, Oil on canvas. 53.7 x 83.6 in. Courtesy Laing Art Gallery, Tyne & Wear Archives and Museums. © Tyne & Wear Archives & Museums / Bridgeman Images.



Figure 9. Philippe James De Loutherbourg, Coalbrookdale by Night, 1801. Oil on canvas, 26.9 x 42 in. Science Museum Group Collection, © The Board of Trustees of the Science Museum, CC BY-NC-SA 4.0.

which the mind is capable of feeling. I say the strongest emotion, because I am satisfied the ideas of pain are much more powerful than those which enter on the part of pleasure.4

But in order to experience the sublime and to take full aesthetic pleasure from the frisson of fear, awe, and "astonishment" that it will inspire, Burke believed that observers of the originating phenomenon, whether in nature or in art, must feel themselves to be essentially safe from the dangers that they contemplated. He continues:

When danger or pain press too nearly, they are incapable of giving any delight, and are simply terrible; but at certain distances, and with certain modifications, they may be, and they are delightful, as we everyday experience.5

In our present era, of course, the sublime is an experience that can no longer be entirely separated from the perception of danger as imminent and terrifyingly real in our daily lives, as global warming threatens to engulf the planet and destroy the ecosystems and habitats that sustain us. The causes of such catastrophic destruction, moreover, can now no longer be regarded or dismissed as distant and beyond our control—as the work of an all-powerful god or an unpredictable and often malevolent nature—but must be understood, instead, as of our own making. In addressing climate change, Diane Burko's visually dramatic canvases can be said, then, not only to embody but also to transcend the aesthetic response to nature that Burke popularized in the eighteenth century as "the sublime."

THE CENTRALITY OF "BEAUTY" IN **BURKO'S PRACTICE**

Diane Burko's aim as an artist and activist is to promote environmental awareness and political engagement through the impact of aesthetic experience and the abstract beauty of the painted surfaces she creates. Although she has described her recent work as "the most abstract" that she has done in decades, she says, nevertheless, that:

I figured out a way to insert into the mix layers of meaning, prompts, symbols, maps that speak of climate change. That call attention (subtly) to issues about saving our planet ... But never describing—always alluding. My work is metaphorical not illustrative. Illustrating a dystopian narrative is not for me. I want to do it with seductive beauty.6

Burko sees beauty, then, as an emotional and sensory stimulus that can be used to bring the destructive reality of climate change home, before it is too late, to those for whom the warnings of science alone do not suffice. The much debated and philosophized concept of "beauty" is in fact central to her artistic practice. And in her understanding of its powers, she provides us again with a significant contrast to the eighteenth-century thinking of Edmund Burke, who held the "sublime" and the "beautiful" in clear distinction from one another. Burke associated beauty with the sensory pleasure that can "cause love, or some passion similar to it." But he considered pain to be more powerful a determinant than pleasure in the experience of the sublime. Sublime objects, he says, are "vast in their dimensions ... rugged and negligent ... dark and gloomy... solid, and even massive;" while beautiful ones are "comparatively small ...smooth, and polished ...light and delicate.... They are indeed ideas of a very different nature. one being founded on pain, the other on pleasure."8 Burke thus contrasted the beautiful with the sublime in stereotypically gendered terms; and he advised that, for maximal impact, the two qualities must be held separate and distinct from one another by those "whose business it is to affect the passions." In Burko's practice, conversely, the seductively beautiful and the terrifyingly sublime are made to work very much in tandem with one another.



Figure 10. Diane Burko. Coral Fan 3, 2020. Mixed media on canyas, 20 x 20 in.



From left: Figure 11. (a) Diane Burko, Reef Map 3, 2019. Mixed media on canvas, 50 x 50 in.; (b) Diane Burko, #10 Postscript, 2019. Bleached coral and bronze. 50 x 24 in.



Figure 12. Diane Burko, CA Burning, 2020. Mixed media on canvas, 20 x 20 in. Collection of Pamela and Joseph Yohlin.

But while beauty in the abstract—as Burko has recognized and Burke may have not—does indeed have the power to awaken us both morally and intellectually as well as aesthetically, it is also a double-edged sword that can have the chilling power to obfuscate and to numb. One is reminded in this regard of a remark by Benito Mussolini's son, Vittorio, a twentieth-century film producer and critic, who is said to have likened the vision of an exploding bomb, seen from above as it destroys a city, to the breathtaking beauty of "a flowering rose." It is this

precarious tightrope of aesthetic and moral response that Burko successfully navigates in her art. She writes:

I struggle to use the language of paint to develop new vocabulary to make visual poetry imbuing it all with something that draws you in—compels you to look more closely and then reveals some ugly truths. That is why in my latest painting I've inserted an actual piece of dead coral—contrasting it again with the beauty of the paint referencing large areas of the wide ocean bottom.10

The "ugly truths" that Burko speaks of are in this way literally embodied in her canvases by collaged pieces of our suffering and endangered planet [figs. 10, 11 a and b, and 12]. With their appeal to beauty and their subliminal echoes of the catastrophe landscape, Burko's abstract images can both enable and compel viewers to recognize the life-threatening dimensions of climate change on a literally unprecedented scale. making that threat at once palpable and viscerally real for her audiences.

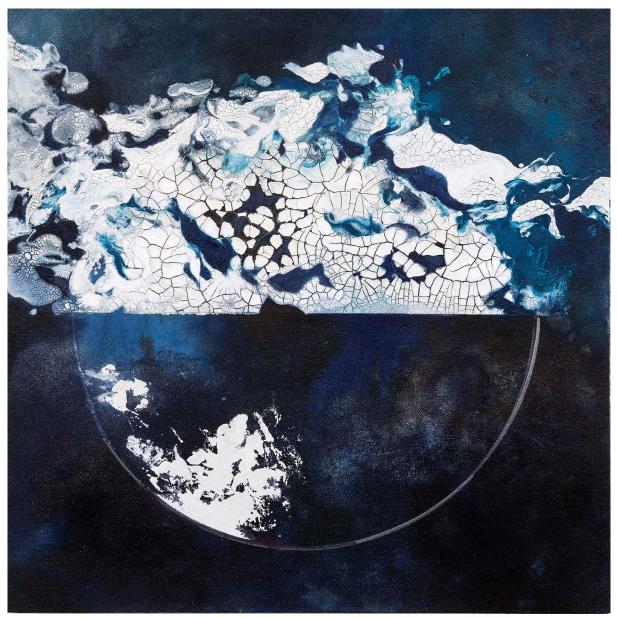


Figure 13. Diane Burko, Sphere 4, 2019. Mixed media on canvas, 20 x 20 in. Collection of lvy Silver and Steven Leshner.

"THE ABSTRACT SUBLIME"

In 1961, the art historian Robert Rosenblum (1927–2006) memorably identified four "masters" of what he newly termed "the Abstract Sublime," finding expressive analogies between their work and that of an earlier era's Romantic landscape painters, who had searched for effects of overwhelming awe and sublimity in elemental nature. These four contemporary artists, selected from among the Abstract Expressionists and Color Field painters of the day, were Clyfford Still, whose dark, large-scale canvases Rosenblum compared in their effects to "abstract geologies" that exemplify Burke's eighteenth-century definition of the sublime; Barnett Newman, whose radically reduced, non-objective canvases "put us before a void as terrifying, if exhilarating, as the arctic emptiness of the tundra;" Jackson Pollock, "whose gyrating labyrinths" are said to "recreate in the metaphorical language of abstraction the superhuman turbulence depicted more literally in Turner and Martin;" and Mark Rothko, in whose abstract language "literal detail—a bridge of empathy between the real spectator and the presentation of a transcendental landscape—is no longer necessary," Rosenblum wrote, since it is the "infinite, glowing voids" of these canvases alone that "carry us beyond reason to the Sublime."11

In 1994, Rosenblum wrote admiringly about the landscape paintings that Diane Burko had recently completed during a residency in Italy at Bellagio, locating her taste for plein air experience and her manner of recording and interpreting nature in the orbit of Claude Monet and his Impressionist work at sites such as Giverny (where Burko had in fact enjoyed an extended stay a few years earlier). 12 One imagines that, had he lived long enough to see her climate-inspired paintings of later years, he too might have been moved to draw analogies between those paintings and the "catastrophe landscapes" of the Romantic tradition, whose impact on modern art he had written about so persuasively in other contexts. 13

And he might also have felt impelled, as I do here, to draw analogies between those later paintings by Burko and another tradition, now of his own invention, that of the "Abstract Sublime" and the work of the four American painters whom he associated with that new tradition in his essay of 1961. A crucial distinction, however, would still need to be drawn between Burko's work and theirs. For at the heart of Rosenblum's concept of the "Abstract Sublime" were paintings whose emotional power and aesthetic resonance depended for him in large measure on the completeness of their abstraction, their removal from what their creators might have disdained as having anything to do with the merely descriptive or even allusive. Conversely, one of the greatest



Figure 14. Diane Burko. Unprecedented, 2021. Mixed media on canvas, 96 x 180 in.

strengths of Burko's work, even at its most abstract, lies in the power of her still referential abstractions and the very nature of her materials to resonate suggestively as they bear witness to the physical realities of our present-day catastrophe landscapes: from the craquelured pigment with which she subliminally bodies forth the melting and cracking of the glaciers [fig. 13], to the poignantly collaged pieces of dead coral and charred wood that she places as emblems of damage and decay in both her smaller paintings and epic friezes [figs. 11 a and b, and 12]. These collaged elements contrast sharply with the more benign beauty of Burko's painted surfaces, confronting us directly and concretely with the destruction to which her

pools of melting color and gestural brushwork have borne abstract witness. Through the aesthetic impact of these extraordinary works of art, Burko hopes to promote environmental awareness and activist engagement among her audiences. Just as the current, catastrophic state of our planet is "unprecedented"—the title of a recent monumental work of 2021 [fig. 14], so too is Burko's formal language. Consciously composed of the sensory and the scientific, and unconsciously resonant with echoes of an earlier era's catastrophe landscapes [fig. 15], that visceral language has been developed and deployed by Burko in order to bring home to viewers a threat to our planet that is no longer theoretical but fully existential.



Figure 15. John Martin, The Great Day of his Wrath, 1851-53. Oil on canvas, framed: 94.5 x 136.7 in. Tate Britain, purchased 1945. Photo: Tate.

- Diane Burko, Artist Statement, in Diane Burko: Investigations of the Environment (Santa Fe NM: LewAllen Galleries), 2014.
- ² Pierre Henri de Valenciennes, Élémens de perspective pratique à l'usage des artistes, suivis de Réflexions et conseils à un élève sur la peinture et particulièrement sur le genre du paysage (Paris, 1799/1800), 279; cited and translated by Jane Munro, "Volcanoes," True to Nature: Open-air Painting in Europe 1780-1870 (Washington: National Gallery of Art, and Cambridge: The Fitzwilliam Museum, 2020), 127.
- ³ On the work of John Martin, see Barbara C. Morden, John Martin, Apocalypse Now! (Carmarthen, Wales: McNidder & Grace, 2010).
- ⁴ Edmund Burke, A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful, edited with an Introduction and Notes by Paul Guver (Oxford: Oxford University Press, 2015). part I, section vii, 33-34.
- ⁵ Ibid. 34.
- Diane Burko, "Thoughts About the Painting Process." Artist's unpublished notes. Summer. 2019. Published in the present catalogue, p. 11.

- ⁷ Burke, "The Sublime and Beautiful compared," in A Philosophical Enquiry, Part III, Section 1, 73.
- ⁸ Ibid, Part III, Section xxvii, pp. 100-101.
- ⁹ As reported by John Gunther, *Inside Europe* (New York: Harper & Brothers, 1940), 242.
- ¹⁰ Burko, "Thoughts," p. 11.
- ¹¹ Robert Rosenblum "The Abstract Sublime," ArtNews 59, no. 10 (1961): 38-41.
- ¹² Robert Rosenblum, untitled catalogue essay in Diane Burko Paintings: Luci ed ombra di Bellagio. The Light and Shadow of Bellagio (Philadelphia, PA: Locks Gallery, Sept. 6-Oct. 12, 1994), 5-7.

¹³ See, e.g., Robert Rosenblum, Modern Painting and the Northern Romantic Tradition, Friedrich to Rothko (New York: Harper & Row, 1975).

role in helping to avert that destruction.

In the early Romantic era, before the advent of photography, artists often accompanied scientific expeditions in order to visually document their discoveries, and also to gather from those far-flung travels the backgrounds, materials, and subjects for their own art.14 Like those artists and many of the catastrophe landscape painters of the eighteenth and nineteenth centuries, Diane Burko has traveled widely. And she has joined and learned from scientific expeditions, but under very different circumstances from those of her predecessors. Motivated not simply by an optimistic spirit of discovery or a personal desire to experience the awe-inspiring vistas and phenomena of the natural world, Burko sets out now in the twenty-first century to document what remains of their beauty and to bear witness to their destruction—in the hope, nevertheless, that the collaboration of art and science exemplified by her work might yet play a meaningful

> ¹⁴ On the collaboration in this era between artists and scientists and the wide range of treatises that record their findings and experiences, see Barbara Maria Stafford, Vovage into Substance: Art, Science, Nature, and the Illustrated Travel Account, 1760-1840 (Cambridge, MA: MIT Press. 1984).



Figure 1. Diane Burko, Matterhorn Icon 5, 2007. Oil on canvas, 20 x 20 in.

DIANE BURKO AND CLIMATE CHANGE: THE VOYAGE OUT

By Mary D. Garrard

There are many ways of protecting the environment, and one way is to pay homage to nature.

— Diane Burko, 1991

PLANET EARTH

While Diane Burko is known as a landscape painter, her art is really not about landscape, but nature in a larger sense—what earlier eras called "great nature." Burko's immersion in, and love for, great nature long preceded her concern about climate change. She is interested in painting nature as process, what she calls "implying the history of the earth." A good example comes from her "Matterhorn" series (2007) [fig. 1], an image of the iconic Alpine peak encircled in mist and windblown snow. Snow merges with cloud, and cloud with sky, flowing together to support the mountaintop's spiral turn. The upward thrust of the mountain, and the one behind it, suggests their origin in ancient tectonic forces.

Paintings from Burko's early and mid-career present a nature shaped by invisible forces. In images of Hawaiian volcanoes [fig. 2] she shows the earth as plastic, its mountains formed by pressure from inside, its surface forms constantly changed by the elements and forces. She gives us a planet in flux, from the early eons of its formation to now: the earth's core heat erupts in volcanic fire and solidifies as flowing lava.

In Icelandic waterfalls [fig. 3], pulsing rivers remind us of their origin in melting ice; water evaporates in foam and spray. As critic Carter Ratcliffe observed of Burko's volcano paintings, "everything seems alive." Burko's sense of the planet's vitality, and the connected operations of its components, came not from science but from observation and inference. She traveled the globe to find her subjects, dramatic manifestations of nature's processes, photographing them from an airplane before painting them. The paintings made from aerial views may seem detached, yet they are oddly visceral. Seeing, feeling, and expressing the dynamic interaction of nature's elements, she arrived at an intuitive recognition of nature's operations.

The eighteenth-century naturalist Alexander von Humboldt had a similar apprehension of the earth's organic unity and the connectedness of its parts. He turned his intuitive understanding into scientific theory, which in its time was wildly influential and then virtually forgotten. As it happens, Burko has had a longstanding interest in Humboldt, which I learned of only recently, when she came to Washington, DC, to see the 2020 Humboldt exhibition at

the Smithsonian American Art Museum.³ This was not a matter of influence; rather, Burko was drawn to ideas she instinctively felt were true. Like many environmentalists today, she also felt an affinity with the Gaia hypothesis, developed in the 1970s by James Lovelock and Lynn Margulis, which is similarly grounded in an understanding of the planet as a synergistic and self-regulating system.⁴

Before 2009, Burko's art expressed the dynamic equilibrium maintained by our planet's self-regulating movements and adjustments. Understood as a symbiotic system, nature's canonical elements—earth, water, fire, air—are not static entities, but support one another and nurture the planet through their interchange. At the earth's frozen magnetic poles, glaciers conserve some of the water that occupies the larger part of the earth's surface, releasing it slowly with the seasons, to cool the oceans and sustain the balance. Evaporation of the ocean waters produces the cloud cover that cools the earth and protects it from the sun's harsh heat. Winds circulate the rotating planet, redistributing heat and moisture around the globe. Volcanoes serve as relief valves for the planet's hot core, while lava flow, no less than rain and sun, fertilizes the soil for the new growths, trees and forest, that protect the land masses and support human life through photosynthesis.

Here on our blue and green planet, this dynamic equilibrium has existed since the last ice age, which ended about 10,000 years ago.

But a problem has developed to disrupt it, caused by its most powerful and aspirational inhabitants. Climate change is altering the stability of earth's systems, and now threatens life as we know it. Fossil fuel burning, deforestation, and other human industries have pumped greenhouse gases into the atmosphere, enough to cause accelerated global warming. Heat trapped by greenhouse gases sinks into the ocean; rising sea temperatures cause water molecules to expand, causing sea level to rise, as warmer waters precipitate the rapid melting of icebergs. Increasing heat waves are producing wildfires in record numbers.

Since 2009, Burko has devoted her art to "seeing climate change" before our very eyes. In geological time, this

change is happening abruptly, but in our experiential time, it can only be "seen" in moments in the life of an element like a glacier, captured in photographs taken across long intervals of time, then juxtaposed. Burko has painted this new kind of change in nature, one no longer visible and palpable, but measurable and chartable.



Figure 2. Diane Burko, *Pu'u O'o Eruption, Kilauea, Hawaii (1984), #1, 2, 3,* 1999–2000. Oil on canvas, overall: 74 x 144 in., 74 x 48 in. each.



Figure 3. Diane Burko, Gullfoss #3, 2003. Oil on canvas, 42 x 72 in.

She began with glaciers, painting "then and now" images of specific locations, working from early photographs preserved in the US Geological Survey and other agencies [fig. 4]. The juxtapositions created by the artist reveal drastic changes in longstanding configurations, caused by melting and erosion.





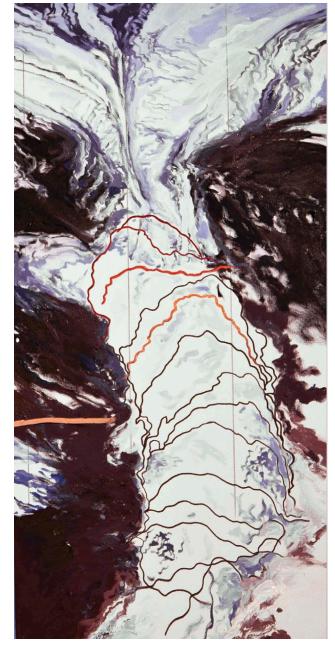
Figure 4. Diane Burko, Grinnell Overlook, 1, 2, 2009. Oil on canvas, 50 x 162 in.

Right: Figure 5. Diane Burko, Columbia Glacier, Lines of Recession, 1980-2005, 2011. Oil on canvas, 50 3/16 x 60 in. Collection of Minneapolis Institute of Art, Gift of Pamela and Joseph Yohlin, 2019.144. Photo: Minneapolis Institute of Art.

In a similar spirit of documentation, Burko depicted the receding snow lines of glaciers that have been mapped by scientists [fig. 5]. Like a ticking clock, the red lines superimposed on the white ice introduce time, as they measure changes in the planet's aspect. Burko wanted to graph the effects of a force we fear may now be beyond human control, as did the scientists who made the measurements. Yet more dramatically and viscerally, she sounded an alarm—the color red always rings like an alarm bell in her paintings. It was perhaps the fear of losing what we have, a self-regulating planet that takes care of itself and us, that motivated the next shift in Burko's art: the charting of how she feels about what is happening.

After documenting the glaciers' melt, she crossed over from descriptive naturalism to

expressive abstraction. Next, she explored the emotional impact of climate change on sentient beings. In paintings of endangered coral reefs, which become more intense in color under threat, we are given the paradoxical beauty of animate forms that scream their pain [fig. 6]. More recently, she combines her technical strategies, freely mixing naturalism and mapping, charts and abstraction, often in the same painting. Increasingly, a single painting consists of separate visual frames or gestalts, abruptly juxtaposed [fig. 7]. One cannot help viewing Burko's use of shifting, fragmentary perspectives in terms of natural philosophy. Once she had internalized the disruption climate change has brought to the natural order, a holistic vision no longer seemed possible.





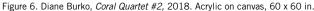




Figure 7. Summer Heat 1, 2020. Mixed media on canvas, 84 x 42 in.

THE ACTIVIST

When I first met Diane Burko in the mid-1970s. she was already known as a powerhouse activist in Philadelphia. Political activism in the seventies was driven by feminism, and we were all apprentice activists at that time, learning by the seat of our pants how to organize to change the world for women. Those of us in art-related professions, including artists and art historians, first took aim at our professional organization, the College Art Association (CAA), pushing it to

change until we were kicked out and obliged to create a new organization, Women's Caucus for Art (WCA). Burko was a founding member of WCA, as were Norma Broude and I, and we worked together as part of that large community of feminist activists.5

Burko was different, however, because she had another community to organize. In 1973, in her newly adopted home town of Philadelphia, she created and directed Philadelphia Focuses on Women in the Visual Arts (FOCUS), a citywide

feminist art festival that engaged nearly every museum and gallery in the city, the first celebration of its kind.⁶ This month-long event was an early instance of Burko's capacity to think big, so big that it made her instantly famous in the national women's movement. FOCUS was a hugely collaborative enterprise, with hundreds of people actively engaged, all orchestrated by Burko [fig. 8]. She made it her job to foster interchanges between feminists and city agencies, with the goal of empowering women in the arts in one civic crucible. As a shining example of large-scale cultural mobilization, Philadelphia FOCUS became a model for systemic change elsewhere. Burko's creative energy comes from making change happen. She has long been energized by collaboration, whether with other artists, gallerists or administrators, or with her assistants and curators. Her present collaboration with scientists to urge action on climate change has roots in her earliest activism.

Diane Burko was born in Brooklyn, New York, in 1945, the only child of immigrant parents. When she excelled as a student, her parents expected her to become a doctor or mathematician, but she always wanted to be an artist. She went to Skidmore, at that time a women's college, and majored in art history and painting. She then completed an MFA at the University of Pennsylvania in 1969, which took her to Philadelphia. While still a graduate student at Penn, Burko joined anti-Vietnam war protests, a first step into political action



Figure 8. Philadelphia FOCUS, 1974, "Radical Alternatives" panel. From left: Mary Beth Edelson, Ann Sutherland Harris, Diane Burko, Patricia Mainardi (and Lucy Lippard, not pictured).

that was, as for so many of us, soon followed by feminist activism. She joined the early prochoice marches on Washington, the anti-Trump Women's March of 2017, and more recently, she marched for science, climate change, and Black Lives Matter. She continued her civic activism in Philadelphia, serving on the Mayor's Cultural Advisory Council (1987–91) and the Philadelphia Art Commission (1992–96). Within CAA, Burko co-chaired its relatively new Committee on Women in the Arts and led the effort to establish the Distinguished Feminist Award, first given in 2009 to The Guerrilla Girls.

There is a difference, however, between immersing oneself in a cause as a foot soldier, and singlehandedly inventing creative ways to advance the cause. The success of Philadelphia FOCUS resulted as much from Burko's power to inspire as from her organizational skills.

Her next big step was to put both her art and her artist identity in the service of the climate change movement, a decisive change in her practice that began around 2006. She began to engage scientists at institutions and research labs, gaining scientific knowledge from them, while sharing with scientists the experience of environmental change from her perspective as an artist-explorer. Committing herself to public engagement, she has spoken at a number of science conferences, and on university and college campuses [fig. 9], always insisting that her art exhibitions include lectures, panels, or debates about climate change, shared across departments and with a wider community. "I like to make connections," she says, and she did so on American University's campus, when she spearheaded and helped organize the campus-wide symposium that will take place in November 2021 during the course of the exhibition that this catalogue documents.

A successful activist motivates others to act. When Burko embarked on her first expedition to the Arctic Circle in 2013, sailing with scientists and artists to view and document the melting glaciers, she enlisted a wide circle of friends, family, colleagues, and acquaintances to contribute to her project through USA Artists, keeping her supporters informed through a blog. She invited them to help her dream big and, by sharing the excitement of exploration, drew them in as collaborators. Funds were raised to enable the helicopter flights essential to Burko's art,

but the crowdfunding was, more fundamentally, her way to engage and inspire concern about climate change in a larger audience.7

But of course art itself can inspire action. Some art was created to do just this: David's Oath of the Horatii (1784), credited with sparking the French Revolution, comes to mind. When the cause is malign, such as that





From top: Figure 9. (a) Burko addressing Arctic Circle Conference, Reykjavik, Iceland, in 2017. (b) Burko speaking in a classroom, Universidad Católica, Santiago, Chile, in 2019.

of the Third Reich, we call its art propaganda, although the anti-war art of Käthe Kollwitz is also technically propaganda. Burko is more like Kollwitz, inspiring action for the sake of self-preservation: Kollwitz aimed to prevent the sacrifice of young lives in the first world war, Burko aims to help the planet save itself. Kollwitz, like Burko, was a feminist and she wove it into her social protest art, as did the many feminist artists of the 1970s and '80s who intended to inspire political action through art. Yet the intensely feminist Burko has never made political feminist art. About this, she says:

I was marching against the [Vietnam] war, but I couldn't see making my art about the protest. At that time I think

I saw art as separate from politics. Even as a feminist I resisted being a Judy Chicago-type painter. I just kept painting the landscape and as you know being a feminist. While I so admired The Guerrilla Girls, I found a great deal of art made during those times just too political, too much about message and not very good as art. Finally, organically, I found my way. The Politics of Snow title clinched it—2010—I was finally a full-fledged political artist on my terms!8

In this essay, I will argue that "just painting the landscape," in the way that she did was in philosophical terms a feminist act. And further,



Figure 10. Burko working on painting of car interior. Fall, 1968, while a student in the Graduate School of Fine Arts, MFA program, University of Pennsylvania, Philadelphia PA.

that Burko was uniquely equipped to engage climate change on political terms due to her own activism and the grounding of her art in landscape and nature.

Connecting the two realms that Burko long kept separate is her abiding belief in the power of art to stimulate political or social change. That was implicit in the FOCUS project, and it motivated her decision in 2010 to devote her artmaking to the climate change cause. At the height of the present pandemic, she jumped in again when her daughter Jessica's former grade school principal invited her and other Philadelphia artists to dramatize visually the overwhelming number of lives lost to COVID-19 (they made and hung banners at public sites all over the city). Burko has noted that her life has a way of circling back on itself, a point well demonstrated in this example, for at the time she conceived and developed FOCUS, she was pregnant with the very same Jessica.

ONE THING LEADS TO ANOTHER

"One thing leads to another." In a recent interview, Diane Burko recounted her career with this linking phrase, which she repeated like a mantra.9 It aptly describes the development of her art, and her view of change as a dynamic continuum. Burko's sense of her life as circling back on itself reminds me of the development of a nautilus, each chamber growing organically out of the last

one, expanding outward to produce a spiral, a universal symbol that speaks of wholeness, continuity, and an unfolding journey always familiar and always new.

In the all-female environment at Skidmore College, Burko was a star, a promising student who was given her own studio, encouraged by her male art teachers, and watched admiringly by all. Only when she entered coed graduate school at Penn did she experience misogyny. Female art students were ignored or discouraged (this was also true in academia). They were taken even less seriously if they were married, as Burko was when she arrived in Philadelphia.

The overt favoritism bestowed on male students. and the men's careerist opportunism, outraged her. 10 "It is very easy for a woman to be demoralized in the art world," Burko later noted, but like many female "overachievers" of the time, she channeled her outrage into fierce ambition, fired to excel at all odds to prove the feminist point that women are as capable as men. She strove to claim her equal right to success in the art world, and her equal ability to become a star in the pantheon of art history.

Burko began as an abstract painter, "in love with the Abstract Expressionists," especially Arshile Gorky, but realizing that she "was basically pushing color around," she disciplined herself to learn to draw, which led her to work with figurative imagery. After an unsatisfying experiment with self-portraiture, Burko turned her eye outward. She began to paint views, glimpses of landscapes, from a moving car or motorcycle [fig. 10]. Metaphorically, she was at the wheel, both painter and traveler, exploring the larger natural world. By this time, the mid-1960s, the art world had moved on from Ab Ex; now Minimalism and color field abstraction were ascendant. Burko was highly alert to avant-garde moves yet she kept on painting landscapes. In an art world dominated by modernist abstraction and conceptualism, she had no more business painting landscapes than Alice Neel had painting portraits, but like Neel, Burko went her own merry way. She was not a rebel, she has said,

"I was just naïve. I always saw myself as a student, constantly learning, growing. had a very romantic image of myself (I still feel a bit that way), so I had no choice... It was out of a desire to learn that I got into these images. Then I started to get excited about what I was seeing. All of a sudden in the shiny silver edge of the car against the warm greens of grass and the different textures and reflections, a whole world came alive to me...I knew that in certain circles they would say it was a terrible thing to paint those things because they had been done [by Manet or Van Gogh], but I couldn't help it. I was caught up. I never knew where I was going to go."11

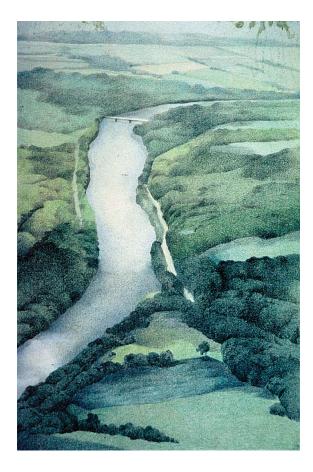
In the 1970s, Burko began painting landscapes in her Philadelphia studio. Working from photographs in National Geographic magazines, she painted images of snowcapped peaks [fig. 11]. She'd never seen such mountains, but they fascinated her, and the extremely large paintings

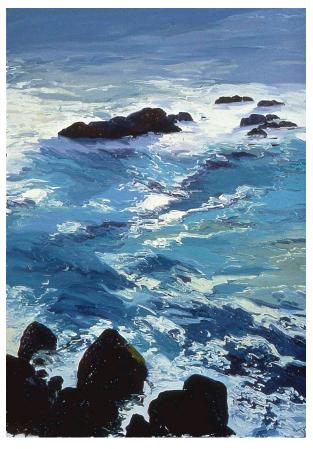


Figure 11. Diane Burko, Nevada Ulta, 1975. Acrylic on canvas, 60 x 75 in. Philadelphia Museum of Art: Gift of Rachel Seymour, 1977, 1977-260-1.



Figure 12. Diane Burko, Canyon Wall from Air #1 (First Flight), 1978. Acrylic on canvas, 42 x 72 in.





she made from magazine photos suggest she was drawn to the majestic size and scale of these forms, the biggest things on the planet. She didn't get to Mont Blanc or the Himalayas right away, but something equally spectacular was to be seen right here in the United States: the Grand Canyon's great gash in the earth, as deep as some mountains are tall. "For me," she said, "the expanse and scale of the Grand Canyon was just mind-blowing. I thought that way even before I actually got there. I had to see what those pictures in National Geo felt like in person."12

In 1977, capitalizing on an invitation to have an exhibit at Arizona State University (ASU). Burko got to see the Grand Canyon. Fortuitously, at ASU, she met the earth artist James Turrell, who told her she should fly over it, so she went with him in a plane, into the canyon. "Looking down into that magical expanse of space and color, flying over it with Turrell, imprinted me on an emotional level, in my body." From this point on. Burko began to use her own experiences as sources for her work. She photographed the canyon's massive spaces and forms from the air, then based her paintings on the photos [fig.

From left: Figure 13. Diane Burko, Up the Delaware, 1982. Colored pencil on Arches, 60 x 40 in.

Figure 14. Diane Burko, From Route 1, #2A, 1985. Oil on paper, 41 x 29 in.

12]. Burko's deep physiological response to her subject is attested by the contrast between the relative flatness of the National Geographicbased paintings and the sculptural solidity of her Grand Canyon walls, shaped by strong light and deep shadow, the solids and voids almost palpable. Though based on experience, the Grand Canyon paintings have a dreamlike, almost visionary quality, as if the artist had imagined nature as unperceived, and caught the mute stillness of the earth on its own.

Fact preceded fiction at that time, however, for Burko also responded to the exposed layers of geological stratification, color-changing horizontal bands that reveal the passage of time over six million years or more, as the Colorado River cut deeper and deeper into the earth. "Once I was attracted to the Grand Canyon, I became fascinated by the geological history. Knowledge seems to follow the initial blind attraction." Burko's fascination with the earth's ancient structure, and the fissures carved by rivers, is visible in subsequent scenes viewed from the air, such Lake Powell in Utah. And it spilled into projects of the 1980s, one on the waterways of Pennsylvania and another on the California coastline [figs. 13, 14]. In both these series, the subject is the interaction of water with rocks or land masses: dynamic and rhythmic as surf and tide; inert yet potent as a glassy flat surface in the wrinkled earth.



Figure 15. Diane Burko, Nympheas 1, 1989. Oil on canvas, 65 x 92 in. Collection of John Medveckis, Philadelphia PA

In this period, Burko experimented with the use of colored pencil on Arches paper to produce a stippled, granular effect. It was a nod, perhaps, to Georges Seurat (always art-history conscious, she once depicted a motorcycle in the setting of La Grande Jatte). She soon abandoned that technique, preferring the more overtly expressive, gestural brushstroke that molds the flow lines in the California paintings, and which prevailed in the next two decades. But her taste for an all-over surface effect prompted her change from oil to acrylic in

1975, to facilitate creating the matte surface she liked at the time. Before the Grand Canyon experience, flatness was important to her, and though she was initially drawn to mountains for their sculptural bulk, she evidently also liked the light-dark patterning of their surfaces, and the "all-over" effect of wrinkling and crackling, as if a partially snow-covered mountain were a field of shattering glass.

In Burko's artistic journey, one thing did not lead to another by accident. She is an opportunist, in the sense that she both takes advantage

of opportunities that come along and creates opportunity by sniffing the air, always alert to possibilities. In 1989, she won a competition sponsored by the Lila Acheson Wallace Foundation, and was awarded a six-month residency at Claude Monet's home in Giverny, France, next door to the flower gardens and lily pond that the French Impressionist artist designed and famously painted. Between April and October, Burko painted Monet's gardens and sites along the Normandy and Brittany coasts. Like Monet, another one of the young artist's heroes, Burko was drawn to paint the changing light on water, the wisteria and water lilies, the shadows and reflections [fig. 15], yet not as Monet's disciple: "Even though it's a century later, the place and the light are basically the same. What has changed is the person who is painting it. I hope I'm bringing my personality to these paintings."13 One can't help remembering the words of Monet's contemporary, Émile Zola, who described naturalistic art as "a corner of nature seen through a temperament."14

Painted en plein air and sometimes completed in the studio, Burko's Giverny canvases echo Monet's passion for the subtlety and shimmering instability of changing light, but she brought other sensibilities as well. 15 Her expressionist use of an agitated, gestural brushstroke and pulsing compositional energies bring Vincent Van Gogh to mind, or even Joan Mitchell, who was also a resident in 1989, in nearby Vétheuil. Burko's expressive thrust even



Figure 16. Diane Burko, After the Storm at Casa Rosa, 1994. Oil on canvas, 24 x 72 in. Private Collection.

shaped her realist fidelity to optical truths, such as the change from reflection to refraction in Nympheas I (1989), where the water surface looks as if it suddenly bends over an edge, an effect she would later use to punctuate abstract compositions. 16 At the same time, these paintings of Monet's pond are permeated by a dark sadness, a poetic melancholy. As Burko reminisced of her Giverny works, "If this painting looks a bit haunted, perhaps it's because I'm also dealing with shadow and reflection, which is really a metaphor for many things. This work has to do with solitude and looking into yourself."17

The Giverny sojourn in Normandy led to Bellagio in Italy. In the fall of 1993, Burko held a residency at the Bellagio Study and

Conference Center on Lake Como. The celebrated study center on the scenic north Italian lakes, supported by the Rockefeller Foundation, has for decades attracted writers, scholars, and artists (including Burko's friends Norma Broude, Miriam Schapiro, and Joyce Kozloff). Burko was drawn to the Center for its setting, and in her application letter, she linked her goals with the rising ecological concerns of the period, arguing "Art that responds to natural beauty can help to preserve and conserve our fragile and threatened environment." The spectacular beauty of Bellagio, situated at the fork of the upside-down-Y-shaped Lake Como has attracted artists and tourists for centuries. Burko eliminated the picturesque features that most artists included—castles, ruins, people—to

concentrate on the site's raw natural beauty, its bone structure [fig. 16].

Burko painted her Bellagio pictures on the terrace of her room at Villa Serbelloni and, as at Giverny, began with small sketches, developing them into larger compositions later. The finished works, often composites of the sketches, embrace the panoramic spectacle she awoke to each day. They are strongly horizontal, to express the sweeping breadth of the majestic lake framed by mountains that are foothills of the Alps, while infinite spatial depth is suggested through carefully adjusted tonal changes in the receding mountains. Weather takes center stage, as dark and light clouds move swiftly across the lake, and light plays on the water surface in changing patterns, responding to the

moving clouds above. Four basic elements water, mountains, sky, and clouds—are bound by rhythms, invisible but felt, into a whole. Burko felt these rhythms intensely, for we read in her Bellagio journal:

It is now 2:30. The thunder is deafening. I stand here excited having just done two 18 x 24 paintings of the lake from the window as the clouds came and broke. Neither is finished. I was audibly moaning as I feverishly grabbed the tubes and the turpentine. My hands, heart, eyes and soul in rhythm with the pure motions of nature.18

A single painting does not simply record a weather moment, but suggests meteorological change over a day that might see rain and sun, cold and warmth, from early morning to early evening. Like the nineteenth-century landscape painter John Constable, Burko makes clouds her vehicle for the theme of nature as motion and change.¹⁹ Now painting in oil, not the thinner, more impersonal acrylic of earlier years, she selectively scumbles the surface, describing a floating cloud, or a light patch on water, as a thick crusty squiggle of impasto [fig. 17]. As at Giverny, the Bellagio paintings are filled with expressive gestural moments, imprints of the absorbed artist's presence in real time.

To paint a corner of nature is to experience it deeply, and for Burko, the experience could be as important as the painted result. Hence the importance of travel, which at first consisted of driving around the European sites she liked

to paint. Before Giverny, she had driven along the Brittany and Normandy coasts, and in each of the four years between Giverny and Bellagio, she traveled in France (Provence, Paris, Giverny again), England, Belgium, the Netherlands, and Nova Scotia. Travel in those years for Burko, who taught full-time at the Community College of Philadelphia from 1969 to 2000, was limited to summers. Visiting professorships, exhibitions, lectures and, increasingly, participa-

tion in scientific conferences have taken her around the country and the world, but since the beginning of this century, Burko has traveled the globe as an explorer with a purpose, following her nose for what would come next in her art. Freed from teaching responsibilities in 2000. she became exceptionally prolific, expanding her oeuvre with more and more paintings and sketches each year.

After carrying out a public art project for a Marriott Hotel in Philadelphia, a 97-foot frieze depicting scenes along the tree-lined Wissahickon Creek, which joins the Schuylkill River at Philadelphia (1997), she said she was "anxious to get away from green." That decision led her to go to Costa Rica in 1998 to see a rain forest, an interest perhaps piqued



Figure 17. Diane Burko, Lago di Casa Rosa I (detail), 1994. Oil on canvas, 36 x 72 in.

in Bellagio where she painted mist and rain for the first time, entranced.²⁰ She may never have painted the rain forest (where she wouldn't have escaped green), because in Costa Rica, she also saw, and painted, a volcano. Seeing the Arenal Volcano, she claims, was "serendipitous, the key to my life."21 It led to a four-year volcano project, which took her to Alaska, Hawaii, and Sicily, and then to Iceland, where she found more volcanoes, but also waterfalls. The volcanoes and waterfalls in Iceland led to glaciers in the Arctic Circle and Antarctica, which led to the climate change project. Global warming led her from glaciers to coral reefs, which took her to the South Pacific, and the Great Barrier Reef. One thing invariably leads to another, but it helps to have a sense of direction.

THE EXPLORER

Flying over sites in small airplanes has been essential to Burko's construction of her self-defined identity as a painter/explorer [fig. 18]. Describing her early flights, she explained that the view from the air gives an "unexpected spatial point of view," and that the absence of a horizon line creates greater abstraction."²² Yet her interest has never been in making nice abstractions. More basically, she was driven to observe places from above because, in her words, "that is where the totality comes in." She needed to apprehend and grasp the larger whole, to observe nature's operations on a grand scale, and flying over a mountain chain feels a little like taking giant steps across the land.

The first volcano paintings, those made in Costa Rica, were rather static. She depicted the water-filled crater as a bland daylight landscape, with a polite green mountain behind. It took time for her to get the sense of totality, and to measure up to the drama of a mountain spewing lava. In Sicily and the Italian mainland, she made a point of experiencing contact with a volcano: she climbed five hours up to the peak of Stromboli to watch lava fireworks, and again at Vesuvius she went to the edge of the crater. Her paintings of the Italian volcanoes reflect that experience [fig. 19]. Painted now in bolder chiaroscuro, with sculpturally molded masses, these monumental orifices rise gaspingly high from the surrounding plain, like bones of the earth. She was particularly drawn to Hawaii

and its five volcanoes, two of them still active, which offered a chance to paint a live volcano gushing hot lava. In paintings based on an eruption of the Halema'uma'u Crater in 1961 [figs. 20, 21], the lava flow is expressed as radiating golden lines of energy, and both land and sky are turned a glowing red. These are over-the-top images, as fantastic as the Mars of our imaginations, yet grounded in a scientific reality on earth.



Figure 19. Diane Burko, *Stromboli from the Air #1, May 18, 2001. Italy,* 2001. Oil on canvas, 60 x 84 in.



Figure 18. Burko photographing from airplane, over Glacier National Park, Montana, 2010. Photo by Richard Ryan.



Figure 20. Diane Burko, Halema'uma'u Crater (1961) #2, Hawaii, 2000. Oil on canvas, 60 x 84 in.

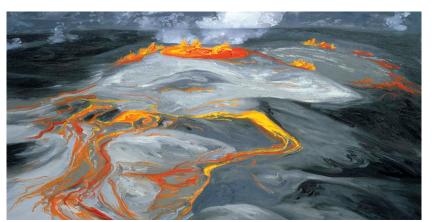


Figure 21. Diane Burko, Halema'uma'u Study, Hawaii, 2001. Oil on canvas, 24 x 48 in.



Figure 22. Photograph of Kilauea calving, at Paluma Pali by Diane Burko, October 2000.



Figure 23. Diane Burko, No. 1 2000, Paluma Pali (October Flight 2000) #5. Oil on canvas, 60 x 96 in. Collection of Michael Basta, Naples FL.

The volcano eruptions she presented as viewed from the air were, necessarily, based on photographs. At first she used already published views, then after her first trip to Hawaii, began to use the photographs she took from small planes and helicopters, sometimes with her door open, flying low enough "to feel the heat of the lava oozing out from deep openings in the surface." Photography would increasingly become a separate aesthetic medium for Burko, but it's instructive to see how she used her source photos. First, she would project the photograph as a slide onto the blank canvas at the chosen scale, then rough in the light-dark shapes of the image in paint. Then, as she describes it, she turned off the projector and developed the painting, guided more by intuition and imagination than by the source photo she used only for reference.²³

Comparing a finished painting with its source photo, we see where Burko went with it. In 2000, Kilauea, the most active volcano on Hawaii's Big Island, began a series of eruptions that has continued for two decades. In October 2000, she photographed the thick, black

lava field as it moved across the land, spilling over a cliff (the Paluma Pali) and into the sea [fig. 22]. Ribbons of falling lava, reddening on contact with the air, dropped into the water and created plumes of rising steam. In a painting based on the photograph [fig. 23], Burko simplified this detailed yet static image and set it into motion. As videos show, the lava actually moved quite swiftly, but in the snapshot it looks inert. Burko translated this rather treacly-looking substance into swiftly flowing pigment, and pushed it to pour more forcefully over the cliff's edge. The red lava ribbons are doubled in number, gaining impetus to become hot energy lines that activate the sea, causing the white plumes, now concentrated into large masses, to explode dynamically, then plunge seaward in arcs, like a giant school of dolphins. Out of a photograph that stopped time, Burko created an image of nature as process, using the drama of a volcanic eruption to stand iconically for a planet that is always in flux.





From top: Figure 24. Burko photographing falls in Iceland, 2002. Photo: Richard Ryan. Figure 25. Burko standing on Kronebreen Glacier, Svalbard, 2013. Photo: Richard Ryan.

The volcano paintings offer us a vicarious thrill, the exhilaration of a breathtaking view. "I am looking for a visual surprise," she said, "a view that takes my breath away."24 The breathtaking experience is not metaphoric but literal; we humans instinctively gasp for breath when

confronted with an unexpected view of an enlarged spatial field, as if we suddenly needed to fill the lungs of a giant. Burko's volcano paintings produce that breathtaking effect: disoriented, we try to restore our physical relationship with the thing depicted, to compensate for our smallness in relation to the whole. In this sense, Burko positions herself, and us, as in the landscape, taking physical part in nature's phenomenal operations. When asked once, probably not for the first time, why her paintings have no people in them, she replied, "They're in there, immersed in the environment."25

For Burko, the physical and sensory experience is critical. "Even when not flying," she said, "I tend to go to the edges of cliffs." She goes there for the breathtaking thrill, no doubt, but also to engage: to witness and participate in nature's operations, the eruption of volcanoes and the calving of glaciers, first at one place on earth and then at another. There is not a single human figure

in all of Burko's paintings, but there are plenty of photographs of her standing on glaciers, or sitting on cliffs. [figs. 24, 25]. She needed to immerse herself in the movements of the earth, feel its rhythms in specific experiences, and she

reminisced accordingly: "My first solid glacial experience happened on Kronebreen Glacier in Svalbard, when I put my crampon boot down on that ice surface climbing down out of the helicopter on October 6, 2013."26 When she took on coral reefs, she felt a need to examine them in situ, so she improved her swimming skills and learned to snorkel. She noted that reefs and ocean presented an environment very new to her and demanded a new set of skills because "there are unique rhythms to these places." 27

Burko first traveled to Iceland in 2002, and made repeated visits in the following two years. She went in search of volcanoes, but made a new discovery—waterfalls—extending her earlier interest in the movements of water, now shown as dynamic and on a grand scale [fig. 26]. Waterfalls are abundant in Iceland, due to vigorous geothermal activity that causes glacial melting, while light changes dramatically with sudden weather changes. She caught some of these qualities, even in paintings done before she went to Iceland [fig. 27], and has noted the role of imagination and invention in her work.²⁸ Imagination in this case was the vehicle for something all explorers experience before their journeys: the excitement of anticipation. In Kverkfjoli Before Trip (2002), Burko's brush is energized by her anticipatory appetite, and by the pleasure of fantasizing about what a place looks like. As she acknowledges, "Sometimes those images are better than the ones I actually capture."

An explorer is driven by a taste for adventure, the thrill of discovering something new. Burko describes herself as an artist/explorer, to emphasize that for her the exploration is as important as making a painting. The adventure of discovery is something Burko shares with her hero, Alexander von Humboldt, who was driven by scientific curiosity to travel across four continents, from South America to Russia, seeking to confirm from botanical specimens, observation, and measurement his intuitive sense of nature's organic wholeness and dynamic equilibrium. He invented isotherms, the curved lines that diagram temperature zones on a map, and mapped the vegetation and climate zones that circulate the globe. Humboldt's intuition, consistent with the Romanticism of his era, was shaped by an aesthetic sense that led him to value the beauty in the "unity of nature." He made paintings and diagrams, and devoted a chapter of his influential treatise, Cosmos (1845), to landscape painting. Humboldt's high-energy fusion of art, science, and exploration inspired the Hudson River School painter Frederic Edwin Church to travel in his footsteps, particularly to South America, where he painted The Heart of the Andes (1859) as a tribute to Humboldt.²⁹

Right, from top: Figure 26. Diane Burko, *Godafoss #2*, 2002–03. Oil on canvas, 48 x 74 in.

Figure 27. Diane Burko, Kverkfjoll Before Trip, 2002. Oil on canvas, 50×81 in.





Like Church, Burko was inspired by Humboldt's organic and unitary vision of nature, which she first encountered in the copy of Cosmos a friend gave her in 2012. Humboldt confirmed her own instincts about nature's interconnected elements, something she had repeatedly expressed in her landscapes, and she especially admired

"his incredible grasp of everything. What an early example of a data visualizer! He was the first one able to take climate data—recorded temperatures in long columns—and translate them into waves across maps indicating patterns of movement."

It's a telling appraisal. Burko's task was like Humboldt's, to translate linear, factual information into a spatial visual language. This is the charge she gave herself in painting the World Map series (2019) [fig. 28]. Despite the title, these paintings are not really maps at all; they're pseudoscientific, but for a purpose. She has described her work as "art on the nature of data about nature."30 The World Reef Map presents Burko's translation of the distribution of coral reef across the planet, depicted as a hot yellow-pink band imposed irregularly on a field of blue and green that is defined as a flat map of the earth by the outlines of continents. Above, functioning to amplify the theme, like predellas at the bottom of Renaissance altarpieces. are three ghost-image maps of certain zones— South America, Australia, Africa—that tell us something else about coral reef distribution,

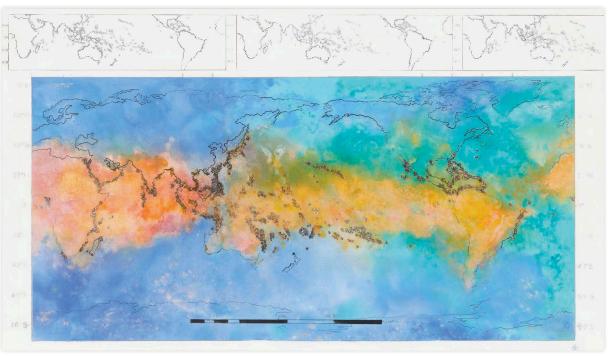


Figure 28. Diane Burko, World Reef Map, 2019. Mixed media on canvas, 50 x 88 in.

though we're not sure what. Latitudes matter, however, for both the "predellas" (or friezes) and the larger image are framed by numbers marking the latitudinal parallels.

Near the bottom of the larger painting, a bar marked by measured intervals (an identical bar appears in the World Glacier Map) suggests the precision of scientific mapping of the reefs and glaciers. Burko says that she loves information and data, but she doesn't recapitulate it, merely

establishes its presence. Her World Reef Map gives us something else: the image of a changing world in which zones at peril, precisely





From left: Figure 29. Diane Burko, Unprecedented (detail), 2021. Mixed media on canvas, 96 x 180 in.

Figure 30. Diane Burko, North Pole Map 2007, 2014. Oil on canvas, 10 x 10 in. Mr. Ralph Citino and Mr. Lawrence Taylor, Philadelphia, PA.

> indicated, sound an alarm in raging color—a danger well understood by a science perhaps powerless to stop it.

Burko's enthusiasm for Humboldt's patterns of movement across maps resonates in another way, because her own journeys over the decades have traced a pattern. After Iceland, she pushed further north, into the Arctic Circle, then went down to Antarctica, as if to internalize the earth's axis within her body. Over time, she also moved laterally, west from Costa Rica to Hawaii, then east to Italy, west to Japan, and later to the South Pacific, with multiple repeat visits to familiar sites. Burko's circumnavigations of the globe have always been more than site visits, they are an end in themselves. Her constant movements around the earth's curve mimic its own rotations—the way that, arguably, dancers do, especially the many dance forms that involve circular movement. Circularity plays an increasing role in Burko's most recent work: the lenticulars are metaphors for the globe itself, encircled by the winds and currents of change, and in *Unprecedented* [fig. 29], coronavirus spheres look like planets, floating and dancing in space.

Like Humboldt, Burko has long been interested in maps and cartography. Humboldt made maps for the sake of accuracy, and even corrected the cartography of South America. Burko studies maps for the pleasure of feeling and understanding spatial relations on the planet, and as a point of departure for visual expression. But they both mapped to better comprehend the round orb we live on. Always sensitive to geography, Burko seems to carry a

globe in her head. In conversation with anthropologist Ben Orlove, she remarked that coral reefs are mainly distributed around the equator. When Orlove noted that there are exceptions. Burko reeled them off, not missing a beat: "There are, like the Red Sea, even some in the Arctic. I learned about this from a glaciologist at the Arctic Circle Conference in Reykjavík last October! She told me about the rich coral assemblages identified in the Davis Strait. Baffin Island, and Labrador Sea...."31

When Burko first took on the subject of climate change, maps became her key armature for expression. In small studies based on NASA maps [fig. 30], she depicted the North Pole as seen from a satellite, the polar ice cap visible as a ragged white shape whose edges are melting into black waters and green land masses. The meridians that meet at the pole seem less a sign of the conceptual precision of cartographers than lines of force converging on a helpless target. By the time she embarked on the coral reef series, Burko's relationship with maps was more relaxed, even playful [fig. 31]. Islands and oceans are evoked, alongside rectilinear gridlines and circles derived from nautical charts (circles represent the "compass rose" that indicates magnetic north; other markings refer to depth soundings).

These geometric forms provide the feel of cartography, yet without its implication of measurement as control. At times, a specific locale, like American Samoa, is invoked by a





From top: Figure 31. (a) Diane Burko, Faga'alu (detail), 2018. Acrylic on canvas, 60 x 60 in. (b) Maritime Map of American Samoa, NOAA Nautical Chart. #83484.

shape that teasingly traces its contours before dissolving into a vast floating sea of deep colors. The charts and maps are there, Burko says, "to reference the facts of science, but for me, the aesthetics of painting have to prevail in the end."32 The two are not contradictory, however, for by holding facts and aesthetics together in one frame, Burko affirms the visual continuities across two systems, one of cartography and the other of sensory experience.

NATURE, ART, GENDER

Like many strong women, Diane Burko has been called a "force of nature." It's meant as a compliment, yet mildly insulting is the implication that she is an unmotivated, unthinking agent of an amoral nature that does whatever it wants. The expression presumes that nature is a power beyond our ken, whose beneficial

or destructive potential we must harness, or else step aside to escape her wrath. If a strong woman is a "force of nature," the rest of us are implicitly forces against nature.

There's a very long history of nature being gendered as female and art/culture as male. In this paradigm, nature is the wild, unpredictable, and sometimes dangerous force that civilized man must control and master to further his civilizing aims. The paradigm has not existed forever; it can be historicized. An ancient understanding of nature as female, wise, and all-powerful was countered in relatively modern times, beginning in Renaissance Italy, by artists and theorists who staged an ongoing competition between nature and art, and declared art the victor. The earlier cosmology that viewed the earth as a living organism was replaced by a mechanistic view of the female earth as passive matter, to be controlled by creative man. This masculinist

myth fueled the scientific revolution in seventeenth-century Europe, and the construct has lingered into modern times.33

How can a woman who paints landscapes enter such a discourse? The deck is stacked from the outset—she must accept being essentialized into the passive nature position or, to escape it, adopt a masculinist oppositional



Figure 32. Frederic Edwin Church, Niagara, 1857. Oil on canvas, 40 x 90.5 in. National Gallery of Art, Corcoran Collection (Museum Purchase, Gallery Fund), 2014.79.10.



Figure 33. Diane Burko, Gullfoss #2, 2002. Oil on canvas, 50 x 81 in.

stance. Where is a feminist like Burko to position herself? What's worse, landscape painting has in recent years been stigmatized as patriarchal and colonialist, compromised by its embedded relationship with capitalist exploitation of natural resources, and inseparable from the elite power structures that birthed and sustained the genre. This rigidly narrow reading by

> late twentieth-century social historians led land and earth artists of the 1960s to dismiss landscape as an "exhausted and no longer viable medium."34

> Burko found a personal path out of this conceptual thicket, which is best explained through a set of juxtapositions. She is often compared to the nineteenth-century American artist Frederic Church, who also painted monumental pictures of volcanoes and waterfalls, and whom she consciously referenced in her art.35 Church's large painting Niagara of 1857 [fig. 32] made him famous, and it was phenomenally successful as a celebratory rendering of America's great natural wonder, touted as superior to anything found in Europe. In 2002, Burko, the American globetrotter, replied with an equally majestic (and slightly larger) painting of a waterfall in Iceland [fig. 33]. The artists shared an admiration for nature's marvels, yet with a difference marked by gender. Church worked

within the masculinist dialectic that positioned nature as culture's opposite, a binary that subtly influenced Romantic landscape painters like J. M. W. Turner and Church to walk a line between celebrating nature's wild energy and glorifying man's effort to mediate it.

Church heroizes elements within the landscape; the rainbow and the tree branch are almost, but not quite, powerless against the mighty falls. The rainbow promises hope for the young nation, and the little branch is a stand-in for man struggling against the elements, an example of the "pathetic fallacy," as John Ruskin called the poetic ascription of human feelings to things in nature. Pointedly, Burko includes

no human figures, no stand-ins for us. Instead, she champions the dynamic force itself. Her thunderous, crashing falls present an image of nature doing its thing—in the old formulation, natura naturans (nature naturing) rather than natura naturata (inert dead matter)—unchallenged, and witnessed only by the artist. Burko avoids casting nature as culture's opponent, and instead claims its power as her own.

Burko paints swelling mountains and dynamic waterfalls, not as Other but as Self, heroic metaphors for her personal aspirations. In 2007–09, she painted the Matterhorn series

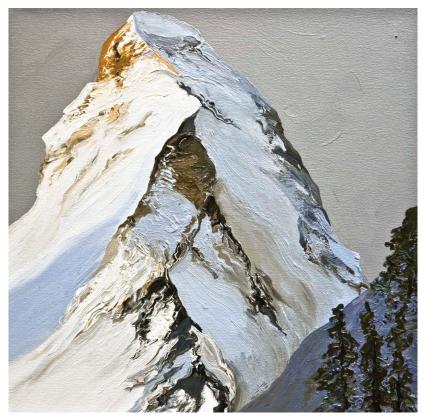


Figure 34. Diane Burko, Matterhorn Icon Series 1, 2007. Oil on canvas, 20 x 20 in.

[fig. 34], basing her images on photographs of the legendary Alpine mountain in a book called *Men and the Matterhorn* (1967). The book opens with this line: "A man facing the Matterhorn is no ordinary man, especially if he has within him a desire for conquest." The heroes of this book are the men who conquered nature by surmounting its peaks. In Burko's inversion of the trope, she herself is the Matterhorn, aspiring, pushing upward, supported by the winds and rising snow. The *Matterhorns* work as metaphors for the artist's surging ambition, and they work as feminist metaphors too, because for a woman

artist to claim identity with a nature that is heroic and unchallenged provokes consideration of a different distribution of power between the sexes.

We're not yet, however, in a postmasculinist world. The land and earthworks artists of the 1960s disavowed the increasingly disparaged landscape tradition, yet went on in the same oppositional track, planting culture's markers on nature. One thinks of Robert Smithson's highly artificial Spiral Jetty in Utah, or Michael Heizer's giant trenches cut in the Nevada desert. The next decade brought new perspectives. A heightened awareness of the earth as a whole was jolted into being by the first view of the planet Earth seen from a distance, the so-called "blue marble" photograph [fig. 35] taken by astronauts

in 1972. The first global Earth Day in 1970, precipitated by an oil spill, has been said to mark the beginning of consciousness about the fragility of the planet and the need to protect its threatened environment.

Ecological artists criticized land artists for the damage they imposed on the landscape, and rejected their utilitarian view of the earth as mere material, a palette for artists with their eyes on New York galleries.³⁷ Newly focused on the need to respect and protect the planet, eco artists created art projects that supported or transformed local ecologies, in collaboration with communities, scientists, engineers, and landscape architects.38

Eco art comes in many forms, but especially relevant here is ecofeminism, which emerged in the 1970s along with second-wave feminism and green movements, and connects the capitalist exploitation of the natural world with the subordination and exploitation of women.³⁹ As one of ecofeminism's founders Claudia von Werlhof explained, patriarchy is the "deep structure" of capitalism, whose impetus to dominate and control is facilitated by modern science and technology. 40 Some ecofeminist artists envisioned a nature outside patriarchy, invoking the imagery of the prehistoric Great Mother Goddess, or Gaia, in ritual performances and art, and embracing a spiritual world view that would dissolve patriarchal binaries such as nature/culture, material/spiritual, human/ non-human (Mary Beth Edelson, Ana Mendieta). Other ecofeminists sought to help heal the damaged planet through collaborations with "the



Figure 35. "The Blue Marble," image of the Earth taken by astronauts on Apollo 17, December 7, 1972. Archival inkjet print, 30 x 30 in. Printed 2021.

earth herself."41 Treating landscape "not as scenery, but as the spaces and systems we inhabit,"42 in Rebecca Solnit's formulation, ecofeminists made art in a larger environmental context. Bringing nature's processes into provocative or productive relationship with urban systems such as sanitation collection (Miele Laderman Ukeles), or water flow and purification (Betsy Damon, Jackie Brookner, Lorna Jordan, Stacy Levy).

In both her art and her activism. Burko shares the agenda of ecofeminists, but she stands apart in important respects. Unlike environmentalist artists who bring nature into telling juxtaposition with the urban environment—e.g., Agnes Denes, who planted a wheat field on a landfill in Manhattan—Burko goes out from her urban base to encounter and engage a nature new to her, then returns to her studio to make paintings without leaving a mark on the landscape. She does not claim affiliation with spirituality, nor does she think of nature as female. Her understanding of nature's organic unity is, instead, rooted in the anti-masculinist philosophical concepts of men such as Humboldt and similar thinkers.43

Burko's relationship with the natural world sharply differs from an ecofeminist artist like Ana Mendieta, who affirmed her identification with female nature by inscribing traces of her own body on the earth's surface. Burko puts her body into a relationship with the earth, mimicking its movements through travel, yet she does

so as an artist/explorer who is not conspicuously gendered female. By contrast with feminist artists who align themselves with nature's identity as mother or nurturer – a position that might be described as essentialist or tautological—Burko assumes the stereotypically masculine role of explorer, but it's as a woman that she does so, in order to claim such roles as accessible to women as well as men. One might better describe her as intellectually and creatively androgynous, and in this sense her effort to reclaim the full humanity that males had appropriated for their sex is a proudly feminist endeavor.

Among ecologically inspired artists, Burko stands out in her sustained connection with the landscape genre, despite its masculinist associations (or more precisely, because these didn't bother her). She affirmed her affinity with landscape painters like Constable, Monet, and Church, taking up their motifs and themes, and using the same materials—paint, paintbrush, canvas on a rectangular stretcher—in a period when many artists were abandoning easel painting in favor of installations and projects that integrated art into a larger environment.

From the viewpoint of an avant-garde art history. Burko might be considered retardataire. But one art historian, Mark Cheetham, challenges the theoretical dismissal of landscape as an exhausted genre, and uses Burko's art to exemplify the continuing potency of landscape.44 Moreover, I would add, other art historical models depart from the template of a

chronological narrative in which styles or genres rise and fall. George Kubler's theory of artistic style, for example, positions art objects as contributions or signals, across time periods, to specific types or problems. By embracing and engaging the landscape tradition, Burko inserts herself into a particular stream of art history, refuting by her very existence the notion that landscape ceased to be viable sometime in the twentieth century. She renews the landscape genre by extending its scope, from a corner of nature to large parts of the whole earth, viewed through the lens of change over time: Monet's haystacks change over days or seasons, and Burko's glaciers change over eons.

WHAT'S THE MATTER WITH MATTER?

Burko also extends the landscape genre through one of its distinctive features: the affinity between the material properties of oil paint and the substance of things depicted—the fluidity of Monet's water, the fatty plasticity of Constable's clouds, the viscous flow of Burko's lava. "I enjoy the materiality of the paint as well as the materiality of the water, lava, rock and mist," Burko says. 46 In the gendered hierarchies of art theory, artists' engagement with their materials, mere matter, is low status compared to the higher reaches of intellect and ideas. Nature was tiered into its higher creative component and lower material form (natura naturans and natura naturata); form was deemed superior to matter, as men are to women; and landscape painting



Figure 36. Diane Burko, *Visions of the Beaufort Sea IV* (detail), 2016. Oil on canvas, 20 x 42 in. Collection of National Geographic Endurance.

was feminized (long before it was deemed patriarchal) as inferior to male-dominated history painting.⁴⁷ Burko was probably unaware of this theoretical burden, yet by luxuriating in the materiality of both medium and subject, she eschews the hierarchies, redirecting us to think of a continuity between the materials of art and the material forms of nature, elevating materiality itself to a fully positive, even prioritized, status.

She gave this materiality a metaphoric dimension when she expanded the brushstrokeas-cloud bond into new materials and relationships. In 2015, while working with glaciers, Burko began to make use of a paint material called crackle paste, which develops fissure-like cracks as it dries to produce the look of craquelure on old oil paintings. The paste is typically used by interior decorators or hobby artists to give walls or paintings an aged look. Burko worked crackle paste into her glacier paintings, mixing it with other materials to suggest the cracking of ice as seen from an aerial perspective [fig. 36]. Experimenting with materials, she found that thicker mixes produced larger cracks, and thinner mixes smaller ones, an effect that supports the implication of spatial depth. Moreover, the branchlike patterning seen in the large areas is a natural ramification that results both when ice breaks up and crackle paste dries—a fortuitous correspondence of microcosm and macrocosm. Fortuitous too is that the "antiquing" effect reminds us, not only of the cracking of the glacier that precedes its calving and melting, but also of the great antiquity of the glaciers (they range from 30,000 to a million years old).

When she took up coral reefs, Burko developed a technique for spilling and manipulating paint on a flat horizontal surface, looking down on it (her favorite point of view), just as she had done when examining coral reefs while snorkeling. She poured acrylic paint, at first letting it

pool and flow by tilting the canvas, then decided to move the paint with an air compressor, in part for the unexpected effects that resulted [fig. 37]. She explains, "You see how this section of Faga'alu spreads? All of this section is very thin [paint], and the air is pushing it onto a wet surface. I mean, that's the magic—like how did this thing happen? It's a very fluid process about a fluid topic."48 Burko suggests an identity between medium and subject—the flowing of air-blown paint is like the air currents that move the oceans, and the sudden deepening of color when wet meets wetter is like the color changes of the ocean at different depths—that, to this Renaissance art historian, echoes Leonardo da Vinci's attachment to the organic correspondence between microcosm and macrocosm.⁴⁹

Burko speaks of the micro-macro correspondence in explaining her "lenticulars," animated discs that appear to stream colored fluids across the round surface as the eye moves past small-scale metaphors for the dynamic forces that spin this planet [fig. 38]. In 2017-18, collaborating with her landscape architect/artist husband, Richard Ryan, and photographic artist Anna Tas, Burko produced the lenticulars by making paint move in petri dishes, videotaping its movements, then filtering the videos through lenticular lenses.⁵⁰ For Burko, the lenticulars metaphorically resemble, not only the planet, but also polyps (the animal part of coral) viewed under a confocal microscope, which she had recently seen in the Ruth Gates Coral Lab at the

Hawai'i Institute of Marine Biology. Describing her lenticular-making experience, Burko said that "having the chance to witness the microcosm and macrocosm in the space of a few months was so incredible."51

As we enter the changing world that environmental threat has brought, the old, gendered polarities seem increasingly irrelevant. Nature's self-sustaining power may turn out to be limited now that it's threatened by the growing power of rapacious masculinist culture. As Elizabeth Kolbert notes, "we now routinely cause earthquakes."52 And as the present pandemic has revealed, Mother Nature is not always benign, and now she seems less maternal than the environmental caretakers who want to protect her. Science, moreover, is no longer monolithically on the side of patriarchal aggression; even Big Pharma has been enlisted to fight the coronavirus. Today's climate change scientists have parted ways with the masculinist rapists of the earth, seeking now to better understand the earth's complex operations to prevent climate disaster. Although petro-industrial polluters' resistance to the earth's caretaking protectors still carries gendered connotations, a new model has emerged that puts nature and culture in a partnership of mutual self-interest.

Ultimately, we're all forces of nature, as Humboldt inferred. And as twenty-first-century writer Bruno Latour observes, nature and culture are co-dependent, if not inseparable.⁵³ Within our planetary ecosystem, humans act



Figure 38. Diane Burko and Anna Tas, HIMB, Confocal, 2018. Lenticular print, 30 x 30 in.



Figure 37. Diane Burko, Faga'alu (detail), 2018. Acrylic on canvas, 60 x 60 in.

and interact, give and receive, like nature's other inhabitants—a reciprocity that begins with breathing in and breathing out. In this way of thinking, what Bill McKibben and other environmentalists call "deep ecology," we humans are not mere riders on spaceship earth, but part of it, as embedded in its operations as plants and animals.⁵⁴ Burko tells us in both words and images that we are enmeshed in nature. Her paintings may include no human figures, but, as she says, "They're in there, immersed in the environment." Burko tapped into deep ecological thinking long before she took on climate change and, as I have argued here, her philosophical mindset prepared her for the road ahead.



Figure 39. Diane Burko, Toboggan Glacier #1, after Sidney Paige, 2007. Oil on canvas, 32 x 50 in.

CLIMATE CHANGE: SNOW AND ICE

In 2006, Diane Burko decided to do something about climate change through her art and activism. "The issue was in the air," she said. In 2006, Al Gore produced the dramatic documentary film, *An Inconvenient Truth*. In the same year, Elizabeth Kolbert's groundbreaking set of essays in *The New Yorker*, "The Climate of Man," was published as a book. 55 The idea of documenting the melting of polar ice caps came to Burko in 2006, as she was preparing an exhibition for the Michener Art Museum. 56 The show was to feature her volcano paintings but, finding themselves with extra space, the curators asked for some of her earlier snow-capped mountains. Back in her studio, Burko came

upon her *Grand Jorasses* of 1976 (cf. Fig. 10) and, with global warming on her mind, wondered whether the snow was still there. She thought, "I can't keep making paintings about the landscape I love without trying to do something about it." ⁵⁷

First came impassioned painterly tributes to the disappearing snow-capped mountains and glaciers, the Matterhorn in the Alps and Toboggan Glacier in Alaska (2007) [fig. 39], natural monuments honored

as much by their titles as by the paintings. Toboggan Glacier shows, not the snow's recession, but its flow into the "glacier tongue" extensions that result when ice flows downhill into the ocean. Toboggan Glacier was based on a photograph made in 1909 by the geologist Sidney Paige, which Burko modified with painterly energy, while drawing a subtle form of inspiration from her source. As geoscientist Tad Pfeffer explained in an essay he wrote for a later Burko exhibition, older photographs (especially those from the nineteenth century, when scientists and artists were less sharply differentiated) had expressive qualities missing in modern geoscientific imaging. Though technically more informative, the latter images "reveal only the precise information sought. Scientists of the past engaged a map of the world that still had a few holes in it; their tools were duller, but like artists, they investigated these mysteries with sharp wits and creativity."58 Source photos by earlier photographers such as George Alexander Grant and Bradford Washburn equipped Burko to convey the awe-inspiring mystery of what she describes as "monumental geological phenomena."

She then began to create paintings based on the repeat photography used by geologists to document change in the glaciers. In *Portage Glacier 1, 2* (2009) [fig. 40], *Grinnell Overlook 1, 2* [fig. 4], and *Main Rongbuk Glacier Series* [pp. 84–85], two or three paintings are juxtaposed, as in the photographs, to show glacial

recession over time, the ice's slow melt into pools of water. Her intention in the before and after images was to dramatize the scientific facts, yet Burko's imagination has increasingly outstripped fact. Next came paintings that brought climate change documentation to dynamic life. Working from photographs and diagrams that show the recession of Alaska's Columbia Glacier, Burko created a triptych that animated the process [fig. 41]. The first canvas shows the linear diagram of recession, with a text block reference to the world of science; in the next frame the diagram is superimposed on a photograph of the glacier; in the last frame, blue paint replaces the vanished ice with a lake.

In Columbia Glacier, Lines of Recession [fig. 42], Burko sustained the earlier photographers' aesthetic engagement with nature and made it modern in terms of art. On the right side, the receding lines again measure twenty-five years of geological change. On the larger left side, an almost but not quite a separate panel, broader red and orange lines run wild across the snowscape, bringing the disturbing change to our immediate sensory attention, to wake us up.

The new body of work was first presented in 2010, in an exhibition called *Diane Burko: Politics of Snow.* In a perceptive catalogue essay, lan Berry distinguished Burko from other contemporary artists who deal with climate change's effect on the melting polar icecaps. He contrasts Burko's emotional attachment to the disappearing glaciers with the geological

objectivity seen in Olafur Eliasson's Glacier Series of 1999, a grid of forty-two photographs of glaciers in various stages of change.⁵⁹ Burko's unabashedly romantic celebration of the receding glaciers distinguishes her from many other environmental artists who called attention to global warming through impersonal installations. Some artists mounted melting ice sculptures in public places.60 Others commemorated the glaciers' demise through technological records. In 2007-08, Katie Paterson made Vatnajökull (the Sound of), which consisted of a phone line in an art gallery that connected listeners to a recording of the dripping sounds of glaciers melting.61 Paterson's radically non-visual installation suggested that the magnitude of what is happening to the glaciers is unrepresent-

able, better approached through an indirectly presented fact, in this case aural. Burko, by contrast, has stubbornly sustained her roots in the visual. Yet, as if to acknowledge the



Figure 40. Diane Burko, Portage Glacier, 1, 2, 2009. Oil on canvas, 24 x 48 in. Private Collection.

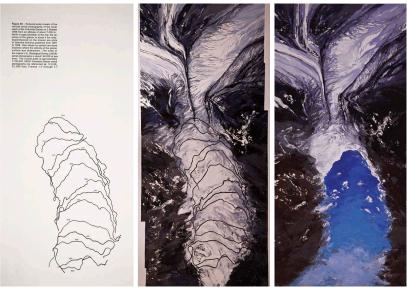


Figure 41. Diane Burko, *Columbia Triptych II (figure 46): Vertical Aerial 1981–1999, A, B, C after A. Post and T. Pfeffer,* 2010. Oil on canvas, 76 x 108 in.

impossibility of a holistic vision, she increasingly set visual data within a disjunctive abstract format, allowing the parts to suggest the enormity of the whole.

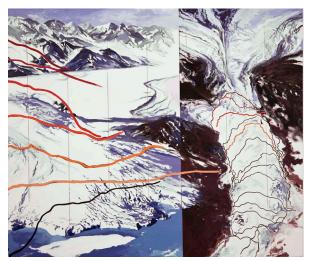


Figure 42. Diane Burko, Columbia Glacier, Lines of Recession, 1980-2005, 2011. Oil on canvas, 50 3/16 x 60 in. Collection of Minneapolis Institute of Art. Gift of Pamela and Joseph Yohlin. 2019.144. Photo: Minneapolis Institute of Art.



Figure 44. Diane Burko, Petermann 2011 (after Jason Box), 2012-13. Oil on canvas, 42 x 42 in.



Figure 43. Diane Burko, Petermann Calving, August 16, 2010 (after NASA), 2012. Oil on canvas, 60 x 72 in. Zimmerli Museum of Art, Rutgers University, Gift of Jane Biberman, 2016.015.001.

In 2010, the world's attention shifted to Greenland, where a major glacial catastrophe occurred. On August 5, 2010, a gigantic iceberg broke off the Petermann Glacier, along Greenland's northwestern coast, the largest Arctic glacier to "calve" (as this phenomenon is called) since 1962. It measured 97 square miles—or as Burko puts it, four times the size of Manhattan. The spectacle of a glacier calving has been captured on videos that are available online. Mountains of ice split slowly apart, then tumble oh-so-slowly, rhythmically, majestically, into the sea. The calved iceberg floats surrounded by its remnants; ice shards and patches drift in the sea. In 2012-13, Burko commemorated Petermann Glacier in multiple paintings, working from NASA photographs, particularly the Landsat images taken from a satellite. One

painting is based on such an aerial view, framed and adjusted in paint to express the feeling of the event happening—separation, crash, breakage [fig. 43]. Another painting based on site images from the glaciologist, Jason Box, transmits the poetic aftereffect of a calving glacier, when small fragments floating in deep water convey a sense of absence or loss, like survivors of a shipwreck [fig. 44].

Soon after making the Petermann paintings, Burko traveled to see glaciers firsthand. She went first to Antarctica, a brief trip in winter 2012–13, to be followed by longer visits later. Then, for five weeks in the fall of 2013, she joined an artist expedition to Norway, traveling on a three-masted ship to Svalbard, an archipelago ten degrees south of the North Pole. Under a concurrent grant, she spent four

days with scientists at the Norwegian Polar Institute in Ny-Ålesund and Tromsø. 62 In August 2014, she went to Greenland to see the massive Jakobshavn Glacier (also called Ilulissat, for its location alongside the western coast). Jakobshavn, the fastest moving glacier in the northern hemisphere, has been a major site of study for glaciologists. It has caused a lot of trouble (beginning with the detached Jakobshavn iceberg that sank the *Titanic*) and its large calving events have significantly contributed to sea level rise. Calving is normal for glaciers, which accumulate ice in winter and shed it in summer, a process that feeds fresh water to rivers. But global warming has changed the balance, and since 2000 Greenland's ice sheet has begun to lose more ice than it gains. A high percentage of this loss came from the Jakobshavn Glacier.





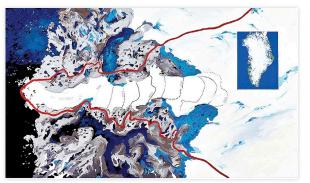




Figure 45. Diane Burko, Jakobshavn-Ilulissat Quartet, 2015. Oil and Flashe paint on canvas, overall: 42 x 228 in. Far left collection of Michael and Cindy Veloric.

A major outcome of these firsthand experiences was Jakobshavn-Ilulissat Quartet (2015) [fig. 45], a group of Landsat-based paintings that frame the glacial events in four different modes, changing from left to right: near observation, aerial observation, mapped, and abstract. The expressive tone changes with each discrete image, yet internal dialogues enrich the grouping. In the rectangular inner panels, flowing ice is rhymed with mapped recession to evoke nature's pulsing thrust, while inset maps of Greenland locate the glacier on the globe. The square outer panels invite sensory response in both representational and abstract modes.

With its spatial and perspectival complexities, Jakobshavn Quartet differs from the relatively simpler Antarctica Quartet of 2013 [fig. 46]. In Antarctica, Burko joins four square paintings of icebergs floating in dark waters, separate images that seem almost connected, as if this were a continuous panoramic field, yet disjunction is clearly indicated at each

internal border. It's a poetic homage to the disintegrating glacier, conveyed through a resonant composition unified by repeating modules of white, aquamarine, blue-black, and lavender. Jakobshavn offers no single unifying point of view, as is implied in Antarctica, but rather projects the glacial world from the viewpoint of the satellite, a voyager who circles the earth, imaginatively joined by the artist/explorer now thrilled by the sensation of space travel.

Burko paid explicit homage to the satellite's perspective in *Patagonian Ice Field* [fig. 47], part of what she called the "Landsat" Series.

The tempo changes here; there's a new sense of speed, as the satellite zips over the earth from a higher, full aerial perspective. A large field of white ice flanked by blue lakes seems to fly through the air, disintegrating at the edges to suggest the loss of ice sheets. The Patagonian ice field, third largest in the world, consists of three ice fields along the southwestern coast of South America, which together contain about 5,500 gigatons of ice, enough to raise global sea levels significantly if completely melted. 63

As her visual vocabularies expand, Burko's expressive key keeps shifting. She had gone



Figure 46. Diane Burko, Antarctica Quartet, May-July 2013, 2013. Oil on canvas, overall: 50 x 200 in. Pennsylvania Convention Center, Philadelphia PA

to Patagonia, but by 2015 she also began to paint glaciers and ice fields she never visited. In Novaya Zemlya [fig. 48], part of an Arctic archipelago off the northwestern coast of Russia, it was the shape of the island that interested her. We see it here as if shaped and reshaped by the forces of wave and wind, suggesting the vulnerability of the island under threat. But she's no longer illustrating dissolving glaciers; rather, she's expressing the earth's changing formations of land and sea over geological time.⁶⁴ These new shapes are combined with the now-black ground (we're so far north, it might be the color of the sea). For the black sea in many works of 2015–16, Burko used Flashe, a dense flat paint with a sonorous depth, to bring into play something more somber and grave, a harsher kind of beauty. The Beaufort Sea north of Alaska was once frozen over most of the year, but climate change has greatly enlarged the ice-free areas. Visions of the Beaufort Sea III [fig. 49] brings this message home: as the expanding black sea gobbles up the melting ice, the color green appears, perhaps to suggest the ominous emergence of vegetation.

All meridians converge at the poles, of course, and an aerial view of the earth centered on the North Pole would bring Novaya Zemlya, the Beaufort Sea, and Greenland into proximity on the rim of the Arctic Circle. This perspective is suggested in the fluid and dynamic *Arctic Melting* [fig. 50]. Here, the most ancient glaciers at the pole are signaled by crackle ice,

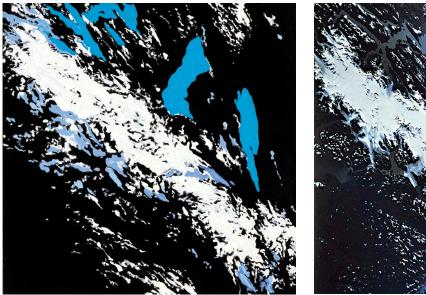


Figure 47. (a) Diane Burko, *Patagonian Ice Field*, 2015. Oil and Flashe paint on canvas, 20 x 20 in. (b) Landsat photo of southern Patagonia, from NASA Visible Earth catalog, October 2009.



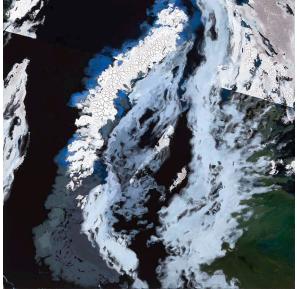


Figure 48. (a and b) Diane Burko, Novaya Zemlya 1- II, 2016-17. Mixed media and crackle paint on canvas, 42 x 84 in.

with the pole's position indicated by hints of converging longitudinal lines and arcs of the latitudinal circle. Here also are recognizable islands: Novaya Zemlya on the right, those of the Canadian Arctic Archipelago on the left, with a bit of Greenland in between. Yet Arctic Melting is ultimately a sensory and not diagrammatic representation, for the Canadian islands have been slightly rearranged, as if the explosive burst of melting ice and the giant circulation of flowing winds had knocked them out of place.

Over the decade Burko devoted to the subject of glaciers and ice, she moved gradually but decisively from a representational mode into abstraction. It was an expressionist kind of abstraction, with a vigorous exchange of push and pull, cut by straight-edge slashes that might reference science, an abstract expressionism grounded in the visual and energized by the aura of nature in flux: an abstraction that forecasts the calamitous changes ahead for the planet. She rounded out this phase of her oeuvre with the *Elegy Series*, effectively an abstract cap on the progression leading in that direction.

The *Elegy Series* is a set of fourteen purely abstract photographic images, each dedicated by title to a particular glacier that is threatened with extinction. Burko explains: "Because the word 'elegy' refers to poems or laments for the dead, I am asking the viewer reading my titles to consider the notion of glaciers in the past tense, or to compare them to the loved ones we have lost."65 The extraordinary elegance and



Figure 49. Diane Burko, Visions of the Beaufort Sea III, 2016. Oil and crackle paint on canvas, 42 x 42 in.

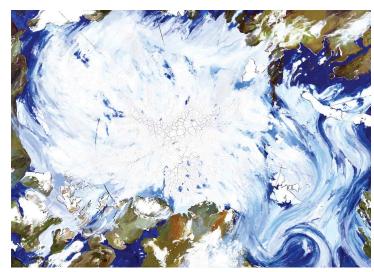


Figure 50. Diane Burko, Arctic Melting, July 2016 (after NASA), 2016. Oil and mixed media on canvas, 60 x 84 in.

graphic simplicity of each panel, infused with a new sensibility (Japanese ideograms come to mind), was made possible by a process of distillation—Burko literally abstracted from her own pictorial models. She first painted ten-inchsquare panels in layered materials of different qualities and thicknesses [fig. 51], using crackle paint to produce a variety of textural results, then digitally scanned the paintings. She then cropped and reconfigured each digital file in Photoshop until she achieved the desired effect, and enlarged the resulting image into a thirtyinch square inkjet print. The series consists of two color modalities, cerulean and midnight blue [fig. 52]. A single *Elegy* print, with its restrained but rich variety of texture, is at once an exquisite abstraction and a poetic evocation of real events in the natural world, now another step removed.

ART, SCIENCE, ACTIVISM

Asked her about the nature of her collaborations with scientists, Burko explains, "Every time I visit a lab or research facility, even the offices, I soak up what I see on the walls, in the hallways. I ask questions and they are so generous in explaining and showing me more, opening Powerpoints, suggesting other scientists to contact." Burko began to interact with scientists in 2007-08, first reaching out to experts on glaciers such as Bruce Molnia and Tad Pfeffer. She wrote Pfeffer in 2008, asking permission to use his photographs as sources for her beforeand-after paintings; when they later became friends, he supported her nomination to be an INSTAAR Associate.66 Glaciologist Jack Kohler at the Norwegian Polar Institute helped make possible her glacier explorations in Svalbard, and her access to a major research station in

Ny-Ålesund. There she watched Kohler and associates gather data and received what she called an "immersive education" in glaciology. Other visits to key science labs followed over time, including the previously mentioned Gates Lab at HIMB and the SCRIPPS Institution of Oceanography at UC San Diego, where marine biologist Stuart Sandin showed her his project to catalogue corals worldwide in a digital 3-D format, then shared some of its footage for her reef video [fig. 53].

Burko has steadily gained recognition in scientific circles as a collaborator in dealing with climate change. Scientist colleagues write her into National Science Foundation grants. In 2012, she was invited to her first American Geophysical Union (AGU) conference; in 2018, she organized an art-science panel at the AGU conference in Washington, DC. What do the scientists gain from their interaction with Burko?

J. D. Talasek, Director of Cultural Programs of the National Academy of Sciences, described her contribution in a recent double interview with Burko.⁶⁷ Noting that scientists do a great job of collecting and interpreting data but are not so good at conveying it to the public, Talasek characterized Burko as a "communicator" who draws information from "out of storage," and puts into public discourse. "Art," says Talasek, "has the power to make science personally relevant." Burko's talent for effective communication is reflected



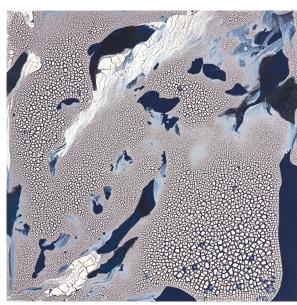
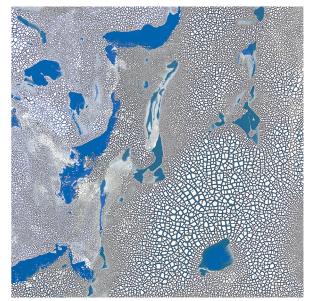


Figure 51. Left: Elegy Study Cerulean 1, 2016. Right: Elegy Study Midnight Blue IV, 2016. Oil and crackle paint, 10 x 10 in. each



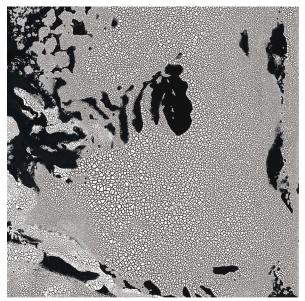


Figure 52. Left: Elegy for Pasterze Glacier, Austria, 2016. Right: Elegy for Pine Island Glacier, 2015. Archival pigment prints, 30 x 30 in. each.



Figure 53. Diane Burko conversing with Dr. Stuart Sandin and staff researcher Nicole Pedersen in the Sandin Lab at Scripps Institution of Oceanography, March 1, 2018, Photo: Richard Rvan.

in her conversation with Ben Orlove. Throughout the interview, Burko's informed understanding of science is evident, and she always explains it in the context of large-scale natural processes. For example, she observes that while her two subjects, glaciers and reefs, may seem very different, "they have such synchronicity with each other," because melting glaciers produce rising sea levels, bringing less sunlight to the reefs, so "there goes the photosynthesis."68

Burko's productive collaboration with science to address climate change is distinctive. Many ecological artists draw on scientific data to educate the public about global warming: in 2007, Eve Mosher drew blue "high-water" lines around Manhattan and Brooklyn, to mark the projected rise of sea level. Eco artists such as Natalie Jeremijenko educate through science-based installations and experiments. Others actively participate in scientific research. Mel Chin

collaborated with an agronomist to pioneer "green remediation" as an environmental solution to the problem of industrial waste. 69 Eve Andree Laramée, who has collaborated with scientists since the 1980s, interrogates the alleged objectivity of science through pseudo-scientific installations that evoke scientists' use of intuition, ambiguity, and poetic metaphor.⁷⁰

In such examples, the artists' collaborations with science are formally modeled on the apparatus and practices of scientific experiment, yet art's fundamental difference from science is not foregrounded in visual terms. Burko, by contrast, would put art and science into a partnership that benefits from the unique capabilities of each component. Her art may invoke vocabularies of scientific measurement and mapping, but these are always subsumed into the vocabulary of painting and the intuitive practices of artmaking.

Hovering over this relationship is the historical gendering of science as masculine and art as feminine.71 Although Burko tends to eschew gender stereotypes, it seems to me that her way of partnering as an artist who happens to be female with scientists who are mostly male draws a bit on the gendered associations of science and art, though now in a positive way, to offer a principle of complementarity between the archetypally distinct spheres of reason and emotion. This is in many ways a false dichotomy, particularly when gendered, yet Burko brings a different way of thinking to the

scientists' table. 72 To risk an oversimplification, scientists inform, artists express. Science provides knowledge that becomes an instrument for action; art gives visual voice to the growing human awareness of what is happening. Burko alerts us to the earth's peril by reminding us of the extraordinary beauty of what we are losing, and of nature's complex, exquisitely subtle operating systems that are being thrown out of whack. As she has put it, "There are many ways of protecting the environment, and one way is to pay homage to nature."73

As a painter, Burko celebrates nature as a power rather than as a victim, while as an activist, she calls public attention to the crisis that now threatens a vulnerable planet. This is only an apparent contradiction, for in her art, as in her lectures and interviews, she dramatizes what's happening to a nature that she understands deeply to convey a sense of urgency. Using both her art and her voice as expressive tools, she fulfills her activist goal to raise consciousness (an old feminist practice), and to foster public concern that pressures government and industry to act. Burko's art and activism are not two separate things, as some writers and even the artist herself at times have claimed. She kept her political and environmental activism firmly separate from her painting practice until 2009, but since that date she has forged an indivisible connection between the two, and it is the cluster of art-plus-activism that constitutes the deeply feminist "Burko" identity.

CLIMATE CHANGE: OCEAN AND CORAL

The largest element on the planet is water oceans make up seventy percent of the earth's surface. The largest element of the oceans is the coral reef ecosystem, which may occupy more of the globe than glaciers, to judge from the world glacier and reef maps that open the exhibition [pp. 97, 100]. The Great Barrier Reef, off the northeast coast of Australia, is the largest living structure on earth. A coral reef structure consists of, and is built by, billions of tiny organisms called polyps. Over eons of geological time, as coral reefs have grown and expanded, they support a growing diversity of life, supernumerous species of fish, whales, turtles, seabirds, algae, and more. In modern times, coral reefs protect coastlines from storms and support economies through tourism.

Climate change is threatening both living coral reefs and the biodiversity they sustain, resulting in a drastic loss of coral and the extinction of many marine species.74 Rising water temperatures have dramatically increased coral bleaching, which occurs when the polyps expel algae that live symbiotically inside their tissues, turning the polyps white, and starving, ultimately killing, the coral structure. Between 2014 and 2016, the longest recorded period of global bleaching, coral reefs died on a scale never seen before. On the Great Barrier Reef alone, bleaching killed between 29 and 50% of the reef's coral in 2016,.75 The one degree Celsius of temperature rise on the planet





Figure 54. (a) Diane Burko, Alega Bay 2, Coral Formations, American Samoa, 2018. Archival pigment print. 15 x 15 in. (b) Diane Burko. The Great Barrier Reef 1, 2018. Archival pigment print, 15 x 15 in.

since the Industrial Revolution has produced what Bill McKibben once described as "a girdle of bleached coral across the tropics," a scale of devastation so vast that it can be seen from space.⁷⁶

The algae are also called symbionts, for their symbiotic relationship to coral. They convert sunlight into energy via photosynthesis to provide essential nutrients to the corals, which in turn give them a place to live, as they secrete calcium carbonate under their bodies. Under threat, the symbionts abandon their coral hosts, removing their color and leaving a stark white exoskeleton. For Burko, at the heart of this process is the symbiotic relationship of polyp to algae—metaphorically, all the interconnected relationships of elements in the natural world and its breakdown under extreme conditions. In the group of paintings she devoted to coral reefs,

Burko created a megadrama around the breakup of the corals and their symbionts, and the profound global changes that are set in motion by that micro-event.

In March 2017, Burko flew over Australia's Great Barrier Reef, an expedition she repeated in 2018, and followed with explorations of coral reefs around the Hawaiian Islands and American Samoa. The photographs she took, both from the air and in situ, were used later as source photos for paintings, and many became photographic works of art in their own right [fig. 54]. As with glaciers, Burko began by painting small studies in mixed media. She explored the new world of coral reef formations, which present a great variety of biomorphic forms, shapes, colors, and textures, all tightly clustered together. In one study [fig. 55], she picks up the new colors, as well as the rhythm of the organisms'





From left: Figure 55. Diane Burko, Study 01, 2017-18. Mixed media on panel, 9 x 12 in.; Figure 56. Diane Burko, Study 07, 2017-18. Mixed media on panel, 9 x 12 in.





From left: Figure 57. Diane Burko, Study 16, 2017-18. Mixed media on panel, 9 x 12 in.; Figure 58. Diane Burko, Study 17, 2017-18. Mixed media on panel, 9 x 12 in.

steady expansion by calcification. In another [fig. 56], she experimentally images the underwater realm of wriggling ectoplasmic creatures, set against a grid that brings scientific measurement into play.

It might have been the experience of entering the aquatic world—swimming underwater

in warm tropical seas—that prepared the artist to deal with this new subject in a new way. The swimmer's experience is primarily sensory: the feeling of weightlessness, the all-overness of water and its gentle currents, the sense of immersion in a limitless spatial realm without cardinal points. These are the sensations of a

swimming snorkeler, a darting fish, and perhaps also a coral reef—an animal whose entire existence is sensational rather than visual. Burko began to represent such sensory experience in abstract visual language. Her later studies [figs. 57, 58] point the way taken in the larger reef paintings. Drawing on her early grounding in Abstract Expressionism, she created liquid biomorphic abstractions that recall Gorky and Helen Frankenthaler, Philip Guston's floating color patches, even the spatial disorientation of Clyfford Still's ragged shapes. Burko's reef paintings may remind us a little of these artists, yet she takes from her Ab-Ex antecedents primarily the inspiration to invent and imagine boldly through sensory abstract forms.

To support this new vision, she changed her studio practice. Stimulated by the experience of making the lenticulars in early 2018, she began using the fluid, water-based medium of acrylic, which she poured onto a horizontal surface, then spread with an air compressor so that pools of color ran into each other. In Kona Diptych A (2018) [fig. 59], blues become deeper blues, green and red darken, or dissolve into pink or ultramarine. All this flow and counter-flow of water-based paint mimics what it evokes—the deep ocean moved by wind currents and islands washed by surf.

In the coral reef paintings, Burko's imagination takes the lead. In turn, the reef paintings activate the viewer's imagination. The coral reefs of Kona, on the leeward side of Hawaii's

Big Island, are especially vulnerable to climate change. Once you understand that the artist is not showing that, but rather, that she's fantasizing the life of the coral, you go along for the ride, thrilled by the grand significance given to a tiny organism, whose microscopic expulsion of its life-supporting symbiont steadily spreads an afflicted ecostructure across the planet. In Kona Diptych A, colors can be read referentially: the red-orange coral turns to white as the vellow-green algae move away. A process that in reality occurs on a microscopic scale is dramatized on an enormous stage. Fine black lines and insets evoke the contours of the Hawaiian island, here miniaturized, on which the gigantic coral drama plays out.

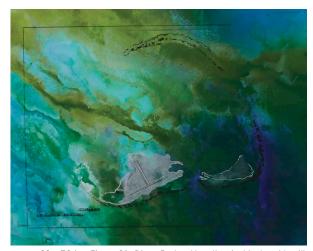
Fragmentary references to places on maps sometimes images, sometimes words—are meant to locate us on the globe, yet effectively they dislocate us. No longer the armature of the composition, they are now scattered, almost ornamentally, beneath and behind, emblems of rational cartography and scientific measurement subordinated to the emotional drama of the main event. (In this reversal of priority, Burko subverts the prestige of the science she admires and extols.) In Hawaiian Archipelago (2018) [fig. 60], an inset of the globe at upper right is matched by one at lower left that references by shape the Midway Atoll, at the northernmost point of the Hawaiian Archipelago [fig. 61]. As first theorized by Darwin, an atoll is a ring-shaped coral reef that encircles a lagoon





From left: Figure 59. Diane Burko, *Kona Diptych A*, 2018. Acrylic on canvas, 42 x 42 in.; Figure 62. Diane Burko, *Great Barrier Reef*, 2018. Acrylic on canvas, 60 x 84 in.





From left: Figure 60. Diane Burko, *Hawaiian Archipelago*, 2018. Acrylic on canvas, 60 x 72 in.; Figure 61. Diane Burko, *Hawaiian Archipelago* (detail), 2018. Acrylic on canvas, 60 x 72 in.

formed by a subsiding volcanic island on its way to extinction.⁷⁷ The foot-shaped Midway Atoll, a result of dynamic geological forces, is made even more dynamic by Burko. She arches its

toe, tilting and reshaping the adjacent Eastern Island, to imply that the islands were slung around by the forces of great nature in the surrounding hydrosphere.

Great Barrier Reef (2018) [fig. 62], dramatizes the life of the polyp that Burko viewed in real time through a confocal microscope [fig. 63]. In this dynamic composition, color-shapes explode from the center, as if to announce an important event: the polyps are giving up their algae, which take the coral's bright color with them. At the upper right, the departing color turns into the contours of Australia, with the Reef's position indicated in an incised square. Floating atop this eruptive drama is a serpentine line of whitish patches—simultaneously, it's the contour of the Great Barrier Reef and bleached coral envisioned as a skeletal specimen. One real bit of coral, healthy in color, lies at the middle of the serpentine spine. When Burko affixes pieces of real coral to the painted surface here, and more prominently in the "Coral Fan" series [pp. 92–93]—coral represents itself, placed in a context that is all about the process of change in its life.

As Burko likes to point out, the coral reef ecostructure is a three-part system, scientifically more complex than glaciers, because it embraces animal (polyp), vegetable (algae), and mineral (calcium carbonate the polyps extrude to form their shared home).78 And it is metaphorically richer, one might add, because its life cycle philosophically echoes our own, with its elements of birth, growth, loss, death, and even the promise of rebirth. The latter is a recently discovered feature of the life of a coral, a ray of hope in the doomsday scenario

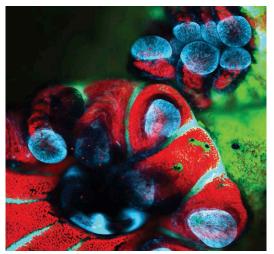


Figure 63. Polyps viewed through a confocal microscope. Hawai'i Institute of Marine Biology, Ruth Gates Coral Laboratory.

of climate change. As ocean waters warm and stressed corals lose algae, some corals species do not turn white, but instead put on displays of bright colors—reds, purples, blues—to attract their light-sensitive symbionts back. Apparently, this beneficial collaboration between an animal and a plant happens on a regular basis.79

Burko's optimistic understanding that coral reefs could be able to correct their own course may contribute to the joyful spirit that occasionally bursts from these colorful paintings, despite their serious agenda. The Reef Map series [p. 99] presents the present and future of coral reefs, not diagrammatically, as in the World Reef Map, but in an emotionally expressive key. In *Reef Map 1* [fig. 64], the outlines of continents have disappeared: Africa and Spain are hinted on the right edge, and the rest is imaginatively subsumed by an explosion of

hot colors—indigo, violet, crimson, olive, gold. Aesthetically pleasing though they are, we must understand that these intense colors are signaling alarm. This is conveyed scientifically in the three-paneled frieze above, where fragments represent the Coral Reef Watch on NOAA's website, color-coded red and orange to indicate high alert hotspots.80 Overlaid with lettering by the artist, this fluttering signpost screams a message that is emotively echoed in the monumental color explosion below. I would read this as the coral's moment of desperation. It puts out all the color it can muster, the very colors it will lose—already they are dissolving into the ambient hydrosphere—a brave display that may yet restore the symbiotic balance.

Burko pays homage to the life cycle of the coral, first in the Reef Map series, again in the explicitly named Coral Life Cycle Series, [p. 90], and once again in the floor video [p. 114], an abstract animation of the drama of polyp and symbiont, whose pulsating exchanges of substance happen in real time. The animation was undoubtedly inspired by what she witnessed in the confocal microscope, bits of which are incorporated in the video. It's even possible to find a narrative in this video, for if you watch to the end, you might imagine a triumphant reunion of coral and algae and a restoration of nature's ancient balance.

But in real life, as bleaching continues and expands across the globe, the corals' future is in serious doubt. Coral Triangle (2020) [fig. 65]

charts the situation from a human perspective. The title refers to the triangular area of tropical waters connecting Malaysia, Indonesia, Papua New Guinea, the Philippines, and the Solomon Islands. Some of the afflicted sites are named in fading letters, scattered in and around the triangular wedge that intersects a smoky-dark zone in the far left panel, where official-looking lettering explains the present dilemma in clear language. It's an expansive vision of the crisis affecting the world's greatest concentration of coral reef and marine diversity. Brightness and darkness of color play highly expressive roles breakdown is suggested, but so is ecological coherence—and their allusive ambiguity seems meant to stimulate the viewer's imagination.

The "World Glacier" and "World Reef" paintings, when taken as serial groups [fig. 66], entertain a more dystopic future. In the American University Museum exhibition, where the two series are displayed for the first time, they are presented sequentially, reefs following glaciers. But in her studio, where Burko produced the paintings, each series was on one long wall; the two series faced across the workspace, mirroring each other, constantly to be compared and connected. If the Reef series is about a brightening, expanding danger (warming sea water, bleached coral increasing), the Glacier series presents the darkening danger of contracting ice, as the blue-black sea overtakes the glaciers. In each series, a keynote is given in the frieze of the first scene: In the Glaciers,

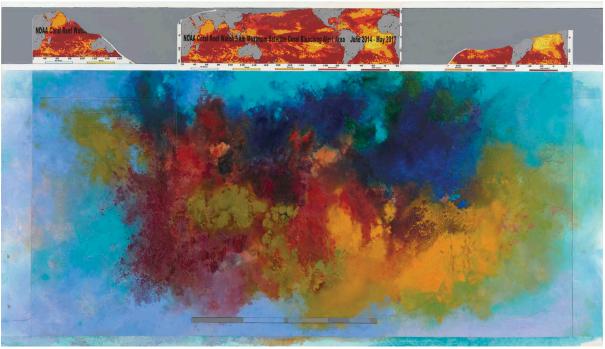
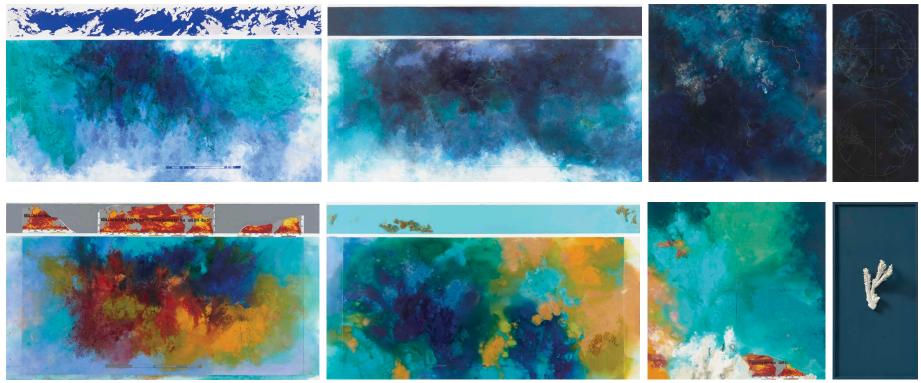


Figure 64. Diane Burko, Reef Map 1, 2019. Mixed media, 50 x 88 in.



Figure 65. Diane Burko, Coral Triangle, 2020. Mixed media on canvas, 72 x 204 in.



From top: Figure 66. (a) Diane Burko, Glacier Map Series 1-4, 2019. 50 x 250 in. (b) Diane Burko, Reef Map Series 1-4, 2019. 50 x 250 in.

mirroring the NOAA map of the Reefs, it's a jagged, cryospheric vision of the fracturing ice and enlarging sea. Below, as the series progresses, the dark, blue-black areas become larger and larger. The final scene shows a cross-section of the earth from above the North Pole; the continents appear in white outline on a field of dark blue—as if the glaciers had all disappeared. The final reef scene is equally apocalyptic: a large branch of bleached white coral is suspended on a dark blue plane, the heroized emblem of the reef's demise [fig. 67].

THE POETICS OF LOSS

Diane Burko talks a lot about "bearing witness" to the effects of climate change through her art and activism, intended both as homage to the changing earth and a call to action. But the art itself is expressively larger than her stated goal, thanks to the artist's sensibility, which goes places reason can't.

One way to demonstrate this is to take issue with a writer who connects the work of Burko, among other climate change artists, with what has been called the "glacier-ruins narrative,"

and finds it limited. M Jackson, a geographer and glaciologist, argues that artists and others in the humanities sphere have too slavishly followed the deterministic narrative of climate modelers, which focus on the prospective loss of glacier ice, and offer a "troubling fatalism" when they might instead provide ways "to imagine a broader range of potential livable futures." Burko in particular is said to ignore the present reality of glaciers, telling us only what the ice once was and where one day it will not be.81



Figure 67. Diane Burko, #10, Postscript, 2019. Bleached coral and bronze. 50 x 24 in.

Leaving aside the fact that many creative people, including artists, are busy inventing practical models for sustainable futures. this seems to me a limited understanding of Burko's art. She has painted and photographed plenty of glaciers in their current existence, but a snapshot of a glacier is meaningless unless viewed in the sweep of time. It

is the role of climate modelers to be future-focused, projecting various futures that include the possibility of human intervention. And it's the role of the artist to imagine climate change in both its historical and potential dimensions.

Jackson discusses the glacier as a "ruin," lightly touching on classical and Civil War ruins, which are "what people are left with to make sense of and describe." Yes, exactly. I am reminded of Volney's *The Ruins: Or, Meditations on the Revolutions of Empires,* and of Shelley's *Ozymandias,* and of Petrarch's invention of the Middle Ages while meditating on ancient Roman ruins. And I see in the ruins analogy much larger interpretative possibilities,

including the beauty that countless generations have found in ancient ruins, and their power as touchstones for meditation, which leads to imagining, inventing and insight. Burko's glaciers can serve precisely this purpose for a modern audience, for they are touchstones that don't foreclose options.

It is a faculty of the capacious human imagination to embrace past, present, and future simultaneously, to produce an emotional ecosystem in which each component affects one's feelings about the whole. Joining memory

with imagination, an artist can turn a scientific predictive model into a poetic lament. Burko's climate change paintings are not flatly predictive—they may postulate dystopic futures but they also offer the possibility of hope, a fragile balloon that might escape the ballast of doom.

Burko gives us touchstones for thinking about climate change in a variety of expressive keys and modes. With its melancholic beauty, *Antarctica Quartet* pays tribute to the disappearing glaciers in an elegiac mode. And in the so-named *Elegy Series*, Burko found another poetic way to mourn our loss. But when she photographed untouched glaciers [fig. 68], she called up a utopian vision of the world before ruin by Anthropocene, the earth in a state of purity and health. "I feel almost a compulsion



Figure 68. Diane Burko, *Perito Moreno's Three Mile Front*, 2015. Archival pigment print, 40 x 60 in.

and a responsibility to celebrate what is still beautiful and relatively untouched."83 Burko's intuition that her visual celebration of earth's health was needed to inspire our protection of it resonates with a belief put into practice in Early Modern Europe: that art could have a prophylactic function. The Italian artist Giovanna Garzoni, for example, painted still-life pictures of lemons and other fruits as images of health and wholeness that were considered therapeutic, believed to promote human well-being.84

As Burko has observed, her celebration of nature's beauty is perhaps "the most poignant warning of what is at stake in protecting our environment." In "Johns Hopkins, Gilman Glacier" series [fig. 69], the expanding blue water and shrinking snow compose into





Figure 69. Diane Burko, Johns Hopkins, Gilman Glacier, 2010 (after Bruce Molnia) 1 and 2, 2012. Oil on canvas, 24 x 48 in. each

beautiful abstractions, images of a moment in time that may be emotionally tinged with intimations of mortality yet, like so many of Burko's paintings, they project vitality as well. She may commemorate and even lament the glaciers' changes, but she loves the nature that is changing. Seeing it happen, tracing its movements, seems to touch in her a deep sense of being alive. Like nature itself. When an interviewer says her paintings remind him of "how powerful and vital these glaciers are, even though they're not alive," Burko replies, "Well, they move, don't you think they're alive in that sense?"86 Implicitly, the living earth's rhythms include the movement of the glaciers.

The demise of normative nature projected in the two World Map series carries heavy emotional weight because the theme entangles us, both collectively and personally: the losing of life by degrees, until we die. The suspended dead white coral may remind us of that conventional emblem of death, the human skull. The expulsion of the algae from the polyp may bring to mind Masaccio's painful expulsion of Adam and Eve from Paradise. Such associations provoked by Burko's imagery are inevitable. New art functions to revitalize the culture it springs from, investing it with growing cultural meaning, and enriching it with never-ending metaphoric possibilities. Will Burko's art help us fight climate change? Maybe, or maybe not, but it will at least help us to cope, with an awareness of the philosophical gravitas our situation demands, and the cultural importance of bearing witness to momentous change.

GLOBAL WARMING, GLOBAL PANDEMIC

The time is now. The setting is the whole world. Global warming has intensified. The year 2019 saw record heat waves in Europe, followed by life-threatening bushfires in Australia. 2020 brought record-breaking wildfires in California and Oregon. In early 2020 came the global pandemic, coronavirus and covid, which radically affected the life of every human on the planet. The year 2020 also saw social unrest and political crisis in America, with the massive demonstrations that followed the murder of a

Black man, George Floyd, by a white policeman. If you were in Portland Oregon in the fall of 2020, it might be hard to say whether the smell of smoke came from nearby wildfires or the riot-torn city streets. The convergence of simultaneous events, whether connected or not, has produced a global crisis. There is talk of Armageddon or Apocalypse, fused with a passionate appreciation for things as they so recently were in the Before Time.

Burko responds to the conjoined crises with an outpouring of paintings, an extraordinary number of major works produced in 2020 alone. The artist is absorbed. She makes paintings about all the issues, all at once. "They're all the same thing," she says.87 Burko, a self-described news junkie, has always operated in the experience of the now. The art historian, working differently, cannot write about these works from a safe distance. She can only react, like an unwilling witness at the scene of a car crash.

I can't look at these paintings. Too late. I don't understand them. Yes, you do. I can't talk about them. Try.

In Summer Heat (August 2019-February 2020) [fig. 70], everything is happening at once. The glaciers are melting into rising water temperatures. A pond of floating ice breaks suddenly over an edge, like a waterfall (the reflection/refraction Burko observed at Giverny is now given a larger expressive role), staining a chart

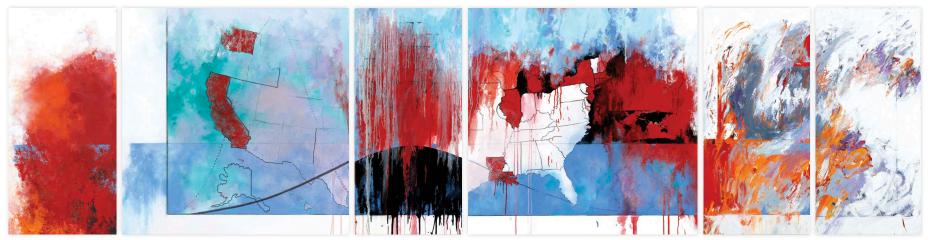


Figure 71. Diane Burko, Corona Series, April-May 2020. Mixed media, 42 x 164 in.

that announces the steady rise of global warming in the language of science. In the vertical panel on the left, cause and effect is explained ascendingly: a chart measures CO2 concentration; bushfires burn in Australia, releasing unprecedented amounts of carbon dioxide into the atmosphere; the domino effect lights up continents. This drama carries into the central section, where twin poles of the worldwide crisis, conflagration red and ocean-swelling blue, collide explosively. Global disruption is expressed in the language of cartography, as Italy completes its kick of Sicily to set geography into motion. The causes and effects of climate change crash into each other, merging the modes of mapping, graphing and paint flow to produce a detonative compound more dangerous than the individual components. Summer Heat is a frightening ideogram of a crisis too explicit to aestheticize.



Figure 70. Diane Burko, Summer Heat, 1 and 2, 2020. Mixed media on canvas, overall, 84 x 162 in.

As the crisis intensified, Burko's concept for this painting grew. The composite image named Summer Heat actually consists of several canvases completed in 2020, bolted together to

join newly painted sections and reassembled into a new whole. The seams of their joining are visible, and were meant to be, for the artist has long enjoyed juxtaposing edges that sometimes

mismatch, implying a visual continuum that is slightly out of reach. Appropriately for its subject, Summer Heat presents a vision of now that doesn't quite cohere; the elements engage each other without offering resolution. In the larger panel, vestiges of scientific diagrams—black bands at top and bottom, long red and white rectangles on one side—are repurposed, even repositioned, to frame the central image and set it in motion, as if it were an inner rectangle that projects forward and shifts rightward. This framing effect suggests that the whole image is only provisional, and might get up and go elsewhere. (In fact, it might, since Burko is always putting her paintings to new use.) This image of a nature whose parts are in motion is appropriate in another sense, for it reminds us of the Earth's shifting tectonic plates.

The Corona Series (April-May 2020) [fig. 71] was painted during the first three months of the pandemic and its lockdowns, the most frightening period for most of us. The drips that run down the surface of this multipaneled series, more prominent than in *Summer Heat*, vividly convey a sense of loss of control, things getting out of hand. The United States is split in half by a menacing, red-and-black monster. As the virus spreads across the country, red is used to mark sites of a new kind of conflagration: California, Washington state, Louisiana, Illinois, New York, New England, and the rest of the world. In panels on the far left and far right, the worldwide spread of the virus is suggested

in abstract-expressionist riffs—pure painterly abstractions with a designated meaning.

July 2020 (July-August 2020) [fig. 72] turns the enlarged battleground into a bold ideogram. Rising above the red-blue dialogue of fire and ice, subordinating it, is a unit of cell-like bubbles. Their organic structure faintly resembles Burko's fractured ice but these cellular forms unmistakably allude to the coronavirus. Below, jagged white lines rise and fall, lines that formerly traced heat or carbon and now measure the cases and deaths that covid has brought. Covid Spread Map (July-August 2020) [fig. 73] introduces a new way of visualizing the virus, as red spheres scattered across a global map. The spheres' changing sizes, and the faint but dynamic lines that connect them, create the deep space of a greatly enlarged the-

ater. Already, Burko is thinking of her next painting, the largest one yet, which will situate us in the planet's larger ambient and its future.

In Unprecedented (August 2020–January 2021) [fig. 74], Burko imagines us emerging from the horrors of 2020, coming out of a pandemic that has in fact not yet ended. To



Figure 72. Diane Burko, July 2020, 2020. Mixed media on canvas, 60 x 60 in. Collection of Ivy Silver and Steven Leshner, to be gifted to the National Academy of Sciences.



Figure 73. Diane Burko, Covid Spread, 2020. Mixed media on canvas, 50 x 88 in.



Figure 74. Diane Burko, *Unprecedented*, 2021. Mixed media on canvas, 96 x 180 in.

read the virus-spheres literally, a few of them are still red-live, but many are going black, and some are fully dead. We move across the painting's surface from a zone of thick, charcoal-black smoke, where red viral cells still lurk, into an untroubled world of blue sky and

white clouds. At dead center of this composition hangs a single green sphere. Planet Earth is imaged as a whole and green and living entity. Like a healthy human who has survived the virus and gone on, Gaia is suggested to be capable of surviving climate change.

In Burko's vision, the viral pandemic is both component of and metaphor for the climate change that is upon us. After she had completed the painting, she affixed a piece of burned, charred wood at the bottom of the painting, a physical reminder both of the wildfires brought



Figure 75. Unprecedented and other works in progress. Burko studio, December 4, 2020. Photo: Diane Burko.

by global warming and the subsequent new growth that will follow. A metaphor of renewal is developed in the hot orange-red rectangle just above, from which new spheres emerge, first yellow, then greenish, then creamy white. The ghostly spheres suggest the purity of new human cells, but they also evoke new worlds to come, or new lives for planet Earth, which are yet unknown.

It was James Lovelock's insight, according to Bruno Latour, that although the Earth achieved a phase of homeostasis after the last Ice Age, it is and has always been evolving. Lovelock postulated from his chemical knowledge that the Earth is in a state of disequilibrium: the planet's evolution is driven by the mutual modification of microorganisms embedded in its body and macroorganisms that traverse its surfaces and fly in its atmosphere, including humans.88 Earth, then, is a living entity with a past and a future. Whether the path that humans have set our planet on will lead to extinction, or to a course correction that will keep it alive, depends on how we macroorganisms handle climate change now.

In Burko's painting, planet Earth is a green marble whose history will continue, whatever form that takes. Meanwhile, her art will play a part in the story, and she's gone on to what comes next. While Unprecedented was still in progress, the next painting was already up and running [fig. 75]. For Diane Burko, one thing will always lead to another.

- ¹ "A Conversation with Diane Burko and Professor Harry I. Naar," Diane Burko, Landscapes: Paint/ Pixel, exhibition catalogue, Rider University Art Gallery, in cooperation with Locks Gallery, Philadelphia, PA 2005 (interview, 2004), p. 6.
- Carter Ratcliffe, "The Flow of Interpretation," in Diane Burko, The Volcano Series, exhibition cataloque, Locks Gallery, Philadelphia PA, September 7-October 6, 2001, p. 6.
- Eleanor Jones Harvey and Hans-Dieter Sues, Alexander von Humboldt and the United States: Art, Nature, and Culture (Washington, DC: Smithsonian American Art Museum, 2020);

- see also Andrea Wulf, The Invention of Nature: Alexander von Humboldt's New World (New York: Knopf, 2015).
- James Lovelock, The Ages of Gaia: A Biography of Our Living Earth (New York: Norton, 1988). The hypothesis was first published in article form by Lovelock and Margulis in the 1970s.
- For more on the WCA and CAA, see Mary D. Garrard, "Feminist Politics: Networks and Organizations," in Norma Broude and Mary D. Garrard, eds., The Power of Feminist Art: The American Movement of the 1970s, History and Impact (New York, Harry N. Abrams, 1994), pp. 88-103.
- Burko's creation of Philadelphia FOCUS is discussed by Judith K. Brodsky, "Exhibitions, Galleries and Alternative Spaces," in Power of Feminist Art, as in n. 5, pp. 109-112.
- E.g., she was awarded a generous grant from the Independence Foundation of Philadelphia.
- Burko, email to Garrard, December 22, 2020. Unless otherwise indicated, all quotations from Burko in this essay come from conversational interviews with me over the winter of 2020-21.
- Sci Art Initiative, "Lunch Time Break with Diane Burko," April 15, 2020. youtu.be/QcnhTZfgJL0
- ¹⁰ Burko contrasts her different gendered experiences in college and graduate school in Cindy Nemser, "Conversation with Diane Burko," Feminist Art Journal, vol. 6, no. 1, Spring 1977, pp. 5-12.
- ¹¹ Ibid, p. 7.
- ¹² Burko, email to Garrard, December 22, 2020.
- ¹³ Diane Burko, quoted by Jane Biberman, "Back to Giverny," The Pennsylvania Gazette March, 1991, pp. 22-25. See also Diane Burko, Reflets: Paintings from Giverny, exh. cat., Marian Locks Gallery, Philadelphia, PA, November 5-December 7, 1990, with essay by John Perrault; and Roy Johnston, "Painting in Paradise," Skidmore Voices, Spring-Summer, 1990, pp. 28-31.

- ¹⁴ Émile Zola, "Proudhon et Courbet I," Le salut public, July 26, 1865; quoted and translated in Henri Dorra, Symbolist Art Theories: A Critical Anthology (Berkeley: University of California Press, 1994), p. 319, n1.
- Monet too was an emotion-inspired romantic, as Norma Broude has written. Norma Broude, Impressionism, A Feminist Reading: The Gendering of Art, Science, and Nature in the Nineteenth Century [New York: Rizzoli, 1991] (Boulder CO: Westview Press, 1997), Part I: "Impressionism and Romanticism," pp. 17-80.
- A shift from reflection to refraction occurs when the angle of viewing a body of water changes. Farther from the viewer, the water's surface reflects the sky above, while nearer the viewer, the light is refracted so that one looks down into the water. This optical phenomenon was also depicted by the Renaissance painter Piero della Francesca, in his Baptism of Christ (London, National Gallery), with an equally definitive edge marking the shift. See John Shearman, "Refraction and Reflection," Studies in the History of Art, vol. 48, 1995, Symposium Papers XVIII: Piero della Francesca and His Legacy (Washington, DC: National Gallery of Art, 1995), pp. 212-221.
- Burko, quoted in Biberman (as in n. 13). For more on Burko's Giverny paintings, as well as plentiful examples from each stage of her career, visit the artist's website. dianeburko.com.
- Diane Burko Paintings: Luci ed ombra di Bellagio/ The Light and Shadow of Bellagio, Locks Gallery, Philadelphia PA, September 6-October 12, 1994, Journal Entry for Tuesday, September 14, 7AM-2PM, pp. 26-27.
- ¹⁹ The Constable connection was mentioned by Robert Rosenblum, catalogue essay for *Luci ed ombra di Bellagio* (as n. 17), p. 6.
- She wrote in her Bellagio journal, "I never painted rain before, so subtle, misty. I record the basic soft edges, grays, full of color." Lucie d ombra di Bellagio (as in n. 17), p. 27.
- ²¹ Delaware Art Museum interview with curator Margaret Winslow, May 21, 2020, "Art Chat Burko" on YouTube.
- ²² Naar interview (as in n. 1), p. 5.

- ²³ Naar interview (as in n. 1), p. 6.
- Naar interview (as in n. 1), p. 5.
- ²⁵ Winslow interview (as in n. 21).
- ²⁶ Email from Burko to Garrard, February 3, 2021.
- From "A Conversation Between Diane Burko and Ben Orlove," in *Diane Burko: Endangered: From Glaciers to Reefs*, exh. cat., National Academy of Sciences, Washington DC, August 15, 2018– January 31, 2019, p. 33.
- ²⁸ Justin Spring, "Diane Burko: Iceland," in *Diane Burko: Earth Water Fire Ice*, exh. cat., Marion Locks Gallery, Philadelphia PA, September 1-September 30, 2004, with introductory remarks by Haraldur Sigurdsson, 2004, pp. 7-13.
- ²⁹ Eleanor Harvey, Humboldt (as in n. 3), pp. 16, 28 and passim. The landscape chapter appears in vol. 2 of Cosmos, which was published in 1850 and quickly translated into English. On Church's inspiration from Humboldt, see also Dean Flower, "Humboldt's New World Landscape," The Hudson Review, Spring 2017 (online).
- ³⁰ Quoted by Mark A. Cheetham, "Glacial Urgency: The Time of Diane Burko's Paintings in the Cryosphere," in Vast and Vanishing, exh. cat. [leaflet], Rowan University Art Gallery, Glassboro, NJ, March 8-April 21, 2018. Burko had suggested this phrase to Cheetham as a title for their joint panel at CAA in 2018.
- ³¹ Orlove conversation (as in n 27), p. 26.
- 32 Orlove conversation (as in n. 27), p. 33.
- Mary D. Garrard, Brunelleschi's Egg: Gender, Art and Nature in Renaissance Italy (Berkeley, Los Angeles, London: University of California Press, 2010); Carolyn Merchant, The Death of Nature: Women, Ecology, and the Scientific Revolution (San Francisco: Harper and Row, 1980).
- The phrase comes from the influential collection edited by W. J. T. Mitchell, Landscape and Power (Chicago: University of Chicago Press, 1994), p. 5. Further literature is summarized by Mark Cheetham, Landscape into Eco Art: Articulations of Nature Since the '60s (University Park, PA: Pennsylvania State University Press, 2018), chapter 1 [digital edition, loc 261-296].

- ³⁵ Critics linked Burko with Church at least as early as 1995, e.g. David Bourdon, "Diane Burko: Taking the Long View," pp. 8-10 in *Land Survey:* 1970-1995, Paintings by Diane Burko, Payne Gallery, Moravian College, Bethlehem, PA, 1995.
- ³⁶ Gaston Rebuffat, Men and the Matterhorn, trans. from French by Eleanor Brockett (New York: Oxford University Press, 1967).
- 37 Cheetham, Landscape into Eco Art (as in n. 34), ch.1.
- ³⁸ See in particular Gyorgy Kepes, Arts of the Environment (New York: Braziller, 1972), with Kepes's influential essay, "Art and Ecological Consciousness." In 1999, Sue Spaid and Amy Lipton coined the term "ecovention" for an exhibition they co-curated. Sue Spaid, Ecovention: Current Art to Transform Ecologies, exh. cat., Cincinnati, OH: The Contemporary Arts Center; Green Museum: EcoArtSpace. 2002.
- ³⁹ Mary Mellor, Feminism and Ecology (New York: NYU Press, 1997), p. 1.
- Claudia von Werlhof, "No critique of capitalism without a critique of patriarchy! Why the Left is no alternative," Capitalism Nature Socialism, 18 (1) 2007, pp. 13-27. See also Maria Mies and Vandana Shiva, Ecofeminism (Zed Books, 2014; orig. 1993); and Karen J. Warren, Ecofeminist Philosophy: A Western Perspective on What It Is and Why It Matters (Washington DC: Rowman & Littlefield, 2000).
- ⁴¹ Gloria Orenstein, "The Greening of Gaia: Ecofeminist Artists Revisit the Garden," Ethics and the Environment, (Indiana University Press), vol. 8, Spring, 2003, pp. 103-111. For the earlier phase, see Orenstein, "Recovering Her Story: Feminist Artists Reclaim the Great Goddess," in The Power of Feminist Art (as in n. 5), pp. 174-89.
- ⁴² Rebecca Solnit, As Eve Said to the Serpent: On Landscape, Gender, and Art (Athens GA: University of Georgia Press, 2000), p. 47.
- ⁴³ Cheetham connects Burko with Carl Gustav Carus, a nineteenth-century follower of Humboldt. Cheetham, *Landscape into Eco Art* (as in n. 34), locs 1657-1803.

- ⁴⁴ See Cheetham, Landscape into Eco Art (as in n. 34), locs. 1761-1812, on Burko's art; and chapter 1, especially locs. 239-296, on the issue of landscape's continuing viability.
- ⁴⁵ George Kubler, The Shape of Time: Remarks on the History of Things (New Haven: Yale University Press, 1962).
- ⁴⁶ Naar interview, as in n. 1, p. 6.
- ⁴⁷ The theoretical positioning of landscape below history and religious painting, which prevailed until the nineteenth century, is effectively summarized in the "Hierarchy of Genres" entry in Wikipedia. For discussion of the gender dimension, and the historically low status of matter, see Garrard, Brunelleschi's Egg (as in n. 33), esp. chs. 1, 3.
- ⁴⁸ Orlove conversation (as in n. 27), p. 17.
- ⁴⁹ For Leonardo, the micro-macro correspondence explained how things work in nature: a nut in its shell is like a fetus in the womb, and the regenerative female body is a model of natura naturans herself. See Garrard, Brunelleschi's Egg (as in n. 33), pp. 144-46. For Burko, it's largely metaphoric, one thing brings to mind another. Yet both artists prioritize matter, and her manipulation of flowing materials to create form resembles Leonardo's innovative use of the oil medium to dissolve boundaries.
- More precisely, for each lenticular piece, she mixed acrylic pigment with baby oil and liquid dish soap, then captured the flow of this "oil and water" substance in fifteen still photographs, looped to simulate animation, and interlaced into a single image via specialized computer software. A lenticular lens was then applied to the surface of the printed image, making the round "lenticular" appear to move.
- Orlove conversation (as in n. 27), p. 14. In a recent interview, Burko emphasized the microscopic and macroscopic aspects of the coronavirus. "Diane Burko on Climate Change, the Pandemic, and Art and Activism: A Conversation Between Artist Diane Burko and Miriam Seidel," Antennae: The Journal of Nature in Visual Culture, forthcoming, winter, 2021.
- ⁵² Elizabeth Kolbert, *Under a White Sky: The Nature of the Future* (New York: Crown, 2021), p. 8.

- 53 Bruno Latour, Facing Gaia: Eight Lectures on the New Climatic Regime (Cambridge: Polity Press, 2017 [orig. French ed., 2015]. Humboldt's idea of the interconnectedness of everything in nature is explained by Andrea Wulf, The Invention of Nature (as in n. 3), esp. Prologue, pp. 1-10.
- ⁵⁴ Bill McKibben, "Reflections: The End of Nature," in David Remnick and Henry Finder, eds., The Fragile Earth: Writings from The New Yorker on Climate Change (New York: Ecco. 2020). pp. 54-56. Published first in The New Yorker (September 11, 1989), and as a book, The End of Nature (Anchor, 1989).
- 55 Elizabeth Kolbert, "The Climate of Man," The New Yorker, April-May, 2005; [Kolbert], Field Notes on a Catastrophe (Bloomsbury USA, 2006).
- ⁵⁶ The exhibition, *FLOW*, first opened at Tufts University in February 2006, then moved to the Michener Museum, in Doylestown, Pennsylvania.
- ⁵⁷ Winslow interview (as in n. 21).
- ⁵⁸ W. Tad Pfeffer, "Glacial Imagery: From Science to Art," in Endangered (as in n. 27), pp. 6-7.
- ⁵⁹ Ian Berry, "Melt: New Paintings by Diane Burko," in Diane Burko: Politics of Snow, exh. cat., Locks Gallery, Philadelphia, February 5-March 13, 2010. pp. 5-15. Berry's reading of Eliasson is based on photography curator Jennifer Blessing's description, in True North (New York: Guggenheim Museum, 2008).
- ⁶⁰ Specifically, Nele Azevedo in Berlin (2009), Jvoti Duwadi in Washington State (2013), and Nora Ligorano and Marshall Reese in New York City (2014), examples cited in M Jackson [sic], "Glaciers and climate change: narratives of ruined futures," WIREs Climate Change 2015. doi: 10.1002/wcc. 351, p. 7.
- 61 Cited in Cheetham, Landscape into Eco Art (as in n. 34), loc. 1864.
- ⁶² Andrea Packard, "Challenging Perspectives: the Art of Diane Burko," p. 7 in Diane Burko, Glacial Shifts, Changing Perspectives: Bearing Witness to Climate Change, exh. cat., Walton Arts Center, Favetteville, Arkansas, May 5-September 30, 2017 (KMW studio publishing LLC, 2017).
- 63 antarcticaglaciers.org

- ⁶⁴ As Burko put it in another connection: "It was thrilling to witness these glaciers, which over thousands of years have carved and shaped the landscape I traversed." See dianeburko.com. "Patagonian Ice Field" under Photo: Nature/Science.
- ⁶⁵ Diane Burko, "About the Elegy Series," p. 40 in Glacial Shifts, Changing Perspectives (as in n. 62),
- 66 Institute of Arctic and Alpine Research, a scientific institute based at the University of Colorado Boulder.
- ⁶⁷ Kennesaw [GA] State University, Bernard A. Zuckerman Museum of Art, EQUINOX Forum (virtual), March 16, 2021: "Bearing Witness," featuring speakers J. D. Talasek and Diane Burko.
- ⁶⁸ Orlove conversation (as in n. 27), p. 29.
- ⁶⁹ On Jeremijenko, Chin, and other science-focused eco artists, see Eleanor Heartney, "Art for the Anthropocene Era," Art in America, January 30. 2014. For Chin's Revival Field at Pig's Eve Landfill near St. Paul, Minnesota, 1991, see Shannon Lee, "These Ten Artists Are Making Urgent Work about the Environment," Artsy, April 20, 2020.
- 70 Crary, Jonathan, Barbara Maria Stafford, Jennifer Riddell, Jessica Riskin, Eve Andrée Laramée: A Permutational Unfolding (Cambridge, MA: MIT List Center for Visual Art, 1999). An important early source on Laramée and other conceptual and site-specific eco artists was an exhibition curated by Lucy R. Lippard, Weather Report: Art and Climate Change (Boulder, CO: Museum of Contemporary Art, 2007).
- ⁷¹ A subject explored by Norma Broude in Impressionism, a Feminist Reading (as in n. 15), ch. 7, "The Gendering of Art, Science, and Nature in the Nineteenth Century," pp. 145-58.
- ⁷² For a recent nuancing of this longstanding polarity, see Molly Worthen, "A Dose of the Humanities," The New York Times, Sunday Review, April 11, 2021.
- ⁷³ Jane Biberman, "Back to Giverny," The Pennsylvania Gazette, March, 1991, p. 26.
- ⁷⁴ A useful summary of the situation is Roger Bradbury, "A World Without Coral Reefs," The New York Times, Opinion, July 13, 2012.

- 75 Wikipedia, "Great Barrier Reef" and "Coral Bleaching." Also see ocean.si.edu/ocean-life/ invertebrates/zooxanthellae-and-coral-bleaching
- ⁷⁶ Bill McKibben, "130 Degrees," review of Mark Lynas, Our Final Warning: Six Degrees of Climate Emergency, The New York Review of Books, August 20, 2020;" see also Nancy Knowlton, " The Future of Coral Reef Systems," in Endangered (as in n. 27), p. 9.
- ⁷⁷ Charles Darwin, The Structure and Distribution of Coral Reefs, 1843. Burko owns this book, but painted atolls before reading Darwin. As she described to me in an email of December 22, 2020, when a friend asked what an atoll was. "I gave her an answer saving I thought it was a caldera building up over time, but it was a sort of educated guess. Then I did the homework and learned about Darwin's theory of 'subsidence' ... confirming my hunch!"
- ⁷⁸ Burko, email to Garrard, April 13, 2021. Typically, Burko describes forms in terms of their systemic functions.
- ⁷⁹ David Waldstein, "When Coral's Colorful Show is a Sign That It's Sick," The New York Times, May 22, 2020 nytimes.com/2020/05/22/science/ coral-color-bleaching.html Mike Wehner. "Scientists solve the mystery of why some coral changes color when stressed," BGR, May 24, 2020. bgr.com/2020/05/24/coral-bleachingcolorful-protection.
- ⁸⁰ NOAA, the National Oceanic and Atmospheric Administration (US Department of Commerce). established its Coral Reef Watch in 2000, using data from satellites and in situ to model and monitor heat rise and coral bleaching around the globe. coralreefwatch.noaa.gov
- ⁸¹ M Jackson, "Glaciers and climate change: narratives of ruined futures" (as in n. 60), pp. 2, 8; and on Burko, p. 14.
- ⁸² Ibid, p. 4.
- 83 Naar interview, as in n. 1, p. 4.
- 84 Mary D. Garrard, "The Not-So-Still Lifes of Giovanna Garzoni," in Sheila Barker, ed., "The Immensity of the Universe" in the Art of Giovanna Garzoni (Florence: Gallerie degli Uffizi and Sillabe, 2020), pp. 63-77.

- 85 From Burko's Artist Statement in pamphlet accompanying exhibition, "Investigations of the Environment," LewAllen Galleries [Santa Fe, NM], Sept. 28 - Nov. 2, 2014.
- ⁸⁶ Orlove conversation (as in n. 27), p. 30.
- ⁸⁷ In the Antennae interview (as in n. 51), explaining her combination of glacier and covid references in a single painting, she said, "Maybe it was a way for me to say, visually, that COVID and climate change are the same thing. Throwing them together, because it's all the same."
- 88 Latour, Facing Gaia (as in n. 53), especially the Third Lecture: "Gaia, a (finally secular) figure for nature."

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Robert Rosenblum, untitled essay in *Diane Burko Paintings: Luci ed ombra di Bellagio, The Light and Shadow of Bellagio*, exh. cat., Locks Gallery, Philadelphia PA, September 6–October 12, 1994, pp. 5–7.

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Carter Ratcliffe, "The Flow of Interpretation," in *Diane Burko, The Volcano Series*, exh. cat., Locks Gallery, Philadelphia PA, September 7–October 6, 2001, pp. 5–15.

Justin Spring, "Diane Burko: Iceland," in *Diane Burko: Earth Water Fire Ice,* exh. cat., Marion Locks Gallery, Philadelphia PA, September 1–September 30, 2004, pp. 7–13, with introductory remarks by Haraldur Sigurdsson, p. 5.

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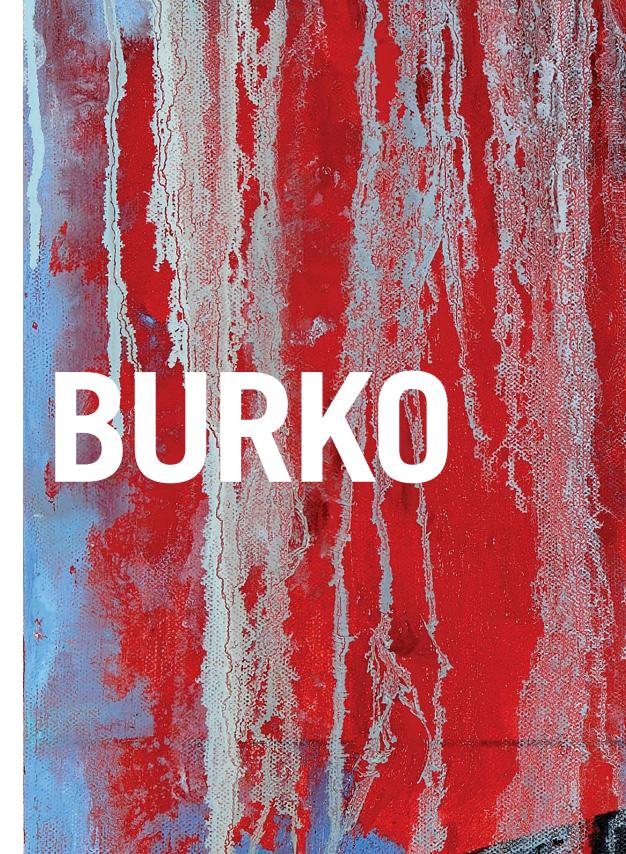
Alana Quinn, "Diane Burko's Art and Climate Science," p. 5; W. Tad Pfeffer, "Glacial Imagery from Science to Art," pp. 6–7; Nancy Knowlton, "The Future of Coral Reef Ecosystems," p. 9; and "A Conversation Between Diane Burko and Ben Orlove," pp. 11–40, in *Diane Burko: Endangered: From Glaciers to Reefs*, exh. cat., National Academy of Sciences, Washington, DC, August 15, 2018–January 31, 2019.

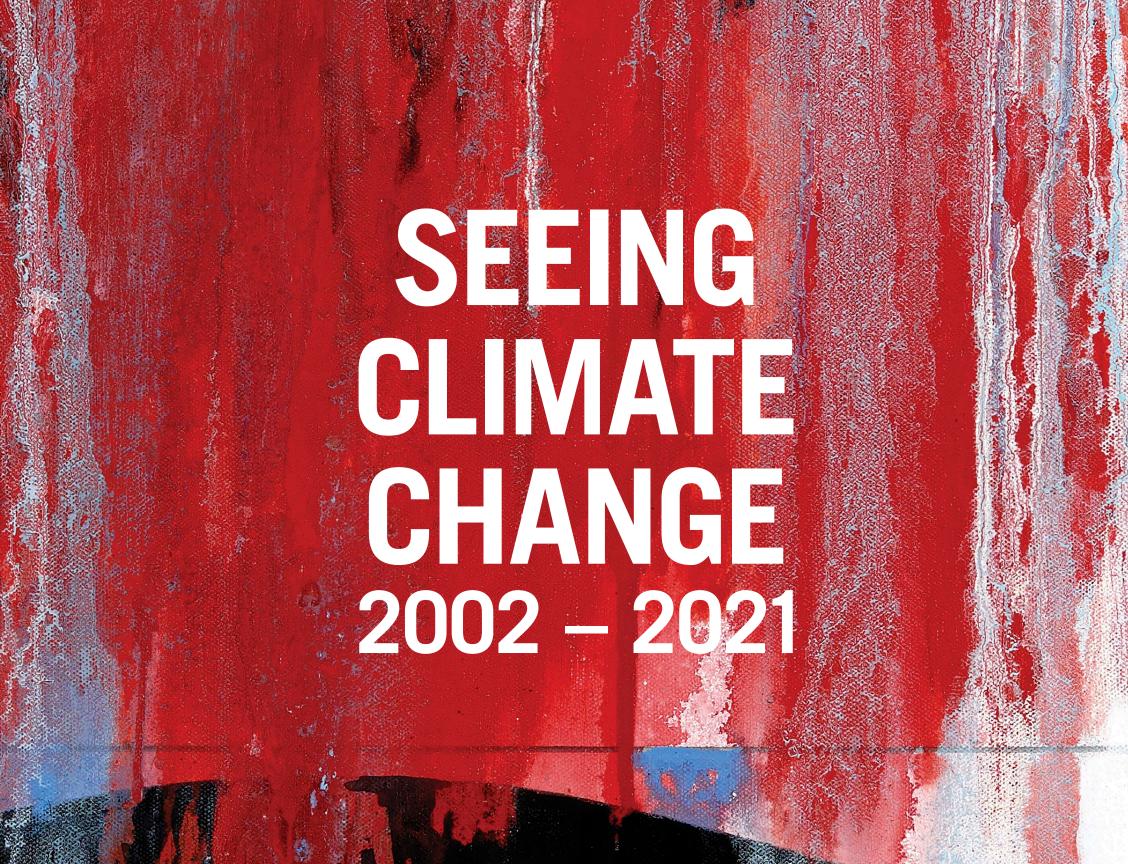
"Post Pandemic: We asked 17 experts to reflect on the world after COVID-19", *Issues in Science and Technology* (National Academies of Science, Engineering and Medicine, Winter 2021), pp. 31–49, with eleven works by Diane Burko reproduced throughout the article and on the cover.

"Diane Burko on Climate Change, the Pandemic, and Art and Activism: A Conversation Between Artist Diane Burko and Miriam Seidel," *Antennae: The Journal of Nature in Visual Culture*, Winter, 2021.

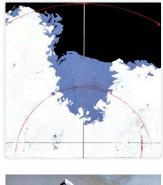
Visit dianeburko.com for the artist's exhibition history, video interviews, and further bibliography.

DIANE

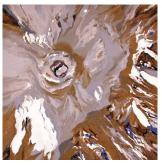














Row 1: Alaska National Wildlife Reserve Series 3, USA, 2007. Oil on canvas, 20 x 20 in.; Kilimanjaro I, NASA Earth Observatory, Tanzania, 2010. Oil on canvas, 20 x 20 in.; Patagonian Ice Field, Argentina, 2015. Oil on canvas, 20 x 20 in.; Kilimanjaro #1, Tanzania, 2010. Oil on canvas, 20 x 20 in.; Amazon 1, South America, 2021. Mixed media on canvas, 20 x 20 in.; Scott Antarctic Expedition, Antarctica, 2015. Oil on canvas, 20 x 20 in.; NOAA Study A, 2019. Mixed media on canvas, 20 x 20 in.; Kilimanjaro #4-2009 GeoEye, Inc., Dulles, VA, Tanzania, 2010. Oil on canvas, 20 x 20 in.; Paradise Chanel Lemaire 3, Antarctica, 2013. Oil on canvas, 20 x 20 in.

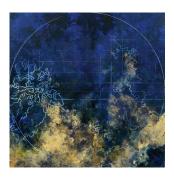








Row 2: At Viti, Myvatn C, Iceland, 2002. Oil on canvas, 20 x 20 in.; Sphere 1, 2019. Mixed media on canvas, 20 x 20 in.; Ross McMurdo Station, Antarctica, 2015. Oil on canvas, 20 x 20 in.; Sphere 3, 2019. Mixed media on canvas, 20 x 20 in.; Amazon 2, South America, 2021. Mixed media on canvas, 20 x 20 in.; Matterhorn Icon 6, 2007. Oil on canvas, 20 x 20 in.; Antarctic Peninsula, Antarctica, 2015. Oil on canvas, 20 x 20 in.; Ilulissat Fjord, Greenland, 2015. Oil on canvas, 20 x 20 in.; Matterhorn Icon 5, Switzerland, 2007. Oil on canvas, 20 x 20 in.; Matterhorn Icon 5, Switzerland, 2007.

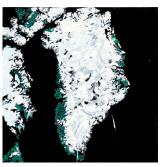








Row 3: Antarctica Dream, Antarctica, 2013. Oil on canvas, 20 x 20 in.; Matterhorn Icon 4, Switzerland, 2007. Oil on canvas, 20 x 20 in.; Approaching Peninsula, 2015. Oil on canvas, 20 x 20 in.; Sphere 6, 2019. Mixed media on canvas, 20 x 20 in.; Amazon 3, South America, 2021. Mixed media on canvas, 20 x 20 in.; Sphere 5, 2019. Mixed media on canvas, 20 x 20 in.; Alaska National Wildlife Reserve Series 2, USA, 2007. Oil on canvas, 20 x 20 in.; Eagle Glacier Juneau 1982–2005, USA, 2015. Oil on canvas, 20 x 20 in.; At Viti, Myvatn A, Iceland, 2002. Oil on canvas, 20 x 20 in.





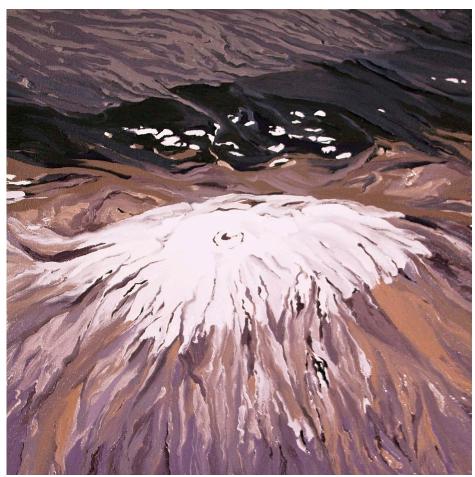




Row 4: Matterhorn Icon 2, Switzerland, 2007. Oil on canvas, 20 x 20 in. Collection of Floss Barber; Sphere 2, 2019. Mixed media on canvas, 20 x 20 in.; Kilimanjaro #3-2003 Photomap (Kenya) Ltd. for Byrd Polar Research Center, Tanzania, 2010. Oil on canvas, 20 x 20 in.; Sphere 4, 2019. Mixed media on canvas, 20 x 20 in. Collection of Ivy Silver and Steven Leshner.; Amazon 4, South America, 2021. Mixed media on canvas, 20 x 20 in.; Greenland Melting, Greenland, 2015. Oil on canvas, 20 x 20 in.; Kilimanjaro II, NASA Earth Observatory, Tanzania, 2010. Oil on canvas, 20 x 20 in.; Kilimanjaro #2-2002 Photomap (Kenya) Ltd. for Byrd Polar Research Center, Tanzania, 2010. Oil on canvas, 20 x 20 in.; Coral Fan 5, South Pacific, 2020. Mixed media on canvas, 20 x 20 in.



Alaska National Wildlife Reserve Series 3, 2007. Oil on canvas, 20 x 20 in.



Kilimanjaro I, NASA Earth Observatory, 2010. Oil on canvas, 20 x 20 in.

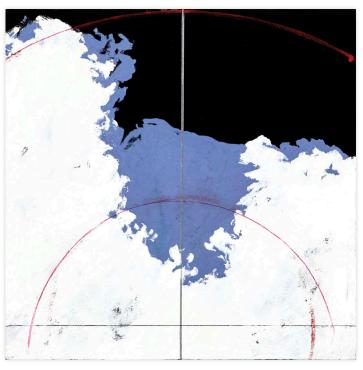


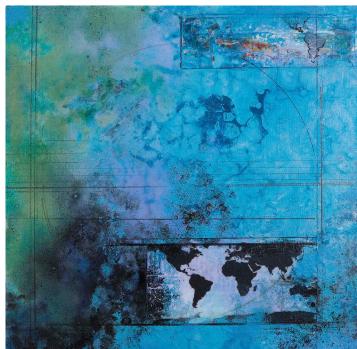
Patagonian Ice Field, 2015. Oil on canvas, 20 x 20 in.



Kilimanjaro #1, 2010. Oil on canvas, 20 x 20 in.









Top left: *Amazon 1,* 2021. Mixed media on canvas, 20 x 20 in.

Top right: *Scott Antarctic Expedition*, 2015. Oil on canvas, 20 x 20 in.

Bottom left: *NOAA Study A*, 2019. Mixed media on canvas, 20 x 20 in.

Bottom right: *Kilimanjaro* #4-2009 GeoEye, Inc., Dulles, VA, 2010. Oil on canvas, 20 x 20 in.

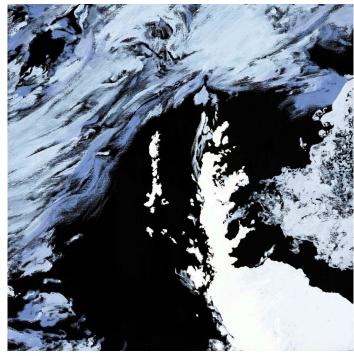


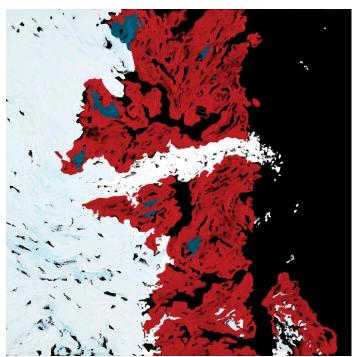
Paradise Chanel Lemaire 3, 2013. Oil on canvas, 20 x 20 in.



Amazon 2, 2021. Mixed media on canvas, 20 x 20 in.









Top left: *Matterhorn Icon 6*, 2007. Oil on canvas, 20 x 20 in.

Top right: *Antarctic Peninsula*, 2015. Oil on canvas, 20 x 20 in.

Bottom left: *Ilulissat Fjord*, 2015. Oil on canvas, 20 x 20 in.

Bottom right: *Matterhorn Icon 5,* 2007. Oil on canvas, 20 x 20 in.



Antarctica Dream, 2013. Oil on canvas, 20 x 20 in.



Matterhorn Icon 4, 2007. Oil on canvas, 20 x 20 in.

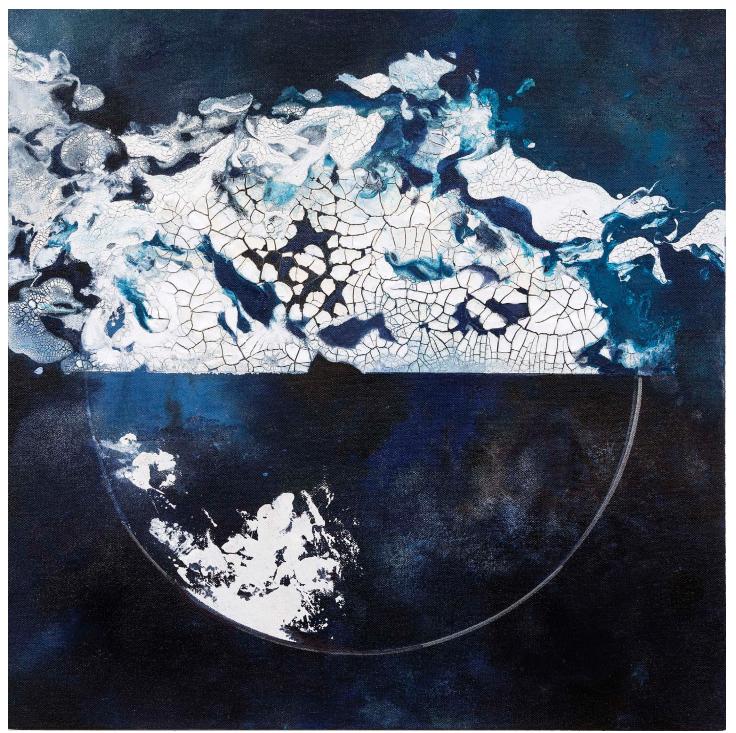


Amazon 3, 2021. Mixed media on canvas, 20 x 20 in.





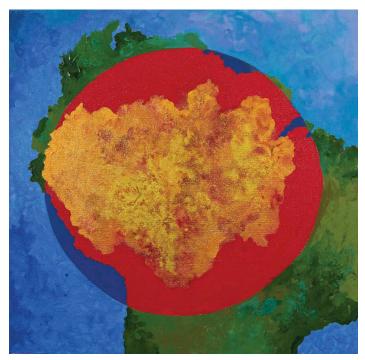
From top: *Sphere 6*, 2019. Mixed media on canvas, 20 x 20 in. *Approaching Peninsula*, 2015. Oil on canvas, 20 x 20 in.

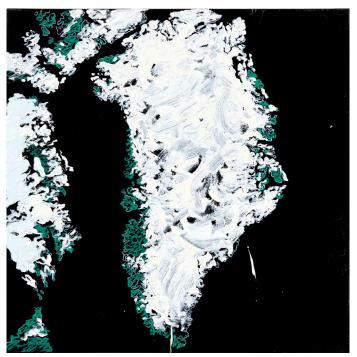


Sphere 4, 2019. Mixed media on canvas, 20 x 20 in. Collection of Ivy Silver and Steven Leshner.









Top left: *Kilimanjaro* #3-2003 Photomap (Kenya) Ltd. for Byrd Polar Research Center, 2010. Oil on canvas, 20 x 20 in.

Top right: *Sphere 2*, 2019. Mixed media on canvas, 20 x 20 in.

Bottom left: *Amazon 4*, 2021. Mixed media on canvas, 20 x 20 in.

Bottom right: *Greenland Melting*, 2015. Oil on canvas, 20 x 20 in.



Kilimanjaro II, NASA Earth Observatory, 2010. Oil on canvas, 20 x 20 in.



Kilimanjaro #2-2002 Photomap (Kenya) Ltd. for Byrd Polar Research Center, 2010. Oil on canvas, 20 x 20 in.



Coral Fan 5, 2020. Mixed media on canvas, 20 x 20 in.



Kverkfjoll Before Trip, 2002. Oil on canvas, 50 x 81 in.





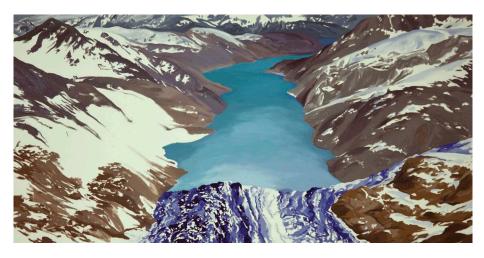
Main Rongbuk Glacier, Tibet, 2007, after David Breashears, 2010. Oil on canvas, 48 x 74 in.



Main Rongbuk Glacier, Future, after Diane Burko, 2010. Oil on canvas, 48 x 60 in.



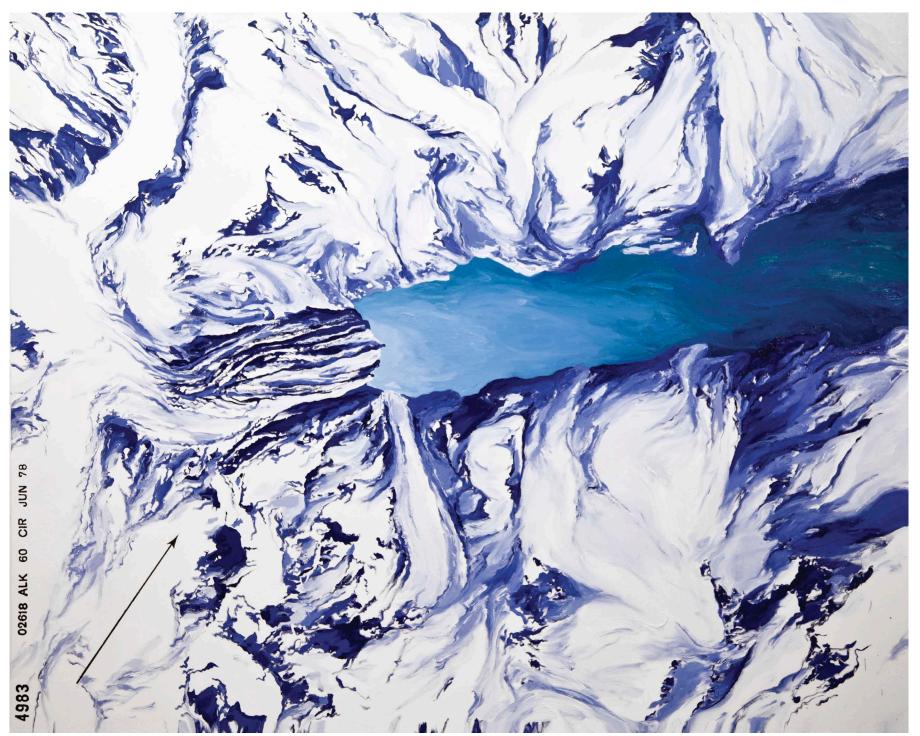




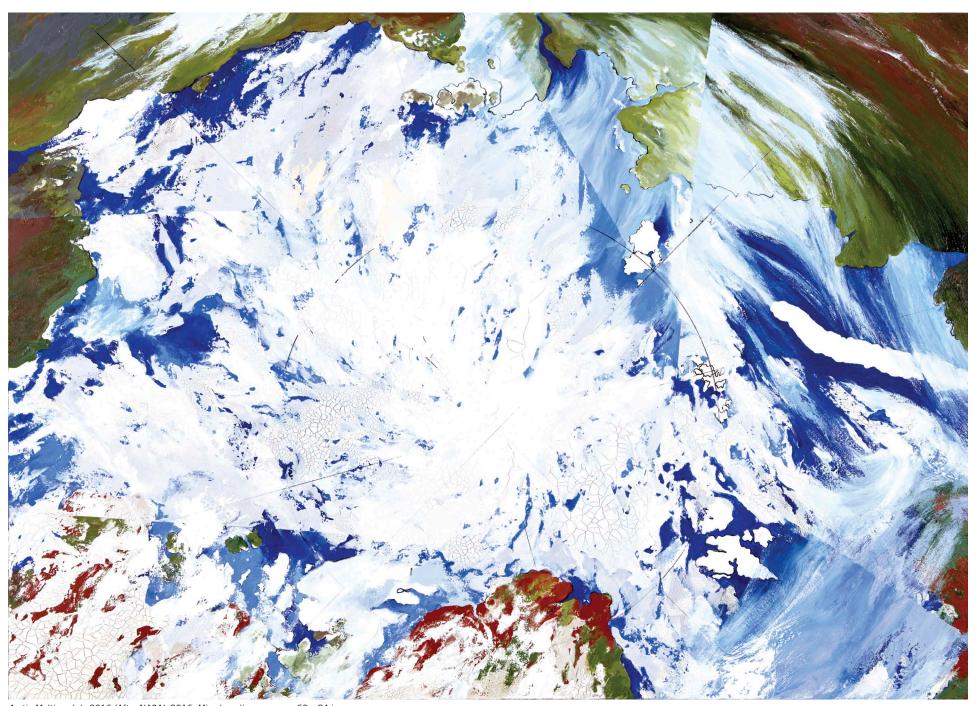
From top: *Johns Hopkins, Gilman Glacier,* 2010 (after Bruce Molnia) 1, 2011–12. Oil on canvas, 24 x 48 in.

Johns Hopkins, *Gilman Glacier, 2010* (after Bruce Molnia) 2, 2011–12.
Oil on canvas, 24 x 48 in.

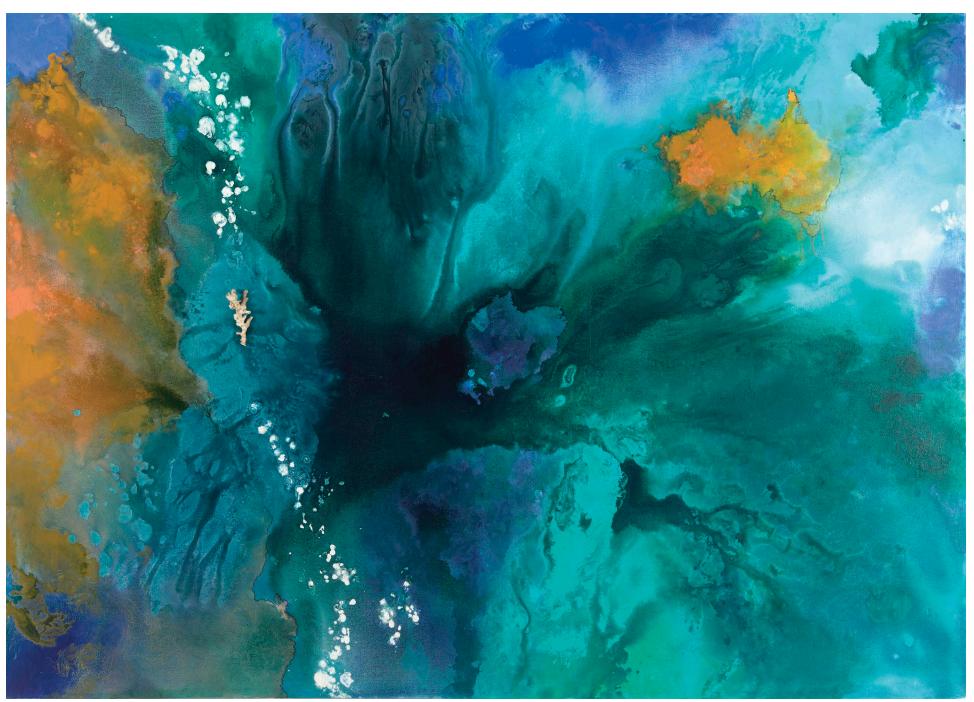
Johns Hopkins, Gilman Glacier, 2010 (after Bruce Molnia) 3, 2011–12.
Oil on canvas, 24 x 48 in.



Johns Hopkins, Gilman Glacier, 1978 (USGS), 2011–12. Oil on canvas, 60 x 78 in.



 $\textit{Arctic Melting, July 2016 (After NASA), } 2016. \ \textit{Mixed media on canvas, } 60 \ \textit{x} \ 84 \ \textit{in}.$



Great Barrier Reef, 2018. Mixed media on canvas, 60 x 84 in.









Top left: *Coral Life Cycle 1*, 2018. Mixed media on canvas, 20 x 20 in.

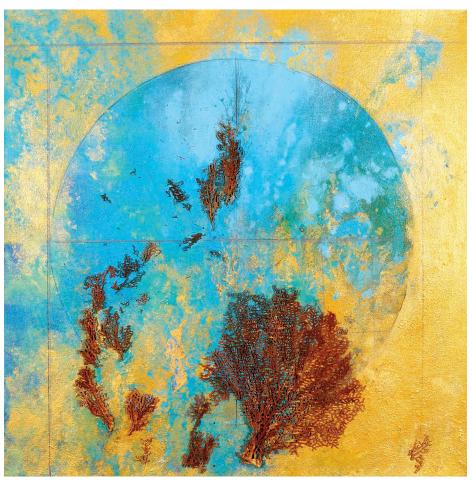
Top right: *Coral Life Cycle 2,* 2018. Mixed media on canvas, 20 x 20 in.

Bottom left: *Coral Life Cycle 3*, 2018. Mixed media on canvas, 20 x 20 in.

Bottom right: *Coral Life Cycle 4*, 2018. Mixed media on canvas, 20 x 20 in. Collection of Hank Bernstein and Jim Fennel.



Coral Triangle, 2020. Mixed media on canvas, 72 x 204 in.



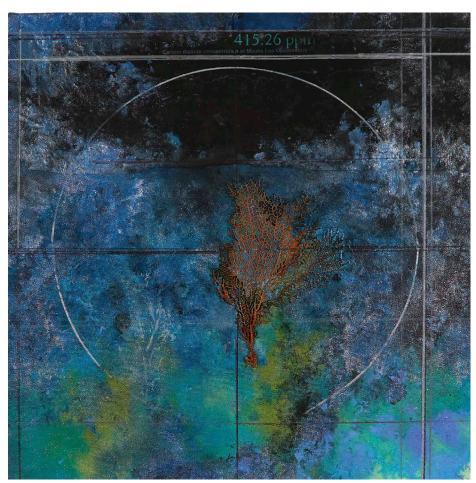
Coral Fan 1, 2020. Mixed media on canvas, 20 x 20 in. Private Collection.



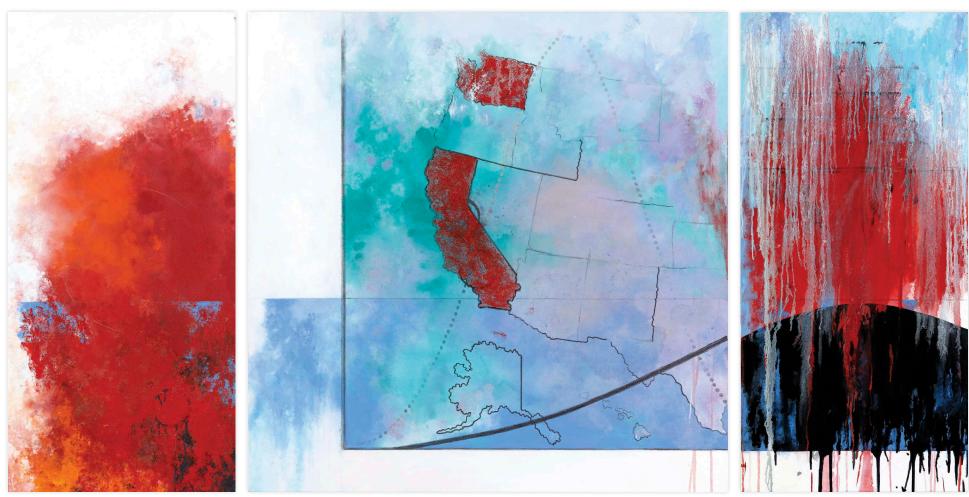
Coral Fan 2, 2020. Mixed media on canvas, 20 x 20 in. Collection of Jason and Jaclyn Brenner.



Coral Fan 4, 2020. Mixed media on canvas, 20 x 20 in.



Coral Fan 3, 2020. Mixed media on canvas, 20 x 20 in.



Corona Series 1–6, 2020. Acrylic and oil on canvas, 42 x 164 in.









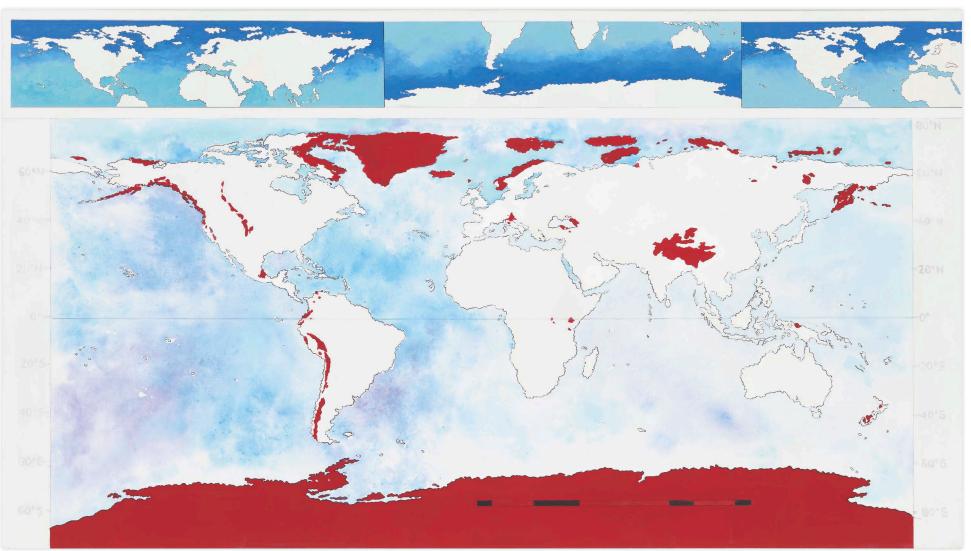
Covid Spread, 2020. Mixed media on canvas, 50 x 88 in.



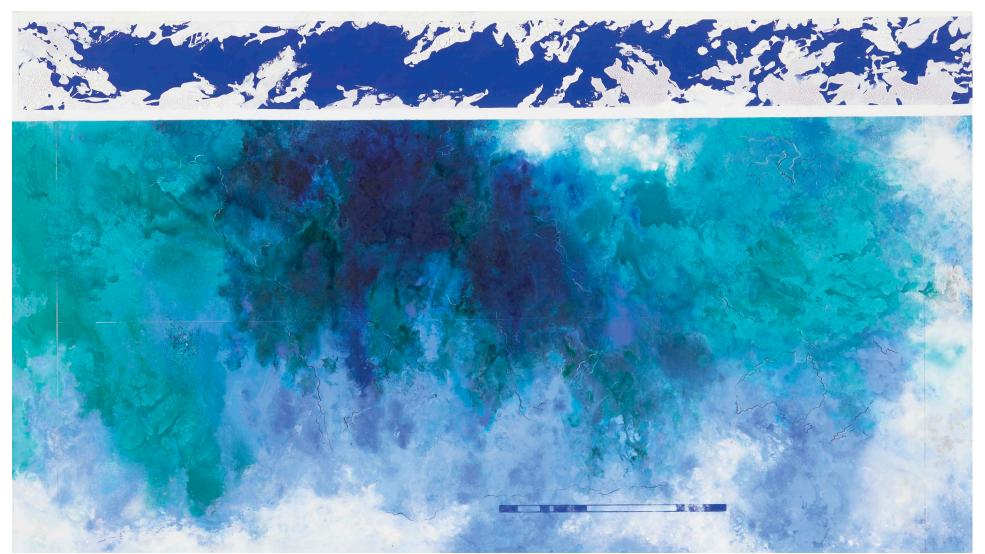
Glacier Map 3, 2019. Mixed media on canvas, 50 x 50 in.



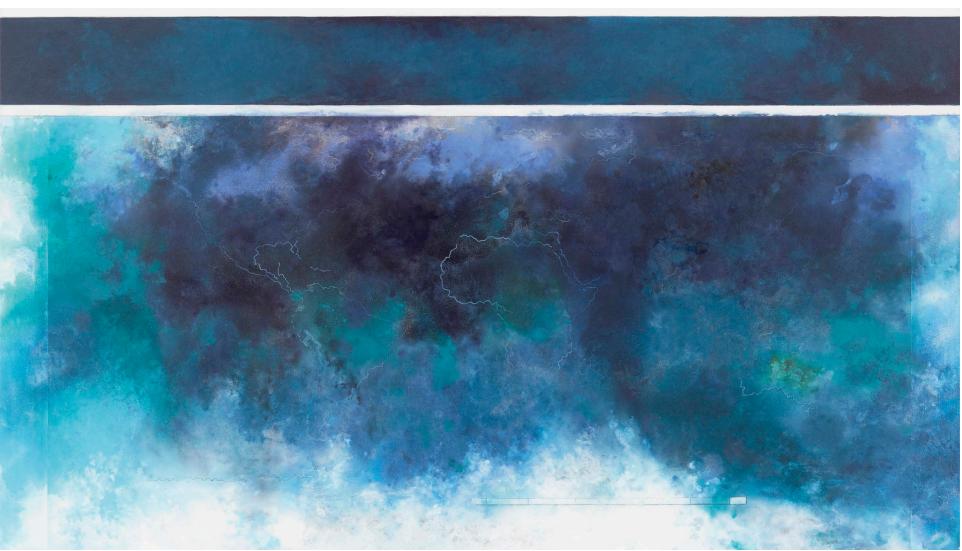
Glacier Map 4, 2019. Mixed media on canvas, 50 x 24 in.



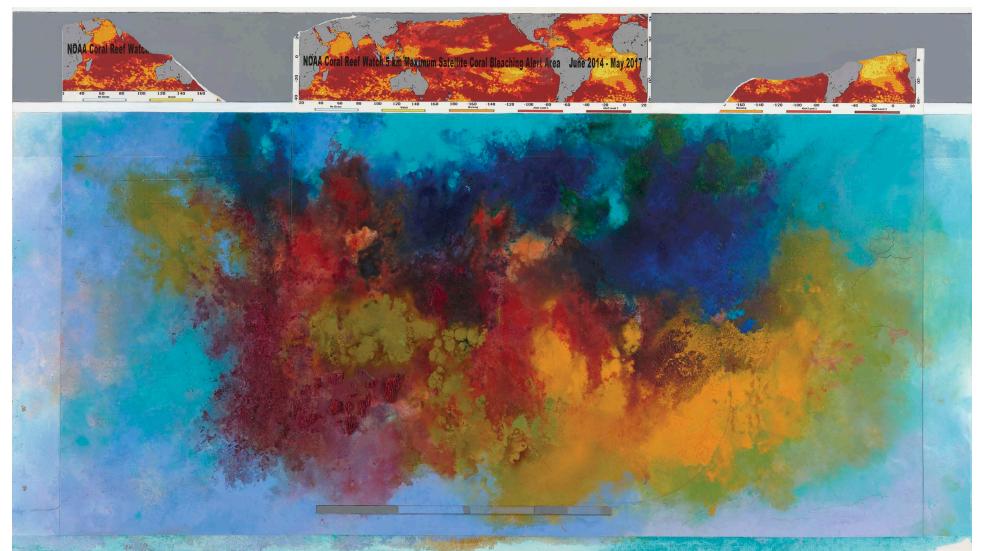
World Glacier Map, 2019. Acrylic and Flashe paint on canvas, 50 x 88 in.



Glacier Map 1, 2019. Mixed media on canvas, 50 x 88 in.



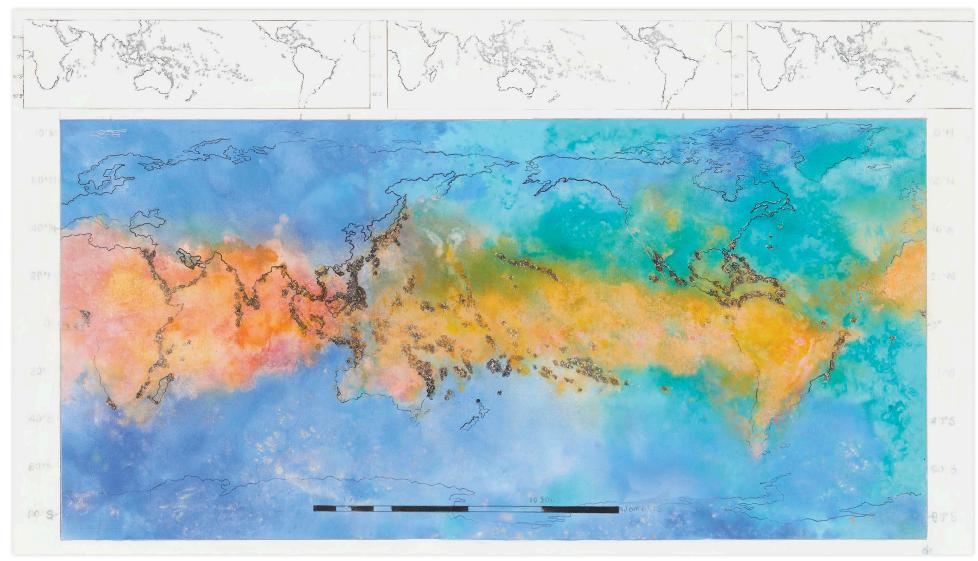
Glacier Map 2, 2019. Mixed media on canvas, 50 x 88 in.



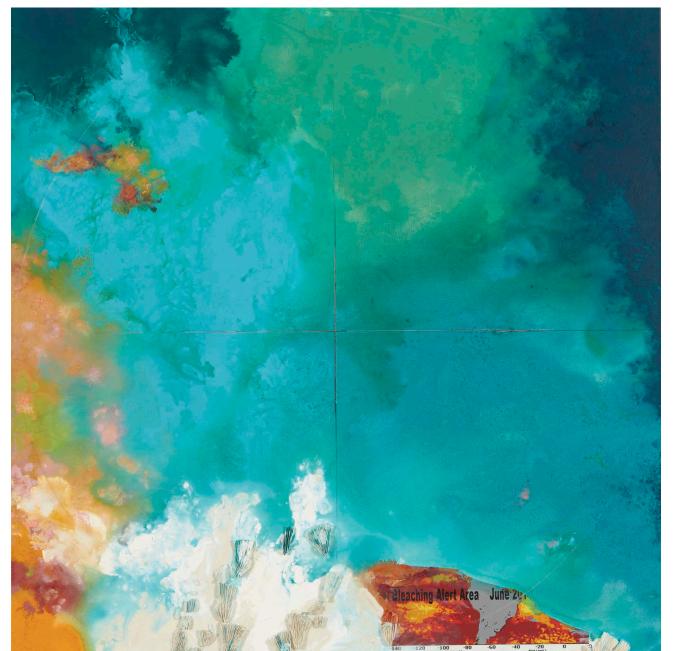
Reef Map 1, 2019. Mixed media on canvas, 50 x 88 in.



Reef Map 2, 2019. Mixed media on canvas, 50 x 88 in.



World Reef Map, 2019. Mixed media on canvas, 50 x 88 in.



Reef Map 3, 2019. Mixed media on canvas, 50 x 50 in.



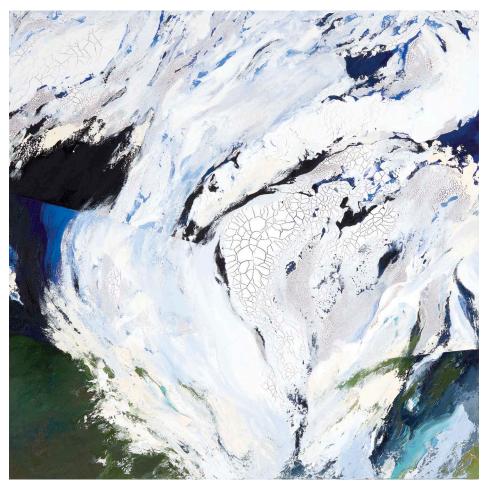
#10 Postscript, 2019. Mixed media on canvas, 50 x 24 in.



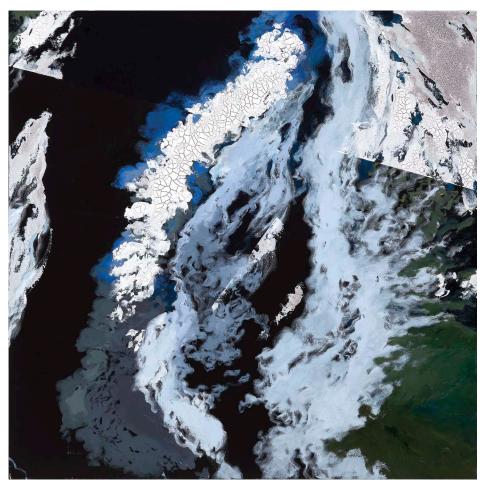
July 2020, 2020. Mixed media on canvas, 60 x 60 in. Collection of Ivy Silver and Steven Leshner, to be gifted to the National Academy of Sciences.



Summer Heat, 1 and 2, 2020. Mixed media on canvas, 84 x 162 in. overall.



Novaya Zemlya I, 2017. Mixed media on canvas, 42 x 42 in.



Novaya Zemlya II, 2017. Mixed media on canvas, 42 x 42 in.



CA Burning, 2020. Mixed media on canvas, 20 x 20 in. Collection of Pamela and Joseph Yohlin.



Row 1: OR Burning, 2020. Mixed media on canvas, 20 x 20 in.; BLM Covid, 2020. Mixed media on canvas, 20 x 20 in.; USA Covid, 2020. Mixed media on canvas, 20 x 20 in.; Carbon/Covid, 2020. Mixed media



Unprecedented Study 1, 2021. Mixed media on canvas, 20 x 20 in.



Unprecedented Study 2, 2021. Mixed media on canvas, 20 x 20 in.

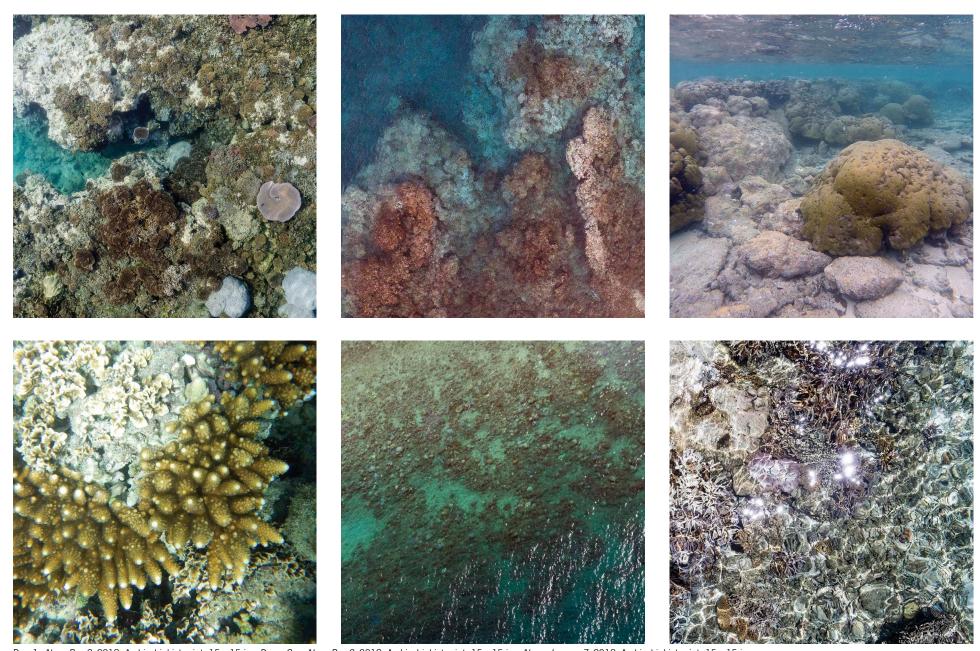


Unprecedented Study 3, 2021. Mixed media on canvas, 20 x 20 in.



Unprecedented, 2021. Mixed media on canvas, 96 x 180 in.





Row 1: Alega Bay 2, 2018. Archival inkjet print, 15 x 15 in.; Drone Over Alega Bay 2, 2018. Archival inkjet print, 15 x 15 in.; Alega, January 7, 2018. Archival inkjet print, 15 x 15 in. Row 2: Untitled, Utile Bay, January 11, 2018. Archival inkjet print, 15 x 15 in.; Great Barrier Reef B Detail, 2018. Archival inkjet print, 15 x 15 in.; Hovering Over Utulei Bay 1, 2018. Archival inkjet print, 15 x 15 in.

Opposite: Hawaiian Archipelago, 2018. Mixed media on canvas, 60 x 72 in.









Top left: *Lemaire Channel 2, January 19,* 2003. Archival inkjet print, 15 x 15 in.

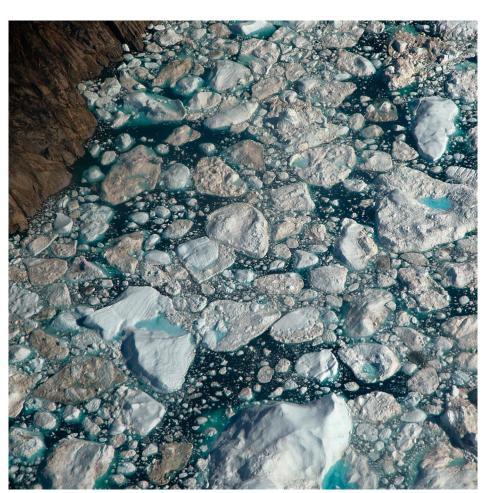
Top right: *On the Crevasse,* Detail, 2014. Archival inkjet print, 15 x 15 in.

Bottom left: *Kronebreen Above 3*, 2014. Archival inkjet print, 15 x 15 in.

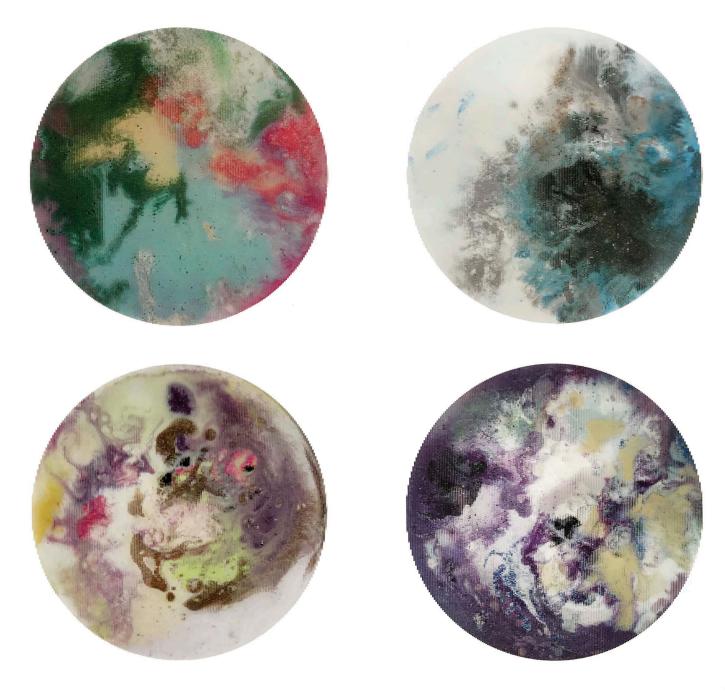
Bottom right: *Kronebreen Above 2*, 2014. Archival inkjet print, 15 x 15 in.



Over Ilulissat 2, Detail, 2014. Archival inkjet print, 15 x 15 in.



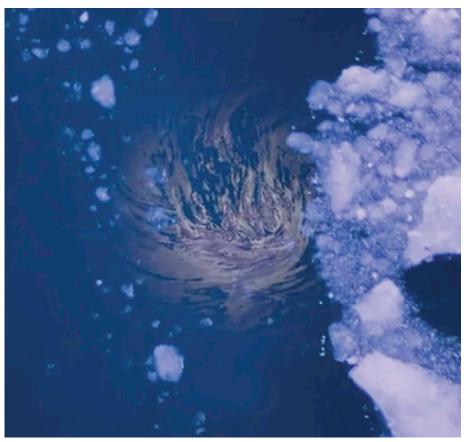
To Ilulissat, Detail, 2014. Archival inkjet print, 15 x 15 in.

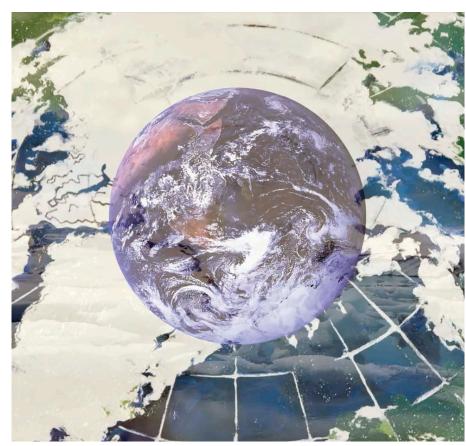


Row 1: Diane Burko and Anna Tas, *Hanauma Bay, HI,* 2018. Lenticular print, 30 x 30 in.; *From Glaciers to Reefs,* 2018. Lenticular print, 30 x 30 in. Row 2: Diane Burko and Anna Tas, *Anu'u American Samoa,* 2018. Lenticular print, 30 x 30 in.; *Alega, American Samoa,* 2018. Lenticular print, 30 x 30 in.



Row 1: Diane Burko and Anna Tas, *HIMB, Confocal*, 2018. Lenticular print, 30 x 30 in.; *Kumimi Beach, Molokai*, 2018. Lenticular print, 30 x 30 in. Row 2: Diane Burko and Anna Tas, *Stressed Coral*, 2018. Lenticular print, 30 x 30 in.; *Utulei Bay, American Samoa*, 2018. Lenticular print, 30 x 30 in.



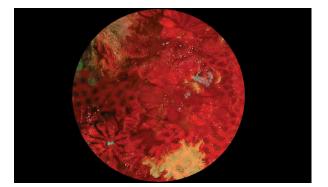


Ice Melt, 2020. Digital video.

Ice Melt, 2020. Digital video.







Ocean/Reef/Paint, 2018. Digital video.

NOTES ON THE CURATORS

MARY D. GARRARD, Professor Emerita of Art History at American University, Washington, DC, is a scholar whose work has combined Italian Renaissance art with feminist studies. Her 1989 book *Artemisia Gentileschi: The Image of the Female Hero in Italian Baroque Art* is widely acknowledged as a groundbreaking study that launched modern scholarship on the now-famous artist. In *Artemisia Gentileschi Circa 1622: The Shaping and Reshaping of an Artistic Identity* (2001), Garrard addressed new critical issues in Gentileschi studies. Her third book on the artist, *Artemisia Gentileschi and Early Modern Feminism,* positions Artemisia among the feminist treatises and debates of her time (2020).

Garrard has also written extensively on Italian Renaissance and Early Modern art. In *Brunelleschi's Egg: Gender, Art, and Nature in Renaissance Italy* (2010), she showed how the profound shift in the concept of nature, from an organic worldview to the scientific, was assisted by the Renaissance casting of art and nature as gendered competitors. Her articles on artists such as Michelangelo, Leonardo da Vinci, Titian, Sofonisba Anguissola, and Giovanna Garzoni have appeared in *The Art Bulletin, Renaissance Quarterly, The Burlington Magazine, Artibus et Historiae* and other publications. She has lectured widely at universities and museums in the United States and abroad; and has appeared on several public television programs about Artemisia Gentileschi.

NORMA BROUDE is Professor Emerita of Art History at American University in Washington, DC, where she taught from 1975 to 2011. A specialist in the history of nineteenth-century French and Italian painting, she is known for her critical reassessments of Impressionism in general and for her ground-breaking revisionist studies of Edgar Degas in particular. Her books include The Macchiaioli: Italian Painters of the Nineteenth Century (1987) and Impressionism, A Feminist Reading: The Gendering of Art, Science, and Nature in the Nineteenth Century (1991). Among her paradigm-shifting edited books are World Impressionism: The International Movement (1990), Gustave Caillebotte and the Fashioning of Identity in Impressionist Paris (2002), and Gauguin's Challenge: New Perspectives After Postmodernism (2018). Her scholarly articles have appeared in The Art Bulletin, The Burlington Magazine, The Gazette des Beaux-Arts, and other journals.

Broude has received grants from the National Endowment for the Humanities, the US Department of Education, the J. Paul Getty Trust, and the Rockefeller Foundation. She has lectured at major museums and universities including the Courtauld Institute of Art, the Metropolitan Museum of Art, the Art Institute of Chicago, the National Gallery of Art, and the Fogg Museum at Harvard University. For the American University Museum at the Katzen Arts Center, Broude curated and wrote the catalogue for the show, *Grace Hartigan and Helene Herzbrun: Reframing Abstract Expressionism* (2019).

Broude and Garrard, pioneering and internationally noted feminist art historians, are co-editors and contributors to four influential anthologies of feminist art historical studies, beginning with Feminism and Art History: Questioning the Litany (1982), and including The Power of Feminist Art: The American Movement of the 1970s, History and Impact (1994). They co-curated the exhibition Claiming Space: Some American Feminist Originators at the American University Museum at the Katzen Arts Center (2007).

ABOUT BILL MCKIBBEN

BILL MCKIBBEN, distinguished American author and environmentalist, was one of the earliest writers to sound an alarm about global warming. He has written a dozen books about the environment and climate change, including his groundbreaking first book, *The End of Nature* (1989). McKibben is co-founder and leader of 350.org, an environmental organization that has tackled the climate crisis since 2007, working as a global grassroots movement to end the use of fossil fuels and transition to renewable energy. McKibben is Schumann Distinguished Scholar at Middlebury College. He has been described as the "nation's leading environmentalist" and was awarded the Gandhi Peace Award in 2013.

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Diane Burko

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Curated by Mary D. Garrard and Norma Broude "Diane Burko and the Catastrophe Landscape" © Norma Broude "Diane Burko and Climate Change: The Voyage Out" © Mary D. Garrard Art Photography: Joseph Hu Artist in Studio/on location: Richard Ryan and Anna Tas Project Consultant: Todd Bradway Design by Lloyd Greenberg Design, LLC

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Cover: Diane Burko, *Unprecedented*, 2021. Mixed media on canvas, 96 x 180 in. Page 2: Diane Burko, *Great Barrier Reef* (detail), 2018. Mixed media on canvas, 60 x 84 in.

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