



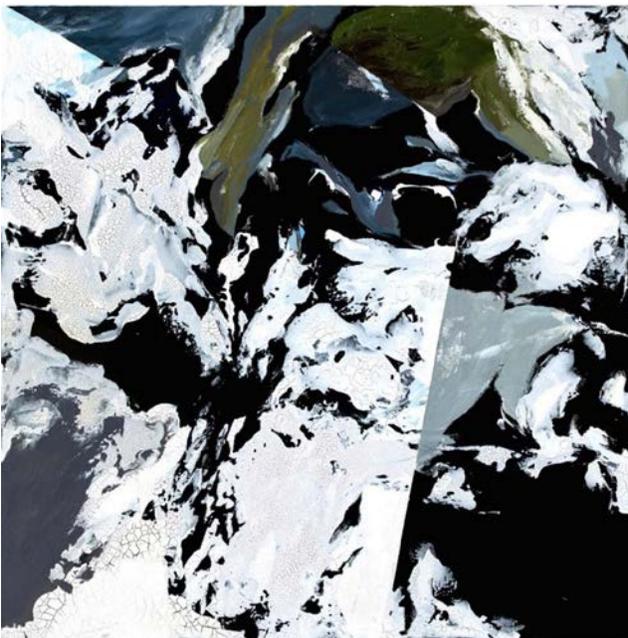
GEOGRAPHICALLY BIPOLAR

LYRIC PRINCE DECEMBER 17, 2018

The Cultural Programs for the National Academy of Sciences and Artist Diane Burko Explore Climate Change in Unexpected Ways by Lyric Prince

SciArt, which is most often defined as a combination of scientific imagery with the creative interpretation of art, is becoming more popular in academic communities for its ability to elicit emotional and philosophical responses to empirically collected data. Diane Burko, an ecological artist and activist based in Philadelphia, has recently opened a solo show at the Cultural Programs for the National Academy of Sciences (CPNAS), entitled Endangered: From Glaciers to Reefs. Her work in the exhibition includes large-scale paintings, lenticular prints, and a video installation about the changing habitats around the globe. Throughout it all, she uses lush color, wide brushstrokes and swirling paint to mimic the destructive spread that global warming has on pristine environments.

I talked with CPNAS curator Alana Quinn on November 8th about the process, research and strong sense of curiosity behind Burko's work. This interview has been edited for length and clarity.



Visions of the Beaufort Sea III, 2016, Oil on Canvas

Lyric Prince (LP): Please tell me more about what CPNAS and Diane Burko wanted to achieve with this exhibition.

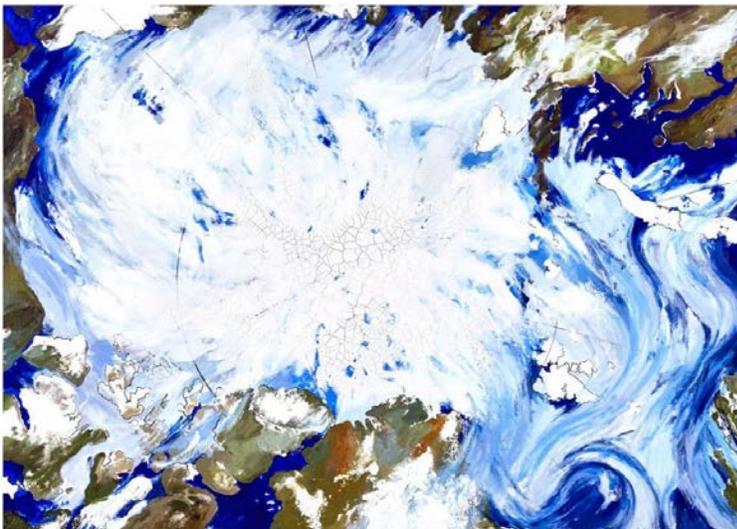
Alana Quinn (AQ): We were thinking of a visual way to communicate about climate change. What I particularly like about Diane Burko's work is the way that she's experimenting with the medium, for example in *Visions of the Beaufort Sea III* (2016). She started in the past few years experimenting with craquelure, and I like the way that it metaphorically relates to what's going on in the Arctic.

Burko has been doing these glacier paintings since about 2006. And I think for the first five or six years, she was working with imagery that she gathered from NASA's satellite, newspapers, all different sources. At first she was working from the color schemes in these photographs. But then, in 2013, she joked that she became "geographically bipolar."

Oh! [laughter]

So Burko traveled to both poles within one year and to all three major ice sheets in the world [near these poles], where all of a sudden, she was seeing the colors for herself, making all of these observations by herself. So, the colors are based now off her own observation and her memory—and some of it is made up! It's kind of a combination. And certainly, she doesn't want these paintings to be really depressing. Her idea is that they celebrate these places. And she's really adventurous, likes to experiment; and after so many years of focusing on glacier work, she wanted to do something new.

Ok, that's fair.



Arctic Melting July 2016, After NASA

Burko was visiting glaciers in NZ, and since she was in NZ, she went to Australia, and she and her husband (Richard Ryan, artist and landscape architect for the Hammerstone Museum in Bucks County, PA) flew over the Great Barrier Reef in 2017. She was excited to work with a whole new color palette and to think about how climate change is impacting a different ecosystem.

How would you describe Burko's palette then, as opposed to now?

This [new work] is more pastel. This one (Arctic Melting) was made in 2016, and this one (Hawaiian Archipelago), in 2018. All of the reef paintings (with the exception of the grid paintings) are from 2018. This grid shows some of the experimentation that she's been doing, which she started in 2017.

She uses acrylic, glitter, plastic beads, baby oil; there's this marblization that happens with some of the canvases, and that's where the combination of oil and water and acrylics happen. She went from working all in oils with the glacier paintings to experimenting with acrylic.

[Turning to grids]



Reef Grid, 2018

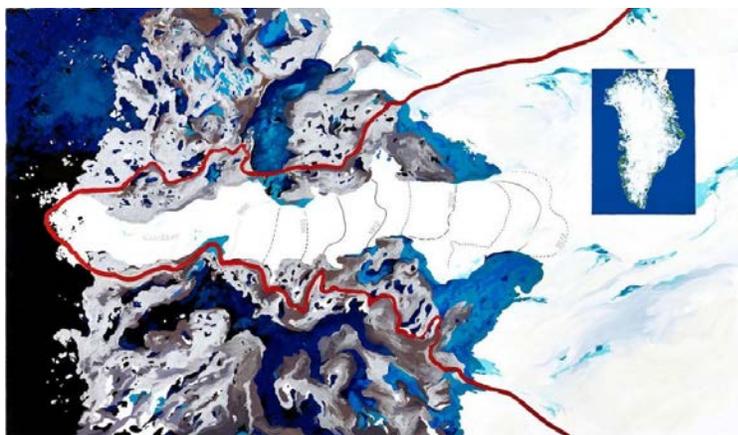
And experimentation for what, actually? New textures?

She was trying to evoke some of the watery quality that she was experiencing and observing around the coral reef. When she was speaking [in her gallery talks on Nov 1 and 2], I was reminding her that acrylic is a water-based paint, so the material relates more to what she's painting now [water and reefs]. It's kind of ironic, maybe, because acrylic is made of plastic and water!

So, the thing that's killing the planet with the thing that the planet needs... That's an interesting dichotomy.

Right. Also, she's worked a lot with different marine biology labs, Scripps Institute of Oceanography and several others, and she actually obtained a lot of footage of coral reefs, polyps, as they are developing. In the early stages [of death], they're this bright red color. Burko based a lot of the new color scheme from the footage she got, adding artificial coloring to the footage.

Some of her paintings of coral are a bit more literal than the ones we have on view here. She has this coral reef quartet she did that you can look up online, [which] shows the progression of the coral reefs from early stages of development to being unhealthy to death. I think that when they start to become sick, they become these very bright colors, and she's exploring that in this series. When she was here last week, she said to think of it like fall foliage, where the leaves are very brilliant right before they fall off.



UNESCO National Heritage II, 2015, Oil and Flashe Paint, 42 x 72 inches

Visually, I really am drawn to this painting, UNESCO National Heritage II (2015), because of the harmony between the shades of reds, blues, whites and blacks that are all around. What does she say about this one? How do you feel about it?

What she did say about this one was that it was one of the more didactic paintings in the show. It shows this recession line and how the scientists are mapping the recession line all the way back to the 1850s.

And it stops at 2012.

I like the way that she's combining multiple perspectives into one painting, so that you have this overview of Greenland, and then you have a detail of an area called Jakobshavn Glacier. With this particular glacier- [scientists] believe that a chunk of it broke off, and that's what sunk the Titanic in 1912. It's considered a UNESCO World Heritage Site because scientists have been studying it for 250 years and it has helped develop our modern understanding of climate change.

It's melting, and evolving... do these dated levels mean that the ice mass shrinks?

Right! Every year, in the winter, I think sometime in March, it reaches its maximum, but in the summer months it recedes even more. So, it's always moving back and forth, but overall there's been this great recession.

Looking at this one over here (Faga'Alu, 2018), I'm reminded of an algae bloom, because of the sickly green color it has. I've seen a huge one from a plane window once, and I was thinking that this color is super rad— but it actually looks awful, because I now know what that color means!

She's trying to evoke all of those things, I think. With this one, it is beautiful, with the color scheme. She uses an air compressor to blow the paint around. And when she paints this series, she lays it flat, parallel to the ground. So, she's painting in this very different way—up and down.

And with her air compressor, she's working the canvas from its edges, correct?

As far as I understand. Some of the stuff looks like she let it flow and just dry that way. It evokes the movement of a wave; it's very organic. [The black marker underneath serves as a] reference to these marine maps, because otherwise it's very abstract... She lays those marks down first, and then she paints over them.



Faga'alu, 2018: 60 x 60 Canvas

On one hand, why not just show a photograph? But with a painting, you can incorporate multiple perspectives into one work. And I think she's done that very well with Hawaiian Archipelago, where she has over here the whole earth in detail; with a square around Hawaii, so you can get a sense of its scale right now. And when she was here, she used this painting to show what area she snorkeled around. And this [points up] feels like a closeup of a coral reef in distress. This area, which you could look up online, under President Obama, [became one of the] largest protected areas I think in the whole earth, and this triangle shows where it is protected.

What was her training like, in terms of being a scientist or artist? How did she get into this theme?

We actually had a show of Burko's work in 1991. She's been painting landscapes since the 70s. In 1976, she did one glacier painting with acrylic. Around 2006, she started thinking, "I wonder if the ice is still there!" and [that's] what got her interested in glaciers and climate change. She later went on expeditions to both poles.

[Walking over to second room]

This looks great (Ocean/Reef/Paint, 2018)! What was her goal here?

Burko wanted to evoke the experience of snorkeling and swimming around the coral reefs. With the glaciers, she was looking at the images before traveling to those places. With the coral reefs, she traveled to the places almost immediately [after seeing them]. She learned how to swim and snorkel to experience the coral reefs first hand. With this video, she layers the reefs with moving paint in her studio- she was using an air compressor off camera to blow paint around the canvas, and then she videoed it.

This looks so realistic through it being abstract!

I know! The paint, especially a water-based paint, has some of the same characteristics as water. It's reflective, the way it moves around... so I like the way she's layering this different footage, because she's not only using this paint, but in some parts, she got footage from Scripps, such as this bleached coral. So, she and her husband took their own Go-Pro footage of the ocean, and then layered all the different footage together. She wanted [people] to feel like they're looking down at a coral reef, circling above it. Burko and her husband actually went on a submarine, 100 ft down, near Oahu. She wanted [the shape of this piece] to suggest how it is to look through a portal.

It was fun for me to do research to learn more about coral reefs. One thing is that they cover less than 1% of the ocean floor, yet they help to sustain 25% of marine life. So, they are crucial! And people always think in terms of money and economics, so one thing that I emphasize in some of the artwork labels is that they really do foster a lot of jobs, because there's a huge tourist industry going around the coral reefs. They also serve as a buffer against the shoreline, to protect us against storms.



Hawaiian Archipelago, 2018, 60 x 72

I think that sometimes people don't want to think about the practical side of environmentalism; that sometimes through art, they are forced to see it.

She's trying to get people's emotions and have them thinking about this issue. See those white things? They're markers that scientists put on [the reefs] to measure growth over time.

How many layers of paint and footage?

I think that there are three layers. I guess in some places there's just one, but she kind of moves in and out with this- footage of the reef from Scripps and the Hawaiian Institute of Marine Biology, then there's footage that she and her husband took of the ocean surface; and then there's footage of the paint in the studio. I really like the places where she brings it all together.

And the lightbox idea- I've seen it in different places, but never quite like this, in a SciArt context.

It's really a simple installation.

I like the layering of the literal and subjective. Like, for the scientists, there's a place where you can say, "Alright guys, this is where we are talking about! And facts, to ground all of what we are talking about." And then, she flies free with all that actually means. Incredible.

***Endangered: From Glaciers to Reefs* runs at the National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, D.C. from August 15, 2018 – January 31, 2019.**

Please visit <http://www.cpnas.org/exhibitions/current-exhibitions/burko.html> for more information.

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