



ZARIA FORMAN

Fine artist Zaria Forman (zariaforman.com) began rendering icebergs in soft pastel after returning from Greenland in 2012. By 2014 she secured a solo exhibition at Seattle's Winston Wachter Fine Art and another in New York the following year. Her 2016 TED talk about the beauty and fragility of Earth has received more than one million views. Paintings by the 35-year-old, who has over 150,000 Instagram followers, will appear at New York's Works on Paper this spring and the Seattle Art Fair this summer. She is currently working on a new series of aerial ice drawings inspired by her 2016 and 2017 flights over both poles with NASA's Operation Icebridge project. A solo show of those works at Winston Wachter Fine Art in New York City is scheduled for late October.

B-15Y Iceberg, Antarctica

As artist-in-residence aboard Lindblad Expeditions' 148-passenger National Geographic Explorer, Forman rode for 8 nautical miles alongside the B-15Y iceberg. It's a fraction of Larsen B, the Rhode Island-sized shelf that collapsed in 2002. "As it breaks into smaller chunks, those have been named B-15A, B-15B, and so on," explains Forman, who framed the flat-topped ice block between an ominous sea and stormy sky.

When icebergs like this first break from the ice shelf, they look like the glacier from which they just separated: boxy with a chalky texture from years of snow packed on snow. In Forman's drawing, the visible height of the iceberg is about 100 feet. What you can't see below the surface is probably another 1,000 feet of ice. "I'm going back next winter to see how B-15Y is changing, shifting, melting, essentially disappearing," she says. "The entire West Antactic Ice Sheet, which is everything I saw aboard the Explorer, has entered an unstable state and is likely in an irreversible decline. The timing of the retreat is unknown because, for our lifetime, it's unprecedented."

Whale Bay, Antarctica (shown on previous pages)

On the Antarctic Peninsula is where Forman witnessed some of the most beautiful, intricately carved icebergs. "It's like riding around Superman's lair," she recalls. Whale Bay is situated near a glacier that regularly calves icebergs. Winter currents carry the floating ice directly into the shallow bay, where it scrapes against the seafloor, becomes grounded, and stays in the bay until it's melted completely. "Bays that enclose icebergs like these are called iceberg graveyards because, essentially, icebergs go there to die. To me, that is a metaphor for the bigger picture."

Forman visited the bay on the *Explorer*, but in 2016 she flew over Antarctica with a team of NASA scientists. "They have been flying for a decade over the exact same flight plans, measuring the ice with lasers, radar, and infrared sensors and taking digital photography," says Forman. "It's chilling to hear them talk about the changes, especially in the sea ice." That year the loss was much more than they'd seen, requiring a flight plan change to account for the significantly diminished sea ice.



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Forman visited Greenland in 2006 on a family vacation and returned in 2012 under different circumstances. American painter William Bradford in 1869 led an Arctic expedition with the unusual mission of making art. One hundred fifty years later, Forman's mother, photographer Rena Bass Forman, planned to follow Bradford's journey up the northwest coast of Greenland. "She and I were in the early stages of planning that trip when she was diagnosed with brain cancer and passed away six months later," says Forman, who, at age 30, led the expedition herself and scattered her mother's ashes along the way. It was upon returning from that trip that Forman first used her pastels to capture ice.

Here, in the top left corner, Forman depicts melting ice

Here, in the top left corner, Forman depicts melting ice under the heat of the unseasonably warm sun. There is turbulence in the water and a powerful, towering iceberg fills up most of the composition. "This is one of the biggest drawings I had ever attempted," Forman says. "I was trying to make it a little bit intimidating to get the viewer to understand the power and vulnerability of these giant shapes." >>



Cierva Cove, Antarctica

"The one that looks kind of like a dragon" is how Forman designates the ice she rendered at Cierva Cove, on the west coast of the Antarctic Peninsula. Opposed to the pulled-back view of B-15Y, the ice here is drawn at a 1:1 ratio, so you're seeing its size and detail as you would if you were standing right in front of it. "The scale allowed me to draw all the little nooks, crannies, cracks, and textures on the surface of the ice," says Forman. "If you look up close at the drawing, it looks like these mushy, weird squiggles."

On that family trip to Greenland in 2006 Forman first saw ice like this, and, at the time, she was afraid to draw it. She couldn't imagine the hard-edged lines and defined details working in soft pastel. The longer icebergs spend in the water separate from the glacier, the more sculpted they become. Textures like alligator skin, big crevices, and jagged edges appear. "They melt, shift, crack, and turn over, becoming these beautiful, unimaginable shapes of glowing blue ice," Forman says. "I'm trying with my work to connect people with these landscapes that are otherwise not part of our everyday lives."



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"I have all of my mom's contact sheets and negatives from the trips we took together," says Forman. "In Greenland in 2006, I was there on the trip, watching the icebergs alongside her through my own lens." For some drawings she referenced her mom's photographs, incorporating into her own compositions the light and portrait framing that her mom had captured. "It is a way for me to collaborate with her even after her passing," Forman says. "I know she loves that I do because when she was alive she always talked about wanting me to work from her photographs. I always felt like, no, I want to do my own thing."

On the 2012 expedition, Forman carried a photocopy of Bradford's Arctic Regions, including photographs and drawings of exact spots he visited. A century and a half later, Forman noticed visible differences in the landscapes. "There were a couple areas where you can see with your naked eye how much the glacier has receded over that amount of time," she says. "The data that NASA and other scientists have been collecting for the last decade clearly show that these glaciers are retreating at an alarming rate."



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Forman remembers that "in 2006, climate change was not a topic of discussion every day. I had this distant, vague awareness of it." During her trip she saw how in order to survive locals were adapting their lifestyle on a daily basis to the changing ice. The ice is their hunting ground and the winter season, even though it's very dark, is their most productive hunting season. "Hunters can't travel in the summertime after the fjords melt and disconnect, unless they are wealthy enough to have a boat and gas," Forman explains. In the winter, they travel and hunt by dogsled on the fjords that freeze over.

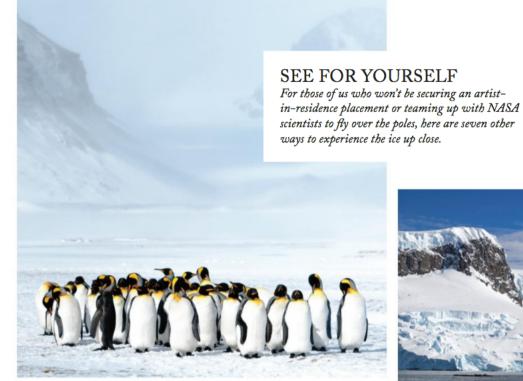
Ice sheets, covering the whole of Greenland and Antarctica, spill out over the edges of the earth. When ice sheets move under their own weight, down the mountains and toward the water, that's a glacier. There are at least hundreds, probably thousands, of glaciers in Greenland. When a chunk breaks off into the water, that's an iceberg. When water and ice fill in valleys carved by glaciers, that's a fjord. "The rate at which glaciers are not regenerating and fjords aren't freezing over is a topic of conversation in Greenland every day," says



Maldives no. 10

"After the 2012 trip to Greenland, I decided to follow the meltwater from the Arctic to the equator," says Forman, "I went to the Maldives, which is the lowest and flattest country in the world." While there, Forman collected photographs and inspiration for a body of work depicting waves lapping along the coast of a nation that could be under water within this century. The connection between melting ice at the poles and rising water in the Indian Ocean is made apparent by Forman's depiction of the whitewash forming a mountainous shape. The glowing blue color of the water and the texture of the wave look like deconstructed versions of the ice formations in Forman's Antarctica and Greenland series.

While the hunters she met in Greenland regularly discussed and adapted to the effects of climate change, the people she talked to in the Maldives had a different mindset. Says Forman, "I can't imagine how difficult it must be to consider your entire homeland disappearing into the seas. Roughly half of the people we spoke to on the islands didn't believe climate change was real."



ON A PHOTO SAFARI (above)

British fine art photographer David Yarrow leads a Natural World Safaris expedition to the sub-Antarctic South Georgia Island. One of the least-visited places on Earth and seemingly inhospitable, the British territory is a breeding place for elegant king penguins and home to colossal southern elephant seals. Dramatic, snow-capped peaks and rugged cliffs provide an ideal backdrop for spectacular wildlife photos. Yarrow shares his expertise one-on-one—from framing a shot to professional editing tips. At Grytviken, a long-abandoned whaling station, stop to raise a toast at the final resting place of famous polar explorer Ernest Shackleton.

Details: November 3–17, 2018; 12 guests, aboard the 157-foot expedition yacht Hanse Explorer; departs from Stanley, Falkland Islands. From \$46,000 per person; naturalworldsafaris.com





WITH A CLIMATE-CHANGE

SCIENTIST (above and lower left) "When I first came to Palmer Station 17 years ago, you would hear the Marr Glacier behind the station calving into the bay perhaps once a week; now it's three times a day," says Dr. James McClintock, award-winning scientist and author of Lost Antarctica: Adventures in a Disappearing Land. Dr. McClintock travels with the Abercrombie & Kent Understanding Climate Change in Antarctica tour aboard mega-vacht Le Lyrial. The 466-foot ship is among the most environmentally friendly to sail in Antarctic waters, with 122 chic staterooms and suites, French cuisine, and a Sothys Paris spa. Dr. McClintock draws from his 25 years of research in polar waters to discuss his studies of climate change. The expedition's well-educated team also includes a geologist, an ornithologist, a marine biologist, a historian, and a wildlife photographer.

Details: January 6–17, 2019; 199 guests; departs from Buenos Aires, Argentina. From \$13,500 per person; abercrombiekent.com >