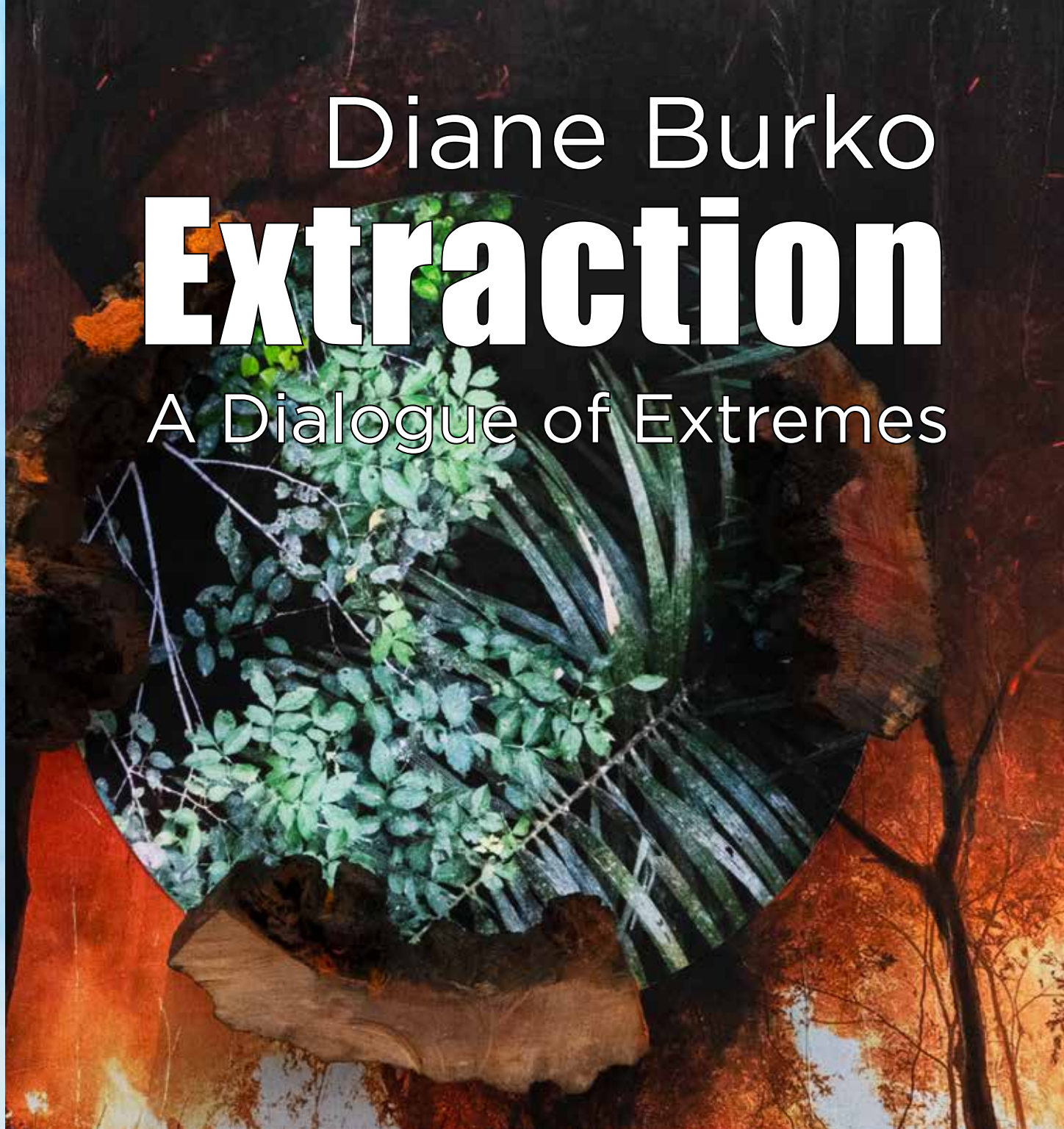




Diane Burko
Extraction

A Dialogue of Extremes



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Extraction

A Dialogue of Extremes

August 24 - October 17, 2026

ROWAN UNIVERSITY
MUSEUM OF CONTEMPORARY ART
AT 301 HIGH STREET

CURATORIAL STATEMENT

In collaboration with the Arctic Radium Isotope Observing Network (ARION) research project led by Rowan Associate Professor Dr. Lauren E. Kipp, with Dr. Matt Charette from the Woods Hole Oceanographic Institution, *Diane Burko: Extraction, A Dialogue of Extremes* is the community engagement component of the National Science Foundation grant that has funded the research.

Pulling from scientific drawings and maps provided by the research team, artist Diane Burko has depicted in her paintings the chemical changes and flow of elements recorded in the Arctic. Rendered as markings and data-like graphs, these flows circulate within and around recurring spherical forms that anchor the paintings. The compositions feel distant and restrained, their cool detachment echoing the region's vast isolation, yet they remain quietly captivating, amplifying the Arctic's environmental extremities.

In contrast, a second body of work responds to the corporate mining industry and deforestation of the Amazon rainforest. Here, the sphere reappears, interchanging perspectives by encasing sites of extraction, or amplifying the indigenous areas that have been impacted. Fragments of charred bark protrude from the surface of these paintings, focusing attention on these locations as if viewed under a microscope. Unlike the Arctic works, these paintings are intimate but foreboding, and unavoidably dominant.

The tension between these two bodies of work is striking, yet both operate within a shared framework of "extraction." One extracts scientific data that may offer pathways toward understanding climate change; the other depicts the extraction of natural resources that accelerate their destruction. The recurring spherical form visually binds these extremes, its framing device alternately magnifying or eclipsing each narrative depending on perspective and point of view.

A third series in the exhibition are 3-dimensional pieces that fuse these polarities into a single, contained spherical form. Acting as bridge and point of convergence, it proposes a tentative resolution, with nature emerging as the ultimate agent of recovery.

To amplify the dialog around the intersection of art and science the exhibition includes photographs from the research expedition and scientific drawings produced from the data by the environmental science students. A VR video produced by videographer Amy Lauren provides an immersive experience of the Arctic expedition.

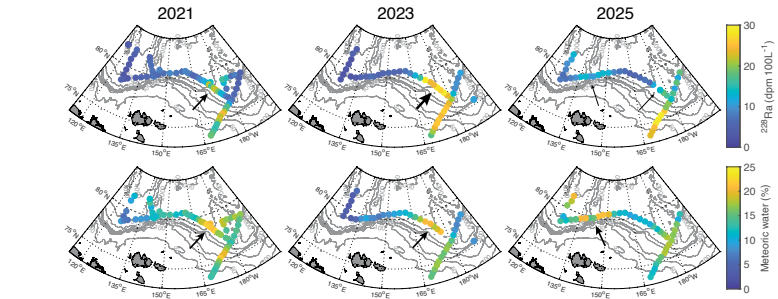
Mary Salvante, Director and Chief Curator
Rowan University Museum of Contemporary Art

when the ocean whispers of ice

There is a river running beneath the Arctic Ocean. It is a ghost river, bearing its chemical cargo of carbon, iron, and dissolved memory toward the North Atlantic. Its journey begins north of Russia. It gathers the waters of the Laptev and East Siberian Seas, carrying them across the entire polar basin, like an internal oceanic coronary system. Scientists call it the Transpolar Drift. And it has been changing under the spell of climate change. Dramatically.

The project ARION—Arctic Radium Isotope Observing Network—documents such a change. For five years, oceanographers Lauren Kipp, Matthew Charette and their team measured the concentration of radium isotopes in the Arctic waters. Radium is a radioactive element arising from the decay of uranium and thorium. It can be found in seafloor sediment, telling scientists how much material from the shelves is on the move, communicating the urgent effects of a warming world on something that was once locked in ice and frozen ground, now dissolved.

The data scientists collect is usually visualized as columns of numbers, time-series plotting radium data against salinity, meteoric water fraction, and, of course, measured against time.



Interannual changes in surface water chemistry. Surface water levels of radium-228 (top row) and meteoric water (bottom row) in 2021, 2023, and 2025. Radium levels show where the influence of continental shelf-derived elements is strongest, and the meteoric water percentage shows where river water influence is strongest. Together, these parameters provide a good indication of the location of the Transpolar Drift. In 2021 and 2023, the Transpolar Drift transported waters enriched in shelf- and river- derived elements into the central Arctic around 170°E, and radium levels increased between 2021 and 2023. In 2025, the Transpolar Drift shifted westward to around 140°E. Radium levels were lower in the core of the Transpolar Drift, and the transport of shelf-derived materials occurred more broadly along the slopes of both the Laptev and East Siberian Seas.

Diane was invited to join the team to give artistic life to those columns and numbers, to communicate their deeper meaning, reaching people's souls and not just their brains. I cannot think of a better person for this task, with her energy, technique, and personality.

As a scientist with a deep passion for art, the graphs Diane received are, to me, a kind of poetry: they enfold the mystery of coding nature by numbers, taking the pulse of this enormous and weakening giant upon which we ride everyday our lives.



The jagged lines record a changing ocean, their amplitude is a measure of planetary distress. In this series of works, the graphs are not translated. They are not passively explained, nor mutated beyond comprehension. Instead, they are embedded into the visual field. They, like fossils pressed into stone, do not allow their beauty and importance to disappear, even as the painting's surface transforms entirely into something else.

In Diane's ARION works, the scientific record does not dominate the painting. The painting does not overshadow the record. They coexist the way a shoreline coexists with the tide — each shaping the other, each incomplete without the other's presence. This is a central achievement of Diane's work, and it requires the kind of intellectual and artistic courage that has characterized her entire career.

Diane understands data. She feeds herself with information at scientific conferences and events. She sees that data and scientific imagery are languages in their own right, capturing and communicating environmental impacts of the disappearing Arctic.

What Diane also understands is that data is not the opposite of awe. The ARION scientists measured radium-228 in 2015 at the North Pole and found levels approximately double what they had been in 2007. The element that serves as a proxy for all the other shelf-derived materials—the iron, the carbon, the nutrients, the dissolved organic matter once locked in permafrost—had doubled its presence in the water column. That is not a number. That is a *reckoning*. And Diane has captured this brilliantly.



NSF-ARION Routes II, 2025
Mixed-media and glass on canvas
20 x 20 inches

She spent decades painting glaciers—Greenland, Svalbard, Antarctica, the Alps —documenting their retreat with the same devotion I have as a climate scientist. Nevertheless, in the ARION series, Diane is not portraying the visible consequences of warming, but rather its invisible chemistry. Radium, like CO2, is not something you can see. The Transpolar Drift, like a heatwave, does not announce itself to the eye. The change scientists are measuring is happening at the molecular scale, in waters beneath ice, visible only through instruments and equations.

And yet Diane finds a way to make it felt. The paintings are not warnings, exactly, though they carry warning within them in the same way the ocean carries isotopes. They are something closer to an act of attention—sustained, precise, caring, yet, spontaneous. They hold within one visual field the beauty of a world, and the data depicting its transformation. Her work refuses the false comfort of aesthetic distance, equally refusing the despair that pushes data into abstraction. In these paintings, the numbers are real, the ocean is beautiful, and neither of these things foreclose the other.

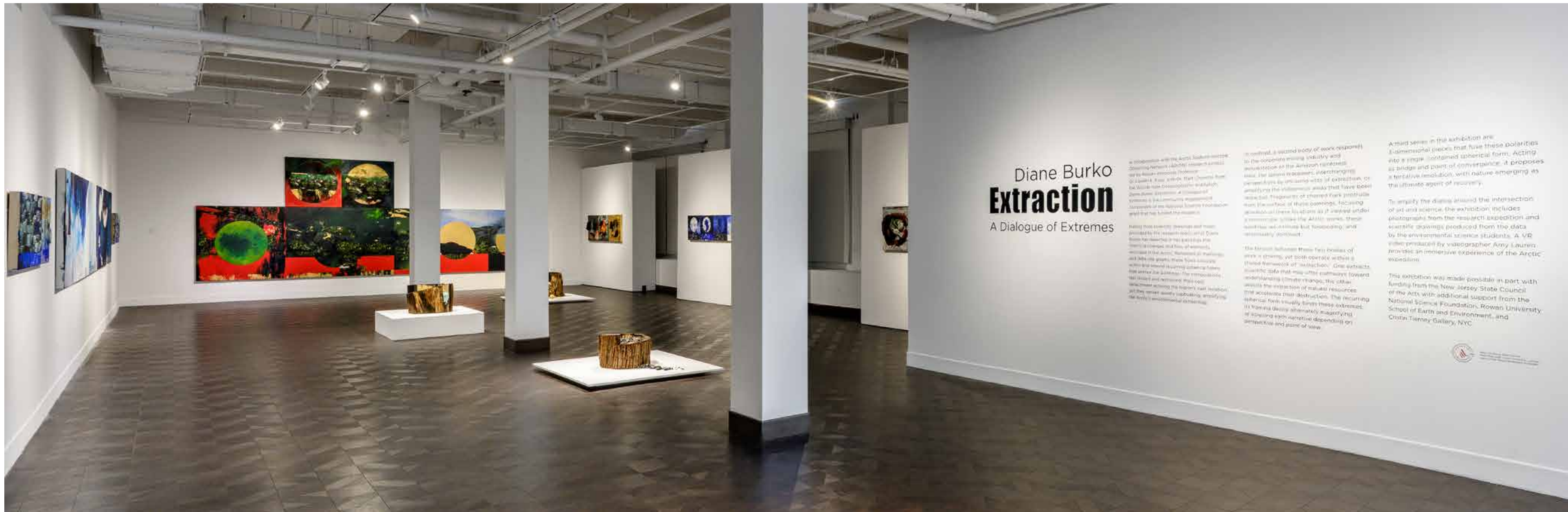
The Transpolar Drift is still moving. The radium values are still climbing while the shelf is releasing what was once held in ice. The time-series graphs represent years of painstaking fieldwork — samples filtered in Arctic waters, ashed in muffle furnaces, measured on detectors calibrated against international standards. Every data point carries the weight of a ship in ice, a mooring deployed in darkness, a researcher's hands cold on equipment at the top of the world. When Diane incorporates these graphs into her pictorial surface, she is not borrowing the aesthetic of science. Rather, she is honoring its actual substance.

And yet, the blues Diane commands—cerulean dissolving into indigo, teal deepening toward black—are reminders of emotional truth. They replicate the perception of cold, of depth, of a vast, hidden world, of her mastery in colors. Her impasto landmasses carry physical weight. Her compositional geometry—the circles, the wedges, the radiating meridians—imposes an intellectual order onto chaos.

The rigor and the aesthetics amplify each other: the beauty makes you stay long enough to read the data; the data makes the beauty matter beyond itself. Together they produce something neither science nor art achieves alone: a way of knowing that is also a way of feeling.

Thank you, Diane, for sharing your world and for yet another unique experience.

Dr. Marco Tedesco, June 7th, 2026
Lamont Research Professor at the Lamont-Doherty Earth Observatory / Columbia Climate School, Columbia University



ARTIST’S STATEMENT

What drives my environmentally focused practice is “curiosity”—the need to learn more. My research begins remotely, then on site as I “bear witness” to an actual place for a more experiential encounter, as well as collaborating with scientists to further enrich my understanding.

I then return to my studio, where, if lucky—the magic begins...

For the last five years, I have been investigating rainforests and their importance to the health of our climate worldwide. I’ve been particularly focused on all the illegal extraction of gold and silver happening throughout the Amazon. A great deal of that plunder occurs illegally on indigenous lands here the livelihoods of its inhabitants are destroyed by the poisoning of the waters through their mining process of depositing mercury. The illegal plunderers leave behind barren land, unfishable water and communities devastated.

For the past five years scientists at Rowan and Woods Hole have also been conducting investigations. Their research is about the importance of tracing isotopes buried in the North Siberian Seas to learn about how changes in their paths can indicate climate concerns. They have been assessing, measuring and calculating data. Unlike the pillagers in Brazil, they are extracting information to contribute to the well-being of our planet.

My challenge with the Amazon series is to find a way to express the urgency to save what’s left of Brazil’s forest which account for over 40% of global primary forest loss in recent years. Amazon Watch warns that Amazonia is at a tipping point crisis. My goal is to seduce the viewer emotionally through beauty and somehow incorporate the crucial facts as well.

The *Secret Airstrip* paintings in this exhibition exemplify my efforts to speak visually about the intruders’ invasion of private indigenous property, and their mining of gold. In this case by illegally building airstrips in the jungle. The circular form permeates a great deal of my work and of mine in these paintings the small circles represent indigenous areas that have been illegally invaded. Another hallmark of my Amazon series is the use of burnt wood, and charcoal fragments integrated into some of the smaller studies. The wood is gathered from our property in Bucks County, which led me to experiments with sliced wood hollows as well as whole ones - another attempt of materiality alluding to nature’s elements.

Returning to glacial issues in relation to the ARION study has been very gratifying since that is where I began my serious climate change investigations. My first experience walking on an actual glacier occurred in the same vicinity of the Arctic Circle in Svalbard just south of the Siberian Sea where the project took place. For these NSF works, I’m concerned with transforming their data into the realm of visual excitement. Maybe even curiosity. There’s no way my artwork can explain the complicated five-year study of measuring the release of isotopes. Thus, I felt free to be as abstract as I liked in creating these pieces.

The scientists are extracting data and information to understand how our world works in the hope of improving life. Their extraction of information is so opposite the extractive activity of pilfering the Amazon Rainforests – where the goal is profit and greed with no concern for the livelihoods of indigenous populations or the future health of our planet.

Diane Burko, June, 2026

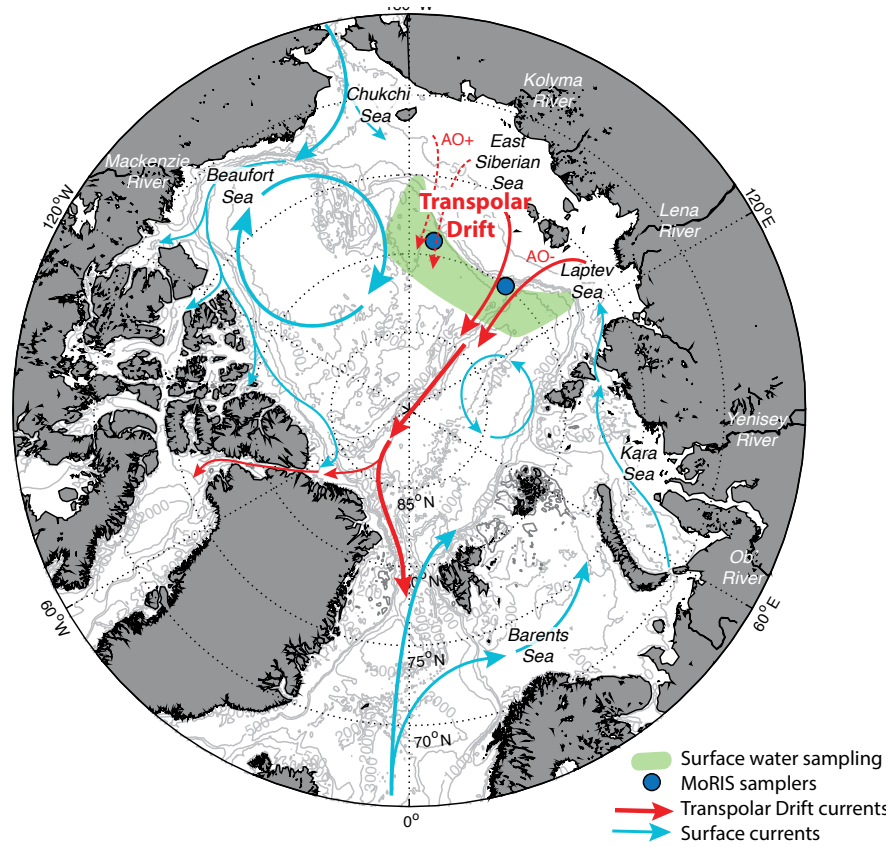
ABOUT THE ARION PROJECT

The Arctic is one of the most rapidly warming regions on Earth. Climate change is reducing ice cover, increasing river discharge, and thawing permafrost. These processes are shifting the chemistry of the shallow seas that comprise over half the area of the Arctic Ocean, and changing the composition of seawater that is transported across the Arctic in a major surface current known as the Transpolar Drift.

The Arctic Radium Isotope Observing Network (ARION) established a monitoring program using radium isotopes to detect and understand climate-driven changes in Arctic surface water chemistry. Radium isotopes are naturally produced in the sediments found on the seafloor and along coastlines, and they are added to seawater when it comes into contact with these sources. Other elements, including nutrients that support organisms at the base of the food chain, are sourced from seafloor sediments similar to radium—radium therefore acts as a proxy for these other elements, so changes we see in radium levels indicate a larger scale shift in overall Arctic surface water chemistry. We hypothesize that the transport of elements—including radium—from seafloor sediments into seawater has increased due to the loss of ice cover in the Arctic, because the loss of ice at the surface allows for stronger waves and more mixing of the water.

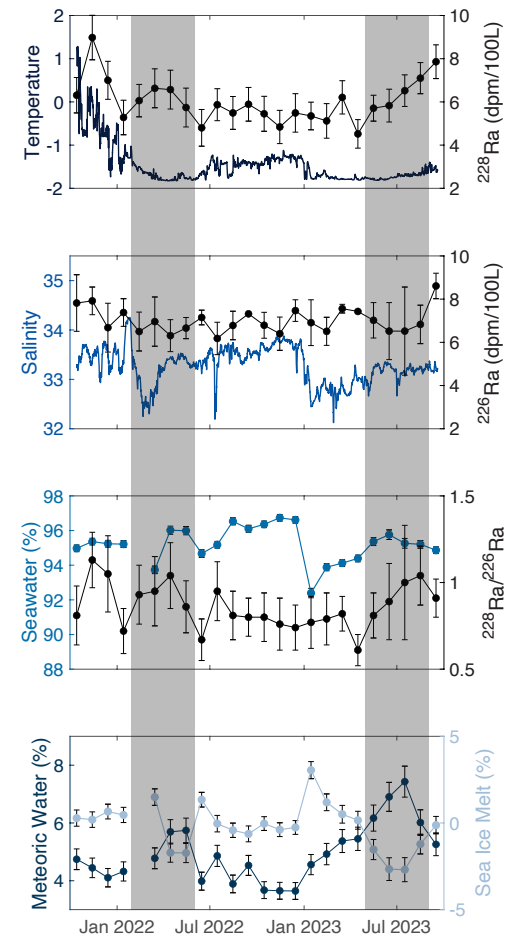
ARION focuses on measuring water chemistry at the edges of the Laptev and East Siberian Seas north of Russia, because this is where the Transpolar Drift originates. These seas are some of the largest in the Arctic and have experienced dramatic ice loss. Our research has shown that this region is particularly important in controlling Arctic surface water chemistry, highlighting the need for continued monitoring. Comparing the results of the expeditions that took place in 2021 and 2023 shows that there was indeed an increase in the levels of radium being transported in the Transpolar Drift. However, the measurements made in 2025 show a dramatic change: the position of the Transpolar Drift has shifted westward, and radium levels are lower. This shows that interannual changes in circulation are an important influence on the surface water chemistry. Additional research is needed to help detangle these interannual shifts from longer-term climate-driven changes.

Dr. Lauren Kipp



Map of the Arctic Ocean. Surface water movement is shown in arrows, with red arrows indicating the pathway of an important surface current known as the Transpolar Drift. The dashed and solid arrows (labeled AO+ and AO-) show how the origin position of the Transpolar Drift can shift under different circulation regimes that are controlled by a climate pattern called the Arctic Oscillation (AO). The ARION study area is shown in green, and the position of the moored radium in situ samplers (MoRIS) are indicated with blue dots.

Multiple Rowan University Environmental Science undergraduate students and alumni have been involved in the ARION project and helped create the data figures shown in this exhibition. Alyssa Robbins ('23), Joanna Guldin ('24), David Espin, Emily Coleman ('25), and Joshua Benedict ('25) assisted with cruise preparation, sample analysis, data processing, and figure drafting. Josh Benedict and Kirsten Hill ('25) also sailed on the 2025 research cruise to the Siberian Arctic, participating in sample collection.



Time series data from MoRIS (Laptev Slope). Two years of data (October 2021 - September 2023) collected from the moored radium in situ sampler (MoRIS) positioned on the Laptev Sea slope. Grey shading highlights time periods when radium-228 levels, the radium-228/radium-226 ratio, and meteoric (river) water levels increased, indicating a stronger influence from water that recently transited over the continental shelf. This shows that water chemistry can vary on seasonal timescales in addition to longer-term climate-driven changes.







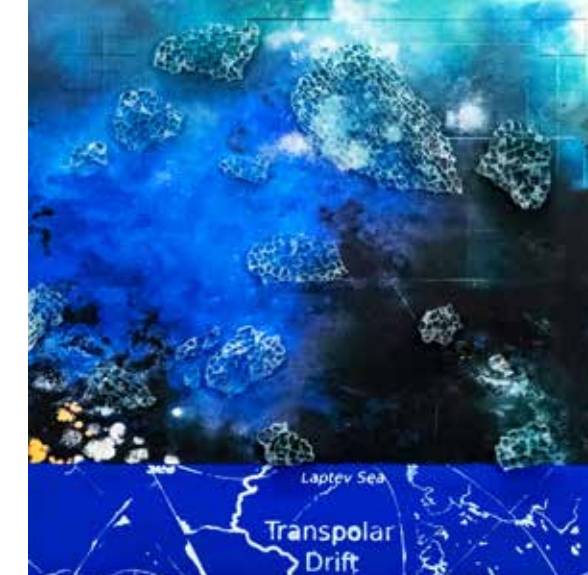
NSF-ARION Routes I, 2025
Mixed-media on canvas
20 x 20 inches



NSF-ARION Routes III, 2025
Mixed-media on canvas
20 x 20 inches



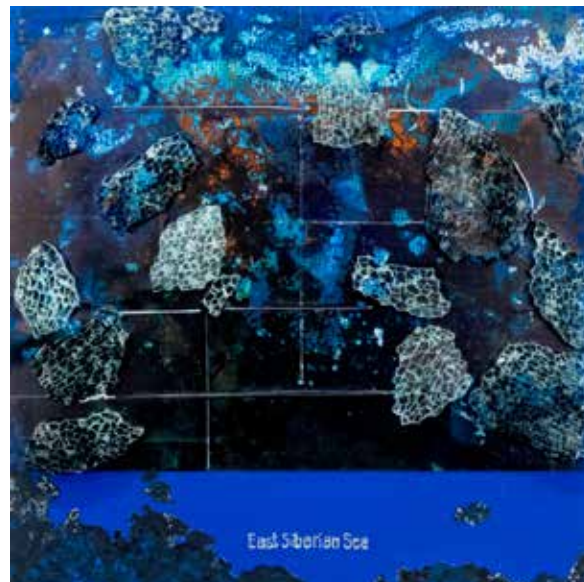
NSF-ARION Routes V, 2025
Mixed-media and glass on panel
20 x 20 inches



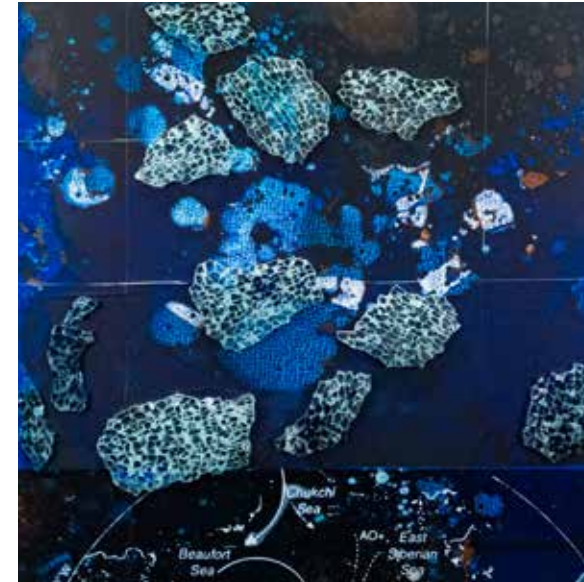
NSF-ARION Routes VII, 2025
Mixed-media and glass on panel
20 x 20 inches



NSF-ARION Routes II, 2025
Mixed-media and glass on canvas
20 x 20 inches



NSF-ARION Routes IV, 2025
Mixed-media and glass on panel
20 x 20 inches



NSF-ARION Routes VI, 2025
Mixed-media and glass on panel
20 x 20 inches



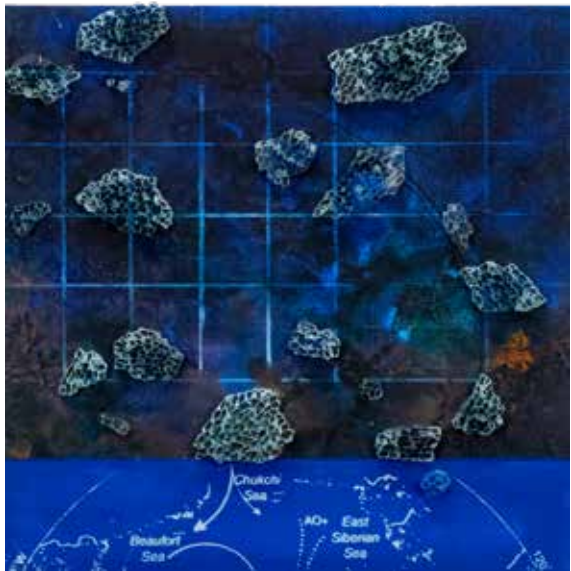
NSF-ARION Routes VIII, 2025
Mixed-media and glass on panel
20 x 20 inches



NSF-ARION Routes XI, 2025
Mixed-media on canvas
20 x 20 inches



NSF-ARION Routes X, 2025
Mixed-media on canvas
20 x 20 inches



NSF-ARION Routes IX, 2025
Mixed-media and glass on panel
20 x 20 inches



Hollow III (Coal), 2025
Mixed-media sculpture
24 x 24 x 24 inches



Hollow (Gold), 2025
Mixed-media sculpture
18 x 30 x 24 inches



Hollow (Water/Ice), 2025
Mixed-media sculpture
30 x 24 x 24 inches



ARION Data Pentptych, 2025-6
Mixed-media & collage on canvas
42 x 272 inches





Elegy Amazonas I, 2025
Mixed-media on panel
26 x 26 inches



Elegy Amazonas III, 2025
Mixed-media on panel
26 x 26 inches



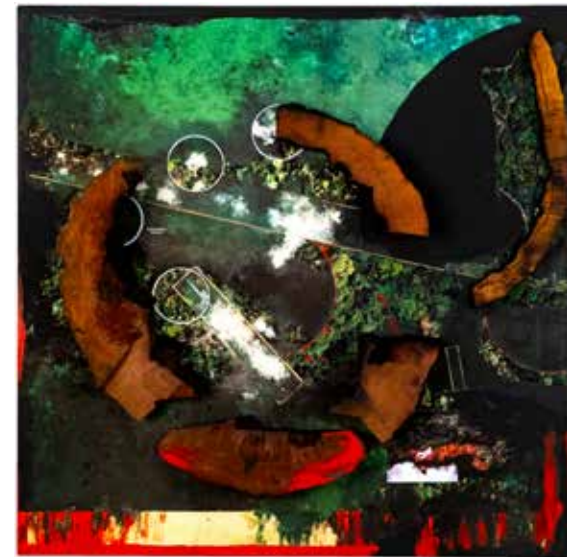
Elegy Amazonas II, 2025
Mixed-media on panel
26 x 26 inches



Elegy Amazonas IV, 2025
Mixed-media on panel
26 x 26 inches



Elegy Amazonas V, 2025
Mixed-media on panel
26 x 26 inches



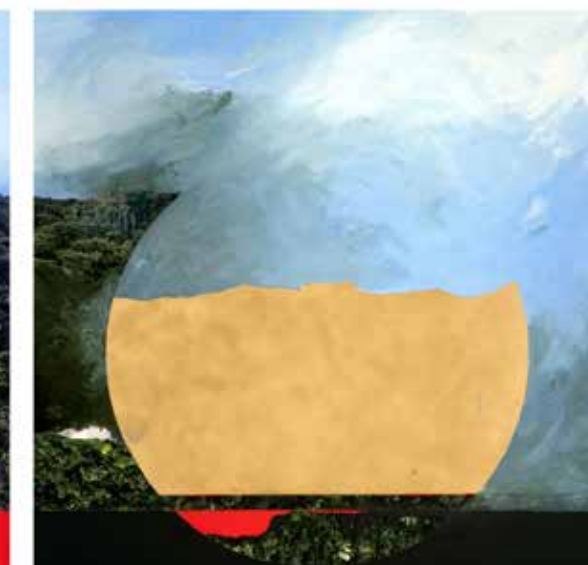
Elegy Amazonas VII, 2025
Mixed-media on panel
26 x 26 inches



Elegy Amazonas VI, 2025
Mixed-media on panel
26 x 26 inches



Secret Airstrips Quadtych (w/ Studies), 2023
Mixed-media on canvas
102 x 278 inches







Diane Burko's work in painting, photography, and time-based media considers the marks that human conversations make on the landscape. A Professor Emerita of the Community College of Philadelphia with additional teaching experience at Princeton University, Burko has received multiple grants from the NEA, the Pennsylvania Arts Council, the Leeway Foundation and the Independence Foundation. She has received a Lifetime Achievement Award from the Women's Caucus for Art.

After focusing for several decades on monumental geological formations and waterways through landscape painting, Burko has shifted in the past 20 years to analyze the impact of industrial and colonial activity on those same landscapes. Burko's practice seeks to visually emulsify interconnected subjects– extraction, deforestation, extinction, environmental justice, indigenous genocide, ecological degradation, climate collapse– so viewers might feel their connection viscerally through the beauty of her work. While her work deals with impending climate catastrophe, rather than lingering in dystopia, it celebrates the sublimity of the landscape by honoring the intricate geological and political webs that shape the identity of a place.

Burko has exhibited extensively nationally and internationally, including shows at London's Royal Academy of Art, Madrid's Circulo de Bellas Artes, Minneapolis Art Institute, National Academy of Sciences, Phillips Collection, RISD Museum Tang Museum, Wesleyan University Center for the Arts. She has been awarded residencies in Giverny, Bellagio, the Arctic Circle, and the Amazon Rainforest, and her work is in the collections of such institutions as the Metropolitan Museum of Art in NYC, the Minneapolis Art Institute, National Academy of Sciences, Phillips Collection, Tang Museum of Art, the V&A in London, and Rowan University Museum of Contemporary Art. She is represented by the Cristin Tierney Gallery in NYC.



Dr. Lauren Kipp is an oceanographer and Associate Professor in the Department of Environmental Science at Rowan University. She uses naturally occurring radioactive isotopes to study the chemistry of the ocean, with a particular interest in how the oceans influence, and are influenced by, climate change. Much of her research takes place in the Arctic, where she has spent time collecting samples from the coast of Northern Canada all the way to the North Pole. She has a B.S. in Chemistry from the University of North Carolina Wilmington and a Ph.D. in Chemical Oceanography from the Massachusetts Institute of Technology - Woods Hole Oceanographic Institution Joint Program. Prior to starting at Rowan, she was a postdoctoral fellow at Dalhousie University in Halifax, Nova Scotia, and at the Lamont-Doherty Earth Observatory of Columbia University.

Dr. Marco Tedesco is a Lamont Research Professor at the Lamont-Doherty Earth Observatory of Columbia University and Adjunct Scientist at the NASA Goddard Institute for Space Studies (GISS). He is also affiliated with the Data Science Institute, is an Affiliated Professor at Sant'Anna School of Economics in Pisa, Italy and has been the Resident Scientist at the Columbia Business School for the past two years. He is a fellow of the Explorers Club and a member of the New York City Panel on Climate Change, Equity Working Group. Dr. Tedesco received his Laurea degree and PhD in Italy, from the University of Naples and the Italian National Research Council. He then spent five years as a postdoc and research scientist at NASA Goddard Space Flight Center. He moved to CCNY in 2008 as an Assistant Professor where he was promoted to Associate Professor in 2012. During his time at CCNY, he founded and directed the Cryosphere Processes Laboratory and was a rotating Program Manager at the National Science Foundation between 2013 and 2015. In January 2016, he joined Columbia University. Dr. Tedesco's research focuses on the dynamics of seasonal snowpack, ice sheet surface properties, high latitude fieldwork, dendrochronology, global climate change, its implications on the economy, real estate and climate justice. Dr. Tedesco led more than 10 expeditions to Greenland and to Antarctica, beside fieldwork in many other places, including Iceland, Northern US, Canada, Italian Alps and more. He is the editor of the book *Remote Sensing of the Cryosphere* published by Wiley in 2015 and he is the author of the book *The Hidden Life of Ice* originally published in 2018. The book has been translated in 7 languages and was selected by the Washington Post and by the National Geographic Traveler as one of the best 10 books of the year.



Dr. Matt Charette was named Interim Director of the Marine Policy Center at the Woods Hole Oceanographic Institution (WHOI) in 2025 and has been the Director of WHOI Sea Grant since 2017. He is also a Senior Scientist in the Department of Marine Chemistry and Geochemistry. He received his B.S. in Chemical Oceanography from the Florida Institute of Technology and his Ph.D. from the University of Rhode Island Graduate School of Oceanography. His research uses naturally occurring isotopes to study ocean processes, including submarine groundwater discharge, coastal biogeochemistry, and the movement of freshwater and chemical tracers in the Arctic Ocean. Through projects such as ARION, he is advancing our understanding of how the rapidly changing Arctic influences ocean circulation, ecosystems, and global climate.



Screenshot from *Beacon RA*, 2026
directed by Amy Lauren, Feelthink Studio

Amy Lauren is a filmmaker working at the nexus between research, education and artistic practice. Turned-toward immersive storytelling and new modes of documentary experience, Lauren builds cinematic systems that allow audiences to experience scientific reasoning perceptually rather than propositionally. She is a co-founder of Alaska Science Stories, an educational program that creates space for shared research and learning experiences by bringing Alaskans into the world of scientific fieldwork with virtual reality, and FeelThink, a creative studio designing experiences around curiosity, participation, and perceptual discovery. Lauren is a graduate of the Interdisciplinary Documentary Media Practices MFA program at the University of Colorado Boulder. Her work has screened internationally at festivals, planetariums, museums and other venues around the world.



Acknowledgements

Rowan University Museum of Contemporary Art is honored to present this exhibition and the work of artist Diane Burko. We are equally honored to be collaborating with Rowan Associate Professor Dr. Lauren Kipp, and thank her for sharing materials from her research and Arctic expeditions. Additional thanks go to film maker Amy Lauren for providing the VR experience of Dr. Kipp’s project.

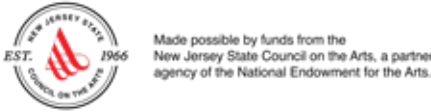
Special thanks also to Marco Tedesco for his thoughtful and inspiring catalog essay. Thanks also go to our Museum Coordinator, Kristin Qualls, for her beautiful catalog design and project management of the exhibition. We would also like to acknowledge Burko’s studio assistants Catia Colagioia and Ava Haitz; our art installers CJ Stahl and Nathan Dixon; and our student interns Sammi Buresh, Leila Hewitt, Allison Hillman, Jaylah Ross, and Elise Sperry for their support.

This exhibition was made possible in part with funding from the New Jersey State Council of the Arts with additional support from the National Science Foundation, Rowan University School of Earth and Environment, and from Cristin Tierney Gallery, NYC.

This is a Rowan University Museum of Contemporary Art production curated by Mary Salvante, Director & Chief Curator, Rowan University Museum of Contemporary Art.

Photography courtesy of:
Constance Mensh (pages 4-5, 10, 11, 22-23)
Ella Konefal/Catia Colagioia (pages 3, 12-21)
Jon Pazol (page 2)
Lauren Kipp (page 9, 25)
Aaron Richter (page 24)
Marco Tedesco (page 26)
Matt Charette (page 26)
Amy Lauren (Page 27)

Catalog Design:
Kristin Qualls, Museum Coordinator, Rowan University Museum of Contemporary Art



ROWAN UNIVERSITY MUSEUM OF CONTEMPORARY ART

The **Rowan University Museum of Contemporary Art (RUMOCA)** serves as a vibrant cultural destination for South Jersey, the Rowan community, and the surrounding region. We are committed to cultivating an inclusive, accessible, and just environment that promotes dialogue and collaboration among artists, students, faculty, the public, and other cultural institutions. Through interdisciplinary exhibitions, artist talks, public programming, and a world-class permanent collection, RUMOCA presents diverse forms of contemporary art by professional artists whose work is thought-provoking, relevant, and timely. Our mission is to inspire curiosity and a passion for contemporary art, enrich the quality of life for our local community, create a welcoming and inclusive cultural destination at Rowan University, and serve as a regional resource for contemporary art.

The Museum operates two venues: **RUMOCA at 301 High Street** presents curated exhibitions by professional contemporary artists, accompanied by robust educational programming. Located at the intersection of Rowan University’s campus and the heart of Glassboro, the gallery functions as an active arts resource for both students and the broader public. **RUMOCA at Westby Hall** features curated selections from the museum’s collection and is anchored by a permanent installation of *The Sister Chapel*, a historic feminist collaboration.



