Sea Ice Change Visible From The Street

Cy Keener and Justine Holzman: *Sea Ice 71.348778° N, 156.690918° W*

May 15 – September 22, 2019

355 Pod Space

Reception and Artist Talk: Friday, September 13, 7 – 9:30 PM
**Rockville, MD** - In a seventy-foot window on a major thoroughfare in Rockville, Maryland, interdisciplinary artist Cy Keener with his collaborator landscape designer/researcher Justine Holzman are visualizing data from Arctic Ocean sea ice. On April 5th 2019 Keener placed two small enclosures (buoys) with electronics and a battery inside on a piece of multi-year sea ice near Utqiagvik, Alaska. Multi-year ice is sea ice that has survived one or more summers without melting. Sea ice is ice that forms on top of the ocean out of salt water in the Arctic and Antarctic. It is different from icebergs, which are fresh water and come from glaciers or ice shelves. Multi-year ice can be from one to ten years old.

Each day at 12:30 PM local time, light and temperature readings were collected in the air, ice, and ocean below. These readings were transmitted by satellite from the buoys, and the data was used to create unique drawings. The height of the drawing corresponds to the thickness of the ice at full scale. The color corresponds to the value received by the light sensor every five centimeters through the depth of the ice. The first drawing hung in the installation showed data received on April 6, 2019.

The plan was to continue hanging drawings daily through September to chronicle the presence and absence of this precarious natural phenomena at a critical moment of environmental change. The first buoy was destroyed at the start of the project by a polar bear. The second buoy was transmitting data until sometime between June 13 and 14, when the ice broke up sending the remaining device into the open ocean. From June 14 to June 27 the buoy transmitted temperature data, but no ice color or thickness. From June 28 to July 21 it sent GPS coordinates and then went silent.

Keener and Holzman’s installation at street level is a combination of factual scientific data, live performance, physical manifestation of a phenomena invisible to the human eye, aesthetic decisions, and extreme adventure. “When Cy explained his project to me,” recalls Susan Main, VisArts Gallery Director and Curator, “I imagined these little buoys tucked into the brutal Arctic conditions, bravely sending out messages describing the ice. As Cy and Justine translated their numbers into delicate drawings printed on transparent substrate, the data became daily poems about the body of the ice. They were teeny tiny, high tech, hard workers in a vast wild area always at risk in shifting conditions.”

The two collaborators are not strangers to this sort of moving target where nature, science, and art combine to produce hard scientific evidence and nuanced, poetic art works. Keener, who is also an assistant professor of sculpture and emerging technology at the University of Maryland, uses environmental sensing and kinetic sculpture to record and represent environmental phenomena. Past installations include visualizations of wind, rain, ocean waves, and currents. Holzman, an assistant professor of landscape architecture at the University of Toronto, co-authored Responsive Landscapes, a text of case studies and essays examining the relationship of interactive and responsive projects to landscape or environmental space. In her academic and design work, she regularly collaborates with scientists to visually communicate ecological issues and propose interventions. Her work spans art, design, and environmental science.

Keener admits that when he returned from the Arctic, his idea was to use the window installation like a billboard to tell a big story of climate change. His mock up for the space, he says in hindsight, “was a fantasy.” His rendering for the installation reflected ice slowly and consistently thinning throughout the summer months. Holzman convinced him to focus on the story of the buoy and be prepared for the real narrative. Concentrating on the buoy led to an exhibition of evolving data and aesthetic vision. “The project turned a lens from what used to happen with the thinning of the ice, to a reflection of what is actually happening now,” says Keener. “Last year the melt was in July. This year it was a month earlier. What you used to be able to count on is not reliable. It is not discrete and predictable where the artist fantasy meets the systems developed through scientific data.” To the pedestrians passing by the window, the adventure of the buoys unfolds visually through the icy green color of the drawings, text, and maps that reveal the shrinking ice extant. To the 60,000 cars that whiz by daily, Sea ice 71.348778° N, 156.690918° W is like the little buoy in...
the Arctic, a blip in the periphery, hardly noticeable. Only by slowing down, looking and listening carefully does the story sent from the ice become visible and real.

On Thursday, September 12, the public can join Keener and Holzman as they talk with scientists Sinéad Farrell and John Woods about sea ice, the collection of visualization of data, and shifting environmental conditions. The exhibition installation on Route 355 in Rockville, Maryland is on view through September 22, 2019. For more information: Sea Ice 71.348778° N, 156.690918° W

About the Sea Ice Panelists:

Sinéad Louise Farrell is an associate professor with the Department of Geographical Sciences at the University of Maryland, College Park. Dr. Farrell received her Ph.D. in Space and Climate Physics from University College London in 2007. Her primary fields of study are cryospheric sciences and remote sensing, with a particular focus on Arctic sea ice. She is a member of the Science Team for the recently-launched NASA ICESat-2 satellite and is part of the Mission Advisory Group for the proposed Polar Ice and Snow Topography Altimeter satellite.

John Woods recently joined the Office of Naval Research-Global as a country director focusing on polar issues. John studied Oceanography and Meteorology at the United States Naval Academy and the Naval Postgraduate School. He served in the United States Navy as a Surface Warfare Officer and Meteorology and Oceanography (METOC) Officer. His tours included the USS Cleveland (LPD-7), U.S. National Ice Center, and teaching at the U.S. Naval Academy. His prior positions included being the project manager for NASA's Operation IceBridge and a physical scientist with NOAA focused on sea ice.

About the Artists:

Justine Holzman is an assistant professor of landscape architecture at the University of Toronto and a member of the Dredge Research Collaborative. Holzman researches landscape infrastructure, responsive technologies in landscape architecture, and the epistemic history of scientific landscape modelling. Holzman previously taught at the University of Tennessee and Louisiana State University as a visiting assistant professor. At LSU, Holzman worked as a research fellow with the LSU Coastal Sustainability Studio, a transdisciplinary research studio with scientists, engineers, and designers working on coastal issues in Louisiana. Holzman is co-author of *Responsive Landscapes: Strategies for Responsive Technologies in Landscape Architecture* (2016), which includes case studies and essays framing interactive or responsive projects and their relationship to landscape and environmental space. Holzman holds an M.L.A. from LSU and a B.A. in Landscape Architecture from UC Berkeley. Faculty Page.

Cy Keener is an interdisciplinary artist who uses environmental sensing and kinetic sculpture to record and represent environmental phenomena. He is an Assistant Professor of Sculpture and Emerging Technology at the University of Maryland’s Department of Art. Recent work includes installations that visualize rain, wind and ocean waves. He received a Master of Fine Arts from Stanford University, and a Master of Architecture from the University of California, Berkeley. Cy has completed commissioned installations at Stanford University, the Scottsdale Museum of Contemporary Art and the Rubin Center for the Visual Arts at the University of Texas. Over the past year, he has presented his work at ISEA in Durban South Africa, the National Academy of Sciences in Washington D.C., as well as The Nature Conservancy and The National Arts Club in New York. Cykeener.com
Cy Keener and Justine Holzman: *Sea Ice* 71.348778° N, 156.690918° W, installation in 355 Pod Space in Rockville, Maryland

The 355 Pod Space is a partnership between VisArts and Federal Realty Investment Trust to present site-specific artist installations through the end of 2019.

Directions to 355 Pod Space: Turn right when you exit the building, you will be on Gibbs Street. At Beall Avenue (at the first “Stop” sign), turn right. Stay on Beall Avenue until you reach Hungerford Drive (Route 355). Turn right at Hungerford Drive (Route 355). Walk beyond the CVS. The 355 Pod Space will be on your right, just after the entrance to the parking garage.

SCHEDULE OF EVENTS

- **Exhibition:** May 15 - September 22, 2019

- **Reception and Artist Talks:** Friday, September 13, 7 – 9:30 PM

- **Inside Art Programming and Events:**
  - **Weekend Walk and Tour:** Saturdays, 12:30 - 1 PM
    Schedule a private tour with us to take a walk with a gallery guide to the 355 POD Space to learn more about *Sea Ice*.

  - **Sea Ice Panel Discussion:** Thursday, September 12, 7 - 8:15 PM
    How do polar bears, rapid sea ice melt, and data from sensing buoys affect an exhibition on view in VisArts’ 355 Pod Space? Join artist/designers Cy Keener and Justine Holzman as they talk with scientists Sinead Farrell and John Woods about sea ice, the collection and visualization of data, and shifting environmental conditions.

*Exhibitions and events are always free and open to the public. Suggested Donation is $5.00.*

**About VisArts:** Located in the heart of Rockville, Maryland, VisArts is a hub for the visual arts that engages nearly 30,000 visitors annually through gallery exhibitions, education programs, a studio artist program, and
events. Founded in 1987, VisArts is committed to our mission of transforming individuals and communities through the visual arts.

VisArts is located three blocks from the Rockville Metro station at 155 Gibbs Street, Rockville, Maryland. For information, please visit [www.visartscenter.org](http://www.visartscenter.org) or call 301-315-8200.

**VisArts Gallery Hours:**
Wednesday & Thursday: 12 – 4 PM  
Friday: 12 – 8 PM  
Saturday & Sunday: 12 – 4 PM

*Exhibitions are always free and open to the public.*

For information, images or to arrange an interview or preview of the exhibition, please contact Susan Main at (301) 315-8200 ext. 110 or [smain@visartscenter.org](mailto:smain@visartscenter.org)

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