Art Meets Science in Rebecca Rutstein’s Immersive Exhibits

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While on board a research vessel in the Galápagos Islands, Rebecca Rutstein sailed alongside oceanographers trailing through a hurricane to map the ocean floor. But unlike the scientists on board, Rutstein wasn’t just collecting data — she was also creating art.

Rutstein, a multidisciplinary artist whose work combines science and art, spoke at Georgetown University on March 2 at an event hosted by the Earth Commons and Georgetown University Art Galleries. There, she discussed the intersection between science and art, demonstrating how art can play a critical role in the appreciation of climate science and stewardship.
“I feel really passionately about creating visual and immersive experiences that shed light on places and processes that are hidden from view to connect people more deeply with the natural world in the face of our climate crisis,” Rutstein said at the event. “I think by creating connection and empathy, this can be a means to foster stewardship.”

Rutstein’s art has covered various scientific topics in the natural world including deep sea ecosystems, oceanography, bioluminescence, sonar mapping, microbiology and planetary geology. Rutstein frequently participates in long-term collaborations with scientists and has worked as an artist-in-residence on scientific research vessels.

“It’s been those collaborations and those relationships that have really changed the trajectory in my artistic practice and really kind of shaped who I am as a person and what I care about,” Rutstein said at the event.

Rutstein’s newest exhibition, entitled “Blue Dreams,” will open March 15 at the National Academy of Sciences in Washington, D.C. The “Blue Dreams” installation was created by Rutstein and scientific contributors from the Ocean Memory Project, an interdisciplinary organization spanning the sciences, arts and humanities that aims to understand how the ocean system possesses both agency and memory.

“This piece is an immersive video installation, weaving abstract imagery, undersea video footage and computer modeling to portray microbial networks in the deep sea,” Rutstein said at the event.

To create “Blue Dreams,” Rutstein collaborated with environmental microbiologist Rika Anderson, marine biogeochemist Samantha Joye, professor of biomedical engineering Shayn Peirce-Cottler and bioengineer Tom Skalak.

“I could not have made the piece without the input and collaboration of my colleagues. I created the actual piece, but it wasn’t my creation alone,” Rutstein said in an interview with The Hoya.

In collaboration with these and other scientists, Rutstein has worked to identify particularly interesting aspects of their data and reimagine them to reach a wider audience.

“Science communication and data visualization are both valuable ways artists can contribute to the narrative, but the relationship between artists and scientists can be much more than that. There is a synergy where, together, we can accomplish something greater than we could individually. What people are really coming to realize is that we can’t solve the world’s problems without working together,” Rutstein said at the event.
Peter Marra, director of the Earth Commons, said Rutstein’s work aligns with the Earth Commons’ larger objectives of inspiring a renewed sense of interdependence with and awareness of the natural world.

“Everything we’re doing is a demonstration of how the environment affects every aspect of our world, whether it’s a human-created aspect of the world, or it’s that intersection between the environment and art or music or performance or law or medicine,” Marra said in an interview with The Hoya.

“One of our purposes is to make sure people realize how inextricably linked we are to the environment, and how we are teetering on top of the environment. It ultimately is the source of enormous inspiration for what we do on this earth,” Marra added.

Rutstein’s interdisciplinary art aims to build empathy and stewardship toward the earth as motivation to protect it from climate change.

“When people feel connected, they have more empathy,” Rutstein told The Hoya. “I want someone to fall in love with the natural world through gaining a deeper understanding of the complexities that are at work.”