ART AND SCIENCE PERSPECTIVES ON CLIMATE CHANGE



THURSDAY, APRIL 5, 4:00 - 6:00 PM

Eynon Ballroom in the Chamberlain Student Center

In collaboration with the School of Earth and Environment

DIANE BURKO

KEYNOTE AND PRESENTING ARTIST



Born in Brooklyn, New York in 1945, **Diane Burko** received a BS in painting and art history from Skidmore College and an MFA (1969) from the Graduate School of Fine Arts of the University of Pennsylvania. Burko is professor emeritus of the Community College of Philadelphia where she taught (1969-2000). She has also been a visiting professor or lecturer at varied institutions including at Princeton University, Arizona State University and the Pennsylvania Academy of the Fine Arts. She is an affiliate of The Institute of Alpine and Arctic Research (INSTAAR), having led a seminar at their headquarters and interacted with their research scientists in Boulder CO in 2014. She has been invited to speak at conferences such as the Geological Society of America, the American Geophysical Union, The Atlantic Council, the International Cryosphere Conference in Wellington NZ and Arctic Circle Assembly Conference in Reykjavik.

There have been more than 40 solo exhibitions and over 100 painting and photography exhibitions of Burko's work in galleries and museums throughout the country. Winner of two National Endowment for the Arts fellowships and two Pennsylvania Arts Council awards, Burko has had a six-month residency in Giverny, France sponsored by the Lila Acheson Wallace Foundation, and a 5-week residency at the Rockefeller Study and Conference Center in Bellagio, Italy. She was awarded a \$200,000 Public Art commission by the Redevelopment Authority of Philadelphia and the Marriott Hotel in1996. In 2000 she received a \$50,000 Leeway Award to support her Volcano project. In 2011, she was given the Women's Caucus for Art/College Art Association Lifetime Achievement Award. In 2013 The Independence Foundation of Philadelphia generously supported her residency in the Arctic Circle. Distinguished critics have written about Burko's work including Robert Rosenblum, Lawrence Alloway, John Perreault, Judith Stein and David Bourdon. Burko is represented in numerous collections including the Art Institute of Chicago; Denver Art Museum; the Hood Museum of Art, NH; the James A. Michener Art Museum, PA; Pennsylvania Academy of the Fine Arts; The Philadelphia Museum of Art; The Tucson Museum of Art, AZ; the National Academy of the Sciences, Washington D. C; the Woodmere Art Museum and the Zimmerli Art Museum, New Brunswick, NJ.

KENNETH LACOVARA

MODERATOR, DEAN OF THE SCHOOL OF EARTH AND ENVIRONMENT



Dr. Kenneth Lacovara has unearthed some of the largest dinosaurs ever to walk our planet, including the super-massive *Dreadnoughtus*, which at 65 tons weighs more than seven *T. rex.* In his quest to understand these titanic creatures that strain the human imagination, Lacovara blends exploration in remote locations across the globe with the latest imaging and modeling techniques from engineering to medicine. When he's not excavating fossils in far-flung locations, Lacovara applies cutting edge technology to the study of dinosaurs. By using 3D imaging, 3D printing, robotics, and medical modeling techniques, his work is helping to shift our perspective of giant herbivorous dinosaurs from their historic portrayal as hapless lumbering prey to that of fearsome, hulking, hyper-efficient eating machines that deserve our awe and respect.

Lacovara's TED Talk, "Hunting for dinosaurs showed me our place in the Universe," was among the Top 10 TED Talks of 2016. "He's got a way of illuminating the bigger picture, of somehow turning 'why' into wonder. It's not just that he's speaking about what happened way back when, but what it might mean for us today." Says Chris Anderson, Curator of TED. Indeed, Dr. Lacovara is sought around the world for his ability to bring the wonders of science and the thrill of discovery to a wide range of audiences. He has appeared in numerous television documentaries and his discoveries have landed him three times in Discover magazine's 100 Top Science Stories of the year and in Time's Top Stories of 2014. Lacovara was named by Men's Journal as one of "The Next Generation of Explorers" and he is an elected fellow of the prestigious Explorers Club in New York.

In *Why Dinosaurs Matter* (Simon and Schuster), Lacovara takes readers on a deep dive into Earth history. "As we move into an uncertain environmental future, it has never been more important to understand the past. The lessons written in stone and buried beneath our feet are both profound and urgent." Lacovara argues that, "only the past provides the broad view that we desperately need to prepare for the future."

Lacovara led the effort to create the Edelman Fossil Park in New Jersey. Within its quarry, Lacovara and his team are using a rich cache of 65-million-year-old fossils to solve the mystery of the extinction of the dinosaurs.

Dr. Lacovara holds a Ph.D. in Geology from the University of Delaware. At Rowan University he is the founding Dean of the School of Earth & Environment and Director of the Jean & Ric Edelman Fossil Park.

KATE MARVEL RESEARCH SCIENTIST AT COLUMBIA UNIVERSITY AND NASA GODDARD INSTITUTE OF SPACE STUDIES



Dr. Kate Marvel is a research scientist at Columbia University and the NASA Goddard Institute of Space Studies. She uses computer models and satellite observations to monitor and explain the changes happening around us. Her scientific work has shown that human activities are already affecting global rainfall and cloud patterns. Kate has given public talks in environments as diverse as comedy clubs, elementary schools, prisons, and the TED conference mainstage. Her essays have appeared in Nautilus Magazine, Scientific American, and On Being.

Marvel is an associate research scientist at both the NASA Goddard Institute for Space Studies, which is affiliated with the Columbia Earth Institute, and Columbia Engineering School, where she is a member of

the Department of Applied Physics and Mathematics. She writes scientific papers with titles like "Implications for Climate Sensitivity from the Response to Individual Forcings."

She also reaches out to an audience beyond the academic community. Her <u>TED Talk</u>, filmed in April, "Can Clouds Buy Us More Time to Solve Climate Change?" has been viewed over one million times. In 2015, Marvel provided the underlying data for Bloomberg.com's best performing story of that year, <u>a data visualization</u> titled "What's Really Warming the World?"

She writes with wit and humor for *Nautilus*, a web publication that describes itself as "a different kind of science magazine," and for the website *On Being*, tackling such subjects as why calling our planet "Earth" is a misnomer. (Because 71 percent of its surface is water.)

LUKE TRUSEL
ASSISTANT PROFESSOR IN THE DEPARTMENT OF GEOLOGY



Dr. Luke Trusel is an Assistant Professor of Geology at Rowan University. His research investigates melting of the Greenland and Antarctic ice sheets through the analysis of satellite observations, ice cores, and climate models. He is broadly interested in the impacts of climate change across Earth's polar regions, and how changes at the poles are linked to the broader Earth system.

Prior to joining the faculty at Rowan, Dr. Trusel was a postdoctoral scholar in Geology & Geophysics at Woods Hole Oceanographic Institution, and he received a PhD in Geography in 2014 from Clark University where he was a NASA Earth and Space Science Fellow.