



natura naturans

PREVIOUS PAGE

Anne-Sophie Coiffet, *Metamorphosis*, digital collage, 2019

NATURA NATURANS

September 13 - November 23, 2019

multiple day event combining talks and workshops

From *natura naturata* (i.e., “nature natured” - nature as a passive matter) to *natura naturans* (i.e., “nature naturing” - nature as self-generating matter), the concept of « nature » has oscillated throughout the course of human history. This oscillation has accompanied the development of technologies that question the concept of creation itself. The Anthropocene defines an epoch dating from the beginning of the large-scale impact of human activities on the Earth’s ecosystems. Since the industrial era, the environment has been particularly impacted, transformed with the considerable accumulation of human artifacts. The ecological crisis reminds us of the contingency and the danger of large-scale transformations: if humans have been able to shape the world, that transformation, in turn, impacts our future. Despite various attempts to ignore climate change, we are now experiencing its consequences. As artists, scientists, and activists (inhabitants of Earth), our increased awareness of this phenomenon should encourage a rapid response that affords nature greater rights.

Curated by Anne-Sophie Coiffet + Tropism

annesophiecoiffet.com; tropisme.co

A collaboration with the Washington Project of the Arts

wpadc.org

In partnership with the Cultural Programs of the National Academy of Sciences

nasonline.org/programs/cultural-programs/

NATURE / CULTURE

DIFFERENT STATUSES FOR NATURE

From *natura naturata* (nature natured – nature as a passive matter) to *natura naturans* (nature nurturing – nature as self-generating matter), the idea of nature itself has oscillated with human history. Recently, humans have been developing technologies that question the concept of creation itself. “Nature” and “wilderness” as opposed as “culture” and “cultivation”. “Nature” and “wilderness” are cultural representations: they are reflections of our own desires and phantasms. Despite their meanings and differences, these concepts both seem to refer to what is non human. The evolution of these notions reflects our relationship with the world. Are the notions of “nature/wilderness” helpful to think about our relationship with the environment or are they cultural, restrictive and outdated concepts? What happens when parts of nature become legal entities? How to discuss the notion of “property” in the Anthropocene? How to evaluate our moral responsibility for climate change? How do non-man-made objects raise ethical questions about their legal statuses in our contemporary society?

SEPTEMBER 13th

Talk: **BEN PRICE**

Nature, Property, and Legal Rights

Ben G. Price is National Organizing Director for the Community Environmental Legal Defense Fund (CELDF). In 2006 he helped draft and see enacted the very first law on Earth to recognize enforceable rights for Nature. This accomplishment led to his organization being invited to help draft the language in Ecuador's 2010 adopted national constitution recognizing the rights of Mother Earth – the first nation on the planet to do so. Over thirty other U.S. communities have enacted CELDF laws recognizing the Rights of Nature, including the City of Pittsburgh in 2010. This year, the citizens of Toledo enacted the Lake Erie Bill of Rights, to protect this once great lake from industrial ecocide. celdf.org

SEPTEMBER 14th

Workshop: **RAINIA MARTENS**

Haunted Ground: Slavery, Trash, Soil, and the Logics of Ecological Destruction

Raina Martens a transdisciplinary artist from Washington, D.C. Using trash, industrial waste, and soil as source material, they make ceramic artifacts that slip between geologic and human timescales, telling stories grounded in the earth but decidedly entangled with the social. Raina is a founding member of Urban Soils Institute's Art Extension Service and helped design Project: Soils, a collaborative initiative between artists and soil scientists. rainiamartens.com; usi.nyc; projectsoils.org

ARTEFACTS

Raina Martens, *Transtemporal Grounding Device*, brick, soil, trashglomerate, 2019

BOOKS

Thomas J. Demos, *Against the Anthropocene: Visual Culture and Environment Today*

Donald Worster, *Nature's Economy: A History of Ecological Ideas*

Philippe Descola, *Beyond Nature and Culture*

NATURE / CULTURE

SYMBIOSIS / REVERSIBILITY

Artifacts sometimes escape human control. Human artifacts interact with the environment and question the dichotomy between nature and culture. From abandoned materials to improvised habitats, these new collaborations stimulate new interactions and illustrate the possibility of life in “capitalist ruins”. They gradually generate their own rules, construct new architectural forms through a variety of transformations, arrangements. and they create new venues for life, enjoyment, and recycling. New kind of architectonics can provide a conceptual framework to re- think our relationship with the environment. How do artifacts and non-man-made objects coexistence produce new - and sometimes unexpected - partnerships?

SEPTEMBER 27th

Talk: **ANA SOSA**

Microbial communities and micro-plastic particles interaction in the Chesapeake Bay's ecosystem
Ana Sosa is a Ph.D. student in the Marine Estuarine Environmental Science program in the University of Maryland Center for Environmental Science. She does her research at the Institute of Marine and Environmental Technology near Baltimore's Inner Harbor. Ana works in the marine microbial ecology laboratory of Dr. Feng Chen. She graduated with a biotechnology engineering degree from the Monterrey Institute of Technology and Higher Education in Mexico, her home country. Her research focuses on the taxonomy and ecological roles of microbial communities forming biofilms on microplastic particles in the Chesapeake Bay. mdsg.umd.edu/fellows/2018/ana-sosa

SEPTEMBER 28th

Workshop: **ATLANTIC KAYAK COMPANY**

Kayaking Field Trip - *The Ghost Ships of Mallows Bay*

AUDIO

podcast, Radiolab, *Plants are clever*

podcast, Freakonomics, *Economic relationships in animals and humans societies*

BOOKS

Anna Lowenhaupt Tsing, *The Mushroom at the End of the World, On the Possibility of Life in Capitalist Ruins*

Timothy Morton, *The Ecological Thought*

Alexandra Toland, *Field to Palette: Dialogues on Soil and Art in the Anthropocene*

VISIBLE / INVISIBLE POLLUTION

HUMAN SOUND POLLUTION / SILENT DISAPPEARANCE

Human noises affect the wild life. Scientific researches have been conducted to show and to measure its impact on aquatic life marine (mammals, oysters, etc.). Acoustic transformations in nature tells us about the ecological impacts of humans and climate change. What is acoustical trash? How do we measure its effects on the ecosystems? Quiet zones are places not disturbed by human noises, where we can listen to the non human world. The United States National Radio Quiet Zone is an area in West Virginia where authorities limit all radio transmissions for scientific purposes. In the late 1960s, Bernie Krause started a bioacoustic catalog containing over 4,500 hours of wild soundscapes (marine and terrestrial). Fully half of the natural soundscapes are from habitats that no longer exist, are radically altered because of human endeavor, or have gone altogether silent. What is a silent place: a quiet place with no human noises or a soundscape losing its diversity?

OCTOBER 11st

Talk: **GORDON HEMPTON**

Soundscape: silent place and diversity

Gordon Hempton is an acoustic ecologist and Emmy award-winning sound recordist. He has received recognition from the Charles A. Lindbergh Fund, the National Endowment for the Arts, and the Rolex Awards for Enterprise. He studied botany and plant pathology at the University of Wisconsin. His sound portraits, which record quickly vanishing natural soundscapes, have been featured in People magazine and a national PBS television documentary, *Vanishing Dawn Chorus*, which earned him an Emmy for Outstanding Individual Achievement. Hempton is subject of a feature film, *Soundtracker* and co-author of *One Square Inch of Silence: One Man's Quest to Preserve Quiet*. He is Founder of The One Square Inch of Silence Foundation, Quiet Planet ® and Quiet Parks International. Hempton has now circled the globe three times in pursuit of nature's music and produced more than 60 albums available on iTunes. He lectures widely on the importance of listening. soundtracker.com; onesquareinch.org; quietparks.org

OCTOBER 12nd

Workshop: **CA CONRAD**

(Soma)tic Poetry Rituals

CAConrad is a 2019 Creative Capital Fellow, and the author of 9 books of poetry and essays. While *Standing in Line for Death* (Wave Books), received the 2018 Lambda Award. A recipient of a Pew Fellowship in the Arts, they also received The Believer Magazine Book Award and The Gil Ott Book Award. Their work has been translated into Spanish, Greek, Polish, Norwegian, Portuguese, Danish, French and German. They teach regularly at Columbia University in NYC, and Sandberg Art Institute in Amsterdam and they can be found online at <http://bit.ly/88CACConrad>

AUDIO + VIDEO

Gordon Hempton, *Silent lecture*, 30 minutes + 1 image + 5 recordings

BOOK

CA Conrad, *While Standing in Line for Death*

VISIBLE / INVISIBLE POLLUTION

MICRO / MACRO POLLUTION

The Great Pacific Garbage Patch (GPGP) is the largest of the five offshore plastic accumulation zones in the world's oceans. It covers an estimated surface area of 1.6 million square km and its mass of the plastic was estimated to be approximately 80,000 tons. It is also estimated that 1.15 to 2.41 million tons of plastic are entering the ocean each year from rivers. Besides, many plastics break into smaller pieces: they become a microplastic pollution. Some plastic fragments are already 5.0 mm in size or less before entering the environment. The term space debris originally refers to the natural debris found in the solar system. However, it also describes the debris from the mass of defunct, artificially created objects in space, especially Earth orbit. These include old satellites and spent rocket stages, as well as the fragments from their disintegration and collisions. In 1957, Sputnik brought to space the first pieces of space junk. In January 2019, more than 128 million bits of debris smaller than 1 cm, about 900,000 pieces of debris 1–10 cm, and around 34,000 of pieces larger than 10 cm were estimated to be in orbit around the Earth.

OCTOBER 25th

Talk: **ALICIA CATE - STEVEN A. MIRMINA - KIMBERLY WARNER**

Tragedy of the Commons: Ocean Plastics and Space Junk

Professor Mirmina teaches Outer Space Law at Georgetown Law Center in Washington, DC, as well as at UCONN Law School in Connecticut. He is a dynamic and entertaining speaker, who has lectured widely and authored numerous articles in the fields of international air and space law. He has been interviewed by a range of publications, ranging from the New York Times, National Public Radio, and National Geographic to Gizmodo, the New Yorker, and Slate magazines. law.georgetown.edu/faculty/steven-a-mirmina

Alicia Cate is a senior counsel at Oceana. Prior to joining Oceana, Ms. Cate served as an Attorney-Adviser in the Office of the Legal Adviser at the U.S. Department of State and as an Associate at Weil, Gotshal & Manges LLP. Ms. Cate's prior experience also includes environmental law and policy work for the Environmental Law Institute, the Natural Resources Defense Council, the Shizuoka Prefecture Government Environmental Policy Office, and the Center for Environmental Information Science in Tokyo. oceana.org

Kimberly Warner is a senior scientist at Oceana. Since 2005, she has researched and developed scientific basis for Oceana's successful campaigns on contaminated seafood and seafood fraud, and marine plastic pollution. She has represented Oceana in over 100 interviews with regional, national and international newspapers, radio and in documentary films. She earned her Ph.D. in marine, estuarine and environmental sciences from the University of Maryland and her B.S. in environmental science from the University of the District of Columbia. oceana.org

OCTOBER 26th

Workshop: **ANACOSTIA RIVERKEEPER**

Anacostia River Explorer Boat Tour - *Plastics in Our Local Waterways*

BOOKS

Robin Biesbroek, *Active Debris Removal in Space*

Michiel Roscam Abbing, *Plastic Soup: An Atlas of Ocean Pollution*

Jennifer Gabrys, *Accumulation: The Material Politics of Plastic*

VISUAL

NASA, computer-generated images of objects in Earth orbit

TO CREATE / TO TRANSFORM

GMO

Man-made objects question the notions of “nature” and “culture”. They also question the notion of “creation” itself, as humans have developed technologies capable of editing the DNA of living organisms. Genetically modified plants and animals, gene editing on human - scientists are now able to modify the whole ecosystem. Will science and creativity become a tool to help facing – for example - the climate change? Will animals, plants and human be obsolete in the future? How partnership and power will be redefined? How does technology transform the world?

NOVEMBER 8th

Talk: **GLENN DAVIS STONE**

GMOs: history, perspectives, ethics

Glenn Stone is an anthropologist whose work centers on the politics and ecology of food and agriculture, including smallholder, alternative, and capitalist industrial agriculture and agricultural biotechnology (GMO's). His ethnographic fieldwork has been in Nigeria, India, the Philippines, and Appalachia, with additional research in prehistoric archaeology in the US Midwest and Southwest and in a biotechnology laboratory. Author of one book and over 60 academic articles, he has been awarded fellowships by the Wenner-Gren Foundation, the National Endowment for the Humanities, the School for Advanced Research, and most recently the Simon Guggenheim Foundation. He is past president of the Anthropology & Environment Society. He is currently Professor of Anthropology and Environmental Studies at Washington University in St. Louis. pages.wustl.edu/stone/temp-syllabus-361; pages.wustl.edu/stone

NOVEMBER 9th

Workshop: **ARNAUD MARTIN**

CRISPR Genome Editing and Butterfly Genomics research at GWU (D.C)

Arnaud Martin is an Assistant Professor at the George Washington University and has been carrying research in the field of Evolutionary Developmental Biology for the past 12 years. He has specialized in the study of the genetic and developmental mechanisms behind butterfly wing patterns and his team is focusing on the use of CRISPR genome editing to understand how butterflies and moths, which encompass one out ten of all species with a name, have become so incredibly diverse. dnacrobatics.com

ARTEFACTS

Arnaud Martin, *Do butterflies dream of genetic tattoos?*, genetically modified butterflies, 2019

AUDIO + VIDEO

About Arnaud Martin's Lab

<https://youtu.be/gjRQloHUWtY>

<https://www.youtube.com/watch?v=nv6yShVDbSc>

BOOK

Eduardo Kac, *Telepresence, Biotelematics, Transgenic Art*

TO CREATE / TO TRANSFORM

REALITY / FICTION

The International Dark Sky Places (IDSP) Program was founded in 2001 to encourage communities, parks and protected areas around the world to preserve and protect dark sites through responsible lighting polices and public education. Light pollution is a macroscopic phenomenon which will transform the history of astronomy for the next generations. The sky has been gradually re-shaped (new constellations?) by luminous objects set in orbit in the last century: satellites, planes, artefacts “stars”. How will our representation of the sky change as humans populate it with more and more luminous artefacts? Despite various attempts to make invisible (or not to see) the climate change, we are now facing it. Datasets related to climate change and global warming has been safely stored in many locations around the world by some volunteers to prevent reality being transformed into fiction or to disappear. Immersive virtual reality is now used to raise awareness among the public. Some researchers suggest the use of immersive VR for environmental education and to drive information-seeking about important social issues such as climate change. What critical perspective do these new representations of the world/nature provide about human practices and goals? Climate change isn't a fiction. Do climate skeptics prefer fiction?

NOVEMBER 22nd

Talk: **KEVIN B. MARVEL**

Luminous artifacts in the Universe: Reality or Fiction?

Kevin B. Marvel has served as the Executive Officer for the American Astronomical Society, the largest professional organization for researchers in astronomy and related disciplines, since July of 2006. He began work with the AAS as Associate Executive Officer for Public Policy in 1998 establishing the Society's public policy program becoming Deputy Executive Officer in 2003. Before taking up a position with the American Astronomical Society in 1998 he served as a postdoctoral fellow at the California Institute of Technology's (CALTECH's) Owens Valley Radio Observatory. He received his Ph.D. in Astronomy in 1996 from New Mexico State University. He serves on the Executive Board of the National Capitol Area Council of the Boy Scouts of America and has served on the governing boards of the Council of Engineering and Scientific Society Executives and the American Institute of Physics. aas.org; iau.org/administration/membership/individual/749

NOVEMBER 23rd

Workshop: **TOM DI LIBERTO, MARGOT GREENLEE, DANCE EXCHANGE**

Representing the Celestial

Presented in partnership with the Cultural Programs of the National Academy of Sciences (CPNAS) Dance Exchange is a non-profit dance organization based in Takoma Park (Maryland) founded in 1976 by Liz Lerman and under the artistic direction of Cassie Meador since 2011. Fueled by generosity and curiosity, Dance Exchange expands who gets to dance, where dance happens, what dance is about, and why dance matters. For more than 43 years, Dance Exchange has collaborated across generations, disciplines, and communities to channel the power of dancemaking as a means for dialogue, a source of critical reflection, and a creative engine for thought and action. danceexchange.org

Tom Di Liberto is a climatologist and science communicator working as a federal contractor at the National Oceanic and Atmospheric Administration's Climate Program Office as the consulting climatologist for NOAA's Climate.gov.

Margot Greenlee is a choreographer and a teaching artist. Current project partners include Dance Exchange, the Department of Education, the Eurasia Foundation, Fairfax County Department of Therapeutic Recreation, and Jacob's Pillow Dance Festival.

VISUALS

The Znamya project, 1990s; Humanity Star, 2018; The 30-meter-long diamond-shaped public sculpture, 2018; The “artificial moon” in Southwestern China's city of Chengdu, 2020

BOOK

Oswald J. Schmitz, *The New Ecology: Rethinking a Science for the Anthropocene*