

Columbia GSAPP, Spring 2017
Advanced IV: Environment
Critic: Tei Carpenter
Contact: tei.carpenter@columbia.edu

Architectural Wilds



Examples of Hybrid Conditions Between Humans and Nature, left to right: A coyote riding Portland, Oregon's public transportation system; Plastiglomerate sample, a new rock made primarily out of plastic; Biologists transporting Bighorn Sheep by helicopter in the Sierra Nevada mountains to maintain population diversity and health; Bullock's Oriole nest, a bird nest made by the Oriole with human waste (photo: Sharon Beale).

"The range of attitudes, prescriptions, warnings, restrictions, summons, sermons, and threats that go with ecology seem to be strangely out of sync with the magnitude of the changes expected from all of us, the demands that appear to impinge on each and every detail of our material existence. It is as if the rather apocalyptic injunction 'your entire way of life must be modified or else you will disappear as a civilization' has overwhelmed the narrow set of passions and calculations that go under the name of 'ecological consciousness.' The camel seems to stand no chance of going through the eye of this needle. When the first tremors of the Apocalypse are heard, it would seem that preparations for the end should require something more than simply using a different kind of lightbulb..."

- Bruno Latour, "Will Non-Humans Be Saved? An Argument in Ecotheology,"
Journal of the Royal Anthropological Institute 15 (September 2009): 459-475.

"We start by thinking that we can 'save' something called 'the world' 'over there,' but end up realizing that we ourselves are implicated...Dark ecology undermines the naturalness of the stories we tell about how we are involved in nature."

- Timothy Morton, *The Ecological Thought* (Cambridge: Harvard University Press, 2012), 187.

APPROACH

The studio will explore an expanded idea of environment that moves beyond the nature versus human dialectic to investigate an increasingly contemporary condition in which humans and nature can no longer be considered separate entities, but rather how the natural world and the human world are collapsing into one another. This approach to architecture recognizes the entanglements of human-made products and byproducts in its definition of the environment along with the strange and sometimes accidental ways in which natural processes have been hybridized, interrupted, changed or accelerated by human impact. Situated in the context of global warming and the Anthropocene, a new geologic era in which humans are now the dominant biogeophysical force on Earth, the studio will challenge prevailing sustainability discourse that tends toward short-term efficient solutions, objective metrics, and assumptions about maintaining a stable and pristine version of

nature. As an alternative, the studio will approach the environment as a dynamic set of processes, materials and behaviors that take into account duration and change over time.

In order to explore these concepts, the studio will develop techniques by borrowing from what philosopher Timothy Morton calls *dark ecology*, an approach that admits our coexistence with pollution, waste, and toxic human-made substances. For the purposes of the studio, dark ecology is an attitude as much as it is a category. Dark ecology has both aesthetic and material implications that point towards physical material cycles and larger material streams of inputs and outputs and closed and open loops, within an urban ecology. These systems of material exchange will be examined as larger transformative and contingent processes between human-induced waste, byproducts, and excesses to transform and affect existing conditions of geology, hydrology, and the environment at large. To that end, we will investigate and experiment with material both in terms of physical scale moving from the unit to larger systems of material exchange, while also analyzing the temporal scale looking both backwards and forwards in time at overall material life cycles and at transformative states of matter such as erosion, accretion, residue and contamination. Giving agency to nonhuman actors and forces such as water, wind, animals, flora, and seasonal change, the studio will consider site, materials and architecture not as static entities, but as embodying shifting dispositions in a constant state of flux. Locating new opportunities for architecture, we will examine the hybridization of humans and nature through a dark ecological lens as a productive framework to identify alternative potentials for material, form and perception.

The studio will develop multi-scalar material experiments, narrative scenarios and alternative future worlds that will account for temporal scales of process, sequence, and change. Using dark ecology as a lens for seeing and reading site and material throughout the semester, we will seek out radical hybridity and hybrid conditions as well as latent contaminants with transformative possibilities. The studio will operate as a test bed for rigorous experimentation and precise risk-taking through design to generate new knowledge, materials, artifacts and aesthetics.

SITE + PROGRAM

The studio will design a fourth satellite campus for the Brooklyn Academy of Science and the Environment [BASE], a public high school that emphasizes active, hands-on learning in the outdoors, beyond the classroom walls. Founded as a partnership between the Brooklyn Botanic Garden, Prospect Park Alliance, and the New York City Department of Education in 2003, BASE is an institution dedicated to incorporating nature into everyday life and to producing engaged citizens and stewards of the environment. As part of a civic infrastructure, the school operates as a publically-funded institution invested in the observing, monitoring and measuring of New York City's ecological resources. The testing ground for the studio will be in Sunset Park, Brooklyn—a demographically diverse neighborhood at the edge of New York Harbor—which will be the site for envisioning BASE's pedagogical framework shifting from the constructed natures of Prospect Park and the Brooklyn Botanic Garden to the post-industrial and compromised natures at Sunset Park. Formerly one of the main sites of industry and maritime trade in New York City, Sunset Park as a physical ground is rich in historical and geological layers of accretion and erosion dating back to glaciers carving out the area 60,000 years ago to more currently as a site of exchange for highly choreographed logistical operations such as the existing Sims Municipal Recycling Facility and Bush Terminal. Recently Sunset Park has been subject to scrutiny and a site of design interest in the development of the NYC Economic Development Corporation's Sunset Park Vision Plan (overturned in 2015), the NYC Brownfields Opportunity Areas [BOA] Community Resilience East River Industrial Corridor Pilot Plan, the Brooklyn Greenway Initiative, and the development of Bush Terminal Park by the NYC Department of Parks and Recreation in 2014. Moreover, major adaptive reuse projects in Sunset Park have recently transformed former industrial warehouses and factories at Bush Terminal and Brooklyn Army Termi-

nal into innovation and technology hubs such as the new Industry City complex. At a site of emerging hybrid natures, how can the design of a school—its own site of discovery—support exploration into dark ecologies and alternative environments to generate new architectural forms, materials and organizations?

SCHEDULE + LOGISTICS

The studio will meet Mondays and Thursdays from 1:30-6:30pm. On Wednesdays there will be lectures, collective workshops, and seminars across the Advanced IV studios from 3:00-5:00pm. Roving engineers will be available to provide specific expertise during the latter-half of the semester. A field trip to Sunset Park and accompanying sites in the area including Sims Municipal Recycling Facility will be arranged early in the semester.

A series of concrete exercises leading up to the final design project will develop a common conceptual framework and design approaches to the final project. These exercises will include exploration into site analysis through duration and mapping; intensive material experiments; material exchange studies; nonhuman actors; dark ecological techniques; precedent studies; and development of program and organization. Group work is encouraged, but not required.

Midreview: February 27 / March 2

Spring Break: March 13 - 17

Interim Review: April 3

Final Review: April 26 / 27

STUDIO CULTURE

The building of a body of collective knowledge and the exchange of ideas are essential to this course. Students are expected to foster a studio culture of positive collaboration and respectful critical discourse and should strive to engage and learn from one another. Students must work in the studio and be present during studio hours. All work must be backed up throughout the semester both on an external hard drive and in the cloud. At the end of the semester, students are required to submit their final materials (including model photographs) to the instructor via Google Drive.

REFERENCES

Berger, Alan. *Drosscape: Wasting Land in Urban America*. New York: Princeton Architectural Press, 2006.

Corner, James, ed. *Recovering Landscape: Essays in Contemporary Landscape Architecture*. New York: Princeton Architectural Press, 1999.

Crutzen, Paul. "Geology of Mankind." *Nature* 415 (Jan 3, 2002): 23.

Daston, Lorraine and Katharine Park. *Wonders and the Order of Nature, 1150-1750*. Cambridge, MA: Zone Books, 2001.

Gissen, David. *Subnature: Architecture and Other Environments*. New York: Princeton Architectural Press, 2009.

Kubler, George. *The Shape of Time: Remarks on the History of Things*. New Haven, CT: Yale University Press, 1962.

May, John. "Against Sustainability." *ID Magazine* (Jan/Feb 2010): 20-21.

Morton, Timothy. *Dark Ecology: For a Logic of Future Coexistence*. New York: Columbia University Press, 2016.

Orff, Kate. *Towards an Urban Ecology*. New York: Monacelli Press, 2016.

Sanderson, Eric. *Mannahatta: A Natural History of New York City*. New York: Harry N. Abrams, 1013.

Soper, Kate. *What is Nature? Culture, Politics and the non-Human*. Cambridge, MA: Wiley-Blackwell, 1995.

Tsing, Anna. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. New York: Princeton University Press, 2015.