

# The ecology of art

*Nature-based art challenges an ecologist to reconcile the work of nature artists and scientists.*

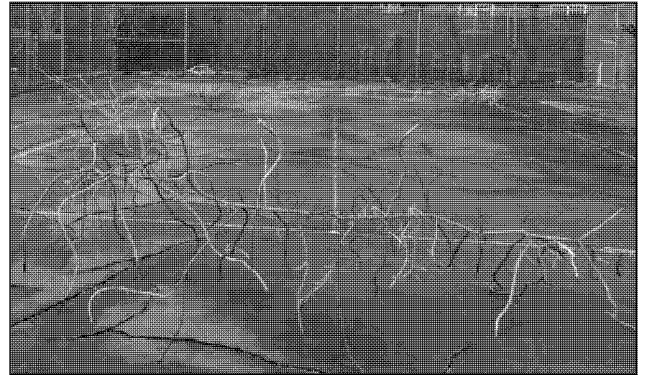
The annual gathering of my family in Washington, DC, for the Christmas holidays traditionally includes a trip to somewhere or something educational or entertaining. As the only ecologist in the family, I typically lobby for parks or wildlife refuges; this past holiday season, however, I successfully negotiated a trip to the Kreeger Museum, the once private residence of David and Carmen Kreeger that has since been made into an art gallery.

My choice of the Kreeger involved a hidden agenda, one that originated with a short article I read in the *Washington Post* that described the museum and its attributes: 19th- and 20th-century art, innovative architecture, and a sculpture entitled *When Nature Takes Over* (hereafter referred to as “WNTO”). This last, by virtue of the name, directly appealed to my research interests and vocation. But when we arrived at the posh Kreeger compound, perched on a terraced hillside overlooking the Potomac River, I had doubts about whether nature in any sense would be available for viewing.

Upon entering the museum building and paying the entrance fee, I quickly split from the family group, anxious to see an artistic interpretation of an inherently interesting ecological process. Yet, no signs directed me to WNTO and I was forced to meander through numerous rooms containing the museum’s incredible collection of paintings by Braque, Monet, Picasso, and others. Eventually, I wandered into a side room that had a massive picture window, through which I spied an open-air structure with the general characteristics of WNTO on the museum’s exterior grounds. Confronted with an unknown species or entity, I did what most ecologists do: I located a field guide – in this case an interpretive brochure – and began to read.

WNTO is the work of Maryland-based artist Dalya Luttwak. Since 2007, Luttwak has focused on plant roots as inspiration for various works, choosing to make obvious what nature normally hides. This outdoor installation, actually an abandoned tennis court, seeks to accentuate and embellish the elements of nature that invaded the site and then persisted even when cut back by grounds managers. She painted red the severed but still attached woody vines that grew on the chain-link fence and then added her own artificial versions of plants to the court surface, producing art but also potentially freezing ecological succession at a single point in time.

After exiting through the museum’s front door, I made my way to the outdoor gallery. Crossing the parking lot and passing through a gate leading to the back, my approach to WNTO was typical but my first impression was not. Instead of focusing on the installation as a whole, I seized



**Figure 1.** A metal representation of roots as depicted in *When Nature Takes Over*. With permission from Kreeger Museum.

on the foreground and its tree stumps cut cleanly at ground level. Apparently, the curators decided to bring the artwork into clearer view by eliminating a screen of trees – or perhaps this was part of the piece itself. Considering that the theme of the installation was nature taking over, however, it seemed incongruous; call me a pedant, but I was distracted by the thought of future stump sprouts and the herbicide applications that would be necessary to prevent regrowth. Still, I was aware that most great natural wonders of the world include such alterations to improve their accessibility, so I pressed on to the installation.

Once on the tennis court, I inspected the painted vines closely and instead of appreciating the premise of permanence and resilience intended by the artist, I immediately set out to identify the plant species using the bark morphology and composition of the surrounding flora. My identifications of English ivy and Japanese honeysuckle were verified in the sculptor’s own writings about the piece, but it seemed odd that plant species with obviously different traits were given identical washes of red. Perhaps the point was that resilience is universal and not individualistic.

At center court was a collection of metal objects, all more or less constructed to resemble the roots of plants (Figure 1). Some were laid out haphazardly. Others, planted in the cracks of the asphalt, were oriented upright – a clear challenge to the concept of positive gravitropism. This part of the artwork was meant to reveal the underground biomass responsible for buckling and disintegration of the asphalt, but perhaps more interesting were the numerous live plants now competing with the faux plants for crack space.

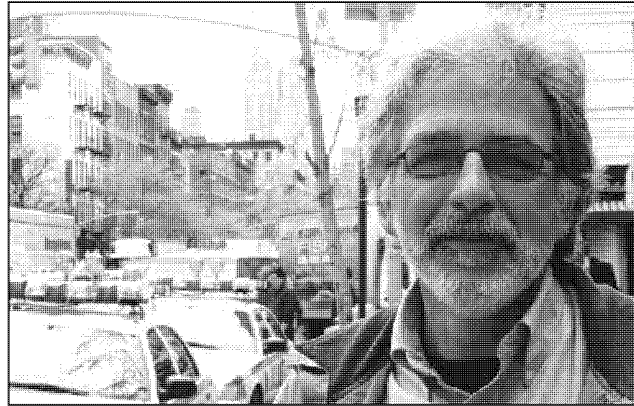
My experience with WNTO was influenced by what I brought to the site: expectations, expertise, and interests. I suspect that Luttwak and the curators of the museum did not, in the process of design, implementation, and

display, ever predict that the sculpture would be scrutinized by an ecologist with limited skills for interpreting art but a keen interest in interpreting nature. As such, the artist and the scientist walked on the same ground, viewed the same objects, but arrived at different destinations. EO Wilson (1984) maintained that art and science are similar processes, both relying on metaphor and analogy to gain understanding and discovery. And WNTO surely demonstrated to me that art and science can draw on similar broad concepts.

For several months thereafter, I savored my experience at the Kreeger, smug in my amateurish attempts at art interpretation. But then another excursion – this time to the South Carolina Botanical Garden (SCBG), located on the campus of Clemson University – further extended my understanding of nature art. The display of nature-based sculptures at the SCBG includes 16 pieces installed from 1995 to 2007, each crafted by a different artist using on-site materials. However, you may or may not see them all, because they are built into the adjacent pastures and woodlands and are designed to change and eventually vanish through time. My favorite of the bunch was *Ochum*, which was constructed in 2000 by Martha Jackson-Jarvis. *Ochum* is composed of large egg-shaped items formed from local clays that are placed strategically throughout a neighboring forest. These sculptures have gotten better with time, as mosses colonized the raised clay and changed the surfaces of the structures from brown to fuzzy green; for people strolling through the woods, they provide numerous opportunities for wildly varied interpretations.

My mental flowchart of nature-based art now includes a better understanding of artists than of art. At the Kreeger and at the SCBG, the artists' narratives generally suggest that making art in nature forces them to learn more about nature and its component parts. Also, artists working in nature clearly come to quickly appreciate the more synthetic concepts: energy, environment, community, and ecosystem. And they usually do so without relying on indices, mathematics, or jargon. This approach to interpreting nature is accessible to many, and it deserves more attention from ecologists striving to expand public understanding of complex ecological issues.

The variation among ecological systems from place to place, the changing of these systems through time, and the role of human disturbance serve as inspiration for many different ecological questions; it's possible that artists working in nature have similar influences. Clearly, some nature-based art is ephemeral and will transform (or even expire) over time, in contrast to "traditional" art that must be managed and preserved as is. The factors leading to such dramatically different representations of nature aren't readily apparent, but there is the tantalizing thought that nature-based art reflects the differing artistic worldviews that emerge in urban versus rural settings. Testing the idea that place influences artistic representations of nature would require a comprehensive survey and some in-depth probing into the minds of artists as they



**Figure 2.** The author, at the beginning of a search for nature-based art in New York City.

plan, design, create, and then interpret their art in both urban and rural areas (Figure 2).

It is not much of a stretch to envision how nature-based sculpture could cross from the realm of art into the realm of science and in doing so expand both its impact and its audience. For example, what if a structure was purposely created to be both a work of art and an ecological experiment? (See a similar suggestion by Felson and Pickett [2005] regarding urban design and ecological experiments.) Such an endeavor would require partnerships between artists and ecologists and might begin by asking simple ecological questions: What species are present? What species are likely to colonize? How will the ecological community change through time? Does the artwork itself produce ecological impacts? The answers to such questions might indeed influence the work and goals of the artists and lead to art being informed by science – and perhaps vice versa.

Nature-based art is an emerging discipline that is readily accessible to the general public. It offers interpretations of nature that on the surface might appear outside the realm of ecology, but a deeper examination reveals that the process of art and the process of ecology may indeed involve common elements.

#### ■ Acknowledgements

The work of D Luttwak can be viewed at [www.dalyaluttwak.com](http://www.dalyaluttwak.com). The nature-based sculptures at the South Carolina Botanical Garden can be viewed at [www.clemson.edu/public/scbg/art/sculptures/list/](http://www.clemson.edu/public/scbg/art/sculptures/list/).

#### ■ References

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