

EDITED BY TIMOTHY A. SCHULER

LISTENING IN

TO CREATE THE MOST IMMERSIVE EXPERIENCE POSSIBLE, ANDROPOGON SEARCHES FOR QUIET.

BY TIMOTHY A. SCHULER

Though slowly gaining attention within the profession, sound remains an underexplored element in landscape architecture. Part of the challenge, says Emily McCoy, ASLA, the director of integrative research at Andropogon, is that there are no go-to models that can sufficiently capture the impact of sound in the environment. So for the master plan of Shield Ranch, a 6,800-acre property outside Austin, Texas—the recipient of a 2018 ASLA Professional Honor Award in the Analysis and Planning category—Andropogon developed its own soundscape model.

The landscape architects had been charged with siting a trail system, as well as several buildings, including a retreat center and the offices of the family's foundation. They wanted to ensure that the nature trails were truly immersive, protected from the disturbing sounds of future development. Using every bit of data they could find, including average decibel levels of various land uses across increasing distances, the team developed a GIS model that could pinpoint the quietest—and noisiest—pockets on the property. To that map, they added potential land use scenarios and then used decibel counters to verify that the predicted sound levels were accurate. In large part they were, but there were a few surprises, McCoy says.

For instance, the design team had identified what it thought was an ideal site for the retreat center. It was remote but still accessible, proximate to

BELOW
Andropogon used digital meters to record the sound levels in various parts of Avalon Park.

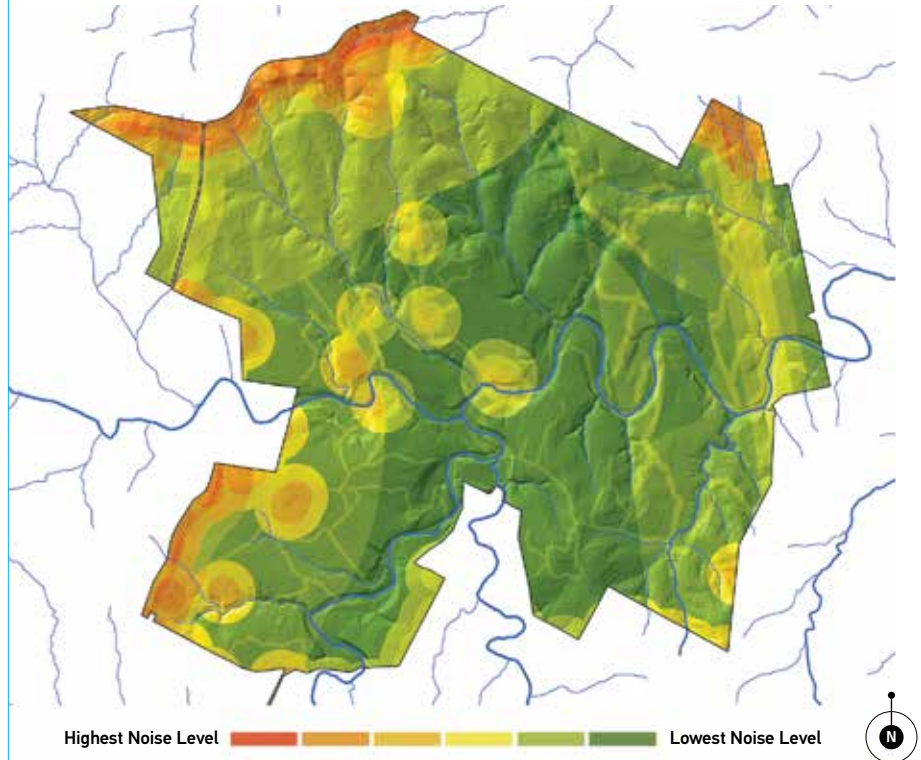


ANDROPOGON

water, and, according to GIS, one of the quieter areas of the ranch. “We went out there one day, and it was like, yes, this is the spot,” McCoy recalls. “And then we went out there a second day, and it was foggy and it was morning rush hour, and the road is probably miles away, but because of the fog, we could hear the cars because the fog was trapping sound.” It was a reminder of just how complex sound is, and the degree to which it can be affected by environmental conditions. “The fog lifted an hour later, and then it was complete silence,” she says.



SHIELD RANCH SOUNDSCAPE



This past summer, Andropogon replicated the process at Avalon Park and Reserve on Long Island, New York. Lauren Mandel, ASLA, part of both the Shield Ranch and Avalon teams (and a contributor to this magazine), worked to refine the model, originally built with the help of Michael Mandel, an assistant professor of computer and information science at Brooklyn College who is also her brother. Though still a work in progress, Lauren Mandel says this type of sound mapping is relatively simple and can be applied across a broad range of projects.

Most important is simply to make sure sound is considered, McCoy says. “It is so important to the experience. If your goal for a project is immersion in nature and a high-quality natural experience, it should be a part of your process.” ●

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ABOVE
Sound maps, such as this one of Shield Ranch in Texas, can help design teams locate amenities on a site.

LEFT
Understanding sound through visual representation and other means is an underexplored area of landscape architecture.

TAKE ME TO THE RIVER

**A DRAMATIC STAIRCASE
RECONNECTS THE POLITICAL
SEAT OF CANADA TO ITS
RIVERINE PAST.**

BY BRIAN BARTH



ABOVE
Installed in 2017, a new stair restores a historically significant path from Canada's Parliament down to the Ottawa River.

For tourists coming to Ottawa, Parliament Hill is an obligatory stop. The textbook-worthy neo-Gothic architecture forms the backdrop of many a selfie shot in the Canadian capital. But the tour bus-bound hordes have been missing out on something equally spectacular: a limestone escarpment behind the spires that plunges 140 feet through rugged forest to the churning Ottawa River below.

Visitors now have the opportunity to depart the paved political landscape and enter a cool, shaded space that reveals a different history. A new staircase that switchbacks down the slope was installed in the summer of 2017. Designed by the Ottawa office of Civitas Group, it is the first significant landscape intervention on Parliament

Hill in a century. “It is quite a dichotomy as you move from this cultured plateau, the forecourt of Parliament, which is the image most people know, down the wild escarpment to the riverbank,” says John Zvonar, a conservation landscape architect at Public Works and Government Services Canada, who worked with Civitas Group to execute the project.

The new staircase is actually a riff on a 150-year-old idea: Around the time that Canada was established in the 1860s, steps were installed from Parliament Hill part of the way down the escarpment to where an informal footpath—*Lover’s Walk*—traversed the horizontal contour of the slope. Pictures of Victorian-era women strolling there with carriages and umbrellas have been un-

earthed. It was also a popular escape for politicians until it fell into disuse during World War II.

“The stairs are designed with a contemporary look,” says Diane Matichuk, a landscape architect at Civitas Group and the principal in charge of the project. “But the intent is that they take you back through history to experience the wilderness of the space.” Today, one encounters a variety of architectural and natural wonders along the 287-step descent. The stone arches at the opening of a ventilation tunnel (a feature that funneled cool air into Parliament in the days before HVAC), which are nearly as ornate as the Gothic towers above, have been restored. An orchestrated series of landings offers moments of



LEFT

Civitas Group restored the limestone arches of a 19th-century ventilation tunnel that once ushered cool air from the north-facing slope into the Parliament buildings.

BELOW

The stair, which has Douglas fir treads, switchbacks down the limestone escarpment.

repose, along with carefully framed views of landmarks like the Douglas Cardinal-designed Canadian Museum of History across the river to the west in Quebec.

Also to the west is a series of small islands that lie at the foot of a 50-foot cataract, a site of great significance to First Nations in the Ottawa River watershed who gathered there long before European settlement. The waterfall was obscured from view by a dam and a ring of factories and paper mills that until recently made use of the hydropower, but one of the islands has been preserved as a park, which is accessible by the bike and pedestrian path that you find at the bottom of the staircase. Here the rapids drown out the noise of the city, and the escarpment largely blocks the view of downtown, leaving one to contemplate the great blue herons.



Matichuk's team also located overgrown remnants of Lover's Walk and incorporated a section of it into the new stairway. "The stairs have been a good start in bringing people

back to the slope, but the long-term plan is to bring Lover's Walk back to life. Everything is set up now for a seamless connection," she says. ●

LAW OF THE LAND

WHY STATES HAVE THE POWER IN THE REGULATION OF PESTICIDES.

BY MADELINE BODIN

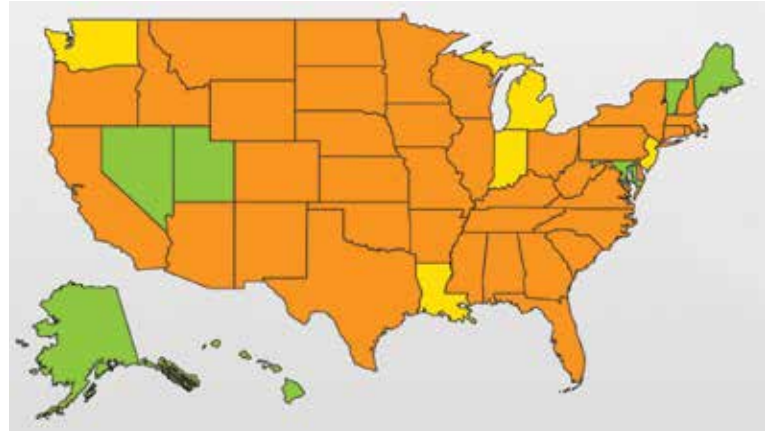
The debate over who gets to decide what pesticide use is appropriate has been accelerating over the past few years. Earlier this year, a storm of legal actions highlighted the pivotal role that states have begun to play in regulating pesticides as the federal government turns its back on the role and municipal governments are blocked by state laws and court rulings.

In March 2018, an Arkansas judge dismissed the agricultural industry giant Monsanto's lawsuit against the state's new regulation of the pesticide dicamba. In 2017, the state restricted the spraying of dicamba to the cooler months of the year, since in the warmer months dicamba can drift to fields with crops that are not genetically modified to resist it. Such drifting caused 3.1 million acres of crop damage in 2017, according to a University of Missouri researcher.

In May 2018, the Hawaii state legislature passed a bill that banned the pesticide chlorpyrifos. Some saw it as a rebuke to then-Environmental Protection Agency (EPA) administrator Scott Pruitt, who, in March 2017, declined to ban chlorpyrifos at the federal level, despite recommendations from EPA scientists to do so. However, the Hawaii state law had a longer history. In November 2016, a federal court invalidated a county law in Kauai that tightened restrictions on pesticide use, as well as county laws in Maui and the big island of Hawaii that banned GMOs.

BATTLE FOR LOCAL CONTROL

- NO LOCAL CONTROL
- CAN PETITION FOR CONTROL
- HAVE LOCAL CONTROL



Forty-three states have passed state laws that specifically prohibit local governments from making laws regulating pesticide use. That's on top of laws in most states that already limit the powers of local governments to only what the state expressly allows, says Brianna Schroeder, an attorney with the Indiana-based firm Janzen Agricultural Law. "It's a belt-and-suspenders approach," she says, giving most states two laws prohibiting municipal action. In August 2018, a federal court gave the EPA 60 days to enact a nationwide ban on chlorpyrifos, but the battle to regulate other pesticides at state and local levels continues.

Even though state laws and court rulings mean that local pesticide regulations are limited, Beyond Pesticides, a Washington, D.C.-based advocacy group, continues to help local governments create them, says Jay Feldman, the organization's executive director. In most cases, these regulations will apply only to properties owned by that local government.

"Our hope is that when people see how beautiful and resilient public properties are without pesticides, private landowners will be inspired to use the same principles," he says.

That's where landscape architects play a role. Thomas Rainer, ASLA, a principal at Phyto Studio in Washington, D.C., and the author, with Phyto cofounder Claudia West, International ASLA, of *Planting in a Post-Wild World*, says smaller urban spaces can make an impact. The question is to what degree a city park or highway corridor designed to need fewer chemicals actually matters when more than one billion pounds of pesticides are used in the United States each year.

As agriculture is increasingly industrialized, Rainer says, small designed spaces are even more important as performers of ecosystem services and reservoirs for genetic biodiversity. "Even relatively small urban sites, if designed with biodiversity in mind, can have an effect that amplifies across the landscape." ●

OAKLAND REPLAY

A BELOVED LAKE MERRITT PLAY SCULPTURE IS A REMINDER THAT CREATIVITY IS A PUBLIC GOOD.

BY MIMI ZEIGER

Guiding the transition of San Francisco's Presidio from military base to national park may be the standout accomplishment of the landscape architect and parks administrator William Penn Mott Jr., who assumed the helm of the U.S. National Park Service in 1985, but it's a little "monster" from early in Mott's career that has received renewed attention.

In 1952, when Mott was parks superintendent for the city of Oakland, he commissioned the artist Robert "Bob" Winston to create a unique play structure on the sandy banks of Lake Mer-

ritt. Sculptural and organic, the chartreuse green piece was known as the Mid-Century Monster. It was one of the first designs in the United States to depart from conventional swings or slides and celebrate imaginative play, and from its opening, children climbed on and hid inside the Monster's many haunches and niches.

Over the decades it became a symbol of Oakland's creativity, especially after Sly and the Family Stone put it on the cover of their 1968 album, *Dance to the Music*. It was also featured in the catalog of the progressive toy company Creative Playthings. Eventually, the Monster's cement plaster surface began to crack, while time, weather, and use rusted its steel mesh and armature. In 2015, the play sculpture was finally fenced off.

By the end of this year, the Monster will reopen to the public thanks to grassroots efforts by the Mid-Century Monster Fan Club, with philanthropic support from the Lake Merritt Breakfast Club and the cooperation of Oakland Public Works. The San Francisco-based preservation firm Page & Turnbull recently produced a restoration plan and conservation report, and ongoing restoration efforts will bring the play structure back to life.

The Monster is aesthetically true to Winston's larger practice—he was a faculty member at California College of Arts and Crafts and best known for his chunky, handcrafted jewelry. Mott, however, saw that at a larger scale Winston's natural forms held an important promise: the possibility of offering city kids the pleasures of nature. "The hills, the rocks, the trees and old stumps, the vacant open



RIGHT
Oakland's Mid-Century Monster, fenced off and in need of restoration. The play sculpture will reopen late this year.



rolling areas we (as children) had access to and are no more...well, something more than concrete play areas has to replace 'em," said Winston and his collaborator, the Oakland Parks department landscape architect Amedee Sourdry, in the *Oakland Tribune* in 1952.

The ideas expressed by the Monster—that freedom, creativity, and nature should be preserved for everyone—seem especially important today, as major areas of Oakland are redeveloped. Although reinvestment often focuses on private development, with little vision for the whole community, Alison Schwarz, a project manager for Oakland Public Works, says her city is different. Through a bond measure and the Oakland Public Art Program, the city has commissioned a number of permanent public art projects for Lake Merritt and the surrounding area.

“Oakland has a long and robust history of celebrating and supporting our arts and cultural community,” Schwarz says. “While the Monster predates the city’s 1989 Public Art Ordinance, the Winston play sculpture represents an early example of public art—a truly unique work commissioned of a local artist for the benefit of the general public.” ●

TOP

Children swarmed over the play structure in its heyday in the 1950s and 1960s.

INSET

The Monster’s most famous moment: on the cover of Sly and the Family Stone’s 1968 album, *Dance to the Music*.

BOTTOM

Artist Bob Winston at work on the Monster’s steel frame.



LOOKOUT, WALKABOUT

**AT SCOTLAND'S
INVERWE GARDEN,
A NEW OBSERVATION TOWER
WILL BE PART OF THE PATH.**

BY KATHARINE LOGAN



ABOVE

Located at the edge of the Scottish Highlands, Inverewe Garden thrives, in part, because of the warmth of the Gulf Stream brushing past.

BELOW

The new tower will function as a landmark and waypoint while also encouraging more visitors to visit the far reaches of the garden.



Along the shore of a sea-loch in northwest Scotland, backed by a landscape of ancient rock and sheep-cropped highlands, lies a lush and unlikely landscape. Made possible by the warmth of the Gulf Stream's brushing past, the 54-acre Inverewe Garden is a plant enthusiast's paradise, home to famed *Rhododendron* and *Erythronium* collections, more than 20 "champion" trees (the country's largest of their kind), and myriad thematic plantings, including shapes and forms more characteristic of subtropical climates than anything you'd expect to find on the same latitude as Juneau, Alaska. "It's one of those special places that shouldn't even exist," says Kevin Frediani, the garden's operations manager.

Continuing its ontological flair for the unexpected, Inverewe has a new surprise in the making. An observation tower, designed by London-based Denizen Works and scheduled for completion

next spring, is part of the National Trust for Scotland's ongoing revitalization of the garden, which has also included a rebranding and the creation of a new museum. "We wanted to do something that would bring in a new audience," Frediani says, including travelers who follow the route of the recently designated North Coast 500, a popular 516-mile drive that traces the region's coastline. "But how do you do that with authenticity, with style, and in a way that speaks of the place?"

Towers are classic garden elements, offering a panoramic perspective in dynamic contrast to ground-level close-ups. Exceeding this conventional mandate, Inverewe's tower will also form a vertical link in the garden's network of paths. "Rather than doing a tower for its own sake—go up, look out, and come back down—we were interested in creating an experience integrated into the natural route through the garden landscape," says Murray Kerr, Denizen Works's director. "The tower is an exciting presence that people

will want to come and see in itself, and part of the mechanics that get them to explore the garden's full extent."

Rejecting the initial project site, at the top of the park's highest accessible point, the team instead positioned the

tower at the bottom of the hill, where with one move it solves a problem of vertical connectivity between two levels of the garden and generates spectacular new perspectives.

Evocative of a forest snag, with architecture inspired by nests and burrows, the Eyrie, as the totemic tower is called, will be clad in larch sourced from the site and stained dark. At the uppermost level, across a gangway from the hilltop lookout, a bird hide offers long views over the tree canopy and a chance to observe local wildlife, including golden eagles and nesting herons. A gallery on each floor interprets the cultural and natural history of the garden, the surrounding landscape (which includes a biosphere reserve and a marine protected area), and the people who have inhabited the region over the past four and a half thousand years. At its base, the Eyrie opens onto newly developed gardens in a previously undervisited area. "In a sense it's quite a simple thing," Kerr says. "Experientially, it could be amazing." ●