HOME GAME

AN OLD MILL, AN UPSET SITE, AND A CHANGING CANVAS OF NATIVE PLANTS COMPOSED BY DARREL MORRISON.

BY JANE ROY BROWN

PHOTOGRAPHY BY ELIZABETH FELICELLA

ASK DARREL MORRISON, FASLA, about when to visit the landscape he designed next to the restored Stone Mill in the New York Botanical Garden, and the answers will not narrow the options by much. “Mid-May should be a great time,” he said in 2011, shortly after overseeing the planting of 11,000 native sedges, grasses, wildflowers, shrubs, and trees on the sloping half acre of the Bronx River bank. “The columbines, woods phlox, and wild geranium will be in bloom then, and the birches will have fresh new leaves.” Then he paused. “Although in July, the little bluestem grass will be filling in, and the orange butterfly weed will pop against the purple love grass.” The prospect of autumn drew even more enthusiasm. “In October, the little bluestem will be turning copper, and the brilliant yellow birches will be quite striking.”
Morrison has devoted most of his 40-plus-year career in teaching and design to the use of native plants in designed landscapes, with projects including the gardens at the Lady Bird Johnson Wildflower Center in Austin, Texas; native plants gardens at the Brooklyn Botanic Garden and the University of Wisconsin–Madison Arboretum; and the establishment of tallgrass meadows at the Storm King Art Center in Mountainville, New York. He draws on a painter’s eye for color and textural compositions, and a trove of botanical knowledge, and strives for seasonal progressions of botanical display while looking for ways to restore ecological function—such as providing wildlife habitat and erosion protection—on sites where earlier human activity has diminished it. He achieves both by giving places back their biological diversity.

The site at NYBG abuts a three-story National Historic Landmark structure, the Stone Mill, which underwent a restoration to its original 1840 exterior four years ago. The project earned a LEED Silver rating. The building, now used for special events, also received a new stone terrace facing the river. Before construction, members of the garden staff cleared the hackberry, ash, and sycamore trees that had grown up on the old industrial land around the mill and handed Morrison a tabula rasa, save for a series of stone step pools from the top of the slope to the river, part of a stormwater capture and treatment system for a large area of the botanical garden. To keep the area clear during storm surges, this was to be a garden for viewing only.

“Because the site is adjacent to the Bronx River and the largest remnant of old-growth forest in New York City, we wanted to use native plants exclusively,” says Todd Forrest, NYBG’s vice president for horticulture and living collections.
"However, the site had been part of an industrial complex since the 18th century, and we needed to make sure the plants would thrive in disturbed soils and outcompete established invasive species." The plants also needed to establish themselves quickly so they could stabilize the steep slope—3:1 in places—and absorb stormwater before it entered the river. "And of course," Forrest adds, "this being a botanical garden, the whole design needed to be breathtakingly beautiful the moment it was planted."

The predominantly west-facing bank stretches between the mill and a picturesque stone arch bridge. "The site had no vegetation except two old sycamores," Morrison says. Viewed from the bridge, the statuesque trees, one rising straight from the river's edge, the other curving uphill from the base of the slope, bracket the Stone Mill and cast high, dappled shade on the site. Equally scenic is the bridge arch, viewed from the mill's terrace and windows. Morrison used these two main vantage points to frame his planting plan.

After amending the soil, Morrison selected about 50 species to prevent erosion and create habitat for pollinators and birds on this open, sunny site. Most of the plants are typical of an early successional landscape in this locale; that is, they are likely to spring up in a clearing that is reverting to forest. At the shoreline, the species are typical of a floodplain forest.

By the spring of 2011, only eight months after going into the ground, the plants had filled in enough to reveal Morrison's subtle, naturalistic
design. Two loose columns of young birches (Betula platyphylla 'Whitespire') drifted down the riverbank, their trunks pale behind chartreuse leaves. (Morrison had specified the local native gray birch, Betula populifolia, but it was unavailable, so he used the closely related B. platyphylla.) Tufts of little bluestem grass (Schizachyrium scoparium) sprouted in a broad, parallel band outlined by a brighter green mat of Pennsylvania sedge (Carex pensylvanica) flowing out from beneath the birches. The red columbine (Aquilegia canadensis) and purple wild geranium (Geranium maculatum), among other New York wildflowers, punctuated the massed grasses and sedges. Scattered white flowering dogwoods (Cornus florida) lit up the slopes, echoing mature specimens in the Native Forest on the opposite riverbank.

Woody plants dotted the upper slope: sassafras (Sassafras albidum), black gum (Nyssa sylvatica), serviceberry (Amelanchier spicata), winterberry (Ilex verticillata), witch hazel (Hamamelis virginiana), and gray dogwood (Cornus racemosa). A hedge of bayberry (Myrica pensylvanica) borders the entry road to the mill, discouraging visitors from straying into the garden.

"The key design elements are the drifts of birches, which provide the main spatial framework and channel views from the mill downhill to the arch of the bridge in the background," Morrison explains. Related to this is the ground-level "stream" of little bluestem meandering along the slope between the birch drifts, which repeats the flow and rhythm of the stone cascade and the river. The grasses "pool" at the base of the slope and merge with a swath of cinnamon ferns (Osmunda cinnamomea) and Canadian anemone (Anemone canadensis) in the shade of the old sycamores, near witch hazel, gray dogwood, and spicebush (Lindera benzoin).

A key principle here, and in Morrison's designs in general, is to create spatial cohesion by massing plants into "rivers and drifts," in his words. This pattern occurs at all heights: herbaceous, understory, and canopy. "The arrangement of the plantings across the slope seems at first almost organic," Forrest says, "but a closer look reveals a sophisticated and complex layering in both time and space."
RIGHT
Buttonbush (left) grows with Canadian anemone and sedges in the Bronx River floodplain.

BELOW
A dry streambed channels stormwater for the surrounding area.

OPPOSITE
Planting plan.

While grasses and sedges are aesthetically appealing, they are also “the best erosion-controlling plants you can have,” Morrison says. “I planted them densely, about a foot apart.” The Pennsylvania sedges have been especially successful, spreading to form a sod-like carpet. Although aspects of the design restore ecological functions, Morrison emphasizes that this is “a stylized distillation of typical plant communities you would find in this place,” rather than a true ecological restoration. Likewise, he based the design on the concept of forest succession but does not intend the succession to actually progress into forest. Although he would not mind seeing some species volunteer over time, Morrison’s goal is to maintain the integrity of the spatial composition, which defines the principal views and controls erosion. For example, he says, “I can imagine squirrel-planted oaks eventually coming up beneath the mature birches, and they would replace the existing mass of the birches.”

Since planting in the fall of 2010, Morrison has observed a gradual shifting of some species and the migration of others—blue lobelia and Canadian anemone, for example—as they self seed. He didn’t anticipate how much muskrats would enjoy the bulbs of the Turk’s-cap lilies he had interspersed among cinnamon ferns near the water’s edge, however. “Where we had planted a hundred lilies, only three plants large enough to bloom remained in 2013,” he says.

Most of the other species have thrived. The summer after planting, the little bluestem had reached
a height of two feet, and the birches, about 10 feet tall when they went into the ground, had added nearly a foot. In the spring of 2014, the birches were approaching 20 feet.

The summer-blooming wildflowers include a healthy band of purple Ohio spiderwort (*Tradescantia ohiensis*), rippling near the edge of the mill drive, mingling with the little bluestem. An interwoven ribbon of orange-yellow butterfly milkweed (*Asclepias tuberosa*) sizzles in the cool, blue-green grass. By late September, the grasses turn copper and gold, the witch hazel and fruited spicebush a vivid orange, and the black gum and sassafras verge into scarlet. The general health and vigor of the plants in the Stone Mill garden continue to delight the NYBG staff, affirming that “the plants he selected are perfectly adapted to the site’s growing conditions,” Forrest says.

The garden now plays a role in NYBG’s educational programs, including naturalistic planting design and horticulture as well as science and ecology. Morrison, a career teacher himself—14 years in the landscape architecture department at the University of Wisconsin; 20 years at the school of environmental design at the University of Georgia, where he served as dean from 1983 to 1992; and now at Columbia University’s school of continuing education—also has brought in students.
And although this landscape is far subtler in its display than many of NYBG's gardens, it gets its share of appreciation. "Whether or not visitors perceive this landscape as a designed space, it stands out from the surrounding native landscape because it contains more order and more color, it's denser, and the plant materials are different," says Travis Beck, ASLA, the former NYBG landscape and gardens project manager who oversaw the planting. "People stop on the bridge and gaze at it. They seem to recognize the level of intention and care."

Project Credits
PLANTING DESIGN DARREL MORRISON, FASLA, NEW YORK. SITE PLANNING TOWERS GOLDSMITH LANDSCAPE ARCHITECTS AND SITE PLANNERS, NEW HAVEN, CONNECTICUT (SHAUNA TOWERS, FASLA), NEW YORK BOTANICAL GARDEN, NEW YORK (JAMES REED, ASLA). HORTICULTURE OVERSIGHT NEW YORK BOTANICAL GARDEN, NEW YORK (TRAVIS BECK, ASLA). PLANTING AND MAINTENANCE NEW YORK BOTANICAL GARDEN, NEW YORK (CLENNIA CURTIS AND KRISTIN M. SCHLEITER). MARC WOLF, FIELD APPRENTICE TO DARREL MORRISON, NEW YORK. CONSTRUCTION DOM'S LANDSCAPING, DARIEN, CONNECTICUT. HAND LETTERING ON PLANTING PLAN KAYLIN ROSTRON, NEW YORK.

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