landscape architecture

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POSTCARD: BOB LEVINE COLLECTION, PROSPECT PARK ARCHIVES

In 1980, Prospect Park lay in shambles. Now, after carefully researched restoration, it looks almost as if Olmsted and Vaux designed it yesterday. **By Anne Schwartz**

Photography by Frederick Charles

An Improved Prospect

Walking into Brooklyn's Prospect Park is like stepping into a nineteenth-century landscape painting. The sweeping vista of the Long Meadow, interrupted by gracefully arching trees, stretches for nearly a mile along one side of the park. The greensward gives way to a wooded, mountainous scene with cascades, pools, and a brook cutting through a stony ravine. When it leaves the forest, the water quietly winds through streams and pools toward the shining stillness of a wide lake.

Many people consider the 526-acre park to be the finest work of its creators, Frederick Law Olmsted and Calvert Vaux, America's great pioneers of urban park design. It is more scenic, more removed from the city, more unified than Central Park, their first and more well-known park. In 1888, Charles Sprague Sargent, the first director of Harvard's Arnold Arboretum, called it "an urban park unsurpassed in any part of the world in the breadth and repose of its rural beauty."

Olmsted and Vaux themselves had great ambitions for Prospect Park, seeing an opportunity to achieve their aesthetic and philosophical ideal of a retreat for crowded city folk. It would be both a tranquil, picturesque landscape and a place where people of all social classes could come together "for the single purpose of enjoyment."

Today, two-thirds of the way into the most significant reconstruction of the park since it was built in the 1860s, the landscape is the closest it has been to Olmsted and Vaux's vision for probably a century. On a sunny weekend day, the park's grassy expanses and remote-seeming forest are full

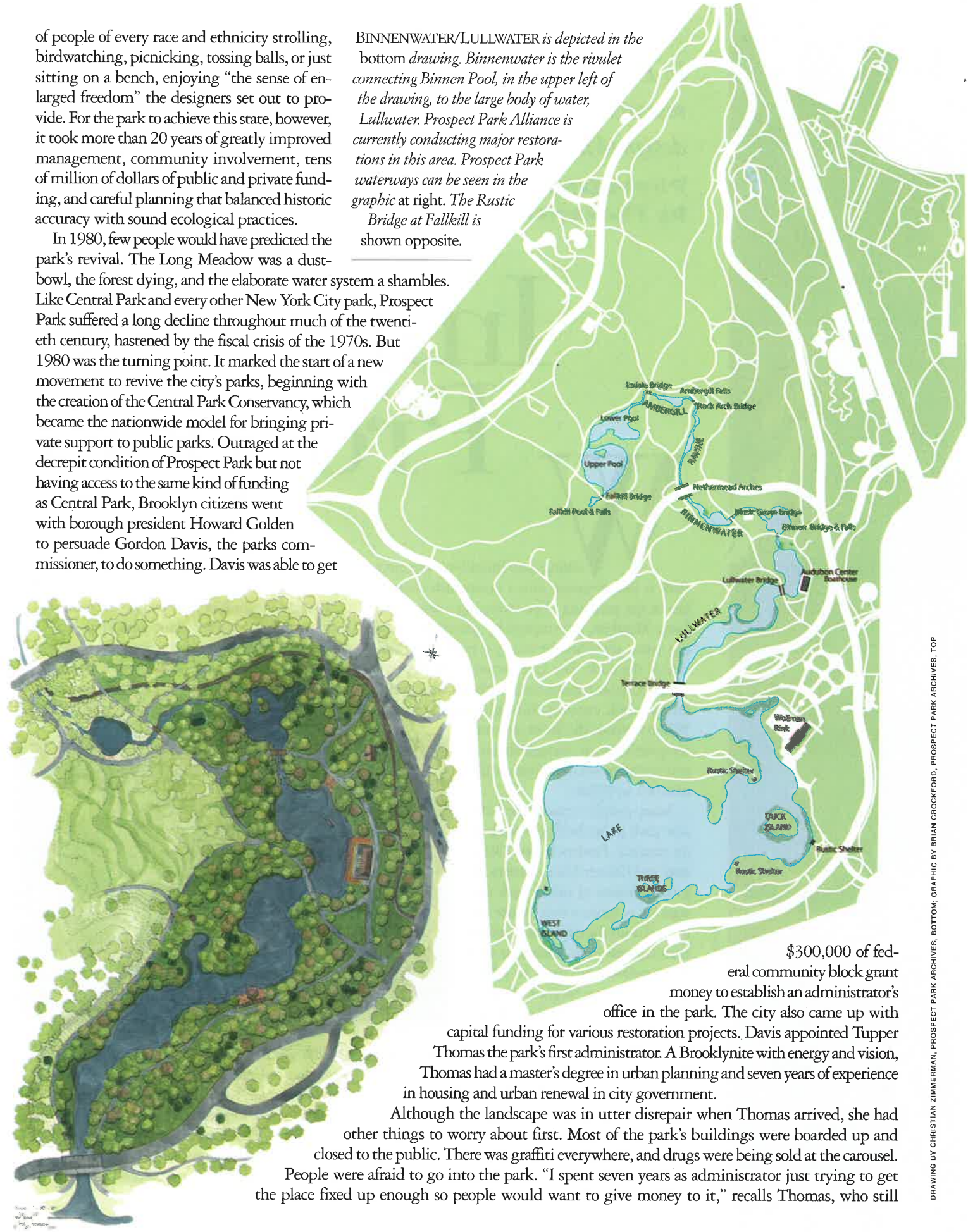
PROSPECT PARK'S *mile-long watercourse begins at the Upper Falls,* opposite, *just above the Fallkill cascade, which was restored as closely as possible to the original created by Olmsted and Vaux. The park's design team worked from historic photos, like the postcard from 1920* above, *and used many of the original boulders.*

of people of every race and ethnicity strolling, birdwatching, picnicking, tossing balls, or just sitting on a bench, enjoying "the sense of enlarged freedom" the designers set out to provide. For the park to achieve this state, however, it took more than 20 years of greatly improved management, community involvement, tens of million of dollars of public and private funding, and careful planning that balanced historic accuracy with sound ecological practices.

In 1980, few people would have predicted the park's revival. The Long Meadow was a dustbowl, the forest dying, and the elaborate water system a shambles. Like Central Park and every other New York City park, Prospect Park suffered a long decline throughout much of the twentieth century, hastened by the fiscal crisis of the 1970s. But 1980 was the turning point. It marked the start of a new movement to revive the city's parks, beginning with the creation of the Central Park Conservancy, which became the nationwide model for bringing private support to public parks. Outraged at the decrepit condition of Prospect Park but not having access to the same kind of funding as Central Park, Brooklyn citizens went with borough president Howard Golden to persuade Gordon Davis, the parks commissioner, to do something. Davis was able to get $300,000 of federal community block grant money to establish an administrator's office in the park. The city also came up with capital funding for various restoration projects. Davis appointed Tupper Thomas the park's first administrator. A Brooklynite with energy and vision, Thomas had a master's degree in urban planning and seven years of experience in housing and urban renewal in city government.

Although the landscape was in utter disrepair when Thomas arrived, she had other things to worry about first. Most of the park's buildings were boarded up and closed to the public. There was graffiti everywhere, and drugs were being sold at the carousel. People were afraid to go into the park. "I spent seven years as administrator just trying to get the place fixed up enough so people would want to give money to it," recalls Thomas, who still

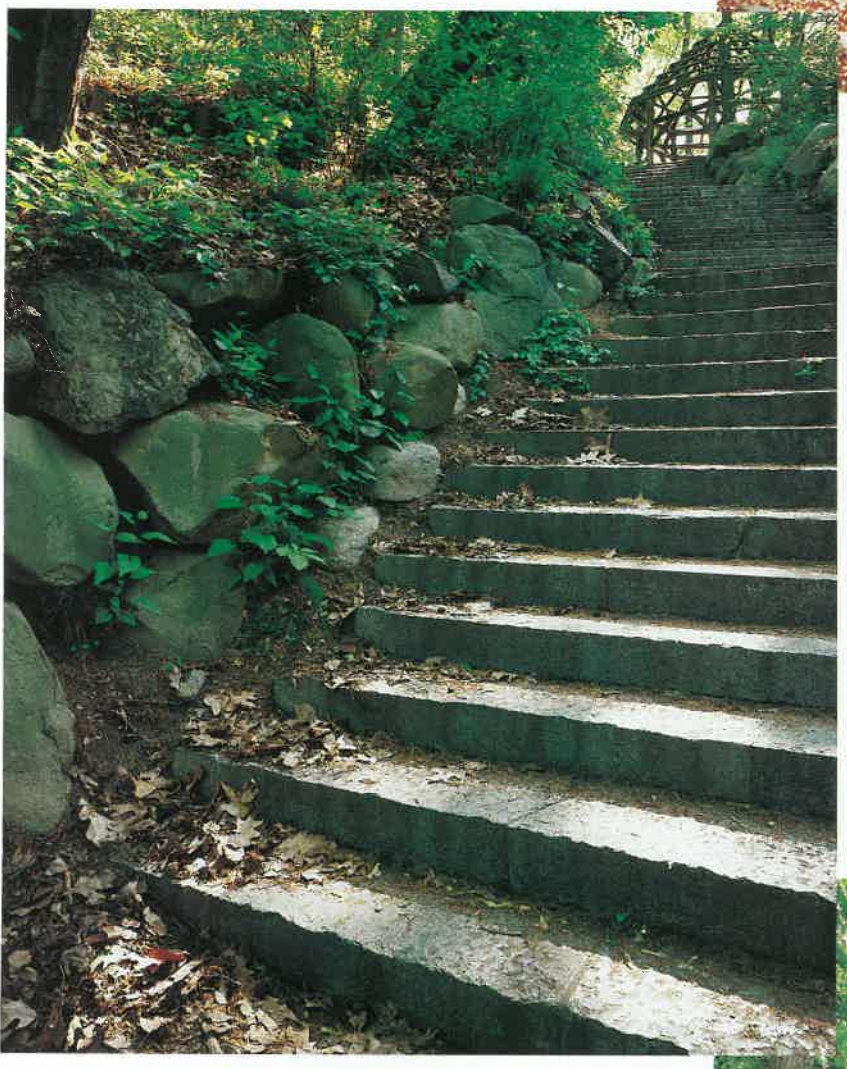
BINNENWATER/LULLWATER *is depicted in the bottom drawing. Binnenwater is the rivulet connecting Binnen Pool, in the upper left of the drawing, to the large body of water, Lullwater. Prospect Park Alliance is currently conducting major restorations in this area. Prospect Park waterways can be seen in the graphic* at right. *The Rustic Bridge at Fallkill is* shown opposite.



DRAWING BY CHRISTIAN ZIMMERMAN, PROSPECT PARK ARCHIVES, BOTTOM; GRAPHIC BY BRIAN CROCKFORD, PROSPECT PARK ARCHIVES, TOP

heads the park after 23 years. She is also president of the Prospect Park Alliance, which was started in 1987 to raise funds for restoration, preservation, and programs. Under the unique management structure of the park, the alliance funds some of the staff positions and the parks department funds others, but everybody works together under Thomas.

By the early 1990s, with both city and privately raised funds, the buildings had been fixed up and reopened, the 1912 carousel had been refurbished, and special events and programs were bringing people back into the park. From a low of fewer than two million visits a year when Thomas arrived—mostly people jogging on the perimeter road or using the playgrounds—the number of visits increased to six million and is now more than seven million. Grass once again carpeted the Long Meadow, and hundreds of new trees had been planted.

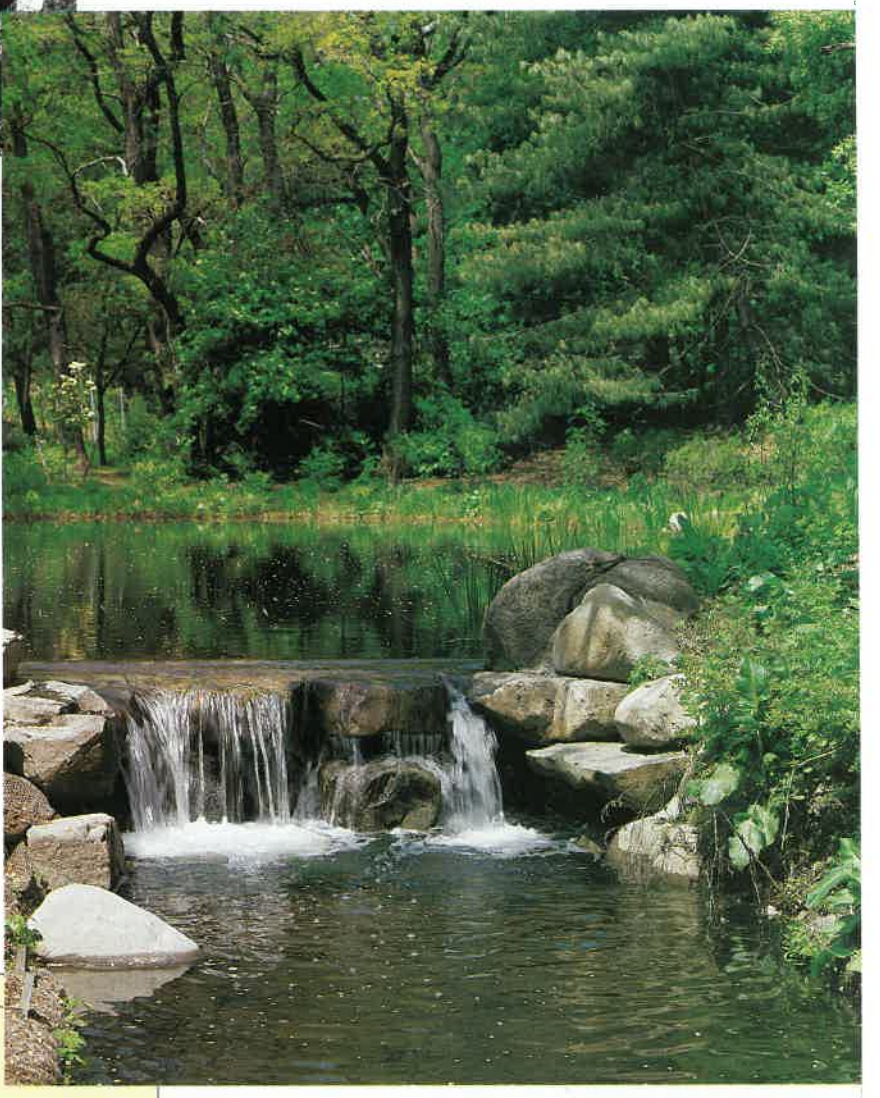


THE ROCK ARCH BRIDGE *and stairway in Ambergill are pictured before reconstruction,* top, *and after construction,* left *and* opposite. *The Rustic Shelter,* bottom, *can also be seen at the top of the stairway,* left.

In the mid-1980s, the Prospect Park Alliance turned its attention to the park's central woodland and watercourse: Olmsted and Vaux's rustic mountain forest was hardly recognizable. People going off the paths year after year had trampled the understory plants, compacted the soil, and worn away the slopes. The parks department inadvertently hastened the erosion in the 1960s when it cleared out the underbrush to discourage crime. Huge gullies opened up on the hillsides where rainstorms washed away the soil, filling in the ponds and burying streams and chutes. On steep slopes, the ground was worn down to the subsoil, and tree roots were exposed. New seedlings were unable to get started, and dead trees left gaps in the canopy that encouraged aggressive nonnative species to spread.

The alliance hired the New York landscape architecture firm Walmsley & Company to study the history of the park's design and create a plan for restoring the ravine. They were about to start restoration, Thomas recalled, when newly hired gardening staff pointed out that the area was also a natural environment. "At that moment, luckily, we had run out of capital money," said Thomas. "It was a perfect time to do an in-depth study of the park as a natural area." Prospect Park Alliance staff conducted the research under the guidance of Andropogon Associates of Philadelphia and with funding from the National Endowment for the Arts, available because the

PROSPECT PARK ARCHIVES, TOP AND MIDDLE



Long Meadow—through the wooded ravine to the 60-acre lake on the other side of the park. The plan also called for re-creating architectural elements like bridges, rustic shelters, and stairways. So far, work has been completed in the ravine and is now progressing on the streams and pools, with the project's completion scheduled for the spring of 2005. The first two sections of the ravine restoration received an ASLA merit award in 1998.

The Prospect Park Alliance's Office of Design and Construction, directed by landscape architect Christian Zimmerman, ASLA, has planned and managed the entire restoration, bringing in outside consultants only for structural engineering, hydrology, and the building of the rustic woodwork. In addition to landscape architects, the staff includes an architect, an architectural preservationist, architectural designers, and archivist/historians, all working in rooms near the public bathrooms in a park building that hasn't yet been renovated.

The city Department of Parks and Recreation provided the ultimate oversight on the project, in the person of David Carlson, ASLA, director of landscape architecture for the department's Capital Projects Division, who reviewed all of the plans before they went

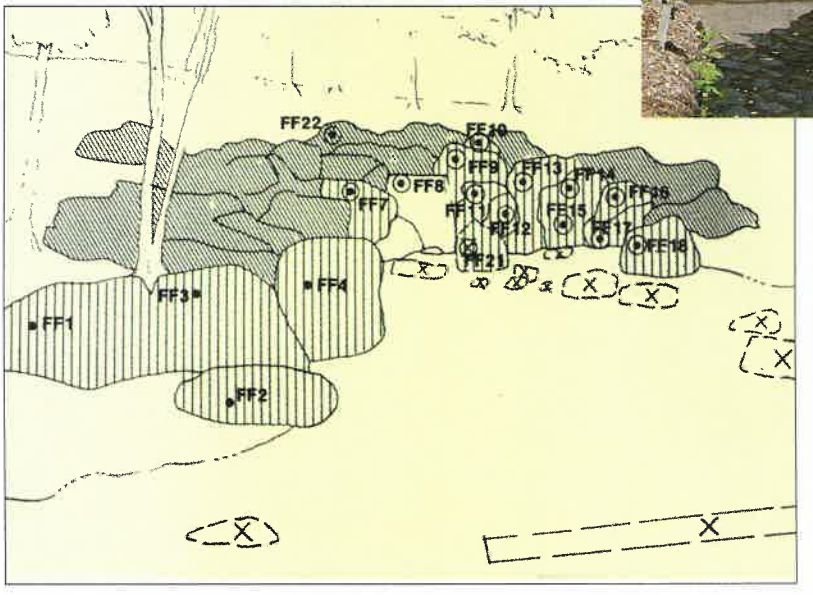
park is on the National Register of Historic Places.

But was the park really a natural environment? The place Olmsted and Vaux created was an artifice. More than 1,000 laborers amended the contours of the land, dug the lake and waterways, and planted trees and shrubs—many of them exotic species—to create the desired aesthetic effect.

THE AMBERGILL CASCADE, opposite. *Binnen Pool, as it appeared before reconstruction,* top, *and now,* middle. *A construction sketch documenting historic placement of boulders at Fallkill,* bottom.

But over the years, the woods, streams, and ponds have become naturalized and in the process ecosystems have evolved that support a remarkable array of wildlife for such a densely built urban area. Some 200 species of birds stop to feed and nest in the woods and marshes as they migrate along the eastern flyway; many other birds, including several red-tailed hawks, make the park their permanent home. The forests and fields harbor small animals, while the lake and pools teem with fish. Prospect Park has the greatest population of largemouth bass on Long Island.

When the restoration finally got under way, the goal was to revitalize the forest and reconstruct the entire mile-long water system, from the headwaters—a stone's throw from the



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THE LOWER POOL *and the Long Meadow.*

through the city's lengthy approval process. Zimmerman's office was assisted by the park's landscape management staff, which includes an aquatic biologist, forest ecologist, and wildlife specialist, as well as tree and plant experts. Mary Fox, the alliance's vice president for capital and planning, believes that having an in-house design/build department has contributed greatly to the success of the project. Another factor is the continuity of the staff. She has been at the park for almost 14 years, and Zimmerman for 13. This has allowed them to work closely with the people who maintain the landscape, to learn from their own mistakes, and to fine-tune the restoration to an unusual degree. "You get a chance to see a problem; you go out and raise your own funds; you design solutions, write up the documents, get bids, oversee construction. Then you live with the results," Fox says.

The design team involved the community on an ongoing basis in planning and making decisions. Team members presented each phase of the project to the Community Committee, representatives of more than 80 community organizations who gather monthly to discuss park operations, community outreach, and education. And they met separately with the birders, who were worried that the restoration could eliminate overgrown or marshy areas that provide important habitats for birds. "They watched us very closely in the beginning because they didn't know if we were to be trusted," says Fox.

Zimmerman and his staff aimed to replicate Olmsted and Vaux's design as closely as possible. But from the start, the mandates of historic restoration had to be balanced with environmental and practical considerations: How could the forest function as a self-sustaining ecosystem that would thrive with minimal maintenance? What could be done to enhance the value of the woods and waterways to wildlife?

Olmsted and Vaux's original plan grew from the natural topography of the land, which was shaped during the Ice Age. A remnant forest with many large trees covered the park's central ridge, actually the terminal moraine of the Wisconsin glacier, and there were numerous small glacial ponds and hills. Drawing inspiration from visits to Yosemite and the Adirondacks, Olmsted and Vaux shaped this raw material into a rustic mountain forest. "Although we cannot have wild mountain gorges, for instance, on the park, we may have rugged ravines shaded with trees and made picturesque with shrubs, the forms and arrangement of which remind us of mountain scenery," they wrote. *(Continued on Page 108)*

An Improved Prospect

(Continued from Page 85) They created a totally man-made watercourse with water pumped from a well (and later the city water system), which they described as taking first "the character of a series of pools" and then assuming "more of the usual character of a small mountain stream, taking a very irregular course, with numerous small rapids, shoots, and eddies." They built Adirondack-style bridges and shelters of oak logs and set granite steps into steep parts of the path.

To figure out what the waterways and forest once looked like (no drawings of the specific features still existed), Zimmerman and his design team searched for every possible clue. They studied the overall park designs from the 1860s through the 1880s as well as twentieth-century surveys of the park. They pored over the park's annual reports and other writings by Olmsted and Vaux. The idea, Zimmerman says, was "to try to get inside the heads of Olmsted and Vaux, to figure out their intent." Historical photos provided the best record of what the cascades, streams, bridges, stairs, and other features looked like. The design team was even able to identify individual boulders in the photos and locate them on site. In some cases, all they had to work with were family photos from the mid-1900s gathered from local residents. Because there had been no previous restorations, some evidence of the original design and many of the original materials and structures—including a complete rock weir buried under silt in a streambed—were intact. Zimmerman and his staff did much of the design work in the field. As the contractors excavated and revealed, for example, a line of boulders or a change in the soil indicating an original shoreline, the project engineer would adjust the plan.

The most significant departure from the original plan was the reconstruction of the Ambergill Cascade, a dramatic scene in the middle of the forest where water spills six feet into a narrow rock-lined gorge and out under a stone bridge. The dry stone walls of the gorge had long since collapsed and filled in with soil washed from the slopes above. A hydrology study by an environmental engineer, Louis Berger Associates, determined that in a 10-year storm, a 4-foot-deep wall of water would come crashing over the falls directly into the side of the gorge. To reduce the pressure of the water, the design team widened the gap by 2 feet and slightly changed its angle. They also built a 15-foot-wide porous retaining wall of cast concrete bars stacked like Lincoln Logs and filled with stone and subsoil, and they placed boulders over it to make it look like the original wall. Guided by the historical photos, they recovered as many of the original boulders as they could find, numbered and removed them, then reset them in their original spots, adding new stones to replace missing ones. They planted gaps between the boulders with honeysuckle, ferns, Clematis virginiana, black raspberry, and native rhododendrons to re-create the original vine-draped look. "It still has that Adirondack, rustic kind of feel," says Zimmerman. He pointed out a rock hanging unnaturally over the falls that was pinned in place exactly as it was in the historic photograph. "People walking through here, if we did our job correctly, don't think it was designed or built, but was here naturally."