



BBG's New Visitor Center

A Gateway into the Future

Sarah Schmidt

A century ago, BBG's first visitors passed through simple, gated entrances to an idyllic retreat within. Today, the Garden's mission to connect New Yorkers with nature remains central, but when visitors enter via the brand-new Visitor Center, it's fitting that they will pass through a modern, innovative space that reflects the ways the Garden itself has evolved in that time. "It's part of an extraordinary tradition of creating new models for bringing in the community, for connecting the urban world with the natural world," said BBG president Scot Medbury.

The building's design is the work of Marion Weiss and Michael Manfredi, Brooklynites and partners of the distinguished New York City firm Weiss/Manfredi. The two wanted to create a space that would showcase urban design and environmental stewardship but also encourage people to pass on through it, into the Garden itself. "We want to invite people into this green haven, and so the building always defers to the landscape," said Weiss.

To accommodate the site, which borders the historic Japanese Hill-and-Pond Garden to the south and a steep hillside onto the Overlook and its allée of ginkgo trees to the north, the architects conceived the 480-foot-long building in a serpentine shape that nestles into the landscape and evokes the Garden's wandering pathways. Two different "green" roofs also represent how the Visitor Center bridges the Garden's past and present. The pitched, copper-clad roof over the Gift Shop and breezeway will soon oxidize to match

the green, patinaed copper atop BBG's historic McKim, Mead & White Administration Building, and a living roof planted with meadow grasses, wildflowers, and bulbs covers the sinuous, glass-walled western portion of the building, providing a model of sustainable building technology.

The juxtaposition is fitting for a major addition that rounds out the first century of BBG's existence while as it segues into the future. The Visitor Center officially opens to the public on May 16. Here's what you'll see on your first visit.

As you approach the entrance on Washington Avenue, you are welcomed into the Garden via a pedestrian plaza and two rain gardens. These small sunken planting beds contain water-loving species like native black gum trees, wildflowers, and switchgrass and collect rain that runs off the plaza and other paved surfaces, thus diminishing the load on the city's storm-water system and reducing water pollution.



After passing beneath a covered breezeway that houses the new admission booths, you can either head straight into the Garden, visit the new Garden Gift Shop, or explore the multimedia interpretive features located in the dramatic sunlit gallery. Its curved glass walls are fritted—coated with a special patterned glaze to prevent bird strikes and help cool the building. A wall-mounted digital map of the Garden and interactive botanical exhibits will encourage you to slow down and savor your visit to the Garden. “Here you can recalibrate and prepare to look closely, to really observe,” said Medbury.

Just beyond lies the Lillian and Amy Goldman Atrium, a special event space whose fritted glass wall follows the contours of the leaf-shaped room. Under the floor lies a radiant heating and cooling system that draws power from state-of-the-art geothermal wells. The room’s north wall is faced with honey-colored wood panels hewn from ginkgo trees harvested from the site before construction began.

Just outside, a wooden walkway curves around the building and leads you up to an overlook where you can get a close-up view of the living green roof planted with meadow grasses, wildflowers, and bulbs. This installation of over 40,000 plants and the growing medium in which they are planted will help insulate the building, cool the surrounding environment during the summer, and improve storm-water management.

The surrounding vista includes beautiful views of the Japanese Hill-and-Pond Garden and Cherry Esplanade. The rest of the Garden is just beyond. Now you’re ready to explore it with a fresh perspective.

Sarah Schmidt is an editor at Brooklyn Botanic Garden.

Respect for the Environment

The new Visitor Center is not only attractive, it’s also ecologically sustainable and aspires to earn a LEED Gold rating. Here are some highlights.



Energy from the Earth

Twenty-eight geothermal wells will heat and cool the building; they will be supplemented by the utility grid only as needed. The building is also nestled into the surrounding hillside, which helps provide insulation.



Good Wood, Bright Light

Wood-paneled walls in the Lillian and Amy Goldman Atrium are made from ginkgo trees harvested from the site. Glass walls provide natural light, and their patterned glaze helps prevent bird collisions and reduces cooling needs.



Living Roof, Thirsty Gardens

The vegetated roof absorbs rainwater, captures carbon, and reduces the urban heat island effect. Three rain gardens also absorb and filter water that would otherwise run off the pavement into the city’s storm-water system.



View a time-lapse video of BBG's green roof installation at nextcentury.bbg.org/news.

A Working Landscape

Elizabeth Peters

At first, BBG's newest set of horticultural features may seem somewhat subtle. Almost three acres of new plantings will surround and blanket the Visitor Center, nestling the new structure into the century-old Garden.

Inspired by the diversity of native plants and BBG's existing collections, the new landscape promises to seamlessly integrate into the historic elements of the Garden. Yet the closer you look, the more there is to see. From street-side tree beds to terraces that ladder up the berm to Ginkgo Allée, these new horticultural features will guide visitors into the Garden and invite them to discover a sequence of botanical tableaux. Like the building itself, the landscape will present itself as a series of small gifts, offering a different aspect at every glance, and impossible to take in all at once.

Beyond forming a buffer between the urban streetscape and the inner Garden oasis and presenting a backdrop for BBG's horticultural collections, the Visitor Center landscape is hard at work. It offers a living demonstration of urban sustainability practices—continuing the Garden's traditions of innovation and education.

Storm-Water Management

The green roof is expected to harvest almost 200,000 gallons of water each year; runoff from the Visitor Center roof, plazas, and hillside will not be discharged into the New York City storm sewer but rather retained

onsite to be used during drier spells. Storm water will be directed to collection basins in the plazas, percolate into specially engineered soils, and be taken up by plants that don't mind "wet feet," like switchgrass (*Panicum virgatum*), blue star (*Amsonia* species), and wild hyacinth (*Camassia* species), as well as cultivars of black gum and sweet bay trees (*Nyssa sylvatica* and *Magnolia virginiana*). The system of storm-water channels and planted depressions will then carry any overflow to the Japanese Hill-and-Pond Garden.

Collectively, these measures will conserve significant amounts of water. Featured in the public entrance and interior event plazas, the two "rain garden" basins will offer opportunity to educate the public about these strategies. "It's exciting to create this sort of daylighted system that can be both a beautiful garden feature and a demonstration of practical urban infrastructure," says Aaron Booher of HM White, the landscape architectural firm that conceived and designed the project. "To my knowledge, a full capture like this [without need for underground detention tanks and connection to the municipal sewer] has not been done before in New York City."



Plants selected for the green roof include (clockwise from top left): butterfly weed, prairie Junegrass, 'Pink Dawn' foxglove beardtongue, sideoats grama, hoop petticoat daffodil, and prairie dropseed.

A Living Roof

Above the plazas, a 10,000-square-foot green roof meadow will integrate the sinuous building with the hillside. Planted with three mixes of meadow grasses, flowering perennials, and bulbs, the roof will almost vanish from some angles, while from others contrasting swaths of color will make a bold visual statement. Each year in late winter, the grasses will be trimmed back, and flowering bulbs (snowdrop and daffodil) will emerge to herald spring.

The subtlety of the native-plant-inspired meadow landscape belies the daring innovation of the living roof design. Unlike many green-roofed buildings in New York City, the undulating Visitor Center roof is pitched from 4 to 27 degrees, which presented a difficult engineering challenge. The rooftop garden's specially engineered growing medium is spread directly over a granular drainage layer and held in place with a system of cleats and two layers of geonet to prevent erosion. (As the plant material grows, its roots will help bind the full assembly in place.) Subsurface drip irrigation with capillary fabric has been built into the system for times of drought; however, once the plants are established, the living roof should be largely self-sustaining.

The cultivars planted on the Visitor Center roof were selected from those that demonstrated the greatest adaptability during onsite testing over the past few years. The modest six-inch depth of the growing media and controlled availability of moisture will affect the growing potential of the rooftop plants, dwarfing some specimens and allowing the designers an opportunity to play with elements of scale while they provide visual comparisons with similar species and cultivars planted on the hillside.

New Cultivars, New Collaborations

This playful approach to scale informs all of the new landscape features. In its designs, HM White employs large gestures: restrained choices of plant palettes, massed for impact. "The garden design needed to be cohesive to unify the building with its setting when viewed at a distance, yet bold enough to create a composed backdrop that is constantly changing through the seasons," Booher explained. The new Visitor Center garden incorporates many exciting new cultivars of regionally native plants combined with some familiar favorites, expanding BBG's collection with 90 new kinds of plants.

"The design evolution for this project was truly a collaboration of disciplines, and in the end our roles were rather intertwined," says Booher. Architect firm Weiss/Manfredi offered the vision of an "inhabitable topography." In creating this functional landscape, HM White worked closely with Weiss/Manfredi; the project's engineering firm, Weidlinger Associates; and soil science consultants from Pine & Swallow. Says Booher, "This type of collaboration, in the pursuit of fusing landscape with structure, offers an important new model for building in New York City."

Elizabeth Peters is the director of Digital and Print Media at Brooklyn Botanic Garden.



Q&A: Visitor Center Design Team Weiss/Manfredi

Alison Weeks

This internationally recognized multidisciplinary design practice has garnered numerous awards for dynamic designs that seamlessly integrate architecture and landscape design.

Founders Marion Weiss and Michael Manfredi, both Brooklyn residents and BBG enthusiasts, recently discussed their design inspiration and hopes for BBG's first new building in over 20 years.

Q: What aspects of the Garden inspired the design of this building?

Michael Manfredi (MM): The magical sense that the Garden is both of the city and immersed in the city while also being this beautiful, serene oasis—that duality is an important part of it. The Garden also has an element of seduction: It draws you in, space by space. You never see it in its entirety, only bits and pieces. We wanted to mimic that in our design—like the Garden itself, the Visitor Center's serpentine design means you can't see all of it at once; it seduces people into the Garden.

Marion Weiss (MW): Within the 52 acres are these extraordinary worlds that are independent of each other. When you wander through the Garden, you have a sense of unfolding discovery. We were inspired by that and tried to create similar "worlds," like the

atrium, breezeway, and terraces, that are integrated as a whole but offer very distinct experiences.

Q: What do you hope both new and longtime visitors take away from the design?

MM: For a first-time visitor, it will hopefully be this amazing introduction to what the Garden is all about, giving them an instant appreciation and helping them see things that they might not otherwise. For longtime "BBG family," we hope it will be a celebration of the continued pleasure and surprise that comes with the changing, evolving nature of the Garden.

MW: That's right—like the Garden, this building will change in each season. Architecture generally stays static, but with elements like the living roof, it will have four identities in four seasons, with varying heights and colors based on the seasonal life of the plantings. In the winter, under a blanket of snow, the roofline may almost disappear into the landscape. Much of the building's effect will also be informed by the light that comes in through the fritted glass, which will be very bright in winter and more dappled and shadowy in summer.



“Like the Garden itself, the Visitor Center’s serpentine design means you can’t see all of it at once; it seduces people into the Garden.”

—Michael Manfredi

MM: We hope this building makes the changing nature of the Garden visible and evident to both new and returning visitors. In this way, there will always be something that seems new and fresh.

Q: How has being Brooklyn residents informed your experience in creating this major new addition to BBG?

MW: Both Michael and I had very passionate first experiences with the Garden. My sister first brought me here many years ago, and as a new Brooklyn resident, I was struck by how the utter confusion of the city was left behind as we uncovered the secret places inside the Garden. It makes you feel like you’re the first person in the world to discover this special place.

MM: We both love the Garden, so working on this project was a total pleasure but also carried with it a real responsibility. This was our first building in Brooklyn, and it felt very much like building in our own backyard, building for our family. It was both terrifying and exhilarating.

Q: What do you hope this building will do for BBG as an institution at its opening and into the future?

MW: I hope that it becomes as memorable as each of the specialty gardens are at BBG—a world unto itself. The whole of the Garden is greater than the sum of its parts, but hopefully each part can be extraordinary.

MM: I hope it marks a very important chapter in BBG’s history, a moment when the Garden is reaching out to the city while making an impact on the city. The Garden is embracing its role as a pioneer in what it means to make a botanic garden in the city.

Alison Weeks is the Membership associate at Brooklyn Botanic Garden.

Primary Project Partners

In addition to Weiss/Manfredi, the Visitor Center project has involved an inspiring group of talented design, engineering, and construction partners, including HM White Site Architects (landscape architects); Thinc Design (exhibition designers); the LiRo Group (construction management); E.W. Howell (general contractor); Weidlinger Associates (structural and civil engineers); Langan (geothermal, geotechnical, and environmental consultants); Viridian Energy & Environment (sustainability consultants); Jaros, Baum & Bolles Consulting Engineers (MEP/FP and IT engineers)—and Brooklyn Botanic Garden’s own staff.



Interpreting the Garden

Alison Weeks

BBG's new Visitor Center is undoubtedly captivating from the outside, but inside, both new and longtime visitors will find much more than just a beautiful building.

State-of-the-art exhibits as well as orientation and educational tools will help visitors of all ages and levels of horticultural expertise appreciate the rich diversity, history, and multifaceted beauty of the Garden.

"Taking the time to really stop and notice the details around us is something we often forget to do as adults," said Sonal Bhatt, BBG's director of Interpretation. "Many of the exhibits in the new Visitor Center will remind people what to look for, what to slow down for, and what to take notice of. Inspiring a childlike sense of discovery will immensely enhance visitors' enjoyment of the Garden."

In collaboration with award-winning exhibit designers Thinc Design and other consultants, BBG has created videos, interactive exhibits, a multimedia map with animated seasonal highlights, and even a plant ID game that will engage visitors' senses while addressing often-overlooked key interpretive points.

"Visitors will learn the differences between a botanic garden and a park and why BBG is designed and organized as it is," said Bhatt. "The exhibits show how the science of botany can offer an appreciation of the plant collections beyond just their external beauty, and also what BBG is doing for the community beyond its physical borders."

A dedicated section of the Visitor Center gallery will highlight the concept of seasonal change in the Garden with an artistic time-lapse media display that illustrates the magnificent year-round nature of BBG.

"The exhibits demonstrate what a dynamic, constantly evolving place the Garden is," said Bhatt. "Whether you come to explore BBG for the first time or to revisit your favorite spots, you can discover fresh ways of seeing the Garden every time. We believe that visitors who tend to come to the Garden during one particular season will be inspired to come again throughout the year."

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Spotlight: Amy Goldman

Alison Weeks

The centerpiece of BBG's new Visitor Center is a dramatic leaf-shaped atrium—a soaring, light-filled room that will delight and welcome visitors to celebratory events throughout the year.

This impressive new space, opening onto the Garden's iconic Cherry Walk and Cherry Esplanade, has been made possible with significant support from the Lillian Goldman Charitable Trust and the Amy P. Goldman Foundation. Dr. Amy Goldman, the remarkable driving force behind this gift, said of the atrium, "All the models in the world couldn't have prepared me for the experience of walking into the space—it is really just breathtaking. I am delighted to have played a small part in its completion."

Dr. Goldman's many accomplishments include a background in clinical psychology as well as successful careers as a gardener, writer, and artist. She is the author of three award-winning books on heirloom fruits and vegetables and is a passionate supporter of seed saving and other safeguards of horticultural biodiversity. She is also a talented artist, with a body of sculptures that are inspired by heirloom edibles.

"Brooklyn holds a very special place in my heart," said Goldman, who was born in the borough. "My grandfather opened a Brooklyn supermarket—Goldman's Italian American—around 1920. My parents ran it until the mid-1950s. I think my parents are smiling down on this beautiful new space."

The Lillian and Amy Goldman Atrium is the largest component of the new Visitor Center. An undulating canopy supports the living roof, and the entire space is animated by light from the curved glass walls of the south-facing facade as well as the north-facing windows. An exterior stair allows visitors to experience the building from multiple perspectives as they move between the Garden's Overlook and the Cherry Esplanade below.

"Amy Goldman's extraordinary support of BBG's new Visitor Center has been instrumental in its reaching completion," said BBG president Scot Medbury. "The Lillian and Amy Goldman Atrium is a gathering space unlike anything else in New York City; I am so excited by its tremendous potential to engage the Garden's broader community in an elegant and sustainable new way."

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