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A Space of Soul & Solace

For **Davis Brody Bond**, the design of the National September 11 Memorial Museum has been a technical and emotional challenge, but the dramatic result will help visitors remember the day, its many victims, and the Twin Towers themselves

By Matt Alderton



If buildings have spirits, the ghosts of nearly a dozen were roaming the streets of Lower Manhattan after the 9/11 terrorist attacks, lingering with the spirits of 2,606 fellow New York victims. Of the steel-and-concrete specters, those of the Twin Towers are most prominent in the minds of New Yorkers and the nation—palpably omnipresent. As thick in their absence as the smoke that smothered them, they whisper incessantly, “Remember.”

To answer and respect their surrunt hum, the National September 11 Memorial Museum will act as an emotional megaphone, sounding their memory from beneath the former World Trade Center site amid stories of heartbreak and heroism.

“In the cleanup process after 9/11, a huge amount of debris was removed from the site,” says Carl Krebs, a partner at New York-based architecture firm Davis Brody Bond, which designed the museum. “When they were finished, ... there was very little left of the original World Trade Center. Slowly, remains ... emerged. One of those extant features [was] the foundations of the Twin Towers. Because they were cut off at ground level, the stubs of all the columns in the foundations that framed the two towers were still on-site. You could literally walk the towers and see a trace of their footprints. It subsequently became a requirement of the site’s development that we preserve these footprints and provide ‘meaningful public access’ to them. That became the genesis of marrying these extremely significant in situ remains to the idea of a museum.”

It was no easy marriage, as building in the shadow of a tragedy demanded both technical and emotional problem solving. Davis Brody Bond’s mission, therefore, was to create a space that would be not only functional but meaningful. And in advance of the museum’s 2014 opening, the potency of its design foreshadows its likely success.

A Museum Is Born

For five years prior to 9/11, Davis Brody Bond had been working with the Port Authority of New York & New Jersey to create a master plan for updating the World Trade Center’s concourse level. A major goal of the project was improving egress in response to the 1993 World Trade Center bombing. But then the planes hit the towers.

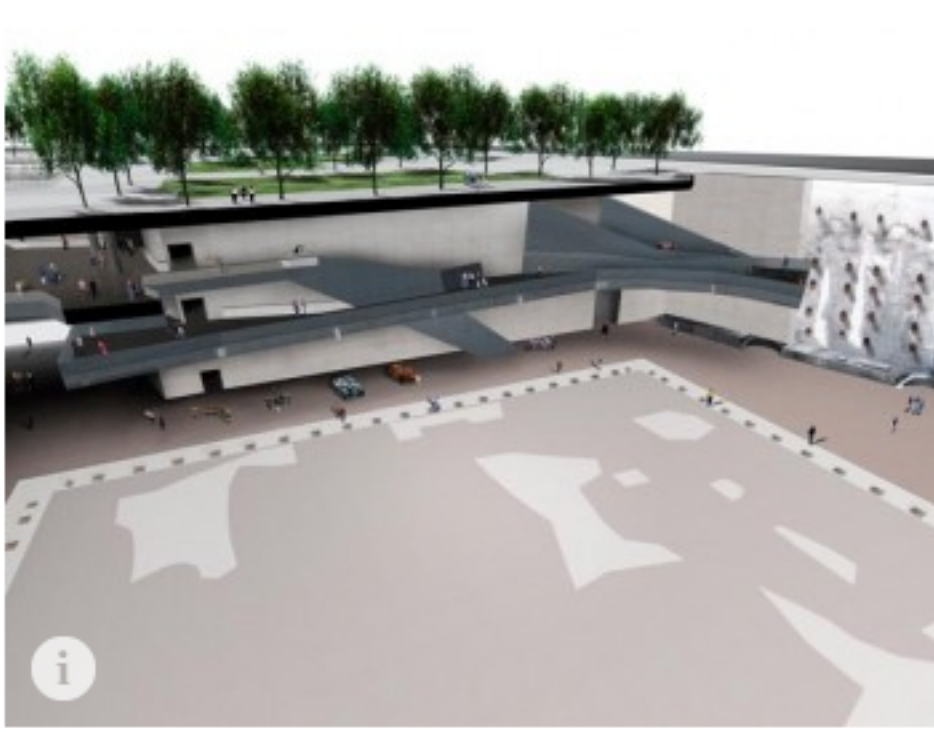


From their office, just 20 blocks north in Hudson Square, associates at Davis Brody Bond watched the day’s events unfold. Employees who lived in the area were evacuated; several knew people who died. Reconstruction would be long and hard, but they felt compelled to help. “In the years after 9/11, there was a really strong desire in New York in the architectural community to try to give something back—in a sense, to try to confront our own sense of loss and our own experiences through the act of rebuilding,” Krebs says. “The rebuilding of Lower Manhattan had an incredibly therapeutic and fulfilling aspect to it in a period when most of us, personally and professionally, felt incredibly stricken by the events.”

The firm’s work on the World Trade Center concourse was scrubbed. A new master plan was needed to simultaneously memorialize the past and catalyze a new, more hopeful future. That master plan was chosen from a design competition in 2003 and belonged to architect Daniel Libeskind, who envisioned a series of five skyscrapers surrounding a memorial plaza.

From its inception, the memorial was to include a museum operated by the World Trade Center Memorial Foundation. As planning continued, however, the museum took on progressively greater significance. “Family members and the community wanted an aspect of the memorial that told more of the stories of the individuals and events of that day,” Krebs says. “The memorial, as a powerful and somewhat abstract gesture, was not intended to do that. So, the idea of the museum as an interpretive center about the experiences of the day slowly grew.”

Along with Norwegian firm Snøhetta, which designed an aboveground visitors pavilion as part of the memorial plaza, Davis Brody Bond was chosen to design the museum’s interior. It was originally envisioned as a subterranean experience that “should ... serve as a literal and figurative entry point to Ground Zero,” Libeskind wrote in his master plan proposal.



A Dramatic Descent

Visitors to the National September 11 Memorial Museum, which is aiming for LEED Gold certification, will enter at ground level through Snøhetta’s Museum Pavilion, the centerpiece of which is a large glass atrium containing two steel tridents recovered from the Twin Towers. The bright atrium lets light enter in large swaths before leading into the belly of the museum below.

In harmony with Libeskind’s master plan, the bulk of the museum is located 70 feet below grade in order to provide

access to artifacts that have remained in their original place at the site. These artifacts include the aforementioned Twin Tower footprints as well as the “slurry wall,” a retaining wall left exposed after the towers’ collapse that was originally engineered to keep the Hudson River from breaching its subterranean banks.

“What people mostly associate this with is the iconic image after 9/11, when the only part of the site you could see was the bare tiebacks on the slurry wall,” says Milan Vatovec, senior principal at Simpson Gumpertz & Heger Incorporated, which worked with Davis Brody Bond and Guy Nordenson and Associates Structural Engineers LLP to resupport the slurry wall for the purpose of making it a permanent museum exhibit. The team was able to leave a 60-foot-long portion of the slurry wall intact in the design. “It’s a powerful reminder,” Vatovec says.

Along with the last piece of steel removed from Ground Zero—a 58-ton, 36-foot-tall beam known as the Last Column, on which mourners tattooed moving tributes—the slurry wall and Twin Tower footprints are located in the bottom depths of the museum, in what’s called the West Chamber. Getting there requires a physical and emotional descent.

“The first and most valuable part of the [museum] experience is the idea of a descent that slowly takes you from the world of the city and the street down to a world that is quieter and more contemplative,” Krebs says. “It does so in terms of scale but also noise and light levels. You enter the museum through the pavilion, where you have daylight, and after that you go down a [ramp] where there’s a slowly diminishing level of light ... By creating that change in lighting very slowly, you’re gradually acclimated to a dimmer, more somber environment.”

As visitors walk down into the museum, they will pass through an initial multimedia presentation that primes them for the exhibits below by encouraging them to reflect on their own 9/11 story. “It gets people to think about where they were and what the experience was to them,” Krebs says, noting that he, his team, the exhibit designers, and the museum staff collaborated closely to coordinate the architectural space and develop an overall narrative for the museum visitor.

Apon leaving the introductory exhibit, visitors will arrive in the West Chamber, which is meant to be awe-inspiring in its sudden, stunning scale. “That’s where you begin to realize, or visualize, the two tower volumes, which we’ve expressed in a 70-foot-high space,” Krebs says. The volumes will be clad in aluminum that has gone through a heating process to give it a hammered finish, and they will be lit to enhance their look. “It’s a very abstract, emotional [space] that allows individuals to have their own feelings or responses to an event that has been heretofore explained in a very minimal way.”

Inside the volumes are additional exhibits, then visitors begin their ascent back to the Memorial Plaza above—back into the light.

Resilience in Action

Construction has been rife with challenges, not the least of which has been building amid numerous concurrent projects, each one with overlapping boundaries and its own architects, contractors, and clients. Then there have been the project’s various stakeholder groups, all of whom have had their own vision for the museum and its fixed artifacts. “We tried to listen to as broad a spectrum of voices as we could, including the family members, the local community that’s going to live beside the memorial, and the foundation that’s going to run it, operate it, and pay for it,” Krebs says. “We encountered many contradictions, challenges, and problems—bureaucratic, political, and emotional—but we ultimately tried to use our best judgment and do the right thing.”

Somehow, the spirit of the project has transcended its issues, including a financial dispute between the Port Authority and the Memorial Foundation that delayed construction for more than a year. “A project this large has many technical challenges, many differences of opinion and problems to resolve, and many regulatory requirements and constraints,” Krebs says. “Throughout the process, we tried to remember the reason we’re doing this—the people and the city we’re doing it for.”

Davis Brody Bond’s ultimate design for the National September 11 Memorial Museum is meant to slowly bring future visitors—an estimated six million by the time the venue opens—back to that moment, back to that day in history. And, physically, it will bring them back to the exact place where the Twin Towers once stood.

It’s meant to make them remember. And because of it, the emptiness of the past 12 years won’t be there anymore; the museum will fill the void that the ghosts once did. **ABQ**

Collaborative Construction

The National September 11 Memorial Museum is one of many projects rising from the ashes of the original World Trade Center site, and each has its own team of architects, clients, contractors, and subcontractors. Building it has therefore required a concerted—and sometimes complicated—effort at coordination. “There’s a whole host of adjacent projects and stakeholders with whom we’ve had to



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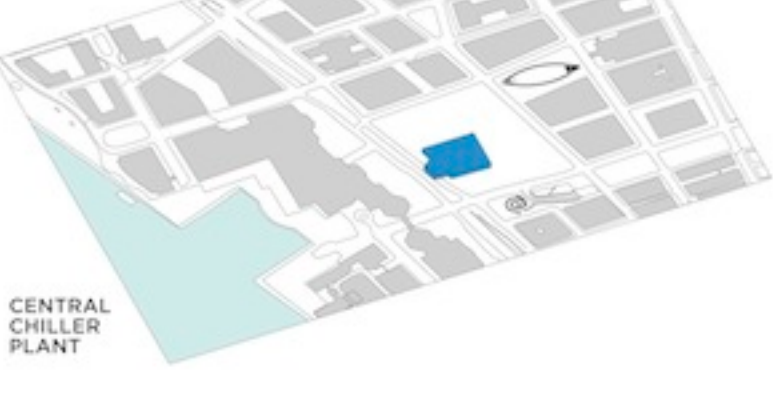
memorial pools, which are surrounded by 400 commemorative trees. (Architects: Michael Arad and Peter Walker)

3. MUSEUM

Expected to open in 2014, the National September 11 Memorial Museum will be located 70 feet below grade level so that visitors can see the remnants of the original Twin Towers. The descent into the space is designed to make visitors contemplate and reflect on their experience of that day in history. (Architect: Davis Brody Bond)

4. TRANSPORTATION HUB

The World Trade Center Transportation Hub has been designed as the Penn Station or Grand Central Terminal of Lower Manhattan. Ultimately, it will connect PATH trains to the New York subway system. (Architect: Santiago Calatrava)

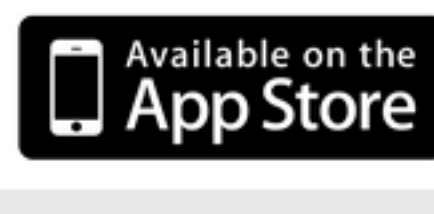


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