AIA
COMPONENTNEWS
June 26, 2009

NEWS HEADLINES

AIA Honolulu Advocates Flexible Rail for Planned Honolulu Transit Project

by Russell Boniface
Associate Editor

Summary: AIA Honolulu is working with the Oahu City Administration and Honolulu City Council to propose a partially elevated and at-grade light rail line in lieu of a 20-mile elevated and automated rail across the entire island that would run through Honolulu, small towns, and sugar cane fields. The initially planned 20-mile Honolulu Rapid Transit project would cost $5.4 billion, not including debt financing, for a population of 900,000. AIA Honolulu's proposal would reduce the project cost by $2 billion.

Base photo: A photo of existing conditions at the intersection of King St. (in foreground, running right-left) and University Ave. in Honolulu, looking northwest toward Manoa Valley. The buildings of the University of Hawaii are in the middle ground, the Koolau mountan range is in the background. Photograph by Duane Preble.

The effort to redirecting the Honolulu Rapid Transit project on Oahu is based on the AIA Honolulu Policy on Transportation in support of Transportation for America's Blueprint for a 21st Century Federal Transportation Program. For the past several years, AIA Honolulu has been actively following the developing transit project and its potential impact on the city and counties of Honolulu. The AIA Honolulu Board of Directors established an AIA Transit Task Force to research and advise the board on related issues. On June 10, AIA Honolulu Executive Vice President Amy Blagriff and AIA Honolulu President

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Read AIA Honolulu's "Talking Points Addressing the Proposed Honolulu Transit Corridor Project."

Visit the U.S. Department of Transportation Web site to learn about fixed guideways."

For information on the AIA national component advocacy efforts, visit AIA.org, which includes a link to the AIA Center for Communities by Design page.

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Jeffrey Nishi, AIA, presented testimony to the city council in opposition of the current transit plan. A June 12 vote by the city council authorized the city to issue a $ 1.1 billion bond for the transit project.

AIA Honolulu as citizen architect

Instead of the 20-mile elevated rail system across Oahu proposed by the Honolulu Rapid Transit project, AIA Honolulu, which first became active in the transit project in 2005, suggests that 10 miles be at-grade. AIA Honolulu has always supported a transit system, but with reservations on elevated rail.

“We certainly hold a very different view as to how this project should move forward,” says Blagriff. “We believe in the power of collaboration, repeat messaging, getting the facts straight, and positioning oneself as the authoritative source. We are very aware that in order for us to succeed, we need to position ourselves so that it is a win-win for all … in other words, we know we need buy-in from a diverse group if we are to succeed in making changes. AIA Honolulu is not anti-rail.”

Blagriff says AIA Honolulu is asserting itself as informed citizen architects. “Rail has been talked about in Honolulu for over 20 years,” she says. “We have been gingerly approaching the current transit plan over the last several years.”

AIA Honolulu members met with Mayor Mufy Hannemann about the transit project in 2006 under President Michael Leineweber, AIA, and were told it was too early for architects to get involved, but that he would keep the chapter posted. “The mayor and his staff said they thought we only had been interested in station design, and that is why they had told us in 2006 it was too early,” Blagriff recalls. The next year, under President Peter Vincent, AIA, AIA Honolulu was told it was too late to make changes to the planned system. Last year, Blagriff and AIA Honolulu Past President Sid Char, AIA, met with the mayor but were told transit research was needed. Last October presided over by Char, the AIA Honolulu Board established the Honolulu Transit Task Force. A special election last November on a steel-on-steel fixed guideway system on Oahu saw a vote of 155, 800 in favor, 140,600 against, meaning it could be elevated or at-grade. The vote did not specify elevated, as is currently planned.

This year, under Nishi, AIA Honolulu has been working very hard to continue dialogue with the city administration and city council members to advocate for a flexible system capable of going at grade, particularly through the urban core. Says Blagriff: “With the help of Scott Wilson, AIA, current chair of our Transit Task Force, and Paul Louie, AIA, government affairs chair, we have been meeting with officials and allied organizations to try to gain support for our position. We believe public outreach is key to our success. I have been meeting

with city officials and giving testimony, and we have been very fortunate to have Past President Sid Char, who has continued to take an active role. This continuity in leadership is key."

In April, for Architecture Month, AIA Honolulu held a panel on transit at which 175 members of the public attended, including members of the city council. Blagriff states: "Leading up to AIA150, we were successful with our public outreach. This transit task force has been our first attempt at being as active as the chapter had been years ago. I am a convert for the Citizen Architect program because I see value in members getting more active. Elected officials need architects to advocate and share their expertise."

This is Photo 1 overlaid with a photo simulation of the elevated rail guideway and station proposed by the City administration for the site. The guideway is 60 feet above grade because it is designed to pass over the H-1 freeway, which is approximately 1/4 mile north of the photo location. Photo Simulation work by Berkeley, Calif.-based Urban Advantage Inc.

Blagriff says the AIA Honolulu Transit Task Force has been successful because it revised its public policies on transit, which the AIA Honolulu Board approved. AIA Honolulu's members helped to form the component's public policy on transit, citing an e-mail survey last year asking its members their views on transit. "Any testimony that goes out is supported by our public policy," she explains. "The policy now allows us to continue to speak if we want to give testimony. We don't have to go back to the board."

AIA Honolulu supports 10 miles of at-grade rail

AIA Honolulu worked with an independent transit consultant, pro bono, on its transit position and proposal. Says Blagriff: "The research shows that of the 20 miles, 10 miles would have to be elevated due to congestion. The other 10 miles can be at-grade with a driver, and that is what we are advocating. Our position focuses on the technology that the city is poised to select, which is a fully elevated, fully automated, driverless technology. The city has three RFPs and we are trying to get the city to change the RFP before the EIS [Environmental Impact Statement] has been finalized. We are advocating for a flexible, light-rail system that would save the city, according to our estimates, about $2 billion. Think of all the cement that would be needed to put in a 20-mile elevated system. In sugar canes fields it is easy to build at-grade—you don't have to worry about rights-of-

way. Also, an elevated rail would cut off ocean views from the mountains. We want to promote transit-oriented development as much as possible. But our research shows that a fully automated, driverless system is not cheaper."

Blagriff also cites concerns such as blight under an elevated train; security and theft issues, such as those of the Vancouver rail system; and the lack of planning by the city regarding street-level interconnectivity, i.e., bus and cab pick-up areas. The chapter's Transit Task Force is providing pro bono work to prepare visuals of how train stations in Honolulu's Chinatown and historic district could function under its proposals.

Blagriff notes the city's plan is to put the elevated rail in its beginning phase by starting it in sugar cane fields at the remotest part of the island and running it through little towns. "Most rail projects start at your urban core and go somewhere like a stadium or airport," she points out. "Typically you start with a spur that people will ride to build ridership."

The development of the Task Force under Char led to the development of a YouTube video, posted on the AIA Honolulu Web site, about the benefits of at-grade train systems, with examples of light-rail in various cities.

AIA Honolulu—a positive voice

"We are trying to position ourselves as positive forces for change," Blagriff says. "We find we are making a difference. People are writing to the Honolulu papers saying that they support our position. We have received good news coverage. We will continue to be true to our policy and use any opportunity to testify. The final EIS is yet to be released, and we will certainly have formal comment on that. We will look for other public arenas and continue to be a voice."

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VOLUME 15 THE NEWS OF AMERICA'S COMMUNITY OF ARCHITECTS
APRIL 11, 2008

NEWS HEADLINES

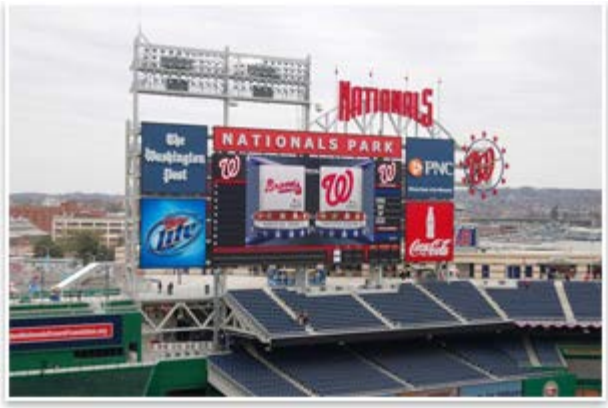
New Nationals Park Opens in Washington, D.C.

by Russell Boniface
Associate Editor

How do you . . . design a LEED-certified Major League Baseball ballpark on a set budget and tight construction schedule?

Summary: An energetic crowd of more than 40,000 helped inaugurate the new Nationals Park in Washington, D.C., on March 30. The ballpark, a collaboration of Kansas City-based HOK Sport and architect-of-record D.C.-based Devrouax + Purnell Architects and Planners PC, recently was awarded LEED® Silver certification, the first major league ballpark to be certified by the U.S. Green Building Council. AIA President Marshall Purnell, FAIA, design principal at Devrouax + Purnell, led the way in working with the city and giving the ballpark a design unique to Washington, D.C., while HOK Sport plied their experience to make the facility a top-drawer baseball experience.

AIArchitect was at the ball game opening day to talk with HOK Sport architects Joseph Spear, AIA, principal, and Jim Chibnall, AIA, senior designer. President George W. Bush threw out the first ball, ushering in a new baseball tradition in the nation's capital—and welcoming baseball and architecture fans to a marvelous ballpark.



To make the ballpark a contextual success, the two architecture firms worked closely with the D.C. Sports & Entertainment Commission (DCSEC), the Council of the District of Columbia, former Washington Mayor Anthony Williams, and the Anacostia Watershed Restoration Committee. Clark Construction Group LLC of Bethesda, Md., Hunt Construction Group of Indianapolis, and Smoot Construction of Washington formed a joint venture and completed the ballpark on a tight schedule of 23 months. The $611 million budget, equally tight, was funded by public bonds.

On a 20-acre site just off of the Anacostia River in southeast Washington—a half-hour walk from the U.S. Capitol—the glass and concrete ballpark harmonizes with the limestone context of the city's federal and monumental architecture. It also serves as the centerpiece of a mixed-use waterfront development plan currently under way.

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Photos by Douglas E. Gordon, Hon. AIA

Collaboration between two experienced firms

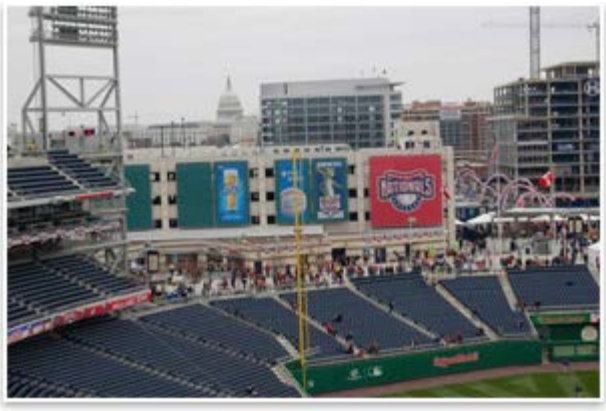
"The city picked the location as a result of finding a place that needed economic stimulation," Purnell explains. "We were in a joint venture with HOK Sport. Our firm focused on what could make it uniquely Washington, and HOK Sport focused on making it a first-class ballpark by the standards of Major League Baseball. We put our strengths together and made allowances in the budget for LEED."

Collaboration was key. "We pooled the staff in one office," says Spear. "It was a collaborative arrangement that worked well," adds Chibnall. "Marshall's firm was just a slam-dunk. It was a wonderful relationship. Devrouax + Purnell were wonderful to work with. They had an understanding of the city and of the processes needed to get the project through, such as knowledge of permitting, design review, and planning. They assisted us tremendously."

Take me out to the ball game

The asymmetrical ballpark, sited at the confluence of the Anacostia and Potomac rivers, reflects its surrounding diagonal street geometry, which evokes the District's street plan laid out by Pierre L'Enfant. The ballpark's monumental façade along the third base/left field side on South Capitol Street has a hard edge pointing toward the U.S. Capitol and, at the ballpark's south end, a dramatic triangular hard edge pointing out towards the river.

That façade, along with the row of housing across the broad street, creates a forced perspective, with the distant Capitol Dome highlighted at the vanishing point, "so you can't miss the Capitol," notes Spear. As Purnell says: "What the façade looks like on South Capitol was not a baseball issue—it was a Washington issue." The monumental façade also serves as a gateway for cars entering the city via the Douglas Bridge. Ground-level openings offer street-level glimpses into the ballpark.



The ballpark's seating capacity is approximately 42,000. Decks—including bleachers—are arranged in neighborhoods, each with its own identity and views. The seating bowl comprises blue seats, with a section of red bleacher seats beyond the outfield fence. There is a red press box on the upper two levels. The right side of the upper bowl features a split that drops 25 feet to open up a view of the river. Says Purnell, "The upper deck stands are 25 feet lower at that point because we have suites that go from infield dirt to infield dirt. There are also suites on the third-base side from the infield dirt out to the outfield; those are the party suites rented game-by-game by corporations."

Pedestrian ramps and concourse plazas provide framed views toward the Anacostia waterfront, Potomac River, Washington Monument, the U.S. Capitol, and District residences. There is a

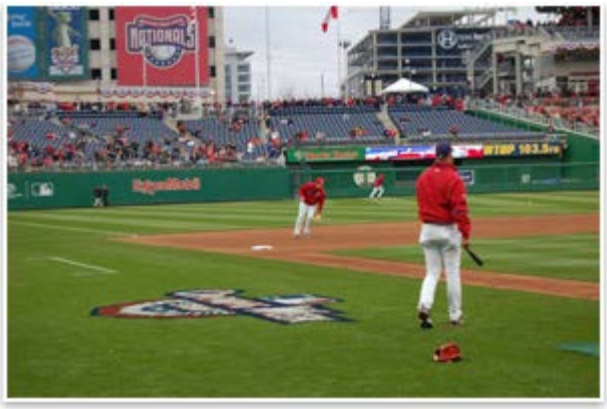
framed view of the Capitol down the left field line that can be seen from certain vantage points in the seating bowl and press box. Spear notes that the architectural elements at National Park help wayfinding. “The old stadiums like Shea Stadium and RFK [in D.C.] are redundant and repetitive. You get on a ramp and have no idea where you are when you get off. Am I close to home plate? Am I close to third base? At Nationals Park, for example, you see the gap in the concourse and seating bowl and know you are close to first base.”

Designed with the fans in mind

The ballpark’s wide concourses offer fans unobstructed views toward the games, plenty of vendors, and breezeways that will help quell the D.C. humidity. “You can still watch the game,” Spear comments on the unobstructed concourses. “Baseball is a relaxed pace where fans socialize. We wanted fans to be able to get up, have time to stretch, and feel like they have enough room to walk around. Plus, during a rain delay, we want people to come over to the open but covered concession area. If you don’t give them some place to go during the rain, they’ll go home.”

Beyond the asymmetrical fence are a large, high-definition scoreboard, picnic deck, kids’ areas, cherry trees, and a concession area with a highly visible sedum-planted green roof for heat absorption. An open pavilion beyond the outfield wall leads to the grand entry gate directly beyond centerfield. “Seventy-five to 80 percent of the people the first year will use that entrance every day,” says Spear. “We over-designed the other entrances because we expect 20 percent, by year five, to use the other entrances when there is more parking. That is the home plate entrance. There is also a grand Potomac-side stair that people can take down to the river after the game.”

Getting it done

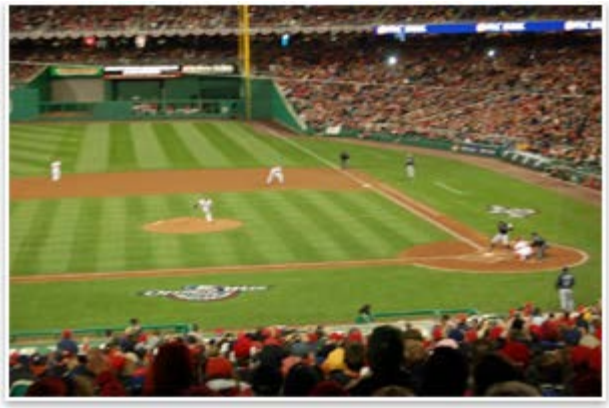


Planning for the ballpark began before the Lerner Group came on as the owner. “Initially, Major League Baseball was working with the city to select a site,” says Chibnall. “They looked at 19 sites in the general region. It was Mayor Williams who determined this was the best spot for a baseball park. At the time, this part of D.C. was the last bastion of available land in the district, and he saw a vision here. We worked diligently to accomplish that, and, for the next few years, there will be continuous construction and development here.“

“The process ended with the construction team clearing the site and building the ballpark in 23 months,” says Spear. Says Chibnall: “I think at the end of the day it’s a beautiful ballpark. It’s what D.C. needs, and what they deserve.”

Purnell points out that Nationals Park is a public-oriented project. “There is so much going on now around that ballpark as a result of the city making that investment,” he says.

Spear and Chibnall commend the owners, the Lerner family, for adding to the design. “The Lerners were able to do things, which they paid for, to improve the experience for the fans, such as increasing the size of the scoreboard and picnic deck and



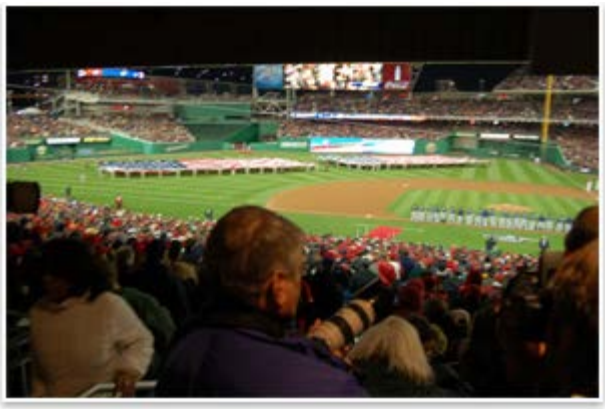
adding cherry trees beyond the outfield," notes Spear. "It was a good relationship." Says Chibnall, "We had to use historic precedent and look at what we did at other ballparks, but it was nice to have an ownership group making the building their own and incorporating their ideas into the design."

The first LEED ball park

"It was important to the Sports and Entertainment Commission and Mayor Williams to have the ballpark LEED certified," explains Chibnall. Blade-like sunscreens sit atop the structure—just one of many elements that contribute to the building's sustainability. Another is the water infiltration system to treat runoff separately from gray water.

Other elements contributing to LEED certification are:

- An energy-efficient light system, including reflectors that minimize off-field spill light and increase on-field light, which is expected to save $444,000 in energy costs over 25 years
- Removal of contaminated soil from the site
- Light rooftop colors along South Capitol Street to reflect heat
- More than 20 percent of construction materials being recycled
- Efficient, air-cooled chillers are expected to save 6 million gallons of water annually
- Recycling bins for collection of used metal, glass, paper, and cardboard
- Recycled paper products and four on-site recycling compactors
- Low-flow restroom faucets and dual-flush toilets, expected to save 3.6 million gallons of water annually
- Use of sustainable cleaning products and adhesives.



Spear says it's a great feeling to have a ballpark design come to fruition. "It's pretty cool. You get used to seeing it as a construction site, but when it opens and thousands of people come in, it's like a party—really great. It rocks." While he admits he planned to relax and enjoy the first night, he admitted that architecture would still be on his mind during the game. "I will spend the better part of the game watching to see how people are using the building."

DESIGN

Georgetown University's School of Business: Traditional, Modern, and Energy-Efficient

by Russell Boniface
Associate Editor

How do you . . . design an energy-efficient school facility that blends traditional and contemporary architecture?

Summary: Georgetown University's McDonough School of Business has opened its new 179,000-square-foot Rafik B. Hariri Building to house its school's business education programs. The $82.5 million facility is located on the Georgetown University Washington, D.C., campus. Boston-based Goody Clancy's design blends traditional stone work with steel and glass.

The design of the university building blends stone masonry and steel on its south elevation, reminiscent of the university's original architecture, with a panoramic glass pavilion on its east elevation. A glass, skylit atrium serves as the core to create a transparent circulation space while maximizing natural light. The energy-efficient design also includes selective glazing, a lighting system expected to provide 15 percent in energy savings, water-efficient plumbing and landscaping, and recycled materials from local companies. Goody Clancy worked with Whiting-Turner Contracting Company to create the energy-efficient building. The design and construction was seven years in

Georgetown University's Rafik B. Hariri Building connects from grade its south side to an above-grade student center. The design has a stone

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Victorian exterior to blend with the traditional campus buildings. Photo courtesy of Georgetown University.

The site creates campus connections

The Rafik B. Hariri Building site was built on an old baseball diamond, four stories below the Leavey student center, which is the building it abuts. The student center is on top of a parking podium. The south edge of the student center was 50 feet above the old grade.

The Rafik B. Hariri Building's east elevation. A stair outside the building (far right) connects to a newly constructed plaza. Selective glazing was used to maximize natural light inside. Photo courtesy of Georgetown University.

"The site idea," says Rob Chandler, AIA, design principal at Goody Clancy, "was to take this building and use that to connect from the grade on the south side of the building, where there are soccer fields and housing toward the canal and the river, and build a stair outside the building that would connect to a newly constructed plaza at the level of the Levy center on the upper floor.

"At the same time within the building a section change can happen—you can enter the building though a formal entrance on the south side, climb up three stories through the building, and exit on the new Levy plaza adjacent to Leavey Center. The building was designed to overlay onto pedestrian paths across the campus. Part of the goal was to make a south connection across this grade change, and, ultimately when the balance of Leavey plaza is created, east-west connections across the campus, and overlay the building on top of that."

Strong tradition, international program factor into design

Chandler says that Georgetown wanted the building to have a stone Victorian exterior to blend with the traditional campus buildings. The glass, daylit atrium, with its glass rails, creates a transparent circulation space that Chandler and his team wanted to develop to highlight the movement of the international students and faculty. "It would be immediate clear the kind of place the McDonough

School is, and in many respects why it is different from its other top-tiered business school peers," Chandler says.

The Rafik B. Hariri Building is named in memory of the late two-time prime minister of Lebanon, noted philanthropist, and ardent advocate of education, through a gift from his son, Saad Hariri, the newly designated prime minister of Lebanon and a 1992 alumnus of the McDonough School of Business.

Heightening the contrast of traditional design

Chandler says that often with academic buildings there are tall floor-to-floor heights for classroom spaces. Typically in Georgetown the floor-to-floor height is 15 feet. "We were able to extend the window heads upward with a glass panel to get the vertical ratio of window to spandrel more in proportion with the historic buildings on the campus," Chandler says. "We tried to achieve a more traditional contrast between the masonry and the glass core, even while the business school saw themselves characterized by the Modern part of the building."

There are 34 breakout rooms that are student gathering spaces. They are on display from the atrium to allow students to find their work group. The breakout rooms show the world what goes on in the school. Photo courtesy of Georgetown University.

The school features a 400-seat auditorium. Photo courtesy of Georgetown University.

The Rafik B. Hariri Building features 15 classrooms, 15 conference rooms, 11 interview rooms, a 400-seat auditorium, two large lounges, and 120 faculty offices. Student space is replete with data ports, flat-screen monitors, and videoconferencing capabilities.

There are 34 breakout rooms: "A mediating layer between the students and the classroom," Chandler calls them. "Students walk through the building and see where their peers are working. They are on display from the atrium. Students can find their work group, but also the work of the business school is always on display to people moving through the building who may not be aware of how business school students work together. They are arranged to show the world what goes on in the school."

The Rafik B. Hariri Building has received several Craftsmanship Awards from the Washington Business Congress in the areas of slate and copper roofing, exterior stone masonry work, and glass fiber reinforced gypsum panels present in the building's curved light coves, a rotunda's dome ceiling, and V-shaped panels in the auditorium ceiling.

The design features 15 classrooms. Photo courtesy of Georgetown University.

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DESIGN

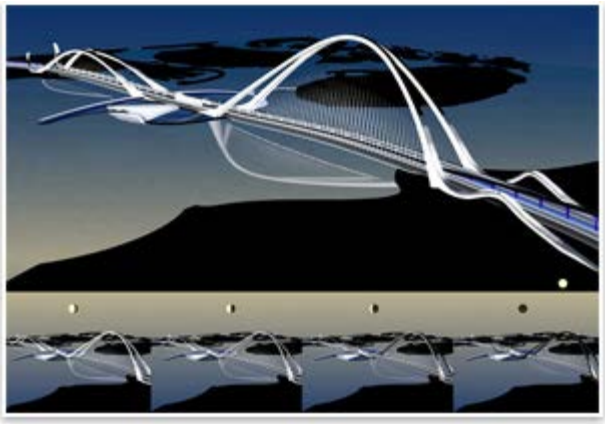
Dubai in the Sky

FXFowle International wins competition to design the Sixth Crossing at Dubai Creek

by Russell Boniface
Associate Editor

How do you . . . find inspiration for a bridge design?

Summary: FXFowle International LLC, based in New York City and Dubai, has won a design competiton to build a multi-transportation and pedestrian bridge in Dubai, United Arab Emirates. The bridge, dubbed the Sixth Crossing at Dubai Creek, will become the world's widest and tallest arch bridge but will actually be two asymmetrical suspended arches linking to an artificial island in Dubai Creek. The design is expected to become final in approximately one year, with construction expected to take four and one-half years.



The Sixth Crossing at Dubai Creek, receives its name quite literally as the sixth crossing of Dubai Creek, joining four bridges and one tunnel. Two suspended arch spans will compose the bridge. The western arch bridge will span 2,200 feet, rising 675 feet, while the eastern bridge will span 1,840 feet, rising 290 feet. Its high arch spans will provide for future water traffic. Taken together, the bridge will become the largest and tallest spanning arch bridge in the world.

The bridge will have six traffic lines in each direction, two light rail lines, and pedestrian and bicycle paths underneath the bridge deck to protect walkers and bikers from the Dubai sun. The two arches will land on a proposed artificial island in front of—and linking to—the Dubai Opera House, sited on a separate artificial island.

"We are honored to have been selected," says Sudhir Jambhekar, FAIA, LEED-AP, principal-in-charge and senior partner at FXFowle International. "Hard work paid off. We feel very good about it and think our design will contribute very well to Dubai. We hope it will become a signature piece."

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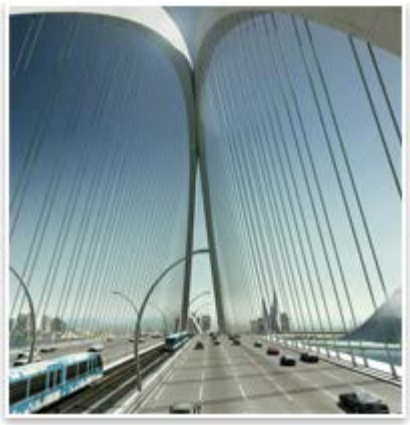

Looking for inspiration

Jambhekar says he and his firm didn't set out to design the world's longest and tallest arch bridge. In addition to providing an efficient transportation link, the arch design was inspired by the future Dubai Opera House, Arabian calligraphy, regional and cultural imagery, and climate. "A bridge is a unique typology because it offers you the opportunity to make a great urban gesture, and it can be very sculptural in many ways," he says. "An urban gesture has to work on many levels because it has to connect community. The sculptural aspect, which is the form, is the quest. What can we do so the design becomes unique to its place?"

Jambhekar recalls his first reaction was to do a big, tall suspension bridge. "Then we went looking for inspiration," he says.

The Opera House

It was important to respect the new Dubai Opera House, Jambhekar points out. He and his firm took information and images related to the future Dubai Opera House, using its proposed parabolic shape to help complement the form of the Sixth Crossing. Instead of a single span overwhelming the Opera House island, two arch spans could land on the island to flank and blend with the Opera House. The midpoint landing would also provide a transportation hub to the Opera House island.

Regional, cultural inspirations

The fluidity of the Arabian calligraphy provided design inspiration for a double arch design, Jambhekar says. Next came the imagery of water and sand dunes. "Sand dunes in that part of the world are natural reference points," he notes. "Water is also a tremendous nautical reference because the Dubai Port, one of the oldest in that part of the world, the Arabian Gulf, and the Dubai Creek." The lunar cycle also provided design inspiration. "The Islamic world follows the lunar calendar," Jambhekar adds. "In the Koran, there are great stories about calendars, half moons, and crescent moons. It became obvious that the lunar calendar could be celebrated, and the lighting can be expressed in the manner that expresses that calendar."

Dubai's hot sun also came into play, as pedestrian walkways and bike paths will be tucked underneath the roadway for shade. The Sixth Crossing will also link to a wildlife sanctuary at the end of the Creek.

"At the end of the day an arch suspension was the solution," Jambhekar says. "The two bridges are asymmetrical, but together create a fluid form."

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DESIGN

Lattice Cube-Shaped Laboratory Offers a Dutch Treat

New Atlas Building opens at Wageningen University in the Netherlands

by Russell Boniface
Associate Editor

How do you . . . design an efficiently compact laboratory and office structure that is visually striking as well?

Summary: Wageningen University in the Netherlands recently opened its Research Centre campus, anchored by the seven-floor Atlas Building that houses laboratories and offices. The Atlas Building is defined by its cube shape and concrete lattice design. New York-based Rafael Viñoly Architects designed the signature façade, which also supports a column-free interior with sloped ramps above its open atrium. Wageningen University and Research Centre is a leading education and research center focused on plant, animal, food, and environmental sciences. The Atlas Building is the recipient of a 2007 AIA New York State Award of Merit.

The 100,000-square-foot, seven-story Atlas Building anchors Wageningen University's new Research Centre campus, known as the Centrum de Born. Responding to urban planning requirements that mandated a compact site and a "sculptural quality" to the building, Rafael Viñoly Architects designed the Atlas Building as a neat, cube-shaped structure with a concrete lattice façade. The Atlas Building serves the school's Department of Environmental Sciences; one-third of its space is research labs and the remainder is office space.

The need to be compact and visually striking leads to negotiation

Mariana Kolova, project manager, Rafael Viñoly Architects, says the local Holland municipality mandated many requirements for the master plan of the Atlas Building. "The building needed to be on a compact footprint and have a strong structural, sculptural quality without projections, rooftop machinery, additional pavilions, or backsides," she explains. "It had to be the first building one would see from the new entrance to the campus, and there could only be one road

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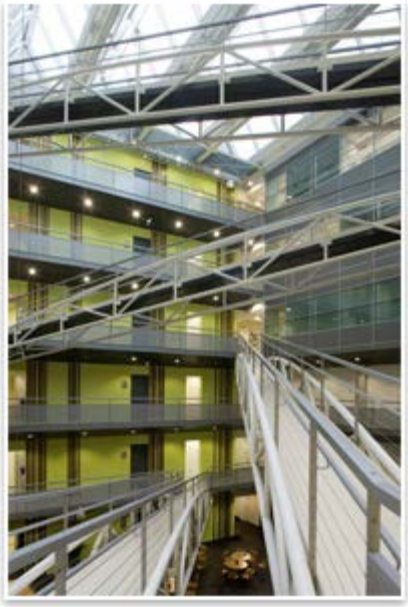
leading to it. They wanted it 10 stories high with a central area."

This led to negotiation between Rafael Viñoly Architects and the municipality. Kolova wanted to honor the work of the scientists and students by providing a functional, interactive space for labs and offices with a central atrium. "It was strict but negotiable. We found some of their requirements didn't work, like having 30 percent labs in a 10-story building," Kolova says. "Our idea was it should be two or three stories. We made some diagrams showing how students come to these labs using a limited number of elevators and what that means for internal circulation. Finally, as often it happens in Holland, it was a compromise at seven floors."

Lattice design combines form and function

The concrete lattice façade met the design requirements of sculpture and flexibility while remaining within a budget. "The external concrete exoskeleton supports the building so there are no columns inside, not even along the perimeter," Kolova points out. "We were trying to allow for as much flexibility as possible."

Four sloped bridges above an open atrium connect the lab and office perimeter. Kolova and her team had to get a special permit for the bridges, because their slope didn't meet Dutch building code. "We found that everything at the university is dynamic because environmental science is a young field. We wanted to encourage informal communication among scientists of the different disciplines by having an attractive middle space where they can meet while drinking coffee, relaxing, or checking e-mail at the lobby computer stations. Maybe they will informally exchange interesting project ideas," Kolova says.



The Atlas Building houses 35 labs plus their mechanicals. "We designed uniform floor height for labs and offices, with floor plates as free of structure as possible. The mechanical spaces of the labs are immediately above or under spaces with the same floor height," Kolova explains. "So, if they want to rebuild the lab into a two-level office, they remove the lab and mechanicals above or under it. Rebuilding labs and offices is a constant process in Holland, and what has happened in the past is that labs are being squeezed into office floors with ridiculous ceiling heights, which is quite unworkable."

A skylighted roof featuring two slopes of 60 degrees caps the structure, echoing the style of an old industrial building roof. Because there are no columns, daylight flows down to the ground floor. "They know the exact position of the sun at any given moment. The users didn't want shading of the skylight, because the whole point is seeing the sky. And everybody can open their window and overrule the shading by opening and closing their sunscreens. Everything is individually operable to make them feel good," Kolova concludes.

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SEPTEMBER 28, 2007

DESIGN

Library of Congress Gives Hillside Bunker a New Use

The National Audio-Visual Conservation Center opens in Culpeper, Va.; facility to preserve collection of moving pictures and sound recordings

by Russell Boniface
Associate Editor

How do you . . . adaptively reuse and expand an existing structure into a state-of-the-art preservation and storage facility?

Summary: The newly completed Library of Congress Packard Campus of the National Audio-Visual Conservation Center, located on the hillside of Mount Pony in Culpeper, Va., is now open to the public. Set on a 45-acre campus, the 415,000-square-foot Packard Campus gives new life to an immense bunker once used by the Federal Reserve to house currency while doing double duty as a potential hideaway for government officials in case of a nuclear attack. Two new buildings were added to the reused bunker.

The Packard Campus—which will provide underground vault storage for the nation's collection of films, television programs, radio broadcasts, and sound recordings—was created through a partnership between the Packard Humanities Institute, the U.S. Congress, the Library of Congress, and the Architect of the Capitol. The architect of record for the project was Washington, D.C.-based SmithGroup. The consulting design architect responsible for the main conservation building was San Francisco-based BAR Architects. Fairfax, Va.-based DPR was the general contractor, and Annandale, Va.-based SMC Concrete served as the concrete subcontractor.

The Classical Packard Campus facility is built into the side of Mount Pony in Culpeper, Va., southwest of Washington, D.C. The site was once a 140,000-square-foot underground bunker carved into the mountain hillside. The Packard Humanities Institute, led by David Packard (son of the founder of Hewlett-Packard), purchased Mount Pony in 1997. Packard, who has a personal interest in film and sound preservation, renovated and expanded the facility into the $150 million National Audio-Visual Conservation Center. He transferred the complex to the Library of Congress on July 26.

The Library of Congress will use

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the Packard campus to store its entire moving image and sound collection of 6.3 million items, from films to LPs. The collection will be cataloged, preserved, and made available to the public. Many of the audio files will become digitized. Thirty-five climate-controlled vaults will store sound recording, non-flammable film, and videotape, while an additional 124 climate-controlled vaults will store flammable cellulose nitrate film that was discontinued in 1953. The site will also have a 206-seat Art Deco theater, state-of-the-art projection booth, and a listening auditorium.

Library of Congress needed more room

"For the last 20 years, the Library of Congress had been running out of room," says Gregory Lukow, chief of the motion picture broadcasting and recorded sound division at the National Audio-Visual Conservation Center. "In 1993, the Federal Reserve bank and bunker at Mount Pony were decommissioned. We thought it could make a good adaptive reuse as a storage facility for the Library's audio and video collections. Congress passed a law in 1997 to allow David Packard and his foundation to acquire the property and develop it as a gift to the government."

Lukow says the scope of the project kept growing from early on. "We realized this was a once-in-a lifetime opportunity, not just to convert an existing building into analog collection storage, but also to rethink the library's collection activities. We wanted to make it available to the public and for long-term preservation. All of that led to adaptive reuse of the bunker and construction of two additional buildings, with construction of vaults for collection storage."

The facility originally opened in 1969 as part of the Federal Reserve bank system. "It had two purposes," explains Lukow. "One was to store $3 billion of currency to repump the economy in the event of a nuclear holocaust, and the second was as a place to which members of the Federal Reserve bank could flee in case of a nuclear attack." Lukow says it had the biggest vault he had ever seen. The bunker also featured large steel doors that would close down over impact-resisting glazing in the event of an invasion. Both the vault and doors, however, had to be removed for the adaptive reuse.

A classical, green complex built into a hillside

SmithGroup's Hal Davis, FAIA, collaborated with Bob Arrigoni, FAIA, of BAR Architects on repurposing the existing underground bunker. "We stripped it down to the frame," says Davis. "Originally we planned for 200,000 square feet in the existing building, but as David Packard looked at the size of the library's collection, we expanded to 415,000 square feet." This meant the addition of two buildings that would connect with each other and the existing bunker. In addition, David Packard, a Classics professor, wanted the buildings to have a look and texture of classical buildings.

The reused underground building became the collections building and central hub, with an expansion space on the top level. It connects to the conservation laboratory building, a multilevel glass and concrete semi-circular building of staggered tiers and terraces formed by concrete beam and column openings. “The semicircular building has stepped-back indentations into the hillside,” says Davis. Archival work and preservation takes place in this structure. On its tiers are exposed vines and native plants to make the structure look like a green hillside. It’s the only above-ground building and has large glass windows to allow for natural light. The building overlooks a green campus below that has a walkway, native plantings, and a small basin. “It’s a dramatic terrace façade that is quite stunning,” enthuses Lukow. “It can be seen from below the hillside and from the distance.”

To the left of the semicircular building sits the underground facility of 124 nitrate- film blast vaults. The public, however, does not have access to this building. “The nitrate film must be stored in fire-code-specific vaults separate from all other audio and video media,” explains Lukow. To keep the vaults and the nitrate at a constant humidity level so the nitrate will not deteriorate, Davis and his team developed a system that returns dampened air into the compartmentalized vaults.

SmithGroup also worked with California-based landscape architects SWA on the vines and green roofs for the underground buildings. “We wanted the campus not to be too woody,” states Davis. “In the wintertime, the leaves will actually fall off to create a web of vines growing across the building, and in the spring it will become green vine again. We also have 200,000 square feet of green roof on the building with an assortment of native plants.”

The challenge of the double pour and waterproofing

Davis and Packard decided that they wanted a lot of exposed architectural concrete to match the Classical look Packard desired. “The mix on the existing concrete has some interesting aggregate in it, but it was cool in terms of tonality,” notes Davis. “I suggested adding different sands and aggregates for a warmer tonality.”

Peter Whitehead, AIA, project manager, SMC Concrete, says that David Packard “preferred the look of poured in place concrete over something like precast panels for the finish because poured in place would be closer to the rough finish look of a classical building. The outer concrete was then sandblasted to expose the warmer color of

the aggregate and give it a rustic, but not-too-rough look." Every exposed piece of concrete, both inside and outside, was sandblasted for the final finish. "Mountains of sand had to be removed at the end of the project. It was an exhaustive and time consuming process," explains Whitehead.

The semi-circular lab building required double, poured in place concrete walls—sandwich walls in essence—which presented a construction challenge. "The buildings uncharacteristically called for a poured in place structural wall and a separate poured in place finish wall," Whitehead says. Excess condensation between the double walls also presented a concern because of the strict temperature and humidity needed to protect the film. Moisture drainage and a very controlled waterproofing application was crucial to prevent the insulation from becoming saturated, as well as to prevent water migration into the interior.

Whitehead says that the base upon which the waterproofing was to be applied had to be smooth enough to allow the waterproofing to stick. "Pouring the exterior layer of the sandwich panel had to wait until the waterproofing and insulation was applied and dried to the inner structural walls in this unusual construction method. This double-pour process extended time for construction over typical poured in place structural and precast finish by a factor of at least two. But a spirit of collaboration and cooperation during the initial project meetings set the tone for dynamics in the construction phase and made the project successful."

A measure of success

Davis says that Packard was pleased with the overall outcome of the Packard campus. "He said it was more beautiful than he had hoped it would be." Davis, Packard, and the design team met with the staff working in the building. "We all hope when we build buildings that the people who occupy them really enjoy them. It was really a pleasure for all of us to meet with staff to hear them say that they love the building enough that they can stay after hours. They like the daylight, the exposure, and views. It has greatly enhanced their feel about their work place, which I think is always a measure of success."

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SEPTEMBER 25, 2009

DESIGN

Parking Garage Exhibit to Open at the National Building Museum

The design and evolution of a modern urban form

by Russell Boniface
Associate Editor

Summary: An exhibit chronicling the history and future of the parking garage called *House of Cars: Innovation and the Parking Garage* will open October 17 at the National Building Museum and run through July 11, 2010. The exhibition features photographs, drawings, models, art, artifacts, and videos to showcase the evolution of the parking garage, from the 1920s to today, as well as future parking garage possibilities.

The Euclid Square Garage in Cleveland proclaimed itself the "Largest Garage in the World" on this 1920s postcard. Photo courtesy of the Walter Leedy Postcard Collection, Special Collections, Cleveland State University Library.

House of Cars explores how the built environment has evolved to accommodate automobiles. The concept for the exhibition was brought to the museum by Shannon Sanders McDonald, AIA, author of *The Parking Garage: Design and Evolution of a Modern Urban Form.* The presenting sponsor of *House of Cars: Innovation and the Parking Garage* is the National Parking Association.

The exhibit tells the story of how parking garages were created to solve parking problems and evolved from ornate, enclosed structures to today's open deck and integrated forms. To tell the story, the exhibition brings together from various eras photographs and renderings; artifacts such as garage façades,

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The National Building Museum will hold an exhibition lecture series about parking. Visit the National Building Museum site for details. Lecture topics include:

- **Parking Lots—Architecture or Eyesore?**
This illustrated talk will look at parking structures designed by famous architects, including Santiago Calatrava, FAIA; LeCorbusier; and Frank Lloyd Wright and will ask if parking garages can be works of beauty. Speakers include Ned Cramer, editor in chief, *Architect* magazine.

- **The Future of Parking**
The future of parking garages includes charging stations, solar photovoltaic rooftop arrays, Web-based parking spot locators, multi-use structures, and rainwater capture. Architects, planners, and engineers discuss plans for the nation's first LEED parking lot and innovative designs for the parking of smart cars, bikes, and Segways. Panelists include James O'Connor, AIA, principal of Moore Ruble Yudell Architects and Planners, designers of the first LEED garage in the country; director of the Washington, D.C., Dept. of Transportation; and a former Zip Car executive.

- **Parking Is Not Free**

Bill Payne Garage and Storage, circa 1936. Many early garages offered automobile servicing, such as brake repairs, as well as storage space. Photo courtesy Anaheim Public Library.

parking attendant hats, receipts, tokens, and a 1930s parking meter; and drawings from famous architects. There are also models of garages and ramps, and a gallery of fine art showcasing the parking garage in popular culture that features a 15-minute movie of parking garage scenes in film and TV. The exhibit also looks at sustainable garages and parking garages of the future.

Crickelwood Apartments Garage. Steel has often been used in garage construction to reinforce concrete, but with coatings to protect against corrosion, it may also be used on its own. Photo by AISC Regional Engineer William L. Pascoli, PE.

Leavitt explains that once enough people were driving downtown, there needed to be somewhere to store cars. “The infrastructure built for horses wasn’t big enough to accommodate cars,” she says. “By the ‘20s there were thousands of cars. We had to build bigger structures to accommodate cars. There were more cars in America than anywhere else. In some ways it is a worldwide story, but in many ways it is an American story.”

Using footage from historical news reels, film curator Deborah Sorensen developed a 15-minute movie about the early days of the parking garage.

Hoists, ramps, and underground parking

The gallery called “How Does it Work?” is about parking garage engineering and illustrates hoist systems and ramp systems in early garages. There are architectural plans, models, and patents. “In the 1950s

Donald Shoup, professor of urban planning at UCLA and author of *The High Cost of Free Parking*, provides a historical overview to the parking garage and suggests we design our cities for people and not cars. (This program is not yet confirmed.)

Building for the 21st Century Lecture Series

As part of the Museum’s long-running series sponsored by the Department of Energy, Shannon Sanders McDonald, AIA, exhibition consultant for House of Cars, practicing architect, and author of *The Parking Garage: Design and Evolution of a Modern Urban Form* will discuss future parking garage materials.

From Comedy to Creepy: Parking Garages in American Media Film Series

The parking garage plays a significant role in American film and television. *Washington Post* film critic Ann Hornaday joins Deborah Sorensen, associate curator at the National Building Museum, for opening remarks before each screening.

City Minit Park, Alliance, Ohio. This 1950s municipal garage used an automated hoist system to lift cars into their spaces. Photo courtesy the Cleveland Press Collection, Special Collections, Cleveland State University Library.

there was an uptick in creating new ways to get the cars up," Leavitt says. "Many companies experimented with elevated systems. A hoist system can help in a tight urban location, and that is one reason people are looking at them now." Visitors will be able to test out a ramp system. There are also examples of the first underground garages. "We look at underground garages and their differences," Leavitt says. "Today, these save real estate, and there is conventional wisdom that garages can't be more than eight floors high because people can't stand to go around in a circle more than eight times. If you go down, you can buy extra floors."

Marina City, Chicago, 1959-67. The Marina City towers in Chicago each has a spiral parking ramp on its first 19 floors and residential apartments above. The complex is often called a "city within a city." R. Radic photographer, c. 1960s; Bertrand Goldberg Archive, Ryerson and Burnham Archives, The Art Institute of Chicago. Photo © The Art Institute of Chicago.

Parking garages built for saving downtown

"The Mid-Century Garage" gallery examines the parking garage building boom in the 1950s. "There are some great stories of downtown business leaders really counting on parking to save the downtown," Leavitt explains. "The big advantage that the suburbs had was plenty of space to park, so the downtown business leaders were really focused on parking in that period." There are examples of mid-century films in which parking was promoted as the key to urban development. There is also a leasing brochure for a park-at-your desk building in Washington, D.C. Such design did come to fruition. "The concept was that the interior core had the parking, and from each floor you go directly out of the parking floor into the office space. You were never more than 150 feet from your desk," Leavit says.

Art, sculpture, *Seinfeld*

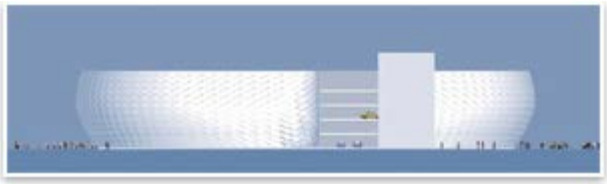
"Art and the Public Imagination" looks at the parking garage in popular culture and

Packard Drive Parking Structure staircase, Arizona State University, 2004. This spiral staircase in a parking garage at Arizona State University mimics the motion of cars on ramps as it leads pedestrians through the space. Photo by Tom Story. Photo © Arizona State University.

includes examples in fine art, sculpture, paintings, film, and television. A video presentation compiled by Sorenson shows well-known parking garage scenes from film and television. Scenes include the popular *Seinfeld* episode where the characters get lost in a parking garage, *All the President's Men, Tokyo Drift, Ferris Bueller's Day Off,* and various spy and thriller movies. "There are a lot of chase scenes, and scenes where the car drives off the parking garage into the city," Leavitt notes.

Starchitects find a place to park

The "Art and Architecture" gallery looks at parking garage designs by I.M. Pei, FAIA; Frank Lloyd Wright; Paul Rudolph; Santiago Calatrava, FAIA; and Eero Saarinen. "In many cases they were designing office buildings that also needed parking," Leavitt points out. "But Paul Rudolph's fabulous Temple Street Garage in New Haven, Conn., was a stand-alone project." The gallery also looks at art on garage façades. "Firms have looked at how to make the garage a better civic partner and less of an eyesore," Leavitt says.



Revelle Parking Structure Rendering. This futuristic circular garage is planned for the campus of Revelle College at the University of California—San Diego, and will be surrounded by trees. Courtesy of Harry Wolf, FAIA, Wolf Architecture.

What's next?

"The Future of Parking" looks at the future of the parking garage, including green garages. "We look at ways planners are using parking to fit into the new urbanism," Leavitt says. She adds that many garages have already received LEED certification by incorporating such features as recycled materials, bike parking, and Zip Cars. "Many people think that putting green and cars together in the same sentence is an oxymoron, so we take a look at that issue."

Leavitt says that the exhibit encourages visitors to look at what the built infrastructure means and where it is going. "At the end of the show there is a panel with pictures of parking garages on the National Register of Historic Places," she says.

Fairfield Multimodal Transportation Center. This parking garage, designed by Stantec Architecture, uses photovoltaic cells and drought-tolerant landscaping, includes 400 parking stalls, bike lockers, telecommuting center, office building, 10 covered bus bays, electric vehicle charging ports, and plans for retail shops. Photo by David Wakely.

"Many of these buildings from the 1920s are still here. It's all part of our built environment, which is an interesting thing to think about. And then, looking forward to what comes next. Is this something we should be thinking about in terms of how to fit parking in with our cities in better ways?"

ZipCar Dispenser proposal, 2004. Moskow Linn Architects proposed this "Pez-dispenser" design for a Zipcar garage, which takes up only a small footprint and literally dispenses cars mechanically. Photo courtesy Moskow Linn Architects Inc.

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MAY 16, 2008

DESIGN

DC’s Kreeger Museum Showcases Philip Johnson’s Later Works

by Russell Boniface
Associate Editor

How do you . . . honor the late work of a prodigious 20th century architect?

Summary: The Kreeger Museum in Washington, D.C., currently is holding an exhibition called “Philip Johnson: Architecture as Art,” which showcases the relationship between art and architecture as seen by Philip Johnson in his late works. Johnson also designed The Kreeger Museum, the private, nonprofit museum located in the former residence of Carmen and David Kreeger that holds their collection of 19th- and 20th-century painting, sculpture, and African art. The exhibition was curated by Hilary Lewis, a Philip Johnson scholar, and designed by New York-based Wendy Evans Joseph Architecture.

A combination of models, drawings, sculpture, and photographs at the exhibition highlight the later works of Philip Johnson. “This exhibition was curated by Hilary Lewis, a Philip Johnson scholar who knew him for many years and collaborated with him on books towards the end of his life,” says Erich Keel, head of education at The Kreeger Museum. “She tries to show us his accomplishments at the last 10-12 years of his career, including models and a few realized projects. According to her theory, during those years he tried to break away from his Miesian concept or his Postmodernist interest, for example his Sony Building in New York City. This exhibition

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In 1978, Philip Johnson was awarded the AIA Gold Medal. In 1979, he was awarded the first Pritzker Architecture Prize.

Art from Johnson’s own collection is featured in the exhibition, including pieces by Frank Stella and Andy Warhol.

If you go . . .

Philip Johnson: Architecture as Art at The Kreeger Museum, 2401 Foxhall Road, NW in Washington, D.C. Visit http://www.kreegermuseum.org/. The Kreeger Museum is open Tuesday–Friday by reservation only for the 10:30 a.m. or 1:30 p.m. guided tour. Saturday open hours are from 10 a.m. – 4 p.m. For information, call 202-337-3050 x10.

Captions

1. Al-Thani Sculpture, Doha, Qatar (2002). Photo © Robert Walker.

2. Cathedral of Hope, Dallas, (1995), Photo © Michael Rogol, Bates Photography.

3. Cathedral of Hope Model (1995), Photo © Bates Photography.

proposes three ideas. One is what she calls structured warp, which was Johnson getting away from straight lines and incorporating concepts of sculptor Frank Stellar, whose works Johnson collected. The second thing is what Johnson himself called Playing with Plato—colliding forms, applying color, and arranging structures. Third is his inspiration from the sculpture of artist John Chamberlain, known for twisting and fusing metal."

Johnson explores shapes

Johnson and his firm, Philip Johnson/Alan Ritchie Architects, based in New York City, produced work in the 1990s and 2000s that was often sculpture itself, Keel explains, utilizing various shapes and forms. Johnson produced numerous designs that are still in process at Philip Johnson/Alan Ritchie Architects. The exhibition features models of these project, which include the Cathedral of Hope for Dallas, which employs a series of warped forms; the Habitable Sculpture, which was a Soho residential tower designed for Antonio Nino Vendome that uses inclined façade shapes not perpendicular to the ground ("Each apartment would have a different layout," Keel says); Oasis House, an ecological village in Negev, Israel, that features shapes that protect from sandstorms; and the Guadalajara Children's Museum in Guadalajara, Mexico, highlighted by a solid pyramid and spirals. Johnson's gatehouse design, Da Monsta in New Canaan, Conn., is also on display. The Cathedral of Hope in Dallas, under way at Philip Johnson/Alan Ritchie Architects, expands Johnson's earlier ideas of Da Monsta. Johnson himself designed the Kreeger Museum building when it was a residence of Carmen and David Kreeger. "David Kreeger was after him," says Keel. "It was one of Johnson's last residential buildings."

Keel explains that Johnson attempted to make his own architecture out of Stella's sculptural concept of curves, beginning with an office project in Berlin in 1993. "They rejected it and wanted something Neo-classical 19th century," says Keel. While Johnson's "Berlin Fantasy" never came to fruition due to local zoning, Johnson's Da Monsta gatehouse on his property in New Canaan, which sits in front of his Glass House, gave him a chance to experiment with these forms. "On this pavilion, everything is slanted, curved, and has no straight lines, especially if you look at the doors," Keel points out.

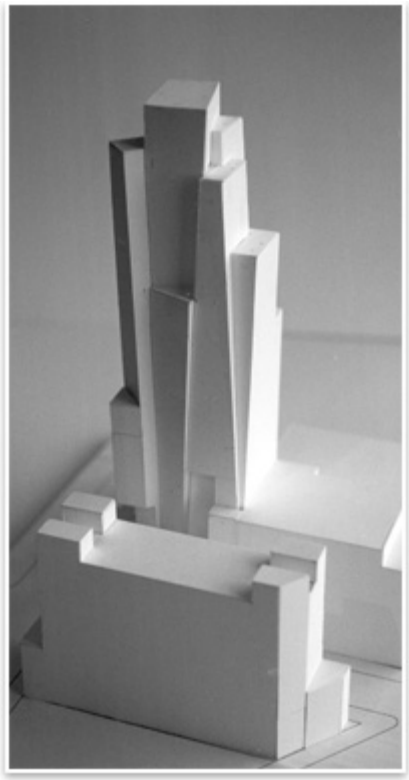
"Johnson wanted to redefine Platonic shapes," he continues. "Spirals, cylinders, cones … he could realize these irregular, non-Euclidean shapes. Johnson was obsessed with Plato and redoing the idea of the pyramid. Johnson looked at architecture much more in terms of art than as function of a shelter. In his last 12 years, Johnson had a lot of fun with architecture. He said he was returning to a second childhood and playing with shapes just like a child would, and I think he was fully aware of that. Children are allowed to be creative. I believe the Guadalajara Children's Museum project, if it ever gets built, will be a wonderful testament to his

4. Guadalajara Children's Museum, Guadalajara, Mexico (1999). Photo © Robert Walker.

5. Da Monsta, New Canaan, Conn. (1993) Photo © Michael Moran.

6. Habitable Sculpture, New York City (2000) Photo courtesy of Antonio Nino Vendome.

7. Oasis House, Negev, Israel (1999). Photo © Robert Walker.



creativity."

Keel says that zoning for the Habitable Sculpture tower in the Soho district in New York City, designed by Johnson in 2000, made the project unworkable, just like in Berlin. Instead, Johnson's Urban Glass House, smaller and more traditionally Modern, was built. "You wonder sometimes. One of Johnson's great complaints is that the codes can inhibit the inspiration of architects." A model of the Urban Glass House is also on display in the exhibit.

Johnson the conductor; his appreciation of change

"I think Johnson was a very restless person and could not stay for an idea for a long time," notes Keel. "He had a very inquisitive mind and was eclectic. Some critics hold this against him, but I think it's one of his greatest talents—the way he could roam the continents and pick up forms and shapes that have never been built. Johnson was a formgiver, but definitely knew how to use what was available, like a conductor who could use his own repertoire."

Concludes Keel: "Johnson was like a prism—if you change the prism, you have different colors. A philosopher Johnson admired was Heraclitus, who said: 'The only thing permanent is change.' That was what Johnson believed."

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JANUARY 30, 2009

DESIGN

Design to Rock By

Rock and Roll Annex opens in New York City

by Russell Boniface
Associate Editor

How do you . . . design an outpost to the famed Rock and Roll Hall of Fame?

Summary: New York City-based Montroy, Anderson, DeMarco designed the new 25,000-square-foot Rock and Roll Annex, the first outpost of the famed Cleveland Rock and Roll Hall of Fame. The Annex opened last November, houses artifacts from Cleveland, and traces the history of the music genre in New York City. The Annex is located in the SoHo section of the city and follows an "industrial grunge" theme in the cellar of an 80-year-old cast-iron building. There are aspirations by the nonprofit Rock and Roll Hall of Fame to brand itself worldwide in additional cities; however, the Annex and additional outposts will be profit ventures. The client for the project is Running Subway, a production company.

Rock on

The Rock and Roll Annex's "industrial grunge" theme evokes the old days of New York rock and roll while still offering high-tech exhibits and operations in a three-part space that features artifacts from Cleveland and the origins of New York rock and roll plus a spotlight on a different rock artist each month. The intent of Montroy, Anderson, DeMarco and its client, Running Subway, was to honor the "New York vibe" dating back to the Andy Warhol days. SoHo was deemed a fitting place for the Annex because of its club history and also for its central destination location.

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Photos
Photos © Paul Warchol.
1. The Annex is located in the SoHo section of the city and follows an "industrial grunge" theme in the cellar of an 80-year-old cast-iron building.
2. A wall lights up the names of Rock and Roll Hall of Fame inductees.
3. The exhibit includes artifacts such as guitars, song notebooks, and the piano that John Lennon used to record his final album.
4. Visitors to the Annex follow a sequence upon entering: they begin

Partner Daniel Montroy, AIA, says the firm also intended the Annex be a functional space that serves as a backdrop to the rock and roll exhibitions. “We put in a black box ceiling and stripped it back to the raw structure to expose the mechanicals; we mounted lights and exposed elements of the original building, such as brick walls. We wanted to make the space raw, but beautiful and finished—a first-class tourist Mecca.” The industrial columns in the space were also restored.

Visitors begin in a high-tech holding entrance area of state-of-the art audio and visual components, with flat screen videos of rock artists and a wall that lights up the names of Hall of Fame inductees in rapid fire. There are accompanying music soundtracks. Next is a multimedia theater-in-the-round featuring screen projections of various artists. Visitors then enter the tripartite exhibit: The first part offers a permanent show that Montroy calls a mini-version of Cleveland. The second part is the New York underground exhibit that includes artifacts such as the piano that John Lennon used to record his final album. The third part showcases a different New York artist each month. January’s spotlight was The Clash; February will honor John Lennon. Bruce Springsteen is upcoming soon.

The flat-screen projections, rock and roll artifacts, and lighting are underscored with hi-tech audio. “Visitors wear headsets tuned to proximity sensors beneath the carpet that allow them to hear music and discussions in any quadrant they are viewing,” says Richard DeMarco, AIA, partner. Circulation coils through a tight space without feeling tight. The entrance and exit are close to each other so as not to run from one extreme corner of the facility to the other. The Annex can hold up to 750 people at any given moment and process 100 people every 15-20 minutes.

in a hi-tech holding entrance area of state-of-the art audio and visual components. Original columns have been restored.
5. A multimedia theater-in-the-round shows projections of various artists.
6. An interactive 30-foot-long model of Manhattan has touch screens that light up iconic buildings of New York rock and roll.
7. Shown here at the Annex gala opening from left to right: Richard DeMarco, AIA; Steven Andersen; and Dan Montroy, AIA.

Facilities upgrade; the

big model of Manhattan

Curator, maintenance, and storage spaces needed to be in place with all-new building systems. New air-conditioning and humidification are in place, and restored centralized steam radiators add to the industrial grunge look. “It required a sophisticated humidification system for the curatorial demands of artifacts,” notes Montroy, “such as for the paper and notebooks that songs were written on, which include the notebook used for Bob Dylan’s first album. Plus, there are pianos, guitars, and Bruce Springsteen’s ’57 Chevy.” Montroy and DeMarco note they worked with New York’s Con Edison for maximum power for a compacted space. “Temperature, electricity, lighting—each had its own challenge, true of any renovation of an historic building,” says Montroy. Adds DeMarco: “We reacted to the client’s needs within the space by supporting them with the proper cooling loads, temperature, and heat dissipation for their equipment.”

A rockin’ feature of the Annex is an interactive, 30-foot-long model of Manhattan. Visitors touch screens that light up iconic buildings of New York rock and roll history. “It’s awe-inspiring,” Montroy enthuses.

What about Rock and Roll Annexes in cities worldwide? Montroy and DeMarco are on board. Says Montroy: “We would like to have permission to do them all over the place.”

It’s only rock and roll, but the architects like it.

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DESIGN

Parkway Destination Center Is True Blue

Sustainable Blue Ridge Parkway Destination Center set for opening

by Russell Boniface
Associate Editor

How do you . . . take advantage of site topography to create a sustainable park destination center?

Summary: The Blue Ridge Parkway, arguably one of the nation's most beautiful roads, winds for 469 miles through the Appalachian ranges of Virginia, North Carolina, and Tennessee. Lord, Aeck & Sargent worked with the National Park Service on the sustainable design for the two-story, 12,000-square-foot Blue Ridge Parkway Destination Center, located along the parkway and adjacent to its headquarters at Hemphill Knob near Asheville, N.C. The $9.8 million building, cut into a hillside, uses site topography to integrate passive solar strategies, capture views of the mountains, and create a "tree house" effect for the structure. The project is seeking LEED® Gold certification for sustainable elements that include vented trombe walls and a green roof of native plants. A ribbon-cutting ceremony will be held on April 14, and the Center will open officially April 15.

Lord, Aeck & Sargent 's John Starr, AIA, project principal, and Joshua Gassman, associate and project manager and project architect, worked on the Blue Ridge Parkway Destination Center. "The building and site become as much a part of the exhibit and teaching mission as the exhibit," Starr says.

The National Park Service helped identify the site and refine its standard visitor center design. "The site was chosen because it was adjacent to the headquarters, close to the parkway, and offered views of the parkway," Starr explains. Throughout the center project, the firm carried the idea of integrating site topography with trombe walls, a green sloping roof, sustainable features,

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Inside the Blue Ridge Parkway Destination Center

The exhibits inside the destination center explore the culture of the Blue Ridge Parkway; "how the Parkway came to be, its history, and its current status," says Starr. Lord, Aeck & Sargent worked with Advantage West, a firm that promotes tourism and economic development in North Carolina, on developing an information center where visitors can come and learn about the region. The rectangular room holds three "islands" of exhibits and has kiosks connected to the Internet to allow visitors to make reservations, buy tickets for local attractions, and learn more about the region.

Photos © Jonathan Hillyer.

and exhibits.

Trombe walls

"The best example of integration was the use of the trombe walls," Gassman explains. "The climate was suited for passive solar, but, for a trombe wall to work ideally, you want it facing due south. Because of the steep site and an existing entrance road, we wanted to shift the building 30 degrees from due south for it to lay into the land. To maximize the southern exposure, then, we broke the southern façade into short pieces to form a series of trombe walls and rotated them to face south to capture the sun and heat the building. The trombe walls, back to the theme of integration, also function on the inside as exhibit points. They are also the primary lateral forces for resistance and integrate with mechanical systems to distribute air and heat the exhibit floor."

"As we rotated the trombe walls, we created window views out to the parkway itself," Starr adds. "One aspect of the building is that it captures these views of the parkway, and the nature and culture around the parkway, just like the parkway itself was designed to do."

Treehouse experience

The idea that the site drops down—and that the Blue Ridge Parkway is predominately explored by car—gave birth to treehouse idea, says Gassman. "To the west there is a vista view of mountain peaks. We wanted to offer a contrasting, intimate experience with the woods. The five-foot, floor-to-ceiling trombe wall windows give visitors views with the parkway beyond. We call it the treehouse experience. Visitors enter at grade at the west end of the building, but the site drops away, so the view from the interior ends up 15 feet off the natural grade, and you're really on the second story. It's like being in a treehouse in the middle of the woods."

Sustainable strategies, sloping roof tie into the Blue Ridge character

"We were originally targeting LEED Silver, but our office doesn't get caught up in going after specific credits," says Gassman. "We were trying to create a sustainable building by making the right decisions. By the time we were through, we were on target for LEED Gold." In addition to the trombe wall and the radiant heated flooring, the Blue Ridge Parkway Destination Center has a 10,000-square-foot sloping roof with native, drought tolerant plants. Says Starr, "It provides a thermal buffer within the building." A cistern captures rainwater as it comes off the roof to irrigate the site and roof.

Both Gassman and Starr note that the sloping, green roof and use of cedar siding on the arrival side of the building tie into the familiar National Park Service look and surroundings. And, it catches visitors' eyes as they drive in. Explains Gassman: "They approach the building from the back, and from that perspective the roof is split into the raised gable end, which is on the south side of the building, and a lower flat piece on the north. The lower flat piece is actually eight feet off the road and at eye level, so they drive in and see the sloping planted roof. It relates nicely to the mountains beyond."

Adds Starr: "The parkway has a strong vernacular, and the Park Service is keen to keep their buildings in line with that vernacular. But in looking at this project, they were interested in

letting the building show off its sustainable elements. The roof is an example of where we integrated the two ideas. They liked the idea of the sloping green roof because it has a form consistent with other Parkway buildings."

Sustainable elements also include fly-ash recycled concrete and a curtain wall of recycled aluminum. Inside, the curtain wall maximizes light, while light shelves bounce light deeper into the exhibit hall. Photo sensors dim lights when there is adequate natural light. A glu-lam beam structure completes the traditional heavy timber look. The building also employs a dual-wheel energy recovery unit. "Exhaust and intake run through the unit, and two wheels spin in opposite directions," says Gassman. "The net effect of that is air from the outside in winter is captured and pre-heated by the energy in the exhaust stream, reducing the amount of energy required to heat the building. The process in the summer works in reverse, cooling the intake air." Rounding out the building's green design elements are a cistern to direct water from the parking lots into a bioswale that filters it into the groundwater and, on the interior, low-VOC paint and sealants.