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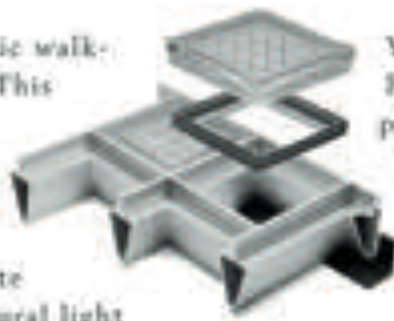
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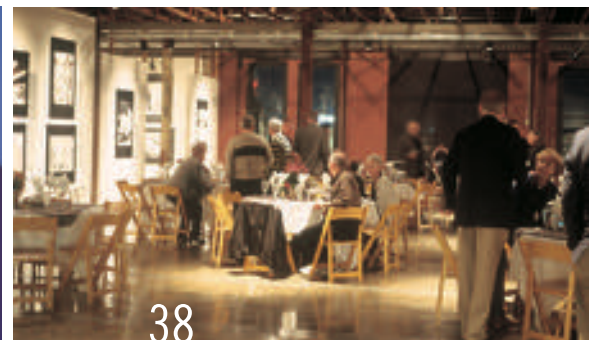
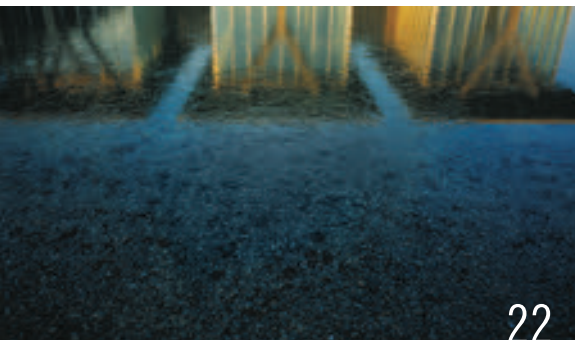


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**November/December 2003** – Green  
(deadline: June 16)

If you have ideas for "News" call us at (512) 478-7386, fax to (512) 478-0528, or e-mail [ssharpe@texasarchitect.org](mailto:ssharpe@texasarchitect.org).

**on the cover: Modern Art Museum of Fort Worth; photo by Joe Aker - Aker/Zvonkovic Photography.**

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# Builder, Boxer, Modernist, Maestro

Jargon-free but packing a punch, Tadao Ando proved an intriguing interviewee.

WORKING FOR SIX YEARS WITH TADAO ANDO as the Fort Worth Modern was being designed and built, Michael Auping became very familiar with the Japanese architect. So much so that Ando and Auping, the museum's curator, had very little trouble communicating despite the need for a translator. "Actually, that worked great," Auping said in a recent telephone interview. "What I discovered...was the fact that he doesn't speak English was a good thing. And the reason it was a good thing is that when you don't speak the same language, things have to be done in a very deliberate and paced way. You can't bullshit each other."

"We got to know each other quite well," he recalled. "And there's a lot of body language. And, you know, it's funny: I'm sure you've experienced this before, where someone will speak to you in a language you don't understand but you pretty much understand what they said. Obviously you miss subtleties and things like that, but there were a lot of instances where we both understood, and Ando, being a professional boxer, whenever I would make a point that he liked, he'd hit me. You know, he'd just take his fist and punch me in the shoulder. (Auping mimics Ando's guttural Japanese rising in exclamation as the punch landed.) And you know that you made a good point."

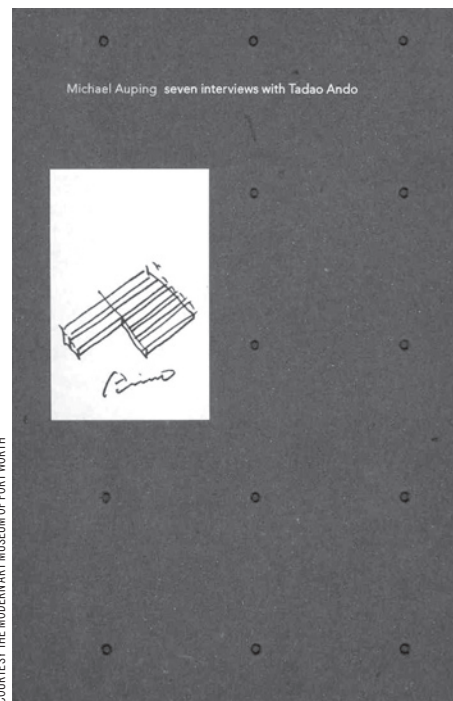
Soon after Ando was hired in 1997 to design the Modern, Auping decided to engage the architect in an extended dialogue, much like the interviews Auping had conducted with select artists over his 20 years as a curator. However, Auping realized, interviewing an architect would be different. But he was intrigued by the idea of an intellectual discourse with an architect as exceptional as Ando. "I remember thinking to myself: you work with a lot of artists, Michael, and it's great to work with artists, and every once in a while there are a couple who seem to be above the rest of the group. And I thought to myself, although Ando is not an artist, he is one of the great architects and I didn't want to miss an opportunity. So I just proposed to him this idea of doing it, and I just did it a couple of times on my own without even telling the museum. And then after it got rolling I proposed it to the museum as a small book." The result is *Seven Interviews with Tadao Ando*, a slender but illuminating volume published last year by the Modern Art Museum of Fort Worth.

Bound between sheets of dark gray uncoated mat board debossed with a grid of small circular "tie holes" — the covers representing the Modern's concrete walls — *Seven Interviews* commences in May 1998 and culminates in April 2002.

Guided by Auping's gentle queries, topics ranged widely, from Ando's early career in construction ("Working with your hands and muscles is important. It is very important, very important to understand scale and weight, and the voice of materials.") and his high regard for craftsmanship ("I am very concerned that workers take responsibility for their craft. Even an average building will last fifty years and we all must live with it over that time. So it is important to pay attention to what you are making.") to the similarities between his work as a semi-professional boxer and a self-educated architect ("For me, the relation between the boxing and architecture has to do with a maintaining of anxiety and tension, and using that as a creative force.") and the connection, in Ando's view, between practicing architecture and living life ("Learning how to do architecture and learning how to live are the same thing. They involve the same principles and goals."). Of course, the conversations inevitably returned to Ando's design for the Modern, which at one point elicited his thoughts on its relationship to the Kimbell Art Museum across the street: "First of all I have tried to create a design that has a sympathetic dialogue with the Kimbell. As I have said so many times, I greatly respect Louis Kahn's work and did so long before I was hired for this project. So this project has been a way to offer Mr. Kahn my gratitude and respect."

Auping found his subject to be less circumspect than he would have guessed, and one who sometimes responded to questions with answers more obvious than he would have hoped. Yet, Auping discerned in Ando's candor and demeanor qualities not too common among the architectural elite. "He's very deliberate and he's very direct," Auping said. "You know, particularly in this day and age, if you read the writings of Rem Koolhaas or any of the postmodernists, there's a lot of jargon and I think it can be, in some cases, deliberately confusing."

During their conversations, as the architect from the East and the curator from the West paused in the silences as their exchanges were translated,



COURTESY THE MODERN ART MUSEUM OF FORT WORTH

Auping would observe Ando's physical gestures, sometimes detecting a flash of Ando's pugilist avatar. All the while, Ando sketched geometric forms in pencil or crayon, a continuous activity which fascinated Auping and impelled him to include several of Ando's evocative drawings in *Seven Interviews*.

"You can imagine him as a boxer. You could imagine him as, like, a featherweight. He sort of carries himself that way. But if you watch him carefully and, of course, when you're doing an interview, you're just looking. You look at his hands. You look at his face. His movements are very gentle; not what you would associate with a boxer. But somehow the way he carries himself and his exuberance, you know, [the way] he manifests certain emotional qualities through a physical movement could remind you of a boxer or an athlete. But if you watch him draw, I mean, he has a very light touch. Sometimes it's sort of rough and expressionistic, but generally it's quite light. I've watched him a lot and he holds the pencil in a very delicate way, almost like the pencil is just gliding."

STEPHEN SHARPE



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# TSA Design Awards 2003

CALL FOR ENTRIES

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**General Design** (including adaptive-re-use), Interior Architecture or Restoration: Construction must have been completed after January 1, 1996.

**Urban Design/Planning:** The project must at least have an active client and some portion under construction.

**25-Year Award:** Any project completed on or before December 31, 1978.

## RULES

Entries must be submitted by the design architect, who must have been registered with the Texas Board of Architectural Examiners at the time the project was executed. Where responsibility for a project is shared, the design architect must be a registered Texas architect and all participants who substantially contributed to the work must be credited.

Projects must be submitted in the name of the firm that executed the commission. If that firm has been dissolved or its name has been changed, an individual or successor firm may enter projects in the name of the firm in effect at the time the project was executed. Multiple entries of the same project by successor individuals or firms will not be accepted. For multi-building projects, the architect submitting the project (or portion thereof) must designate authorship of each portion of the project.

25-year award projects may be submitted by the original architect, original architecture firm, a successor to the original architecture firm, or by a component of the AIA.

## AWARDS

Architects and clients of winning projects will be honored at the TSA Convention in Fort Worth, November 2003.

Winning projects will be featured in the September/October 2003 issue of *Texas Architect* magazine. (Winning entrants may be required to pay a fee to defray the cost of color publication.)

## RETURN OF ENTRIES

Entries from firms in large cities will be returned to the local AIA chapter office and held for pick-up. Entries from firms located in cities without staffed chapters will be mailed individually to entrants via FedEx ground or U.S. mail. Entries from Austin will be available for pick-up at the TSA offices. If you wish to have your carousel returned by other means, please attach instructions and an account number or check for additional cost.

QUESTIONS?

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See back  
for entry form  
and specifications.

Deadline: June 6, 2003

## ENTRY PACKAGE

Each entry package must contain the following items:

1. SLIDES
2. DATA SHEETS (4 COPIES)
3. ENTRY FORM
4. REGISTRATION FEES

### 1. Slides

Entrants must submit slides in a functional 80-slot slide carousel tray for each project, in which the slides are in proper order and position. **Your name or firm's name may not appear anywhere on any slide.** Each project is limited to 25 slides, presented in the following order:

The first slide of each entry must be a title slide that contains information about project type (see entry form); project size in gross square feet; and project location.

Following each title slide, each entry must include (in no particular order):

- A: One slide of a site plan or aerial photograph with a graphic scale and compass points (interior architecture projects are exempt from this requirement).
- B: At least one slide showing the plan of the project. For a multi-story building, include only those slides necessary to describe the building arrangement and envelope. Sections and other drawings are optional. If included, section location must be marked on the appropriate plans;
- C: For restoration and adaptive re-use projects, at least one slide describing conditions before the current work started.
- D: For the 25-year award, at least one slide taken within three years of the project's original completion and at least one slide taken recently, which shows the project's current status.

### 2. Data Sheet

Each entry must include four copies of a data sheet consisting of a single image and text describing the project (**300 word limit, minimum 10 point type**), including program requirements and solution, on one side of a letter-sized sheet of white paper. The image—a representative photograph or drawing—must be no larger 5"x 7". The four copies of the data sheet must be folded and placed inside the slide carousel box. For the 25-year award, up to four additional sheets of text and/or images may be submitted. **Do not write your name or the firm's name on this data sheet.**

### 3. Entry Form

Use the official entry form for your entry. Copies of the form should be used for multiple entries. Place the entry form(s) in an envelope with the fee(s) and tape the envelope to the outside of the carousel box.

### 4. Entry Fee

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Texas Society of Architects  
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816 Congress Ave., Suite 970  
Austin, Texas 78701  
Ph: 512.478.7386

Please provide all the information requested on this form and read carefully the competition rules before preparing your entry(ies). Please print clearly in ink.

## PROJECT CREDITS

Entrant's Name \_\_\_\_\_

Title/Position \_\_\_\_\_

Firm Name(s) \_\_\_\_\_

Mailing Address \_\_\_\_\_

City/State/ZIP \_\_\_\_\_

Telephone \_\_\_\_\_

Fax \_\_\_\_\_

Email Address\* \_\_\_\_\_

TBAE Registration # \_\_\_\_\_

## PROJECT INFORMATION

Owner (at completion) \_\_\_\_\_

Architect \_\_\_\_\_

Project Name \_\_\_\_\_

Project Location \_\_\_\_\_

Size (sq. ft) \_\_\_\_\_ Mo./yr. completed \_\_\_\_\_

Category  General Design  25-year award  
 Interior Architecture  
 Restoration/Renovation  
 Urban Design/Planning

Project type  Commercial  Residential  
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I certify that the information provided on this entry form is correct; that the submitted work was done by the parties credited; that I am authorized to represent those credited; that I am an architect registered with the TBAE; that this submittal is a fair and correct representation of the project; and that I have obtained permission to publish the project from both the owner and the photographer. I understand that any entry that fails to meet these requirements is subject to disqualification.

Signature \_\_\_\_\_

Date \_\_\_\_\_

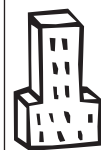
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**SURVEY:** My firm is ready to submit in PowerPoint format for 2004.  Yes  No

\*All correspondence regarding your entry will be conducted by email.

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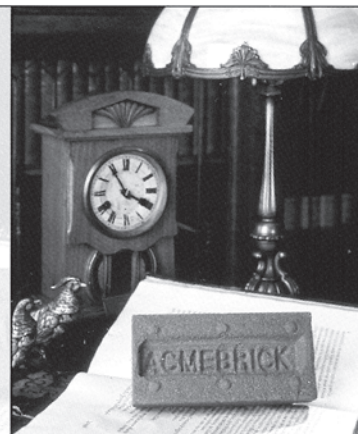
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Louis I. Kahn's 1974 Kimbell Art Museum in Fort Worth's Cultural District will be among the 1,100 significant structures in Texas, according to the editor of the forthcoming *Buildings of Texas*, scheduled to be published in 2004 by the Society of Architectural Historians; photo by Gerald Moorhead, FAIA.



**Part of a U.S. Survey, *Buildings of Texas* to Guide Readers to State's Treasures**

H O U S T O N Formally begun in May of 2000, *Buildings of Texas* is halfway through its production. For almost three years, Gerald Moorhead, FAIA, has been directing the project and documenting the state's significant buildings with a 4 x 5-format camera shooting black and white images. He also divided the state's 254 counties into eight regions and assigned a writer to research each of them. The regions' borders were determined by the Texas' different climate, topography, and settlement patterns which according to the editor "do coincide in a surprising, but not always in a distinguishing vernacular." Asked why he undertook the daunting task while working full-time at Ray Bailey Architects, Moorhead responded, "Because it needs to be done."

Moorhead's book, expected to be available in 2004, will be part of the *Buildings of the United States* series published by the Society of Architectural Historians (SAH) with principal funding from the National Endowment for the Humanities, along with pending research grants. *Buildings of Texas* will also be part of a 58-volume project undertaken by SAH to document the nation's buildings from pre-settlement days to the present. Modeled after Sir Nikolaus Pevsner's seminal *Buildings of England*, SAH was motivated to undertake the project because the U.S. is one of the few countries in the developed world without a comprehensive series of publications addressing its national architectural heritage. The encyclopedic *Buildings of the United States* series includes residences, farm houses, schools, houses of worship, industrial buildings, and monumental structures that reflect the distinctive character of each state and its people. Seven volumes (Alaska,

Colorado, District of Columbia, Iowa, Michigan, Nevada, and Virginia) have been completed, with more than 20 other volumes now in production. For more information on the project visit the organization's Web site ([www.sah.org](http://www.sah.org)).

Moorhead will edit the work of a team of writer/researchers: Joel Warren Barna (West Texas) a former editor of *Texas Architect*;

Dr. John Ferguson (South Central Texas) of Trinity University; Stephen Fox (Gulf Coast) of Rice University and University of Houston; Mark Gunderson, AIA (North Central Texas); Dr. Jay Henry (Panhandle and South Plains) of the University of Texas at Arlington; Dwayne Jones (Central Texas) of Preservation Dallas; Dr. Mario Sanchez (South Texas) of the Texas Department of Transportation; and Willis Winters, AIA, (East Texas) of the City of Dallas Park & Recreation Department. James Steely, a former historian with the Texas Historical Commission, will write the book's introduction.

Basic criteria dictate that buildings chosen for the book must be visible from a public right-of-way, although significant private structures will be acknowledged in the introduction. Further criteria involve determining which buildings best exemplify a particular building type, a specific architectural style, or best represent the work of a notable Texas architect.

Because the maximum number of buildings allowed in the book is 1,100, the greatest challenge faced by the team has been determining which structures ultimately will comprise the list. When the writers initially assembled their regional lists, the total number amounted to more than twice the limit. Moorhead said several rounds of culling brought the list closer to the desired number. Still, Willis Winters, described the winnowing process as long and excruciating—a lament shared by his fellow writers. Among Winters' dozens of candidates that will not make the book include an 1874 Houston & Texas Railroad dam in Allen that had been submerged for 50 years, a rock tower at Loy Lake Park in Denison built by the Civilian Conservation Corps, and a Vienna Secessionist-style house in Greenville. *Buildings of Texas*, with a planned 750 pages, is expected to represent the most up-to-date and authoritative record and guide of extant buildings in the state.

What distinguishes *Buildings of Texas* from the other books in the SAH series is that, in addition to being a survey of notable buildings, it is also a general-interest guidebook. Each regional section will include maps to direct readers to each of the listed buildings. Moorhead intends to guide the book's readers to see the highlighted Texas buildings, yet while doing so, deliberately mapping routes that will take them by other buildings not listed so they too can share the joy of discovery that the writers experienced as they conducted their exhaustive research.

LAWRENCE CONNOLLY, AIA

## Moore Is Less Than Revered by McNay; Unfinished Art Institute to be Bulldozed

**SAN ANTONIO** Despite protests by some Charles Moore enthusiasts, the McNay Art Museum has announced plans to demolish the Moore Ruble Yudell-designed San Antonio Art Institute building to make way for the museum's expansion. The Art Institute building, commissioned in 1983, was never completed and has been left virtually abandoned on the McNay's 23-acre grounds for a decade. After the Art Institute declared bankruptcy in 1993—the same year Moore died—the McNay took possession of the building but never found a use for it.

Plans to raze the building were made public in January after a \$7 million gift from the Arthur T. Stieren Estate was given expressly to construct a 43,000-sf expansion of the museum.

The Art Institute building, which cost around \$5 million, has been called “one of the city's biggest and most expensive boo-boos” by *San Antonio Express-News* arts critic Dan R. Goddard, who in 1993 wrote, “The board's biggest mistake was trying to make an ‘artistic statement’ with the building, choosing one of the country's most respected architects, but failing to oversee his design so that it would be practical. . . . The result is a sprawling building with high ceilings that is hard to heat and cool, studios with both north and south light, windows that don't open, and stairs that make it hard to move around art supplies.”

In a statement, Dr. William J. Chiego, director of the McNay, said, “It was the McNay Art Museum Board of Trustee's thoughtful and careful conclusion that the unfinished San Antonio Art Institute structure was not designed for museum needs or to museum standards and cannot be converted cost effectively. The new exhibition wing will greatly enhance our ability to provide educational programs on both our collection and our temporary exhibitions.”

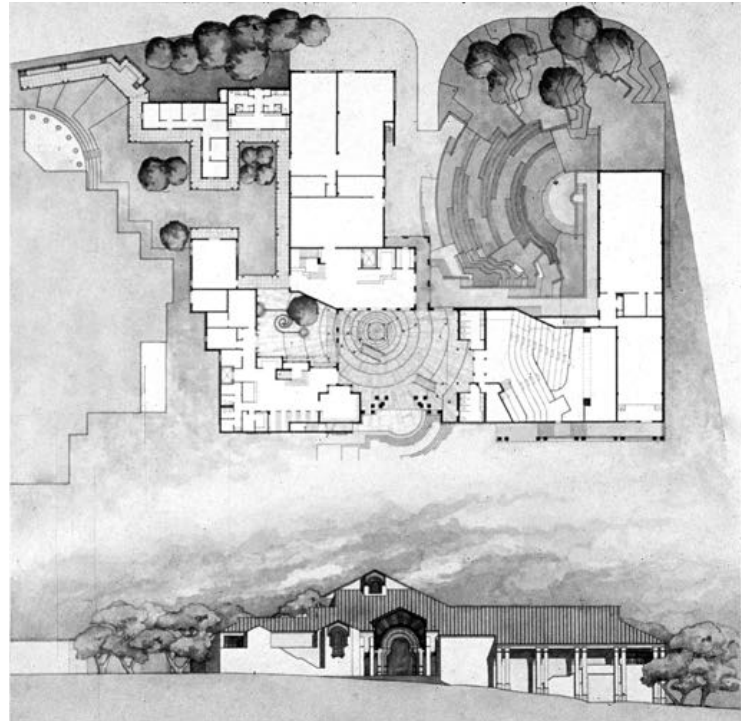
While the McNay board may consider the proposed demolition necessary to the museum's progress, not everyone is pleased with the decision. “The Art Institute is an important part of San Antonio's architectural legacy,” said Kevin Keim, director of the Austin-based Charles Moore Center for the Study of Place. “The structure is a wonderful synthesis of historic San Antonio architectural traditions and contemporary architectural forms.” Keim also noted that the building was the only Charles Moore building in San Antonio and Moore's only “full-fledged” public building in Texas. Keim has written the McNay's director asking that the Art Institute be saved, but in the same letter blamed the McNay's leadership for overlooking the structure's potential.

“Indeed, a part of the ease of starting the bulldozers is because the McNay has left the building vacant and neglected for so long,” Keim wrote on February 6. In addition, while Chiego has publicly offered to save elements of the building for the Moore Center, Keim wrote, “It is particularly distressing since the McNay press office makes sure to publicly point out that the Moore Center is being offered ‘remnants’ of the building, implying that we have endorsed this demolition. We have not.”

But, so far, the building's famous pedigree isn't enough to save it. San Antonio's historic preservation ordinance requires a building to be 25 years or older to be considered, and Chiego has said he plans immediately to seek a permit to tear it down. The same fate is not expected for the Jones Building (1979; by Flowers & Maxwell), the former home of the San Antonio Art Institute which is adjacent to the doomed structure and used by the McNay as office space.

The Stieren Estate bequest follows a 14-month \$7.2 million renovation of the McNay, which evolved around Marion Koogler McNay's 1927 Spanish Colonial Revival mansion. Atlee and Robert Ayres of San Antonio were the original architects. Jackson & Ryan Architects of Houston managed the recent improvements. French architect Jean-Paul Viguier has been commissioned to design the future expansion. Viguier is expected to present his initial designs for the McNay expansion in March. Ford Powell and Carson of San Antonio will serve

(top) A rendering of the San Antonio Art Institute building includes its western facade with the main entrance. (bottom) The \$5 million facility, planned for art classes and studios, was never completed and stood abandoned since 1993. Images courtesy the Charles Moore Center for the Study of Place.



as associate architect. In a competition overseen by Bill Lacy, FAIA, executive director of the Pritzker Architecture Prize, Viguier was selected among a field of more than 30 internationally recognized designers. Viguier is a modernist who designs sleek and well-crafted buildings. Among his most notable recent projects is the Sofitel Hotel in Chicago.

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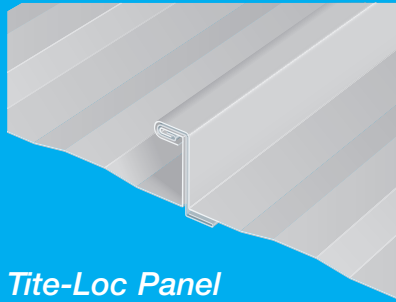
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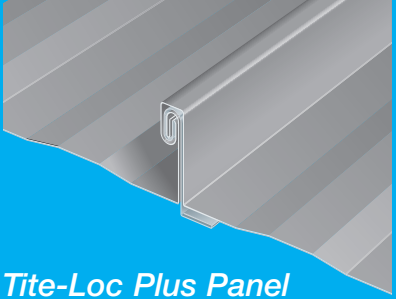
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## AIA El Paso Awards Five Projects

**E L P A S O** Five projects, including three designed by the local firm of Alvidrez Architecture, received awards in the annual AIA El Paso Design Awards competition. One of the winning projects, Moore Nordell Kroeger Architects' renovation and expansion of the El Paso International Airport Passenger Terminal Building, received a special citation from El Paso Mayor Ray Caballero.

The jury for the awards competition was comprised of Antoine Predock, FAIA, and designers from his firm in Albuquerque, New Mexico. Written comments from the jury clearly indicated that the judges admired the winning projects.

The competition's only Honor Award went to the Armijo Branch Library Expansion by Alvidrez Architecture, which enclosed an outdoor courtyard to create a new study area for local students. The project also successfully incorporated two existing murals by Carlos Callejo which depict Native American warriors, NASA astronauts, and scenes from surrounding neighborhoods.

The jury loved the project, offering written comments such as: "Wow! Really left us speechless and sent us off in a very esoteric discussion about 'true regionalism'." "This project is a very powerful insertion that borrows from energy on both sides and fuses it with the energy of the new space." "Really one of the most 'regional' entries that takes a residual space and brilliantly transforms it, breathing new life into it and adding to the existing cultural content." "There is a lot to learn from this project. It is spectacular, truly a benchmark for all of us to aim for."

Two other Alvidrez projects won Merit Awards—the John E. Uxer Head Start Complex, a 25,800-sf facility consisting of dynamic forms, outdoor spaces, and playful colors that respond to the nearby Franklin Mountains, and the Larry K. Dunham Sports Center in which the architect transformed the University of Texas at El Paso's existing Sun Bowl with a new design that reinforces the campus' Bhutanese architectural tradition.

Jury comments on the Head Start Complex were: "This is a powerful building in silhouette with dynamic interplay between the floating canopy and ground-borne imagery." "Desert response is good in terms of limited openings for light and orientation." "The use of color to acknowledge the sun is a fantastic animating notion for a kids' school in the desert." "A very thoughtful project."

About the Sports Center the jury commented: "Trying to relate to an existing stadium is an

extremely difficult challenge with very strong controlling geometric parameters already defined, but this project manages to work with the existing geometry and maintain its own presence quite appropriately." "Really a strong version of the eclecticism that Trost pulled off so well, but also with spiritual roots in Mexico with 'deep shade' and a strong and appropriate environmental response." "The perpetuation of the Bhutanese style is another complex issue when you get a few architects together...especially since Antoine saw a show on Bhutan on the Discovery Channel...so then we became an expert Bhutanese jury...apparently there are strong similarities in the high desert environments that solicit an appropriate response. We think the Sports Complex with its massive columnar arcade speaks directly to the desert environment."

A third Merit Award went to St. Jude Mission Chapel in Alamogordo, New Mexico. The project is the work of Boyd and Associates from design concepts by Steven Atkinson. Sited in the middle of a 10-acre pecan orchard, the chapel features an exterior of intricate brick masonry and an interior illuminated by skylights. The jury's comments were: "Subtle and minimalist chapel in a pecan grove has a very visceral and spiritual presence that does not rely on expressive geometries or form." "Brick detailing is consistent and beautiful in the spirit of great Swedish architects like Gunnar Asplund and Sigurd Lewerentz." "Finally, the natural light strategy is brilliant, really a 'jacket of light' where the light is first captured and then released into the space, similar to some ideas we have been talking about and not gotten built yet."

The airport terminal project that won of the Mayor's Award included the complete renovation of the terminal building as well as the addition of parking lots, toll collection facilities, roadway signage and lighting, and landscaping.

STEPHEN SHARPE



Armijo Library Addition



El Paso International Airport



John E. Uxer Head Start Complex



UTEP Larry K. Durham Sports Center



St. Jude Mission Chapel

## Turrell Designing 'Skyspace' for Nasher Sculpture Center

**D A L L A S** The second of environmental artist James Turrell's permanent "skyspaces" — and his first ever to be air conditioned and heated — is being designed for the Nasher Sculpture Center in the downtown Arts District. Scheduled to be completed in time for the Nasher's October 19 opening, the site-specific work will be partially submerged in a landscaped berm at the far end of the sculpture garden. The debut of *Tending, (Blue)* follows the 2001 installation of a similar Turrell work in a Quaker meeting house in Houston.

Turrell uses the generic term "skyspace" for the series of works he began in the 1970s in which he designs enclosed spaces that open to the sky through apertures in the roof. Turrell calibrates interior lighting to a specific color temperature, which affects how the human eye perceives the sky's color, distance, and density. The resulting experience can be mesmerizing, especially at sunrise and sunset, as the color of the sky gradually changes.

The interior lighting planned for the Dallas skyspace will be unique to Turrell's oeuvre, according to the Nasher, now that the artist is experimenting with light emitting diodes (LED) to replace his standard single or double rows of neon tubing. A double row of LED nodules — concealed behind the upper edge of bench backs — will provide a greater range of color temperatures, as well as producing brighter light and less noise than neon, while giving viewers a more varied skywatching experience.

The exterior of *Tending, (Blue)* will be a 26 × 26 × 26-foot black-granite cube, with an interior measuring 22 × 22 × 22 feet and finished in white plaster. Smooth limestone benches with angled backs will ring the interior space, allowing 20 to 25 people to sit comfortably and concentrate on the view through a 10-foot-square aperture in the ceiling. While the space is both heated and air conditioned, the aperture will remain permanently open.

In Houston, at the Live Oak Friends Meeting House, a sliding section of the roof can seal the two-foot-square opening in the ceiling above the 38 × 38-foot worship space. Turrell collaborated with Houston architect Leslie Elkins, AIA, on that project which was completed in January 2001. Turrell has built several other permanent skyspaces around the world, including one at P.S. 1 Contemporary Art Center in New York City. Other non-skyspace works by Turrell are in the permanent collections of major museums, including his 1999 site-specific installation at the Museum of Fine Arts Houston, *The Light Inside*. What may be Turrell's magnum opus — a



**A 'skyspace' by James Turrell is the main feature of Live Oak Friends Meeting House, designed by Leslie Elkins, AIA; photo by Ben Thorne.**

huge underground skyspace carved from an extinct volcano near Flagstaff, Arizona — has been in progress for 25 years. That work, at Roden Crater on the edge of the Painted Desert, is expected to open to the public in two or three years.

Raymond D. Nasher, the Dallas philanthropist who is funding construction of the Nasher Sculpture Center, announced the Turrell commission last November. At that time, Nasher praised Turrell for his creativity, saying "He has helped change our concept of sculpture, whether through huge earth works or more intimate installations with magical effects of light and space. This will be our only site-specific work for the Nasher Sculpture Center and will be constructed as part of the infrastructure of the garden. We know it will be a great addition."

The \$60 million, 54,000-sf Nasher Sculpture Center is now under construction on a 2.4-acre site adjacent to the Dallas Museum of Art. Renzo Piano, the 1998 recipient of the Pritzker Prize, is the architect. Piano is working in collaboration with landscape architect Peter Walker on the design of the center's two-acre sculpture garden. The center will house the Raymond and Patsy Nasher Collection, considered to be one of the finest collections of modern and contemporary sculpture in the world. In addition, works from other museums and private collections will be featured as special exhibitions.

STEPHEN SHARPE

## Boomer-era Designs at DMA

The Dallas Museum of Art presents 55 years of design history in a new exhibit titled *Boomerangs and Baby Boomers: Design 1945-2000*. The exhibit features the work of Charles and Ray Eames, Isamu Noguchi, Robert Venturi, Frank Lloyd Wright, and many others credited with changing the face of the twentieth century. THROUGH MARCH 16

## UH Showcases Kahn and Breuer

The University of Houston's Gerald D. Hines College of Architecture continues its Spring 2003 Lectures Series with Patricia C. Loud, architecture curator at the Kimbell Art Museum, and Barry Bergdoll, art history professor at Columbia University. Loud's lecture "Louis I. Kahn: Yale Art Gallery — Our First True Postwar Building" is scheduled for 2:30 p.m. and Bergdoll's lecture "At Home in Exile: Marcel Breuer and the Discourses of the Vernacular from Boston to Budapest" for 3:30 p.m. MARCH 25

## RDA Hosts Residential Tours

Seven houses from Houston's Museum District and West Ranch Estates will be featured in the Rice Design Alliance's twenty-sixth annual architecture tour. Both neighborhoods have undergone substantial new construction since the 1980s, making them a microcosm of inner-city housing and architectural trends of the last 20 years. MARCH 29-30

## Muñoz Sculpture in Houston

The Contemporary Arts Museum, Houston features a career survey of Spanish sculptor Juan Muñoz. His works engage the architecture around them and his clusters of figures situate viewers in compelling room-size environments. The exhibition includes nearly 60 sculptures, installations, and drawings. THROUGH MARCH 30.

## Norton Speaks to DAF

The Dallas Architecture Forum concludes its seventh season with a lecture by Enrique Norton, founder of TEN Arquitectos in Mexico City. The lecture begins at 7 p.m. at the Magnolia Theatre, 3699 McKinney Ave. APRIL 3

## Menil Exhibits Judd's Early Works

The Menil Collection features the works of Donald Judd, one of the most significant artists of the Minimalism movement. *Donald Judd: Early Work 1955-1968* is the first comprehensive presentation of the artist's early works. The exhibition introduces Judd's lesser known paintings and drawings from the mid 1950s and early 1960s. THROUGH APRIL 27

# 2003 Honors Program Call for Nominations

Each year since 1971 the Texas Society of Architects has recognized individuals and organizations outside the profession of architecture who share its commitment to the quality of life in Texas. Accomplishments by past honorees have included roadside beautification; wildlife conservation; open-space protection; passage of laws protecting the public's health, safety, and welfare; downtown revitalization; preservation of historic buildings and sites; public-school programs emphasizing environmental concerns; museum programs and exhibits about community architecture; and reporting, publications, and articles promoting the appreciation of the built and natural environment.

In addition, the TSA Honors Program recognizes TSA's exceptional members in several categories and distinguished Texas architectural educators and writers for leadership and achievement.

## Award Categories

### Honorary Membership

Awarded to an individual for long-term association with architects and architecture in providing a better quality of life in Texas.

### Citation of Honor

Awarded to groups or organizations outside the profession whose activities make significant contributions to the goals of the architectural profession for improvement of the natural or built environment in Texas.

In 1999, the Honors Committee voted to expand the criteria for Citation of Honor to include individual artisans. The artisan nominee should show a collaborative nature in his or her contribution to projects.

### Edward J. Romieniec Award

Awarded to recognize an individual architectural educator for outstanding educational contributions. Awarded in memory of Edward J. Romieniec, FAIA, a former professor and dean of architecture at Texas A&M University and the first recipient of this award. Nominee must be a current or former member of the faculty of one of the seven accredited Texas schools or colleges of architecture, living at the time of nomination, and a full-time educator for at least five years. Criteria for selection will include evidence of the following: teaching of great breadth; influencing a wide range of students; and the ability to maintain

relevance through the years by directing students toward the future while drawing on the past.

### John G. Flowers Award

Awarded to recognize an individual or organization for excellence in the promotion of architecture through the media. Awarded in memory of TSA's first executive vice president.

### William W. Caudill Award

Awarded to recognize a TSA member for professional achievement in leadership development during the early years of AIA membership. Awarded in memory of William W. Caudill, FAIA, recipient of the 1985 AIA Gold Medal and a pioneer of architectural design, practice, and leadership and service to the organization and community. Architect members of the AIA who have been licensed to practice less than 10 years by the submission deadline are eligible to be nominated; the term *young* architect has no reference to the age of nominees. The nominee should be a role model to the organization with these qualities: goes beyond the call of duty in service to the profession; influences improvement in the organization at the state level; encourages participation among fellow members and nonmembers; exemplifies qualities of leadership; and exemplifies qualities of professional practice.

### James D. Pfluger, FAIA Award

Awarded to an individual TSA member, TSA firm, or chapter for an extended commitment to community service or significant contribution evidenced in a positive impact on urban, environmental, or neighborhood issues. Nominees may be architects who use their practice to enhance their community, architects whose volunteer work in the community has made a difference through leadership, or the singular effort of an individual or group of architects that has enhanced the community. The award is named in honor of a TSA member whose community service extended over a lifetime of commitment resulting in significant community enhancements.

### Architecture Firm Award

Awarded to a TSA firm that has consistently produced distinguished architecture for a period of at least 10 years, this award is the highest honor the Society can bestow upon a firm. The Honors Committee will focus its evaluation on the quality of the firm's architecture and, secondarily, the firm's meritorious contributions to the profession and to the community. Firms practicing under the leadership of either a single principal or several principals are eligible for the award. In addition, firms that have been reorganized and whose name has been changed or modified are also eligible, as long as the firm has been in operation for a period of at least 10 years. Any TSA component may nominate one eligible firm.

### Llewellyn W. Pitts Award

Awarded to recognize a TSA member for a lifetime of distinguished leadership and dedication in architecture. TSA's highest honor, awarded in memory of Llewellyn W. Pitts, FAIA, who served as TSA president in 1961 and was an influential and dedicated AIA leader, recognizes a distinguished member for lifetime leadership and achievement in the profession of architecture and the community. Although no formal nominations are accepted, suggestions may be directed to the Honors Committee Chair, Heather McKinney, AIA.

## Nomination Procedures

Except for the Llewellyn W. Pitts Award, each nomination must be submitted through the local chapter and must be in an approved format. TSA will provide nomination forms and portfolio criteria to each local chapter. Additional copies may be obtained upon request. Nominations for the Llewellyn W. Pitts Award may be made by any TSA member in the form of a letter addressed to the Chair of the TSA Honors Committee. No portfolio is to be submitted.

## Selection and Notification

All TSA chapters are invited and encouraged to submit nominations to the Honors Committee. Forms and guidelines are sent to each component early in the year to allow ample time to compile nominations and assemble portfolios. Honor Award recipients are chosen by the members of the TSA Honors Committee in June of each year following a careful examination of nomination portfolios. The only nominations requiring board approval are those of Honorary Members; these are voted on at the July board meeting. Honor Awards recipients are notified of their selection and invited to the appropriate award ceremony during the annual TSA Convention. Winning portfolios will be held for at least six months following the TSA Convention. The others will be returned to the nominating chapters prior to the convention.

## Presentation

Awards will be presented during TSA's 64th Annual Convention in Fort Worth, Texas 2003. The names of Honor Awards recipients are published in *Texas Architect* and press releases are sent to the appropriate newspapers by the TSA publications staff.

## Submission Deadline

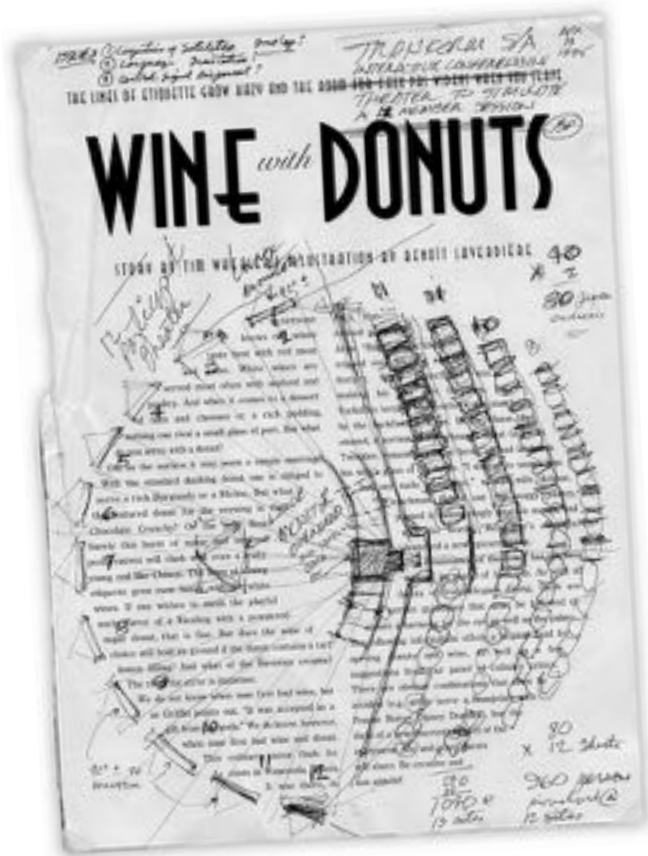
All nominations must be received in the TSA office no later than 5:00 p.m. on Friday, May 30, 2003. Please direct questions to Jo Ann Turner at 512/478-7386, or [jturner@texasarchitect.org](mailto:jturner@texasarchitect.org). Send nominations to:

Heather McKinney, AIA  
Chair, TSA Honors Committee  
Texas Society of Architects  
816 Congress Avenue, Suite 970  
Austin, Texas 78701

by MICHAEL G. IMBER, AIA

## Frozen Music: The Architectural Arts

On display, evidence of the creative impulse reveals the architect's evanescent vision



Among the works on view was Boone Powell's sketch for a theater; courtesy Blue Star Art Space.

WHEN BILL FITZGIBBONS, DIRECTOR OF THE Blue Star Art Space in San Antonio, envisioned an exhibit of architects' work, he didn't see his gallery filled with complex computer renderings nor did he want to enable another marketing opportunity by the ruling establishment to flaunt big names on slick presentations. Instead, the essence of the work FitzGibbons hoped to exhibit—with the help of his co-curators, UTSA professors Vince Canizaro and Mark Blizard—lay creased, coffee-stained, and forgotten at the very bottom of a flat file.

Having worked as a sculptor in numerous professional collaborations with architects, FitzGibbons is well versed in process, and respectful of those gifted with graphic thought—a talent once dutifully exercised in sketchbooks of the faithful, but now increasingly rare among the familiar hum of the computer processor. To FitzGibbons, *Frozen Music: The Architectural Arts* was an opportunity to share with the public the genesis of an idea: to render visible thought and process, to reveal the fingerprint of creativity. In addition, Canizaro and Blizard hoped their students might witness through circumstantial evidence the arcane and evanescent activities hidden behind the curtain of midnight charrettes in the back rooms of local firms.

Canizaro and Blizard chose a unique process for the selection of works to be exhibited. Submissions were never requested; rather, they visited the office of each architect picked by an advisory committee. They frequently were then left to rummage through an archeological trove of onionskin, model fragments, scribbled-on napkins, and other ephemera buried on desks and tucked away on shelves and in drawers; coveting pieces that were often met by skeptical, sometimes embarrassed authors.

Assembled for *Frozen Music* (which closed in late January), the chosen works were a physical imprint of the thought processes architects employ. Some demonstrated how a single graphic impulse could communicate the clarity of vision that drives an initial concept, while other works where the fruition of several minds working in collaboration towards a single goal. The exhibit samples concepts from their initial inception, through

their cultivation, to their culmination of refinement while illustrating the architects' ability to manipulate programs, sites and budgets into the realm of possibility.

The exhibit, featuring the work of 68 designers, revealed what most people never see—the inner intuition that becomes the genesis of our built environment. Such creative impulses are manifest in Boone Powell's drawings on junk mail and David Lake's sketched abstract landscapes. Some of the most inspiring pieces were those that seemed to be transferred to paper by sheer force of will, such as Bill McDonald's penned recordings of his mind's wanderings through imagery encountered deep within; Greg Papay's powerful strokes of *San Diego High Library* in which thick lines of black ink shape the space and texture of a room as if to liberate it from the two-dimensional surface; Mike Lanford's *Fire Station* rendered as though seemingly captured through the lens of a pin-hole camera; and Matt Morris' concept sketch for the Dallas Arboretum courtyard fluidly translates into graphic thought his view of the world as he wishes it would be.

Works by Richard Mogas and Frank Rascoe demonstrate in layer upon layer of onionpaper the momentum of the idea evolving with each successive thought, while the drawings of Craig Blount and Joaquin Escamilla exhibit an effort by two hands working in concert towards the design of a ranch in Hunt.

Other works employ draftsmanship, models, paintings and collage to express the potential of our world in built form. With his *In the Middle* Dwayne Bohuslav raises technical drafting to an art in the form of a modern *analytique*, with its composition of elements elevated and sectioned in a way that possibly exceeds its actual physical realization. Models such as Ken Bentley's *Bentley House* and Victor Carillo's *Trinity United Methodist Church* firmly express the architect's art as sculpture. And models such as Steven Bratz' *Bratz Residence* go so far as bearing our deepest yearnings for lives as they should be lived, even down to the future children who will reside within.

As architects our perception of who we are, and who we should be, is often separated by a stroke of the pen. We each form our own world from deep within, calling it into existence in a single moment of clarity. Sometimes our visions are brought into physical being; sometimes they are left to wither by neglect. *Frozen Music* allowed us a glimpse of these singular worlds at their purest, most fragile moment of existence.

The writer is principal of Michael G. Imber Architect in San Antonio.

# Texas Architect

A photograph of a modern building with a large glass facade and a curved roof, reflected in a pool of water. The building's structure is composed of dark, angular beams supporting a flat, overhanging roof. The glass walls are multi-paned and reflect the surrounding environment, including trees and the sky. The water in the foreground is calm, creating a clear reflection of the building's architecture.

## The Arts

LAST DECEMBER'S EAGERLY AWAITED DEBUT OF THE MODERN ART Museum of Fort Worth refocuses the world's attention on the city's Cultural District. As Ronnie Self explains in his critique of the Modern (pp. 22–31), Tadao Ando has created another of his uniquely stunning and contemplative works of architecture that is attracting international connoisseurs of art and design to Texas much like Frank Gehry's sensational Guggenheim Bilbao has enticed the cognoscenti to journey to northern Spain.

Other recent projects in Texas are sure to draw interest from around the state and across the nation. The Alley Theatre's new Center for Theatre Production (pp. 32–34) by Ziegler Cooper Architects and its remodeled Neuhaus Stage (p. 35) by Morris Architects. Those downtown Houston projects are profiled by Mark Oberholzer, AIA, and Ernesto Maldonado, AIA, respectively. In Dallas, the Sixth Floor Museum has recently unveiled its new Seventh Floor Gallery (pp. 38–41) and Marcel Quimby, FAIA, describes that renovation by Cunningham Architects.

Hardly new, but recently restored to its original Art Deco splendor, is the Fair Park Band Shell in Dallas. Thanks to GSR-Andrade Architects, the Band Shell continues to charm visitors just as it did when the Texas Centennial Exposition opened in 1936. Project images gave *Texas Architect* Art Director Adam Fortner the idea for a colorful and fanciful photo essay (pp. 36–37).

STEPHEN SHARPE

MARCH/APRIL 2003





# MODERN ART

*Tadao Ando intertwines art, architecture, and nature to create his Modern Art Museum of Fort Worth.*

text by RONNIE SELF

images by JOE AKER





**PROJECT** The Modern Art Museum of Fort Worth, Fort Worth  
**CLIENT** MPA Foundation  
**DESIGN ARCHITECT** Tadao Ando Architect & Associates  
**ARCHITECT OF RECORD** Kendall/Heaton Associates, Inc.  
**CONTRACTOR** Linbeck Construction Company  
**CONSULTANTS** Richard Fitzgerald & Associates (consulting architect); Thornton-Tomasetti Engineers (structural); CHP & Associates (MEP); Huitt-Zollars, Inc. (civil); SWA Group (landscape architect); Waterscape Consultants (water feature consultants); George Sexton Associates (lighting); Peter Muller (curtainwall)  
**PHOTOGRAPHY** Joe Aker - Aker/Zvonkovic Photography

COMPLETELY BY COINCIDENCE, I MADE FIRST visits to both the Guggenheim Bilbao and the Modern Art Museum of Fort Worth on the day after Christmas, shortly after each museum opened. Though the two buildings were completed five years apart (the Guggenheim in 1997; the Modern last December) and are obviously very different architecturally, a similar atmosphere pervaded

their public debuts. Locals and out-of-towners packed the buildings, their long-anticipated openings having attracted from near and far art lovers, architects, and others just curious about all the excitement. A festive holiday mood lingered and the public was marveled. On display as much as each museum's artwork was the architecture, and the buildings were explored, caressed, and photographed. The visitors in Fort Worth seemed as fascinated by the vast reflecting pond and much-discussed concrete walls of Ando's building as the Bilbao public was by Frank Gehry's exuberant forms and titanium cladding. Ando's desire to create a contemplative architecture is not incompatible with a desire to attract visitors, and the new Fort Worth Modern again proves that the great public building type of our time, regardless of the architectural style, is the museum.

With the Modern, Ando has employed his characteristic components (the concrete walls, the reflecting pond, the circular or oval forms)





TADA O ONDO



PHOTO BY DAVID WOO

Tadao Ando is an invigorating, soothing presence. At his office in Osaka, speaking to a visitor in his soft growl, Ando appears as a man of action frequently interrupted by a stillness of internal rumination. With a serene, fluid motion he finishes a serving of green tea and rushes to share, silently, his latest art acquisitions—two books. One, an eternally closed tome of stone; the other, forever open to display text kiln-fired onto ceramic pages. These works, by Anna and Wolfgang Kubach-Wilmsen and Takako Araki, respectively, signify extremes of human expression; each embodying a notion of written thought rendered in materials immeasurably more durable than ink on paper. They point to mystery and revelation, even hint at transcendence. They also convey much about the architect who acquired them.

Ando has an overarching reputation for material precision. But no discussion of his work is complete without referencing its transcendence into the immaterial. Visitors to any of his buildings often realize an internal spiritual illumination while also experiencing a sense of timelessness. Ando fairly may be described as transcendentalist who arranges gentle confrontations between man and nature through which he aspires to a higher reality than that found in sensate experience alone.

Ando has long explored the promise of such provocations. In *From the Periphery of Architecture* (1991), Ando said: “The building remains a simple box, but nature and human movement alter the architecture in complex ways. To harbor spaces of great complexity in compositions that are geometrical and simple is to provide the unexpected and to stimulate a person’s consciousness. In the end, the simple box proposed by Modernism is by itself nothing but a simple box. I want to enrich architecture by introducing complexity into that simple box.”

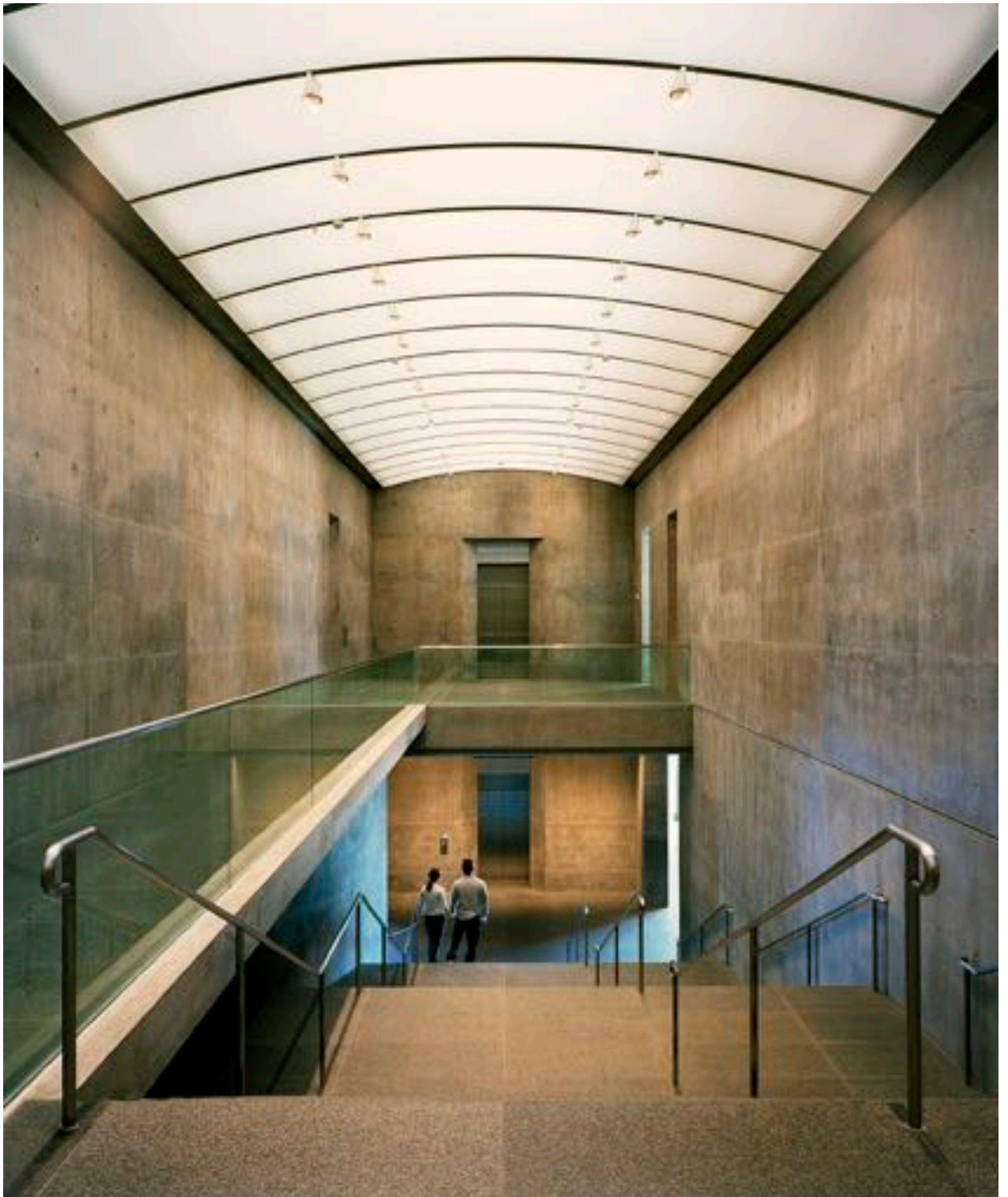
That complexity undoubtedly has to do with what the Japanese know as *Wabi* (tranquil simplicity), *Sabi* (patina of age), and *Suki* (subtle elegance). Deceptively simple terms that enjoy that exquisite ambiguity of all things Japanese, they are the offspring of traditional Japanese aesthetic and are continually at play in the work of Tadao Ando.

*Ando speaks of ‘approaching the space of the cosmos’ in his buildings, and the Modern attests to his search for the metaphysical in architecture.*

and engaged them with immaterial elements (light, sky, wind) to intertwine art, architecture, and nature. Much of the interest in his buildings derives from fundamental and essential constructional parts, from refined proportions, volumes, and forms. Ando speaks of “approaching the space of the cosmos” through his buildings, and the completed Modern attests to his search for the metaphysical in architecture. The Modern is a beautiful building, visually and experientially, and while not perfect, the museum offers clues as to why Ando’s work may be held to a higher level of achievement for how it carries this quest to term.

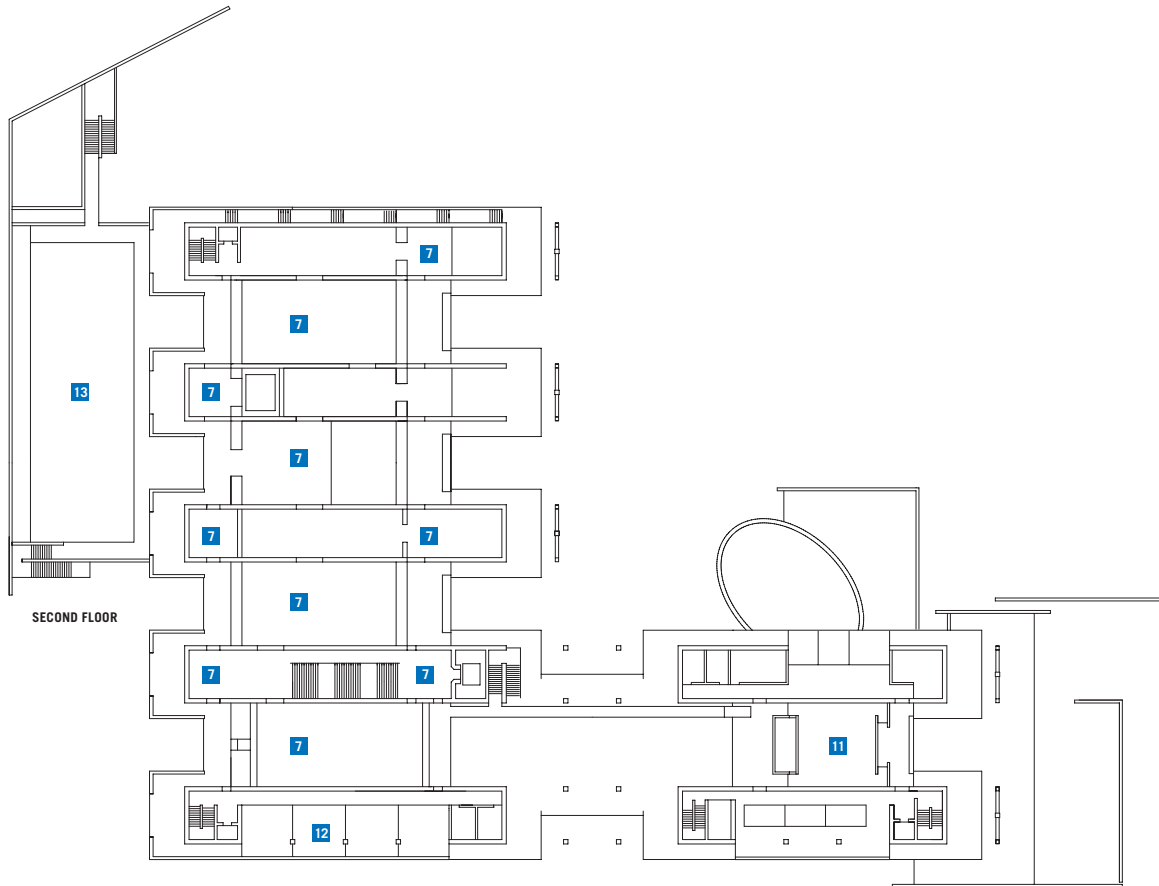
As with many recent museums, Ando has devoted a substantial amount of space to the Modern’s entry and circulation; however, his galleries remain a powerful and memorable part of one’s experience of the building. They are simple, well-proportioned white spaces that are strong but do not compete with the works of art on display. Multiple circulation paths give an impression of promenade and discovery rather

than a predetermined exhibition itinerary. There are numerous places where visitors can step out of the gallery spaces and take a short break to gaze at the surrounding landscape, the downtown skyline, or the sculpture garden. On the ground floor the labyrinth-like spaces between the concrete walls and the glass facades are playful, though the close spacing of the mullions compromises the impression of transparency. Three double-height exhibition spaces are interesting architecturally, yet it is not obvious how the link they establish between the two floors will function when there is more than one show in the building or when exhibitions are being changed. The natural top lighting in the second-floor galleries is of two types—continuous, gabled skylights combined with suspended translucent ceiling panels in the 24-foot-wide galleries and with linear clerestory windows in the 40-foot-wide galleries. In both cases the light is homogenous and somewhat lifeless. The translucent ceiling panels offer little hint of the outside sky and light conditions or the





- FLOOR PLAN**
- 1 ENTRANCE HALL
  - 2 INFORMATION DESK
  - 3 MUSEUM SHOP
  - 4 CAFE
  - 5 TERRACE
  - 6 AUDITORIUM
  - 7 GALLERY
  - 8 ART WORKSHOP
  - 9 LOADING DOCK
  - 10 STORAGE
  - 11 OFFICES
  - 12 ART CLASSROOMS
  - 13 SCULPTURE TERRACE
  - 14 MECHANICAL PLANT
  - 15 PARKING





MARTIN PURYEAR, LADDER FOR BOONER T. WASHINGTON, 1996. EXTENDED LOAN FROM THE ARTIST



HENRY MOORE, TWO-PIECE RECLINING FIGURE NO. 2, 1960, GIFT OF RUTH CARTER STEVENSON, BY EXCHANGE

structure above. Generally, visitors are left with the unfortunate impression of gallery spaces that are artificially lit.

During my visit on December 26, I spoke with someone who just happened to have participated in the construction of the concrete walls. It was his first visit to the building since completion, and his pride and regret that he might never again work on such a refined project substantiated the importance of craft and workmanship in Ando's work. The concrete is beautiful and near absolute perfection. The reveal joint, for example, between the concrete walls and the plaster ceiling is immaculate. The insider shared a "secret" though, that only about half of the expressed tie holes were necessary—others had been added for aesthetic reasons. He also disclosed that the "concrete" ceiling in some parts of the building is not actually the structural slab, but a dropped ceiling made of glass-fiber reinforced-concrete panels. Knowing the importance of concrete in Ando's work, it is also surprising to find that artwork is rarely exhibited on his signature concrete walls. Instead, the concrete walls towards the reflecting pond and the sculpture garden serve as thick facades—or bookends perhaps—that frame white exhibition spaces at the building's core.

Ando has mentioned that the interior of the Modern is its soul, and the attention he has devoted to the galleries and other internal spaces is evident. The exterior of the building is less successful though, and perhaps the project's least convincing

aspect is the museum's relationship to its site. The Modern's west elevation presents an unfriendly backside to its Cultural District neighbor—Louis Kahn's 1974 Kimbell Art Museum—by having two delivery areas facing the Kimbell just across Arch Adams Street. In addition, its east elevation, particularly at ground level, gives a second less-than-neighborly impression to University Drive. And along Camp Bowie Boulevard to the north a concrete wall prohibits access and extends little invitation to passing pedestrians or motorists. Finally, the building's grand main entrance and Richard Serra's 67-foot-tall Cor-ten steel sculpture *Vortex*, 2002 seem a bit lost in the parking lot on the Modern's south side. Ando has spoken of the urban condition in his native Japan that logically leads to walled projects and of his admiration for courtyard buildings such as the Alhambra in Granada, Spain. Yet, here in Fort Worth, the apparent trade-off for the serene, introverted walled garden with its impressive horizontal reflecting pool results in the project's divorce from its suburban context and its uneasy insertion into a site that was not all that flat.

*Seven Interviews with Tadao Ando*, a small book published last year by the Modern Art Museum of Fort Worth, offers telling insights into the making of the building and into Ando's architecture in general. Ando says, as do many other modern architects, that he believes "for a building to be successful, the inside and the outside must relate closely." He speaks admiringly of the sense

by Greg Ibañez, AIA

## THE CONCRETE



For architects there is an inherent contradiction in the use of cast-in-place architectural concrete: we admire the craftsmanship and honesty in the material yet we tend to scrutinize every surface for flaws and imperfections. It is a high-wire act that requires a natural, labor-intensive product to have the consistency of a manufactured one. When successful, as it is with the Fort Worth Modern, the result is a visually rich and tactile surface that nonetheless dematerializes into pure form.

To realize Ando's vision, architect-of-record Kendall/Heaton Associates and general contractor Linbeck had to overcome a relative lack of experience in working with exposed concrete on this scale. A consultant—Dr. Ramon Carrasquillo of Carrasquillo Associates in Austin—refined a concrete mix from Ando's first U.S. project, a Chicago residence, and assisted with mock-up analysis and adjustments as work on the Modern progressed. The cement and aggregate for the project were selected from standard local material stockpiled in quantities sufficient for the two-year project. The special aspects of the mix were the use of fly ash (all from one power plant) and a high percentage of "fines" (carefully washed before use) needed to achieve the sharp corners and smooth surfaces that Ando desired.

After viewing numerous on-site mockups, a Finnish birch-veneer plywood with a phenolic coating was selected as the form liner. The formwork (comprised of panels and supporting trusses) was assembled inside a purpose-built, climate-controlled, 6,000-sf on-site fabrication building and set in place by crane.

The basement was constructed first, which allowed the team to study and perfect all aspects they were to encounter later—placement of ties, consolidation and vibration techniques, control joints, and inside and outside corners. The precautionary steps paid off, according to Paul Sipes, Linbeck's senior project manager, who said team members afterward "were confident we could do it right when we got to the architectural concrete."

"Concrete" continued on page 31







of architectural order in Louis Kahn’s work and says that the pavilions at the Modern are partly inspired by the pavilions at the Kimbell. The organization of Ando’s building is generally described as five parallel pavilions; however, unlike Kahn’s design, Ando’s pavilions are only understood as such when viewed from the outside. As the plans indicate, the spaces in between Ando’s “pavilions” are actually larger and their function more important than the spaces contained therein. (Even the museum’s entry hall and auditorium are located in an in-between space.) This leaves the interior organization somewhat disorienting. At the Kimbell, the location of stairs, elevators, and restrooms can be predicted in relation to the gallery spaces, and they’re found in Kahn’s flat-roofed service zones. There is a reversal at the Modern, where these same functional elements are often, but not always, located in spaces between parallel walls that seem from the outside to be primary pavilions but from the inside appear secondary. Overall, the planning of the building comes across as casual. For example, visitors arriving at the top of the grand stair find an opening on the right that allows them to apprehend the layout of the galleries in enfilade while an identical opening on the left leads to the restrooms.

Ando’s Y-shaped exterior columns are another curiosity, because Ando is explicitly interested in the meaning of architecture and because he

desires to minimize extraneous elements. Even though Ando has used similar forms in other projects, the Modern’s columns made much more sense in earlier design drawings where they supported the two primary beams of what appeared to be a layered, steel-framed, translucent roof structure. In any project an architect must make certain formal decisions, yet these strongly iconic columns appear to be a vestige of an earlier scheme. With only a total of five of these seemingly important elements, it is surprising that two of them have been swallowed by the parking area and surrounded by PVC pipes at the building’s eastern extremity. (Try to imagine, as a means of comparison, the mushroom columns of Frank Lloyd Wright’s Johnson Wax Building being cut in a similar way at mid-height.)

Though the Modern, as seen from the outside, evokes the character of an office building rather than Ando’s metaphorical “floating swan,” the structure undoubtedly does “come alive when someone enters it,” just as the architect had hoped. Perhaps also the completed Modern has fulfilled Ando’s wish that the architecture be “seen together at a glance” and that it respond to a “larger rhythm and balance” even if the whole may be more than the sum of its sometimes imperfect parts. **T**

Ronnie Self is an assistant professor at the University of Houston’s Gerald D. Hines College of Architecture.

Linbeck also employed a full-time quality-control monitor who observed every pour to avoid any cement clumps or foreign objects (cigarette butts, etc.) in the concrete. According to David Spires of Thornton-Thomasetti Group, the “vibration was very carefully executed and controlled, between too much (bug holes) and not enough (honeycombing). This, along with very carefully built, watertight formwork, is really the key to getting the results you’ve seen.”

Rollie Childers, AIA, a principal of Kendall/Heaton, noted that the formwork shop drawings were extremely important because every single conduit and device had to be cast in place. So important, in fact, that all of the relevant subcontractors were required to sign off on the final drawings. Generally, the walls were formed in two sizes: 24-foot width × 2-foot depth × 18-foot height (or 16-foot height for the second floor) and a special C-shaped form for the interior galleries. Liners were re-used only once at most. On average between three and four walls (32 yards each) were cast weekly. Childers said Ando was relatively forgiving about the inevitable concrete variations, which Ando deemed to be evidence of its man-made nature. The only wall to be recast – the monumental two-story interior gallery space that displays Martin Puryear’s *Ladder for Booker T. Washington* – was accepted by Ando but rejected by the owner.

The finished exterior concrete surfaces were sealed to protect against moisture and graffiti. While the interior walls are *au naturel*, every square inch was scraped clean by hand using razor blades to enhance their smoothness.

**RESOURCES** FENCES, GATES, AND HARDWARE: Ametco; MASONRY UNITS:

Featherlite; GRANITE: Ingemar Group (Lucia Constructors, masonry contractor); COLD-FORMED METAL FRAMING: Dietrich Industries; STAINLESS STEEL AND GLASS GUARDRAIL SYSTEM: Offenhauser Co, Julius Blum; CUSTOM MADE ALUMINUM EXTRUSIONS AND BRACKETS: Offenhauser; ARCHITECTURALLY EXPOSED STRUCTURAL STEEL: American Steel and Aluminum; ARCHITECTURAL WOODWORK: Techniques, Inc.; LAMINATES: Formica; WATER REPELLENTS: Pacific Coatings; PREFORMED ALUMINUM PANEL SYSTEMS: A. Zahner Co.; MEMBRANE ROOFING: Johns-Manville; SHEET MEMBRANE WATERPROOFING: Carlisle Coatings; BEUTONITE CLAY WATERPROOFING: Volclay; LIQUID RUBBERIZED ASPHALT WATERPROOFING: Carlisle Coatings; ANTI-GRAFFITI SEALER: ProSoCo; METAL DOORS AND FRAMES: Curries; WOOD AND PLASTIC DOORS AND FRAMES: Weyerhaeuser; OVERHEAD DOORS: Cookson; ENTRANCES AND STOREFRONTS: Ellison Bronze; UNIT SKYLIGHTS: Supersky; GLASS: Interpane; GLAZED CURTAINWALL: Masonry Arts; PORCELAIN TILE: Floor Gres Ceramiche; ACOUSTICAL CEILINGS: Armstrong; WOOD FLOORING: Ponder; PAINTS: ICI Dulux; GYPSUM BOARD: USG; CARPET: Bentley, Prince Street; TRANSLUCENT PANEL CEILING SYSTEM: Skyspan; OPERABLE PARTITIONS: Modernfold; FURNITURE: Knoll; MOTORIZED SHADES: Mechoshade



# DRAMATIC PRODUCTION

*Unfinished for almost two decades, the Alley Theatre's former storage space  
now hums with energetic backstage activity.*

by MARK OBERHOLZER, AIA



(opposite page) A refined décor enhances the reception area. (left) The cavernous scene shop is the focal point of the facility. (below) Smaller, well-appointed workspaces contribute to the Alley's high-quality production output.

**PROJECT** Alley Theatre Center for Theatre Production, Houston

**CLIENT** The Alley Theatre

**ARCHITECT** Ziegler Cooper Architects

**CONTRACTOR** W.S. Bellows

**CONSULTANTS** Hoover & Keith (acoustical); Perdohn Hahn (elevator); Caton Consulting (code/life safety); Arts, Crafts & Theatre Safety (industrial hygienist); I.A. Naiman & Associates (MEP)

**PHOTOGRAPHER** Aker/Zvonkovic Photography



ONE OF THE MOST IMPORTANT BEHIND-THE-scenes spaces for the performing arts in Houston recently opened in a downtown parking garage, occupying an unusual space that has been empty for nearly 20 years. Designed by Ziegler Cooper Architects, the Alley Theatre's Center for Theatre Production has brought together and expanded the Alley's administrative and production offices inside this existing space.

The Alley Theatre building itself, a downtown landmark designed by Ulrich Franzen and Associates and completed in 1969, contains two performance spaces—a “thrust” theater and a theater-in-the-round. Located in the top five stories of the adjacent 18-floor garage, the space used for the new Center for Theatre Production was originally intended to be home to the Alley's third stage. Built in 1984 by the Hines Corporation to service the nearby Republic Bank Center (now Bank of America Center) designed by Philip Johnson, the parking garage's granite aggregate exterior matches the pink hue of Johnson's office

tower facing it across Jones Plaza. In exchange for a long-term lease on the Alley-owned land underneath the garage, Hines built the space for a proscenium theater at the top of the structure. The Alley used the unfinished space for storage for almost two decades.

While the fleeting magic of theatre may periodically flash from the Alley's stages near street level, an enduring sense of drama frequently electrifies the Center for Theatre Production. The reception area on the eighteenth floor is finished in minimalist good taste—Barcelona chairs and slate flooring—but the eye is drawn immediately beyond the lobby and toward a series of large glass windows opposite the elevators. The unexpected view through the windows is down into the cavernous space of the scene shop—a startling introduction to the workings of the Center.

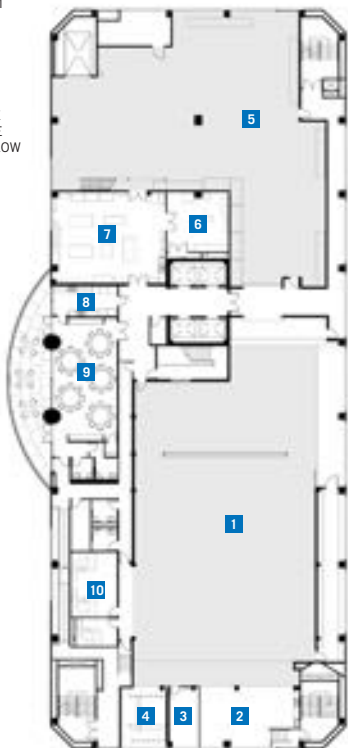
Sixty feet high, the scene shop takes up the space intended for both stage and seating of the proscenium theater. Inside its volume, large sets and backdrops are constructed and painted, using





LEVEL 18

- FLOOR PLAN**
- 1 SCENE SHOP
  - 2 PAINT SHOP
  - 3 PAINT STORAGE
  - 4 SPRAY BOOTH
  - 5 SCENE CONSTRUCTION/STAGING
  - 6 SAW ROOM
  - 7 PROP SHOP
  - 8 SERVERY
  - 9 BOARD ROOM
  - 10 OFFICE
  - 11 RECEPTION
  - 12 LIBRARY
  - 13 MAIL ROOM
  - 14 BREAKROOM
  - 15 COPY ROOM
  - 16 OPEN OFFICE
  - 17 CONFERENCE
  - 18 OPEN TO BELOW



LEVEL 16



(above) Spacious rehearsal areas add to the facility's convenience.

materials fabricated in the adjacent staging area. The size and proportions of the space impart a satisfying sense of drama to the scene shop despite its plywood floor and legions of power tools.

In addition to facilitating large-scale set construction and painting, the scene shop provides a central focus for the Center's mind-boggling array of production and rehearsal areas ("a Rubik's Cube of spaces," says architect Scott Ziegler, AIA). One of the goals of the Center was to integrate a wide variety of day-to-day theatre functions – from administrative offices to costume storage to the mailroom – in a way that would bring together people whose paths never crossed before. The new facility "solved our operational and psychological needs," says Sean Skeehean, the Alley's general manager. "It's a major success."

The circulation system is one way in which the Center blends disparate parts and people at the Alley. Adjacent to the scene shop, a stair ascends from the lowest floor to the administrative offices on the top floor, offering views of the vast scene shop along the way. Halfway between the top and bottom is the Center's breakroom and kitchen. Painted bright red and furnished with Bertoa wire chairs, the ambiance of this space is quite differ-

ent from the Center's prevailing warehouse-like atmosphere—there's a feeling one has walked in from the wings and onto a floodlit stage.

Actors who duck out of the Center's three rehearsal halls for a quick costume fitting are greeted by an expansive skyline view just over the bank of sewing machines in the costume shop. This view is shared by many of the Center's occupants, from the boardroom to the wig shop. The new facility has nearly tripled the Alley's production space (now 75,000 square feet) and, according to Skeehean, contains the most contiguous area for production space of any American theater. This emphasis on quantity and quality of production space is both egalitarian and practical: "better facilities attract better people," notes Skeehean. Although a few windows were added to the existing structure, the building's exterior is largely unchanged—the Alley's dramatic new backstage quietly occupying its new home in the sky. **T**

Mark Oberholzer, AIA, teaches architecture at Rice University's School of Architecture and practices with Wittenberg Partnership in Houston.

**RESOURCES** SLATE TILE: Thorntree; FLOORING: Nora; CARPET: Prince Street; FABRIC WALLCOVERING: Carnegie, DesignTex; FABRIC WRAPPED PANELS: Glant, Gretchen Bellinger; FURNITURE: Knoll; LIGHTING: Intrepid, Cooper Industries

# After the Flood

by ERNESTO MALDONADO, AIA

**PROJECT** The Neuhaus Stage at The Alley Theatre, Houston  
**CLIENT** The Alley Theatre  
**ARCHITECT** Morris Architects  
**CONTRACTOR** W.S. Bellows  
**CONSULTANTS** Haynes Whaley Associates (structural); I.A. Naman & Associates (MEP); Jaffe Holden Acoustics (acoustical); Caton Consulting (code); Bos Lighting Design (lighting); Worrell Design Group (food service)  
**PHOTOGRAPHER** Aker/Zvonkovic Photography

IN 2001 THE ALLEY THEATRE SELECTED Morris Architects in Houston to guide the remodeling of the 32-year-old building designed by Ulrich Franzen & Associates of New York with MacKie and Kamrath of Houston. The project was to begin with construction of the new Center for Theatre Production, continue with remodeling the 824-seat Large Stage upstairs, and end with new seats and a general cleanup of the 296-seat Neuhaus Arena Stage in the basement. Pete Ed Garrett, AIA, lead architect for the project, and Morris colleagues Robine S. Hendricks and Jared Wood were working on presentation drawings for the Large Stage and for the Alley's public spaces when tropical storm Allison dropped 20 inches of rain on Houston in June 2001 and inundated the downtown tunnel and parking system that serves the Alley.

The flood changed both the phasing and the scope of the project; the event also gave the Alley Theatre the opportunity to expand the capabilities of the lower stage since all the seating, lighting, electrical gear, and mechanical equipment were destroyed when eight feet of water surged through the basement space. The plan for new seats and flooring for the Neuhaus Arena Stage – seen as a future third phase – became a plan for a new, state-of-the-art Neuhaus Stage to be completed by January 2002, just six months after the flood. (The Alley dropped the “Arena” from the stage's name because it was reconfigured.) Since the architects were already “on the job,” drawings for the expanded and accelerated project began the Monday following that Friday storm.

Alley personnel – general manager Sean S. Skeeahan, production manager Kristin Fox-Siegmund, artistic director Gregory Boyd, and managing director Paul Petreault – worked with the architects to redefine the requirements for the lower stage. The team envisioned a new design for



the seating that keeps the original arena's in-the-round staging and adds a new “thrust” stage strategy. One of the banks of seating can now split in half, and each half bank of seating can rotate 90 degrees (in opposite directions) to transform the original four-sided arena seating with the stage in the middle to a thrust stage with U-shaped seating around it. Access for the actors from all four corners of the theater is maintained in either stage arrangement.

The architects raised the ceiling to increase vertical staging options by replacing the original low-hanging cargo netting system for access to the lights with a flexible steel-tube catwalk system. They also slightly raised the floor of the entire theater area to accommodate sub-floor wiring systems, new piping for atmospheric effects, and additional seating for disabled theatergoers.

The redesign called for new power, sound, lighting, and communications systems installed below the floor, above the ceiling, and in the control booth to improve and expand the possibilities of the sound engineer. Improved sound isolation



(top) The Neuhaus Stage's arena seating can be reconfigured into a U-shaped arrangement with a “thrust” stage in the middle. (above) The remodel nearly doubled the size of the lobby.

“Alley” continued on page 52

# RE-DECO at Fair Park

Built for the Texas  
Centennial Exposition,  
the 67-year-old  
Band Shell shines anew.

PROJECT The Band Shell at Fair Park, Dallas

CLIENT City of Dallas Park and Recreation Department

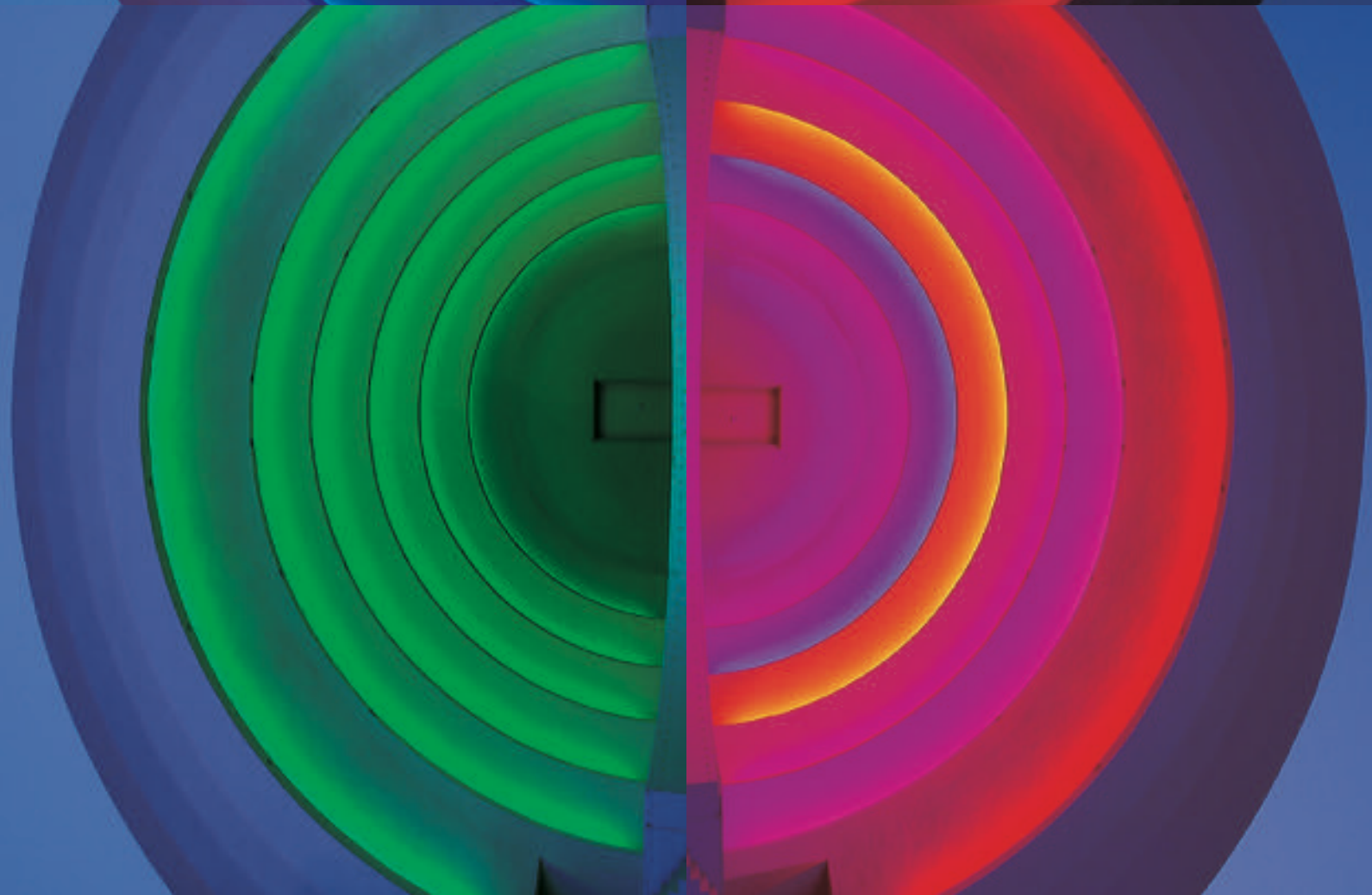
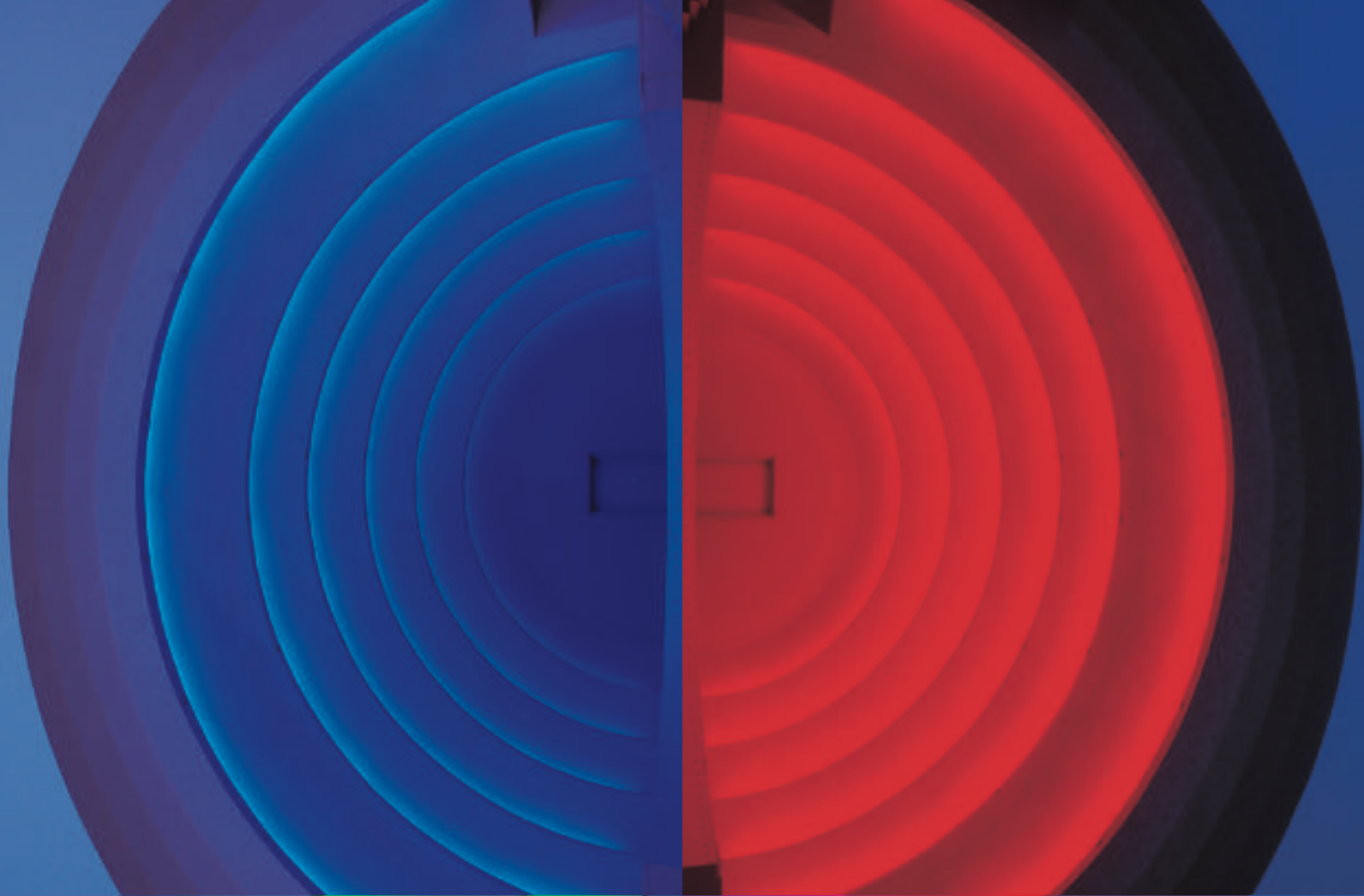
ARCHITECT (1936) W. Scott Dunne and Christensen & Christensen; (1999-2002) GSR-Andrade Architects (formerly AAE Architects)

CONTRACTOR Phillips/May Corporation

CONSULTANTS Jaster-Quintanilla (structural); Hector Gomez Engineers (MEP); Introspec (waterproofing and specifications); Lindsley-McCoy (lighting)

PHOTOGRAPHERS Rob Dunkin and Christian Sheridan





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by MARCEL QUIMBY, FAIA

# Updated for Posterity







**PROJECT** Seventh Floor Gallery at The Sixth Floor Museum, Dallas

**CLIENT** The Sixth Floor Museum at Dealey Plaza

**ARCHITECT** Cunningham Architects

**CONTRACTOR** Stillwell Building Systems

**CONSULTANTS** James Smith (structural); MEP Systems (mechanical and electrical); Burden Brothers (mechanical plumbing); Fox Electric (electrical); Myrdin, Inc. (data and technology); PHW Architectural Lighting Design (lighting)

**PHOTOGRAPHER** James Wilson

LOCATED AT THE TOP FLOOR OF THE FORMER — and infamous — Texas School Book Depository in downtown Dallas, the Seventh Floor Gallery is an expansion of the Sixth Floor Museum at Dealey Plaza, an institution dedicated to the life, death, and legacy of President John F. Kennedy. In 1963 both the sixth and seventh levels were used as storage spaces for public-school textbooks, and it was from a sixth-floor window that Lee Harvey Oswald is believed to have fired the shots at JFK's motorcade that killed Kennedy and seriously wounded Texas Governor John Connally.

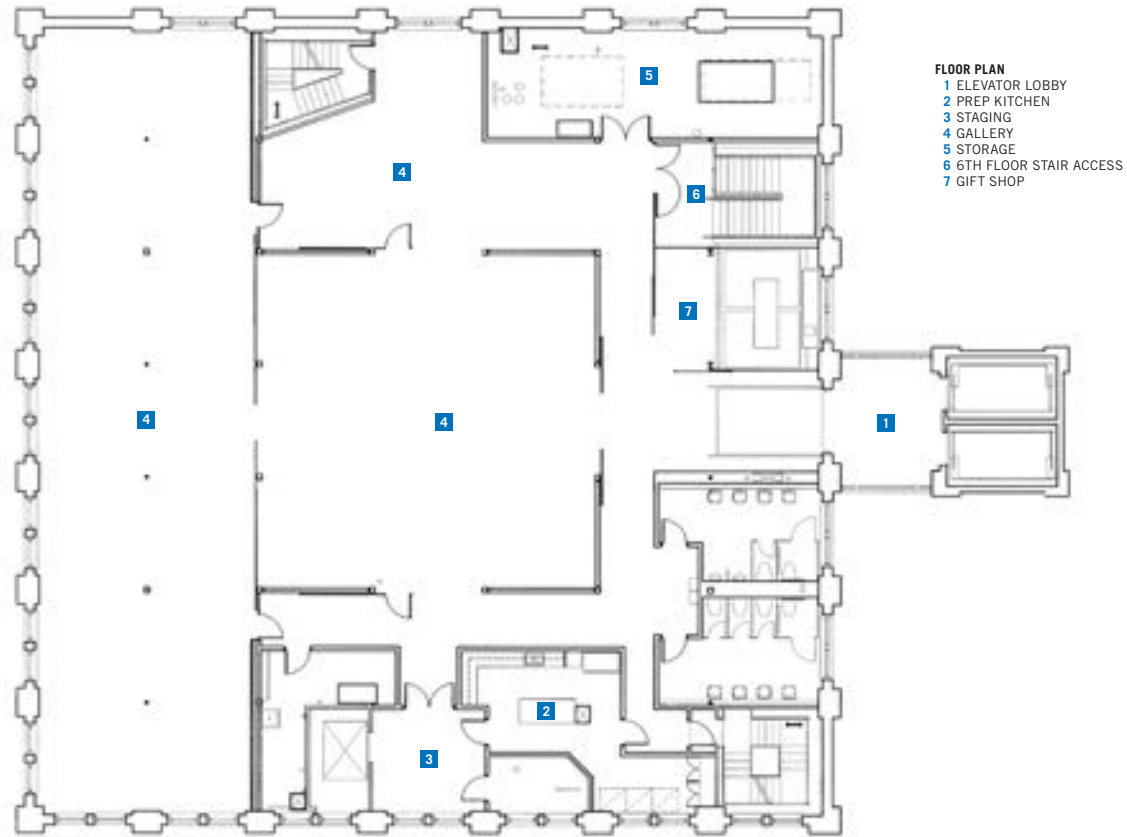
Because the history of the building (built in 1901 and owned since 1977 by Dallas County) is integral

to the Sixth Floor Museum's mission, museum officials wanted the new 5,500-sf gallery space to reflect the building's past while being outfitted for sophisticated technology to accommodate state-of-the-art installations and exhibitions. As a result of those objectives, the Seventh Floor Gallery is both a museum project and a preservation project—a unique combination artfully accomplished by Cunningham Architects of Dallas.

The design is deceptively simple yet brilliant. Conceptually, a major central gallery takes the center of the floor, with permanent spaces located along the exterior of the north wall and additional galleries occupying the remaining perimeter areas. There are only a few permanent spaces for core elements—stairs, freight elevator, handicap-accessible restrooms, mechanical/storage room, and a serving kitchen — which allows the large galleries to define the project.

This concept successfully responds to the museum's goal that the exhibit space be designed for the display of art, and that it be exceedingly flexible. The interior partitions separating the galleries and circulation space are constructed of metal frame with neutral-colored infill panels. Portions of

**(opposite page)** The top floor of the Texas School Book Depository now houses a gallery space that blends modern fixtures with its century-old structural fabric. **(above)** Events take place in the central gallery.



The design is deceptively simple yet brilliantly

responds to the museum's need for additional

exhibition space that is exceedingly flexible.

these walls are actually large sliding doors (a nod to the building's original use as a warehouse), varying from seven to 21 feet in length and 12 feet high. These sliding doors can be opened to provide spacious, unobstructed galleries that appear to encompass the entire floor, or closed to provide distinct, private gallery spaces.

While the project was not a restoration, the new partitions and permanent rooms complement and enhance the essential historic elements of the space—the brick at the exterior walls, large wood columns, wood roof structure, wood framing above for a metal ceiling that was removed decades ago, concrete floors, and windows. For example, the brick walls were not stripped of existing paint, but simply cleaned and sealed. These original features were left intact, and care was taken to evoke the historic past while clearly distinguishing the old from the new.

The architects added a metal grid above the wood framing at the ceiling to conceal flexible lighting, electrical, and audio/visual components.



In addition, the mechanical dehumidification and sprinkler systems were installed above this wood framing and grid to unobtrusively provide infrastructure and technology necessary to support such a sophisticated facility.

The Seventh Floor Gallery is connected to the museum's permanent exhibit space on the sixth floor by an open stair constructed of glass and metal—a clean design that contrasts with, yet enhances the rough structure of the building beyond. This stair leads to a glass vestibule and adjacent glass-enclosed gift shop, creating a spacious entrance to this upper floor.

Since the Seventh Floor's opening in February 2002, it has hosted nationally acclaimed exhibitions of photography and artwork. (*Warhol and Jackie: Artist and Icon* opens March 21 and features more than 30 rarely seen works of art and dozens of historic artifacts signifying pop artist Andy Warhol's response to, and packaging of, the Kennedy assassination and its key players.) With the opening of these new galleries, the museum has

met its goal of attracting more of a local audience to performances, educational activities, public lectures, receptions, and catered events. Jeff West, executive director of the museum, said the Seventh Floor Gallery is everything we "hoped it would be and more" as it provides museum officials with an empty but fluid canvas, which they can change as needed to showcase diverse exhibits.

The museum continues to work with Cunningham Architects in the design of the exhibits within the space as these exhibits change: who better to continue to build on the success of the Seventh Floor Gallery than the renovation architect? **T**

The writer is principal of Marcel Quimby Architecture/Preservation in Dallas.

**RESOURCES** MASONRY RESTORATION AND CLEANING: ProSoCo; WATER-PROOFING AND DAMPPROOFING: ProSoCo; GLASS: Binswanger; TILE: Daltile; PAINTS: Pittsburgh; FLOOR SEALER: Polymax; SIGNAGE AND GRAPHICS: Hutchins & Vaughn

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# Joe Barnhart Bee County Library



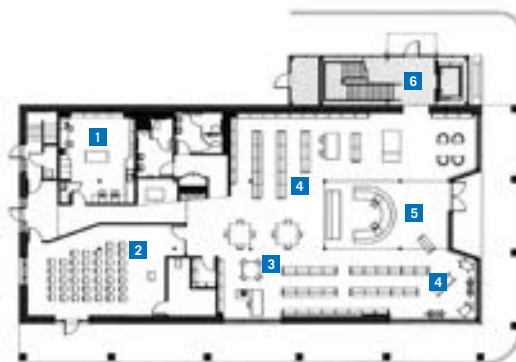
**PROJECT** Joe Barnhart Bee County Library, Beeville  
**CLIENT** Joe Barnhart Foundation  
**ARCHITECT** Ray Bailey Architects  
**CONTRACTOR** Krueger Construction  
**CONSULTANTS** Conti Jumper Gardner Associates (structural); Redding Linden Burr Consulting Engineers (MEP); David Henington (library consultant)  
**PHOTOGRAPHER** Hester + Hardaway

The Praeger Building, originally built in 1906 as a hardware store facing the Bee County Courthouse, recently received a high-tech transformation. In a remote part of South Texas, where barely five percent of households own a computer, the new Joe Barnhart Bee County Library will provide students and their parents more than 40 computers with Internet access. The library also houses books for children, young adults, and adults, as well as a small law library and genealogy research section. The two-story, 10,000-square-foot Praeger Building is a classic load-bearing brick mercantile structure with timber floor joists and cast-iron interior columns. During remodeling, all previous interior improvements were removed to reopen the original high spaces and expose the original cast-iron columns. Although ceilings were lowered to house new ductwork, conduit, and computer cabling, narrow wooden floating panels allow a perception of the library's high spaces. To bear the greater load of additional library materials and equipment, portions of the wood structure were reinforced. The original exterior of the building was kept intact except for the replacing of windows and the addition of an elevator and staircase on the east side. Conceived as a transparent overlap to the brick structure, the steel-and-glass addition contrasts with the original building rather than mimicking its style. The glass elevator allows library patrons a view of the Beaux Arts-style courthouse (1912; by Stephenson and Heldenfels) across the street.

LUI CALEON



**RESOURCES** SITE, STREET, AND MALL FURNISHINGS: Canterbury International; MASONRY RESTORATION AND CLEANING: ProSoCo; LAMINATE CABINETS: Wilsonart; METAL ROOFING: Berridge Manufacturing; ROOF HATCH: Bilco; GLAZED CURTAINWALL: EFCO (BGR Specialties, mfr. rep); TILE: Daltile; ACOUSTICAL CEILINGS: Armstrong; PAINTS: Sherwin-Williams; VCT: Armstrong; CARPET: Interface; TOILET PARTITIONS: Comtec; TOILET ACCESSORIES: Bobrick; MANUFACTURED CASEWORK, LABORATORY CASEWORK, AND FURNITURE: Thos. Moser Cabinetmakers; WINDOW SHADES: Architectural Fabric Systems



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# McKinney Memorial Public Library

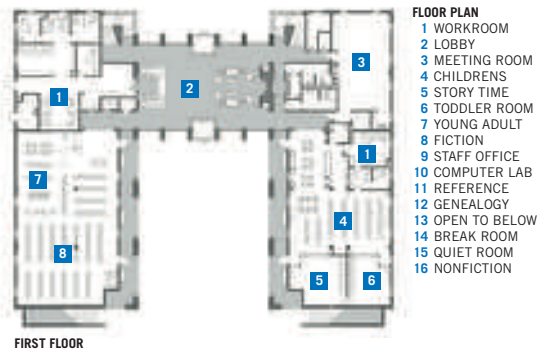


**PROJECT** McKinney Memorial Public Library-Main Branch, McKinney  
**CLIENT** City of McKinney  
**ARCHITECT** Corgan Associates  
**CONTRACTOR** Ratcliff Constructors  
**CONSULTANTS** L.A. Fuess Partners (structural); RLK Engineering (civil); Turner Engineering (MEP); SMR Landscape Architecture (landscape architect); Amtech Roofing (roofing)  
**PHOTOGRAPHER** Mark Olson

McKinney Memorial Public Library is a 33,000-square-foot structure designed by Corgan Associates of Dallas. The two-story library is the new central flagship for the northeast Texas city's growing municipal library system, and the first phase of a long-term plan to recreate a town center. Completed in December 2001, the library's design is influenced by the Prairie School in both form and materials. Corgan created urban edges along the major north and south running streets by setting major facades along the U-shaped building. The site contains an intimately scaled courtyard to provide a plaza or "town center" used daily by library patrons or during special events. Parking is located north of the site, allowing a direct pedestrian link from the McKinney town square. The main lobby contains the central circulation desk and a seating area around a monumental fireplace. The library's ground floor houses administration, a children's library, and public meeting rooms. The second floor – where adult reading sections are located – is designed as a column-free space to allow flexibility for future spatial arrangements. Throughout the building, comfortable furniture is available in designated reading areas to create the ambience of a family living room. Daylighting is provided by high-set windows while deep overhangs soften direct sunlight. Indirect lighting – via lamps, pendants, and sconces – is used throughout the structure for general illumination. Amber brick and natural oak are the primary interior materials, while the exterior palette is brick masonry with a continuous base of Texas limestone at its perimeter.

LUI CALEON

**RESOURCES** MASONRY UNITS: Interstate (Blackson Brick, dist.); LIMESTONE: TexaStone Quarries; GRANITE: Texas Stone & Tile; SLATE: Edgewater; LAMINATES: Pionite; METAL ROOFING: Revere Copper Products; FASCIA AND SOFFIT PANELS: Berridge Manufacturing; METAL DOORS AND FRAMES: Raco Altura; SPECIALTY DOORS: Panefold; ENTRANCES AND STOREFRONTS: Kawneer; GLAZED CURTAINWALL: Kawneer; TILE: Daltile; ACOUSTICAL CEILINGS: Armstrong; PAINTS: Sherwin-Williams; OPERABLE PARTITIONS: Panefold



# Ambitious Opening

by JAMES D. HILL, AIA



**PROJECT** Reliant Stadium, Houston

**CLIENT** Harris County Sports & Convention Corporation

**DESIGN ARCHITECT** HOK Sport + Venue + Event

**ARCHITECT OF RECORD** Houston Stadium Consultants, a joint venture of Hermes Architects and Lockwood, Andrews & Newnam

**CONSTRUCTION MANAGER** Manhattan/Beers Skanska, a joint venture of Manhattan Construction Co. and Beers Skanska

**CONSULTANTS** Walter P. Moore, Kennedy & Associates (structural); Turner Collie & Braden, Sunland Engineering (civil and surveying); Carter & Burgess, Lockwood, Andrews & Newnam, M&E Engineering, Willie E. Lewis, Inc., Ferguson Consulting, Bovay Engineers (MEP); Wrightson, Johnson, Haddon & Williams (sound & video); Rolf Jensen & Associates (code), Schiff & Associates (security); Environmental Consultants & Monitoring Services, Avila Engineering (geotechnical)

**PHOTOGRAPHER** Ed Massery

IF ARCHITECTURE AT ITS BEST IS AN expression of the values and aspirations of a culture, then what does a project like Reliant Stadium tell us? The new home for the NFL's newest franchise, the Houston Texans, opened in time for the 2002 football season with great fanfare and enthusiasm in a city giddy with the prospect of its return to the big-time world of professional football. If the sheer volume of fawning press coverage is any indication, this building is the best thing to happen to Houston in a long time.

As an architectural and technical project, there is no question that Reliant Stadium is a prodigious accomplishment. A list of facts and figures is filled with superlatives: the first football stadium with a retractable roof, the first with a completely removable modular field of natural grass, the ability to enjoy an open-air game while 12,000 tons of air





conditioning take the edge off of Houston's muggy climate, a layout with sight lines that accommodate 69,500 seats (72,000 for the Super Bowl) as close to the action as possible, including the closest suites in the NFL. While the finished product is remarkable, the story of the design and construction of the stadium in record time is equally impressive.

As with so many of the signature projects in Houston, this one began with the vision and tenacity of one man. Robert McNair, an energy entrepreneur and the man who would eventually acquire the NFL's thirty-second franchise, had to invest \$10 million of his own money in design fees in order to meet the ambitious timeline, since, at the time, Houston's success in outbidding Los Angeles for the team was far from assured. In fact, a scale model of the facility on display in the west lobby is replete with palm trees, anticipating that this design could have been built in Southern California. The contentious question as to whether the Houston public would agree to finance the construction of the stadium had already been finessed in 1996, with a referendum on what many people supposed was limited to approving a downtown baseball park. It passed by the narrowest of margins.

But pass it did, and after lengthy negotiation with the NFL, McNair paid a record sum to bring pro football back to Houston. The deal included a commitment to have the stadium open for the Texans' first exhibition game in August 2002. The race to deliver the stadium was on. McNair had originally contracted with HOK Sports + Venue + Event to design the stadium. Now that it was a public project administered by the Harris County Sports and Convention Corporation, a local team of architects was assembled to act as architects of record. The team, operating under the name of Houston Stadium Consultants was led by a joint venture of Hermes Architects and Lockwood, Andrews and Newnam. The construction firm of Manhattan/Beers Skanska, another joint venture, was also brought on the team early, since the schedule would require that construction begin while design was still being completed.

Visually, the most striking feature of the stadium is its retractable roof system, which together with its other requisite elements accounts for about \$100 million of the stadium's \$370 million construction costs. This unique design feature was necessitated by the fact that the stadium was not built for football alone. The Texans share the sta-



(opposite page) The retractable roof system's Teflon-coated fiberglass fabric adds to an overall sense of transparency. (top) The seating bowl's unique design places each spectator as close to the action as possible. (above) Interior finishes create visually exciting interiors for the patrons.

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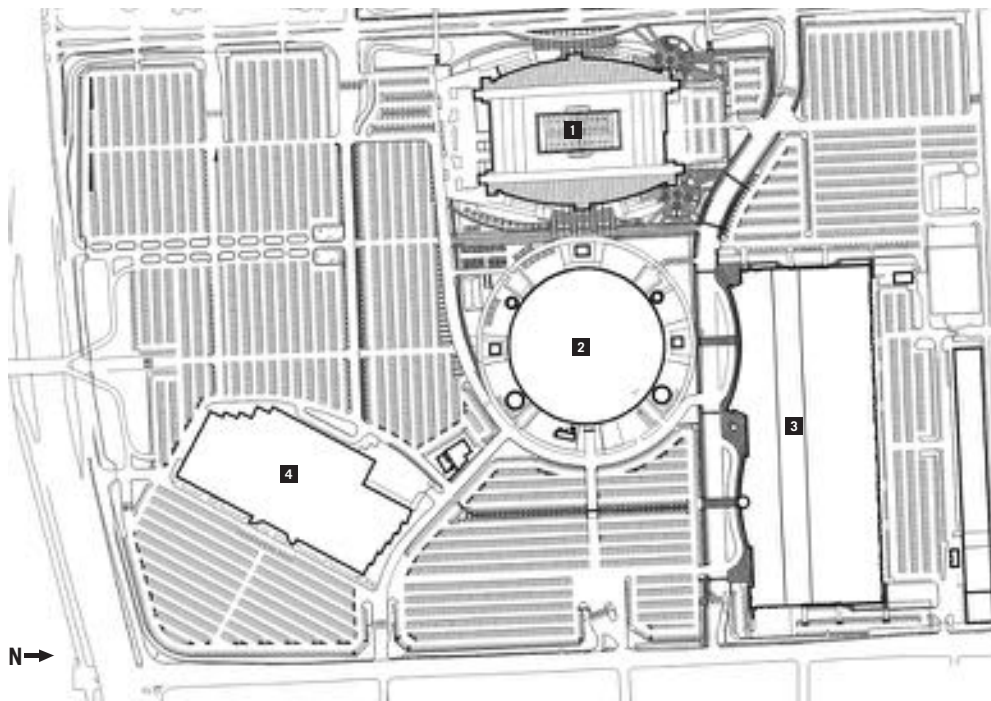
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dium with the Houston Livestock Show and Rodeo, and that group absolutely required a roofed venue to ensure predictable scheduling as well as flexibility and control over lighting and sound quality. Although it really is a rodeo, the event's largest draws – approximately 2 million spectators each year – are the music concerts that cap off each evening's activities. This additional purpose also accounts for the stadium's removable field, with 8 × 8-foot modules of natural grass pallets set on a concrete slab.

The roof system, designed by the Houston firm of Walter P. Moore & Associates, perches

above the stadium bowl on a colossal structure that can best be compared to a giant four-legged expandable dining table with the central leaves omitted to create a 350 × 500-foot opening. Four supercolumns of 13,000 psi concrete bear all of the roof loads; each is 67 × 18 feet at the base and has a hollow interior that also serves as the vertical ducts for air distribution and exhaust. Two steel supertrusses sit atop the columns, each almost a thousand feet long, with a clear span of 684 feet. Two movable roof panels ride on tracks running along the top of the supertrusses; each roof panel is composed of five steel trichord trusses that span

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385 feet across the field. The two panels, each covered in a translucent Teflon-coated fiberglass fabric, meet at mid-field when closed and dock over the end zones when open. All in all, a simple and elegant solution, albeit executed at a huge scale.

The sheer bulk of the stadium is deceiving; located on the 350-acre grounds of the Reliant Park complex (formerly called the Astrodome complex), it is not surrounded by normal-sized buildings that would lend a realistic sense of scale. One does not immediately realize that Reliant Stadium is the equivalent of a 20-story building covering more than 12 acres. The stadium is notable for its departure from the nostalgic, historicist expression that characterizes many of the sports venues recently constructed around the country. In contrast, its modern, crystalline exterior treatment

(opposite page, top) Food concessions, interactive kiosks, and retail stands surround the seating bowl. (opposite page, bottom) The 50-foot-wide main concourse allows patrons to move easily throughout the stadium. (right) Bar service shines with countertops of brushed stainless steel and translucent panels.

seems to wear its size comfortably and is also much more appropriate for such a prominent display of technical prowess.

Perhaps the most poignant feature of the stadium is its location, only a few hundred yards across the parking lot from the Astrodome (renamed Reliant Astrodome), the erstwhile "Eighth Wonder of the World," now sitting forlorn and nearly forgotten less than 38 years after its completion—a debut celebrated even more wildly than that of its upstart neighbor.

And that begs the question: how long before this latest architectural blossom loses its luster and yields the stage to the next best thing? In a world of light-speed communication, planned obsolescence, and dwindling attention spans, what is the half-life of architectural significance? And finally, what does Reliant Stadium tell us about Houston's self-image, this brash and precocious "can-do" city, yet with its nose ever pressed up against the glass, looking self-consciously at the elite cadre of world-class cities that seem just beyond its grasp? Significant buildings elicit these questions; perhaps only time can provide the answers. ■


James D. Hill, AIA, practices architecture with Civic Design Associates in Houston.

**RESOURCES** STRUCTURAL STEEL: Hirschfeld Steel Company; STRUCTURAL CONCRETE: Hanson Concrete; FORMWORK: Baker Concrete Construction; EXTERIOR GLAZING: Wausau; DRYWALL: USG; EXTERIOR METAL PANEL SYSTEM: Centria; DUROCK: USG; CUSTOM CMUS: Lucia Constructors; MASONRY ACCESSORIES: Hohmann & Barnard; MEMBRANE ROOF SYSTEM: Firestone Building Products; FABRIC ROOF SYSTEM: Birdair; ROOF MECHANIZATION: Uni-Systems; LIFE SAFETY/SECURITY SYSTEMS: Siemens Building Technologies; ENERGY MANAGEMENT: Siemens Building Technologies; COMMUNICATIONS: Siemens Enterprise Networks; POWER, LIGHTING AND CONDUIT: Lithonia Lighting; INTERIOR ALUMINUM DOOR FRAMES: Versatrac Interior Aluminum; DOORS: VT Industries, Ceco, Overhead Doors; ARCHITECTURAL WOODWORK: Quality Woodwork; ENTRANCES AND STOREFRONTS: Bayou City Glass, Atlas; CARPET: Dupont Flooring; GRANITE FLOORING: Stone Marketing International; CEILINGS: USG, Illbruck Metal Ceilings; MOVEABLE PARTITIONS: Kwikwall; FABRIC SMOKE CURTAINS: Smoke and Fire Protection Systems; POROUS PAVING: Invisible Structures (MKM Sales, Reg. Rep); GRANITE COUNTERTOPS: Stone Marketing International



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"Alley" continued from page 35

and insulation quieted the room significantly. Projection of musical scores and placement of recorded sounds around the room is much more flexible, and that is useful because the stage now is "too quiet" at times.

A new bar area, which had been somewhat hidden, now clearly addresses a lobby that is almost twice its original size. The architects raised the ceiling of the lobby, widened the curving stairway, and lit the whole space with cold cathode lighting in coves that curve around the free-form lobby. The women's restroom was doubled in size while both men's and women's restrooms were outfitted with new lavatories and lights that add a touch of elegance.

While no one in Houston is looking for a replay of the 2001 flood, the redesign of the Neuhaus Stage demonstrates that adversity often invites opportunity. In this case, the opportunities were quickly and thoughtfully analyzed and acted upon to create new capabilities for the stage and more comfortable and spacious accommodations for the audiences at the Alley. ■

Ernesto Maldonado, AIA, is a principal of Glassman Shoemaker Maldonado Architects in Houston.

**RESOURCES** MASONRY UNITS: Southwest Concrete Products; GRANITE: National Tile & Terrazzo; LAMINATES: Buffalo Cabinet; METAL DOORS AND FRAMES: Vistawall; WOOD AND PLASTIC DOORS AND FRAMES: Haley Brothers; STAINED GLASS: Architectural Metal Crafts; TILE: National Tile & Terrazzo; RUBBER FLOORING: Nora; RESILIENT FLOORING: Armstrong; PAINTS: ICI Dulux Benjamin Moore; HIGH-PERFORMANCE COATINGS: Zolatone; CARPET: Prince Street; DIMENSION STONE TILE: National Tile & Terrazzo; OPERABLE PARTITIONS: Hufcor; THEATRE SEATS: Irwin

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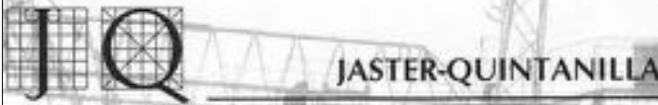
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# Making a Scene

Architecturally-correct backdrops impose realism on a community theater's productions.

WHEN THE CURTAIN GOES UP THIS SPRING at San Pedro Playhouse in San Antonio, most audiences for the musical comedy *Guys and Dolls* may not detect the architectural veracity behind the actors. Probably only a few theatergoers will appreciate the accurate perspective in the painted backdrops of Times Square circa 1950 and pre-Castro Havana, but they can all thank Jerry Wilson III and Steven Tillotson, AIA, of Kell Muñoz Architects for taking the time to think about orthogonals and eye-level vanishing points.

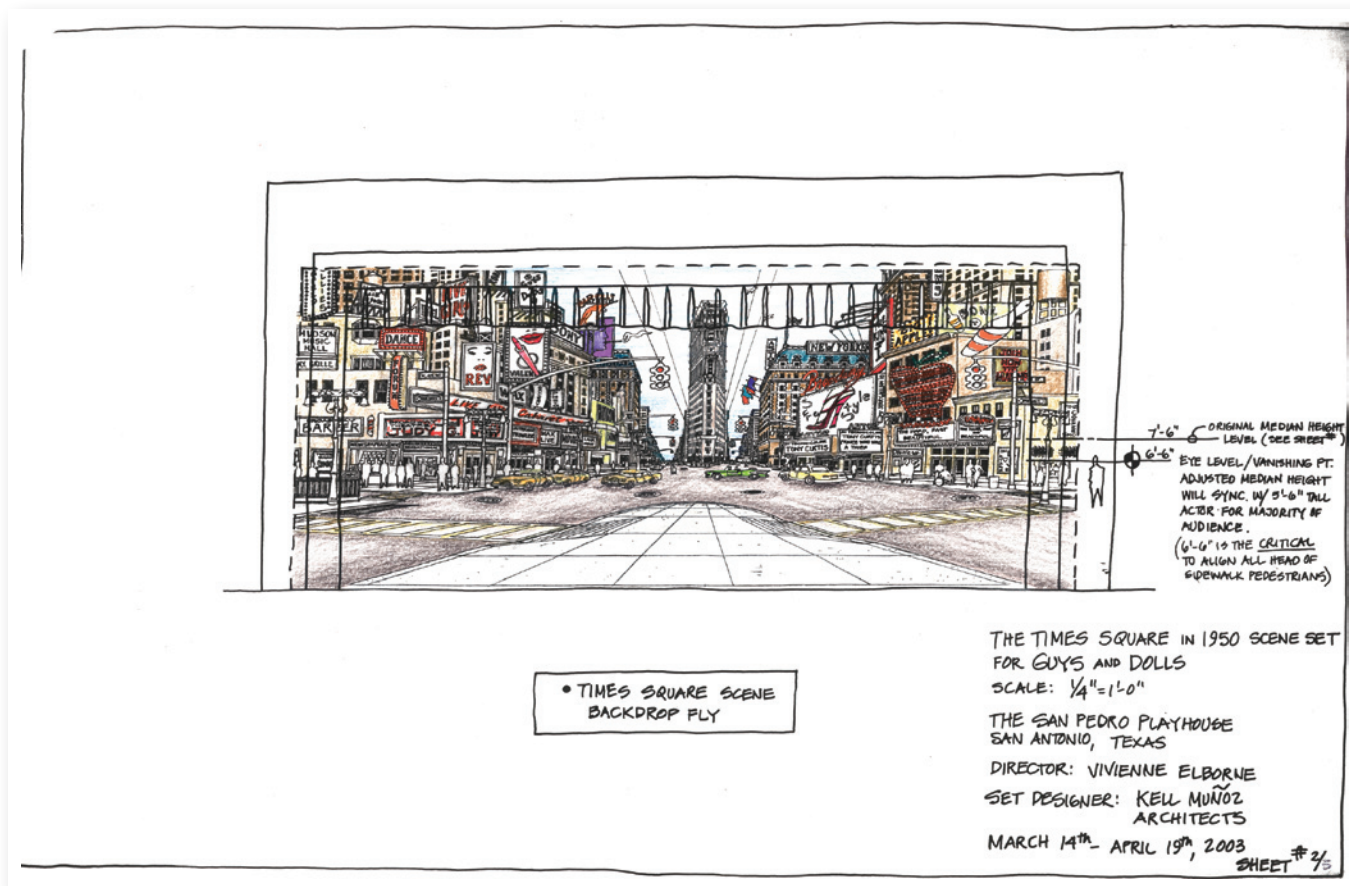
The idea of asking architects to design sets for San Pedro Playhouse came from Rick Archer, FAIA, a principal of Overland Partners. As chair of the playhouse's board, Archer sought to involve his professional colleagues with the five productions scheduled for the theater's 2002-2003 season. "It was an opportunity to be exposed to a different audience, for theatergoers to be exposed to architects and their community to the theater, and just trying to cross-pollinate on these areas," Archer told the *San Antonio Express-News*.

The other firms designing sets were Alamo Architects (*The Wizard of Oz*), Ford Powell and Carson (*A Streetcar Named Desire*), Sprinkle Robey (*Jesus Christ Superstar*), and Overland (*A Little Night Music*).

Carolyn Peterson, FAIA, said she and FP&C colleague John Paul Perez developed plans for the *Streetcar* scenes before she produced a watercolor "painter's elevation" of the sets for the playhouse staff to follow in finishing the 39-foot-wide backdrops. "As with any design/construction process, it took work on both sides to bring the project to completion," Peterson said after the drama's run ended in February. "With the exception of reversed vanishing points on the exterior background, the final product captured the intended shabby gentility of an old house in the French Quarter subdivided into apartments and down on its heels."

STEPHEN SHARPE

Stephen Sharpe is editor of *Texas Architect*.

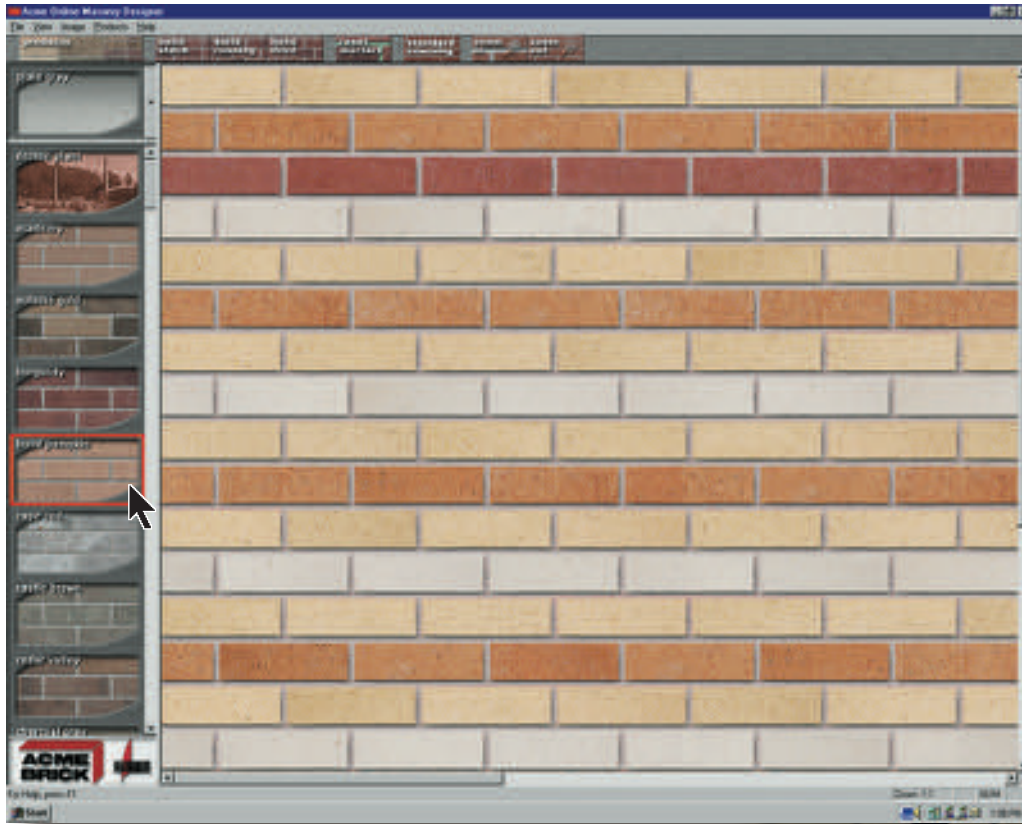


• TIMES SQUARE SCENE BACKDROP FLY

THE TIMES SQUARE IN 1950 SCENE SET FOR GUYS AND DOLLS  
 SCALE: 1/4"=1'-0"  
 THE SAN PEDRO PLAYHOUSE  
 SAN ANTONIO, TEXAS  
 DIRECTOR: VIVIENNE ELBORNE  
 SET DESIGNER: KELL MUÑOZ ARCHITECTS  
 MARCH 14<sup>TH</sup> - APRIL 19<sup>TH</sup>, 2003  
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