Limestone from Texas Quarries was the critical path on this 16-month project. School administrators signed off on early shop tickets and drawings, even before the contract was completed. Texas Quarries dedicated a sizable team of craftsmen to the project throughout construction.

"The character of the stone was important because we had no pattern to match from the existing stone, but rather a series of rules as to how the cleft units went together. We worked with the scale of openings, eave heights, and other cues from the original building, although we had to create new forms with greater volumes. We honored the spirit of the original details, including arches that are self-supporting within a steel frame structure.

"To address the large dining hall, historical precedent was instructive, allowing us to break down one space into smaller compartments with different ambiances. We were inspired by the Hall of Christ Church at Oxford for stone details and use of color in floors and ceilings, Baker College Commons at Rice University for scale and classical proportions to make a great room, and especially the Trumbull College Dining Hall at Yale for one-story side aisles that allow clerestory windows above.

"Working with Texas Quarries was fantastic. The shop drawing process is so clear that we always know design to fabrication to building will go beautifully."

- Russell Windham, principal, and Michael Driskill, project manager
Curtis & Windham Architects, Houston

New construction seamlessly complements the original 1946 building (top right).
Even After 70 Years, It Still Fits Perfectly.

Hiram A. Salisbury looked to England for inspiration when he designed St. John's School in 1946. He blended Cotswold stone walls and gabled roofs with Collegiate Gothic forms and details, using versatile Texas Quarries limestone. Curtis & Windham Architects has built on that legacy to create the school's Campus Center, which houses classrooms, offices, and a 10,000-square-foot dining hall for the growing elite prep school. The structure addresses modern needs—a parking garage, kitchen facilities, and technology—yet Texas Quarries limestone is the constant, quarried from the same source as seven decades before. Now, the entry court at St. John's is artfully framed by buildings united in vision though separated by several generations. Unmistakable Texas Quarries Cordova Cream—by turns boldly rugged and pristinely fluid in our craftsmen's hands—is the material for all time.
St. John's School Campus Center
Houston

architect
Curtis & Windham Architects, Houston

general contractor
W.S. Bellows Construction, Houston

masonry contractor
W.W. Bartlett, Houston

Acme Brick materials
Texas Quarries: Cordova Cream, cleft and smooth, random ashlar limestone

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## Contents

### Articles

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Editor's Note</td>
</tr>
<tr>
<td>8</td>
<td>Contributors</td>
</tr>
<tr>
<td>10</td>
<td>Of Note</td>
</tr>
<tr>
<td>16</td>
<td>Calendar</td>
</tr>
<tr>
<td>18</td>
<td>Products: Control Systems</td>
</tr>
<tr>
<td>21</td>
<td>Essay: Lawrence and Anna Halprin and Heritage Park</td>
</tr>
</tbody>
</table>

### Featured Projects

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Open House: Casa Lobo</td>
</tr>
<tr>
<td>30</td>
<td>Lawrence W. Speck, FAIA</td>
</tr>
<tr>
<td>79</td>
<td>Marketplace</td>
</tr>
<tr>
<td>80</td>
<td>Audrey Maxwell, AIA</td>
</tr>
</tbody>
</table>

### More Online

- [texasarchitects.org](http://texasarchitects.org)
- Lower Rio Grande Valley AIA Chapter Conference Tour
- Stephen Fox

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### Open House

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

### Data

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td></td>
</tr>
</tbody>
</table>

### Portfolio

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>
2016 Design Conference: Designing + Building
12–14 February
Amarillo/Palo Duro Canyon

Speakers:

Andrew Freear
Rural Studio
Newbern, Alabama

Cade Hayes and Jesús Robles, Jr.
D U S T
Tucson, Arizona

Dan Rockhill
Rockhill and Associates/Studio 804
Lecompton/Lawrence, Kansas

texasarchitects.org/descon
Letters to the Editor
by Aaron Seward

Those who read Catherine Gavin’s Of Note piece in the November-December 2015 issue of Texas Architect will know that I’m new to this job and that I have just returned home to Texas after spending 18 years in New York City, where I went to college and began my career as an architectural journalist and editor.

My Uncle Jug says that you can take the boy out of Texas, but you can’t take Texas out of the boy. I found that to be true, more or less. The longer I was away, the more of a Texan I became. My accent, which I initially tried to cloak, deepened and solidified. I started to wear cowboy boots, a bit of wardrobe I hadn’t sported since pre-school days, when my mother put me in them for family photos. And when people commented that after all my time in the city I was a real New Yorker, I took to correcting them.

“No, I’m a Texan,” I’d say, “I’ll never be a New Yorker.”

Now that I’m back, I find that my time away did prepare me with an outsider’s eyes to view what, somehow, never stopped being my “natural habitat.” The pages of TA are full of beautiful buildings, but on your average drive through suburban Texas — or on the busy freeways that connect our cities — it can be hard to remember that such structures exist in this landscape. They’re either hidden away in private enclaves or isolated in the midst of hundreds of thousands of acres of, well, less-than-charming development.

I tend to sympathize with Ruskin in his assessment of architecture as “that art which so disposes and adorns the edifices raised by man for whatsoever uses, that the sight of them contributes to his mental health, power, and pleasure.” On the other hand, I can hear Uncle Jug saying, “When I walk into a place, if the walls are straight, it’s a good building.”

Establishing good architecture, in the end, is not just a matter of design, but one of consciousness. This publication is dedicated to raising that consciousness, among architects and their allied professionals, and in the public at large.

Beginning with this issue, I will be making adjustments to sharpen TA’s editorial presentation, bolster its critical voice, and, I hope, broaden its appeal to readers outside of the profession. To make this an interactive process, I am reinstating the magazine’s Letters section. I hereby invite you to send comments, questions, or quibbles about the articles we run, or the state of the Texas built environment in general, to me at aaron@texasarchitects.org. All thoughtful submissions will be considered for publication.
Bruce Webb is professor emeritus and former dean at the University of Houston Gerald D. Hines College of Architecture. He recently published a collection of essays on the late Houston architect William F. Stern, FAIA. Read his remembrance of Thomas Colbert, AIA, on page 14.

Jack Murphy, Assoc. AIA is a designer with Baldridge Architects in Austin. See his take on the completed installations of the Field Constructs Design Competition — organized in part by former TA editor Catherine Gavin — on page 70.

Ron Stelmarski, AIA is the design director for Perkins+Will's Texas practice. Embracing all project sizes, his innovative work includes book design, museum experiences, complex mixed-use projects, and large-scale university master plans. Read his investigation of the digital architecture of the new Parkland Hospital on page 62.

Florence Tang, Assoc. AIA is an architectural designer and journalist based in Houston. She recently managed and led design efforts for the Brooklyn Studio of Sean Kenney, an award-winning LEGO artist. Tang received her M. Arch from Rice University and her B.A. in communication from Trinity University. She is a member of the residential committee for AIA Houston and a board member and program chair for the Rice Design Alliance. In this issue of TA, she wrote about Gerald D. Hines' 90th birthday party, page 12.

Audrey Maxwell, AIA is a Principal at Malone Maxwell Borson Architects in Dallas. As the Chair of the Publications Committee, she enjoyed exploring the architecture of Galveston with members at their 2015 retreat. She is active in her community, volunteering time with local charities and running with the Dallas Running Club. See her article on BC Workshop's Cottages at Hickory Crossing on page 46.

Lawrence Speck, FAIA is a senior principal with Page and a faculty member in the School of Architecture at The University of Texas at Austin. A self-professed architecture junkie, he is similarly obsessed with gaining a thorough understanding of the performance of buildings and how they play fundamental roles in the lives and well-being of those who occupy and use them. His experiences with gathering data via post-occupancy evaluations for student residences can be found on page 38.

Corey Squire works for Lake|Flato, where he establishes sustainability goals, analyses designs with simulation software, and collects post-occupancy performance data. He has an M.A. degree from Tulane and a B.A. in Environmental Studies from Oberlin College. See his article on post-occupancy studies on page 54.

Rita Catinella Orrell is TA's products editor. She has been writing about design for more than 18 years, covering architecture, interior design, home furnishings, kitchen and bath design, and building products. She writes about product design at www.designnythings.com and www.architects-taybox.com.

Leigh A. Arnold is assistant curator at the Nasher Sculpture Center in Dallas and a Ph.D. candidate at the University of Texas at Dallas. Read her essay on Lawrence Halprin's Heritage Park Plaza in Fort Worth on page 21.
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At The Inaugural Chicago Architecture Biennial
by Ron Stelmarski, AIA

The importance and awareness of our built environment is at an all-time high. A rising tide of exhibitions and symposia, tours and publications dealing with architecture and design continues to proliferate around the world, combined with pressing issues of population growth, health, infrastructure, and politics. The City of Chicago once again reminds us of its role as a global design incubator with its recently launched inaugural Chicago Architecture Biennial. Running from October 3, 2015, through January 3, 2016, the Biennial is lauded by Chicago Mayor Rahm Emanuel as the “first international survey of contemporary architecture in North America.” What better place to continue the discussion on design than in the city that is home to so many innovations, inventions, visions, and revisions?

Home base is set in the 1897 Chicago Cultural Center, whose location in a bustling part of the city along Michigan Avenue across from Millennium Park will draw 200,000-plus visitors over the three-month period, even without any formal events scheduled. Biennial planners were aware of this. The amount of foot traffic, combined with the fact that this was the first time a single exhibit filled all four floors of the Cultural Center, made it a logical place to focus the exchange of ideas.

The tone of the Biennial is set by its subtitle, “The State of the Art of Architecture,” a reprise of a conference by the same name organized in 1977 by Stanley Tigerman. And, while the first conference assembled some of the brightest architects in North America, this round brings to Chicago urgent issues of a diverse cross-section of approximately 100 global, up-and-coming design practices. The curatorial view of architecture “through the lens of art” is a liberating, preemptive swerve from the usual pragmatic overtones of Middle America. This time around, venues are deliberately scattered across the city in an effort to expand the reach of the Biennial and merge ideas with the public realm, from the Stony Island Arts Bank on the south side to the Graham Foundation on the north. Locals will enjoy the ongoing slate of events, while out-of-town visitors will need to be very selective about what is offered on the schedule.

My time at the Biennial included a number of separate wanderings through the installations at the Cultural Center, listening to casual talks by some of the participants, attending formal lectures by John Ronan and Reinier de Graaf, taking in a live-jury design competition, and making visits to the lakefront kiosks. I was given a particularly insightful tour by Iker Gil of MAS Context, who curated the installation, “Bold Alternatives for Chicago.” Iker, originally from Barcelona, pointed out that all students of architecture around the world study Chicago and therefore bring a unique, heightened awareness to the Biennial. The work in his installation shows that nothing is compromised when the focus on technology and efficiency gives way to identity, values, and personalized space.

As a collective statement, the installations are as much about what’s not shown as what is. Nowhere were outsourced, photo-realistic renderings, construction documents, or BIM models used to explain the ideas. Even form, as prominent as it is, does not exploit the tools used to make it. Many of the drawings and physical models were digitally generated, but they always give a unique, personal, crafted feel that supports the idea of architecture as an art form. The designers have been careful to prevent the potentially homogenizing effect of technology. Without the slick imagery and easily digested diagrams we’ve become accustomed to, the future doesn’t look brand new, here, and that’s a good thing; instead, it is largely referential, tying the future to the past in a trajectory of form and intent. The physical representation of the ideas does not overwhelm the content, and technology and efficiency have been displaced by issues of personal values and identity — all without compromising anything. Most large firms are noticeably absent (and there was no representation from any Texas practice), clearing the floor for different voices to participate, joining or challenging the familiar “corporate giants.”

The Biennial is a citywide, global unpacking of ideas about the role of architecture in the life of the built environment. The confluence of events, grafted as it is onto the vibrant fabric of Chicago, makes design thinking relevant. And, though it is happening in a single city, the lessons about risk-taking, thinking differently, and the economic value of creativity are applicable to any city and should fill all open-minded guests with the energy to create better places for people. The audience is out there — in fact, the Biennial opening was the largest in the history of the Cultural Center. The larger questions to be answered deal with tourism, the value of this exhibition to the city, and whether or not the speculations can be exported and implemented in a meaningful way (Mayor Emanuel agreed to host two of these Biennials).

One last look at the Cultural Center offers a fitting metaphor for the exhibition: All of the public venues were stripped of their well-worn carpet for this event, revealing the original mosaic-tiled flooring beneath. The beautiful, polished veneer shines up at us. What’s old is new again.

Ron Stelmarski, AIA, is design director for Texas practice at Perkins+Will.
Clockwise from left: "Chicago: How Do You See?" by Norman Kelley; "Models of the House of One" by Kuehn Malvezzi + Armin Linke + Marko Lusic; "Place for Gathering" by Kéré Architecture; "Piranesi Circus" by Atelier Bow-Wow; "Chicago Horizon" by Yasmin Vobis, Aaron Forrest, and Brett Schneider of Ultramoderne.
In celebration of Gerald D. Hines’ 90th birthday, an unprecedented gathering of architects and one architectural critic convened onstage at the Hobby Center on Sept. 18 in Houston. Cesar Pelli, Robert A.M. Stern, Henry Cobb, Jon Pickard, Eugene Kohn, Art Gensler, and John Burgee — the late Philip Johnson’s partner — sat in armchairs flanking Hines, who was seated at center stage, as a video montage played snippets from the panelists as well as from notable absences Frank Gehry, Jean Nouvel, and David Childs of SOM.

Patricia Belton Oliver, Dean of the Gerald D. Hines College of Architecture at the University of Houston, opened the forum by paraphrasing Gehry’s gaffe: “Ninety-eight percent of everything that is built and designed today is — leave a blank,” she quipped. “There’s no sense of design, no respect for humanity or for anything else.” But,” Oliver pivoted, “a group of people are doing something special,” — a group that has the ability to navigate the quantifiable as well as the immeasurable, she said.

Pulitzer Prize-winning architecture critic Paul Goldberger moderated the evening’s discussion. Goldberger first wrote about Hines in 1976 in the New York Times, his “kindergarten special project.” The article examined the relationship between architects and real estate developers, which rarely included admiration for each other, and financial goals that seldom left room for the aspirations of the architects. He described Hines as a different kind of developer whose intense discipline and enthusiasm led him to seek out great architecture as part of his business equation.

“He changed the nature of commercial development,” Goldberger said. “He didn’t want this forum to be about him. He wanted to honor the key people who contribute to a better built environment.”

Cobb spoke about Hines’ ability to build a successful firm. “Houston is the base from which this was built,” he said. “One of the most extraordinary achievements is how he has built an organization of people who have established the Hines standard, the Hines ethic, in cities across the world. You will always find Hines has been an impact and it does not come from quantity. But somehow the Hines project in any city has established a standard of architectural excellence, and, in many cases, urban design excellence. It’s not about buildings, but how you create a group of people in many places around the world who bring to urban development a standard of quality.”

Burgee shared recollections about the fun he had collaborating with Hines and Johnson. “Our best work was for Hines,” he said. “I had to sell Philip Johnson on working with Hines. The first time we met in Houston, he came in all sweaty in a jogging suit at IHOP. He was eating bacon.”

Stern recalled stories that Johnson shared about an excited Hines who would make calls feeding nickels into an airport telephone. He expressed his admiration for how Hines eventually broke into and planted his stake in the New York real estate realm. “His curiosity is fantastic. He had a hell of a time to crack that scene,” Stern said. “That is brave, Gerry, developing a building in Manhattan; totally a new game. I commend Gerry.”

The panelists also addressed how the process of creating architecture has changed with technology; how sustainable movements have had an impact; and how the changing faces of the leaders of the field now include women and minorities as well as a host of consultants, contractors, and engineering partners for a team approach versus that of a solo practitioner. “The practice as a whole is more complicated,” Gensler said, adding that he couldn’t do anything without the “enormous talent” of those around him.

Pelli (who confessed that his hearing aids allowed him to catch only part of what his colleagues had said, at which point Stern interjected: “You have not missed a thing!”) had heard of Hines and thought, “Wow. What a guy. I wish I could work for him. He has similar aspirations to mine but on the client’s side.”

Gensler posited that the future of buildings is being driven by the interiors more than the exteriors. Stern rebutted, saying, “If you don’t like the suit, you are not going to like the underwear.”

Hines’ closing remarks included a nod to “these wonderful architects with great imaginations for the problems we have thrown at them. To build better cities, we have to have these architects. I thank each of them. Thank you.”

Florence Tang, Assoc. AIA, is a design professional and journalist based in Houston.
Charles Tapley, FAIA, 1931–2015
by Stephen Fox

Houston architect and landscape architect Charles Tapley, FAIA, died September 21, 2015. He was 84. Tapley practiced in Houston from 1960 until he retired in 2011. In the 1970s and ’80s, the buildings his office designed frequently received design awards and were widely published. Even so, Tapley came to value his work with Houston’s natural settings as his most enduring contribution.

Born in New Orleans, Tapley grew up in Houston, graduating from the Rice Institute with a Bachelor of Architecture in 1955. He worked for Houston architects George Pierce-Abel, Pierce and Hamilton Brown and landscape architect Fred Buxton before commencing practice in 1960 with Charles H. Pagan. Beginning with the Johnston House (1964), Tapley designed a series of houses constructed around light-filled spaces in intimate contact with nature. These included a magical house for Grace David, Larry McMurry’s inspiration for Aurora Greenway in “Terms of Endearment” (1971), and a forested suburban refuge for photographer Gay Block (1972).

Between the mid 1960s and ’70s, Tapley worked for developers on such projects as the Post Oak Park Townhouses (1966); a trail system, community swimming pool, and sales pavilion for the first neighborhood in the Friendswood Development Co.’s Kingwood community (1971); the Esso Eastern of New Jersey office complex (1970) in Woodlake (Friendswood’s 250-acre mixed-used tract in West Houston for which Tapley was master planner); and the Woodlake Recreation Center (1972). The recession sparked by the Arab Oil Embargo of 1973 brought such work to a halt.

Tapley then set off on a different course, gravitating to projects involving public space and places of worship. In 1971, he embarked on a Bicentennial project focused on Buffalo Bayou that turned into a career-long mission to preserve and enhance Houston’s prodigious yet fragile natural assets. Conservation, sustainability, and the value of designing for native plants, climate, and wildlife were integral to Tapley’s environmental ethos, leading Chicago critic Nory Miller to hail him as a “landscape activist” in 1977. Camp Allen, near Navasota, which Tapley designed for the Episcopal Diocese of Texas (1975); Lake Livingston State Park near Livingston (1977); and Live Oak Point in Fulton, designed for HEB (1981) are landscape-intensive projects where designing buildings in relationship to natural systems was critical.

Tapley identified the Oblate Retreat House in Dickinson (1967) as his first project where a relationship to natural systems was essential (the site was prone to flooding). It was also Tapley’s first religious commission. Beginning with St. Cecilia Catholic Church (1978), Tapley was the architect for numerous houses of worship, including Northwoods Presbyterian Church (1982), St. Thomas Aquinas Catholic Church (1982), Christ the King Lutheran Church (1983), and Covenant Presbyterian Church (1986), in Houston; and Bethany Lutheran Church in Cherry Hills Village, Colorado (1987), St. Rita Catholic Community, Dallas (1988), and Notre Dame Catholic Church, Kerrville (1990). Tapley’s office also designed the Seeley G. Mudd Computer Sciences Laboratory at Rice University (1983) and the Chapel, Lower School, and Math-Science Center at St. Mark’s School of Texas, in Dallas (1990).

In 2000, Tapley was profiled by David Theis in “Cite: The Architecture and Design Review of Houston.” Theis noted that, after Tapley’s wife died in 1988, Tapley began to downsize his practice to concentrate on projects that he could pursue hands-on. This included transforming a Montrose bungalow into a live-work space and garden, where, Tapley told Theis, he could wish his trees good night every evening. One project that was especially meaningful was maintaining the walkways and slopes where White Oak Bayou empties into Buffalo Bayou downtown. Tapley arranged to work, first with county probationers and then with state prisoners, on planting the bayou banks with native trees because he saw this as a way to give new purpose to the incarcerated. Tapley also devoted himself to installing and maintaining the Lynn R. Lowery Arboretum at Rice University (2001) to restore biodiversity to Rice’s campus. He collaborated with Chula Ross Sánchez on the installation of a green roof at the Burdette Keeland, Jr. Design Exploration Center at the University of Houston’s Gerald D. Hines College of Architecture (2007).

From the 1970s through the 2000s, Tapley taught at the architecture schools of the University of Houston and Rice. This enabled him to interact with students and spot talent. Tapley gave architectural interns exceptional professional opportunities, and he was revered by several generations of architects who worked for, but more often collaborated with, him. As evidence of the esteem in which he was held, Tapley received the Thomas Jefferson Award of the AIA Houston Chapter in 2003, when his career was the subject of an exhibition organized by Gerald Moorhead. In 2011, he received the AIA Houston Lifetime Achievement Award and in 2012 the Texas Society of Architects’ Llewellyn W. Pitts Lifetime Achievement Award. The Tapley Tributary in Buffalo Bayou Park is named for him.

Charles Tapley was charismatic, enigmatic, and elusive. Like the Pied Piper, he sought to lure the uncertain and indifferent with whimsy, charm, and gentle persuasion. Chula Sánchez caught this aspect of his personality when she observed: “Charles was like a firefly, hard to catch and hold. He never liked being captured.”

Stephen Fox is a fellow of the Anchorage Foundation of Texas.
Thomas Colbert, AIA, 1954–2015
by Bruce Webb

Thomas Colbert joined the faculty of the Gerald D. Hines College of Architecture in 1983 as an assistant professor after being snatched away from a five-year stint at Texas A&M. He quickly established himself as a popular and effective studio critic who brought the right combination of intelligent rigor and empathy to his teaching. He helped students navigate their way into the profession and find jobs, and many of them remained in contact with him for years after they graduated. Tom died of cancer August 21, 2015.

UH was the right place for Tom. He moved into a variety of critical leadership positions – coordinating the third year program, then the fifth year; serving as an assistant to the dean at a time when coordinators maintained continuity at the loosely organized college. Tom went on to become the Director of Graduate Studies and continued to help shape the young program. In 2014, AIA Houston recognized his contributions to teaching with an Educator of the Year award.

Tom had many interests and could engage a conversation on just about anything. He loved anecdotes but had the sharp, critical mind of one trained at Princeton and Cambridge. And he was raised in a rich architectural milieu: His father, a noted architect and iconoclastic dean of the architecture school at Columbia, was a strong promoter of modern architecture in southern Louisiana. Tom developed a vivid knowledge of architecture and urbanism. Discussions and arguments were his methods of coordinating the graduate program.

Tom instigated forward-thinking endeavors to bring new opportunities to the college. He nurtured a relationship with the French Consulate and several French architecture schools and created an active exchange program that ran for several years with Tom handling all the details, personal counseling, and bureaucratic complexities. Tom was fearless. He later replicated this feat in an even more complicated exchange with an architecture school in Moscow.

Tom’s French Consulate connection led to an exhibition he put together with students that was shown in Paris. An extraordinary reciprocal event brought an exhibition of one of French President François Mitterrand’s Grands Projets to Houston. It was installed in the at-the-time-unoccupied, Philip Johnson-designed University of Houston Architecture Building. President Mitterrand attended the opening, and for several years afterward, leading French architects visited the school to give lectures.

At one point, Tom decided to document conditions in the Texas State Penitentiary in Huntsville. His withering persistence gained him entrance and, with a photographer, he put together an exhibit and symposium on prison life.

Tom focused much of his recent efforts on coastal planning for storms and flooding. As a New Orleans native, he was deeply affected by Hurricane Katrina’s devastation in 2005. (The 1953 family home designed by his father in Metairie was among the losses.) Tom encouraged his students to map portions of the coastline and used analytical mapping as a basis for speculative disaster planning. He taught the students to look at engineering solutions as architects and urban designers — opportunities not only for solving problems but also for enhancing the public environment.

This work tackled problems for settlements and large refineries that hug the ship channel. Maps of potential urban inundation of Houston displayed frightening scenarios that Tom featured in special issues of Cite as its sometime editor. He organized symposia and worked collaboratively with planners in other coastal cities in Louisiana, Delft, and Buenos Aires, and with Rice’s SSPEED Center (Severe Storm Prediction, Education, and Evacuation from Disasters). Additionally, he teamed with planners and engineers at Texas A&M and the UH College of Engineering, and served as chair of the AIA Houston, Urban Design Committee.

Tom’s research served as a foundation for a visionary project, “Risky Habit(1): Dynamic Living on the Buffalo Bayou.” Created by his students, UH professor Peter Zweig, and visiting critic Michael Rotundi, Risky Habit(1) was part of UH-led Three Continents Studio and exhibited with accolades at the International Architecture Exhibition at the Venice Biennale in 2014.

One of Tom’s best-kept secrets was his artistic talent. An inveterate doodler, he occupied his subconscious during meetings making intricate line drawings, signature tangles of thread. Meanwhile, in his studio, larger, more sophisticated versions of the mysterious inkline weavings were taking shape. In the last year of his life, the drawings were made public in an acclaimed exhibit at Architecture Center Houston.

Tom kept the worst aspects of his painful ordeal with cancer mostly to himself. During the difficult months after his diagnoses, he continued to teach, write, make drawings, and contribute to collaborations on flood and storm protection on the Gulf Coast. In the end, he was still showing the courage and desire that characterized his life.

Bruce Webb is professor emeritus and former dean at the University of Houston Gerald D. Hines College of Architecture.
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Calendar

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Sunday 17
EXHIBIT CLOSING
International Pop
Dallas Museum of Art
1717 N Harwood Street, Dallas
dma.org

Thursday 21
EXHIBIT CLOSING
Building Toys and Toy Buildings: Architecture Through a Child’s Eye
Dallas Center for Architecture
1909 Woodall Rodgers Freeway, Suite 100, Dallas
dallascenter.org

Friday 4
SKI TRIP
Through February 8
19th Annual AIA San Antonio Ski Trip to Aspen/Snowmass Colorado
aiasa.org

Sunday 7
CLOSING EXHIBIT
Chalet Dallas
Nasher Sculpture Center
2001 Flora Street, Dallas
nashersculpturecenter.org

Thursday 11
LECTURE
Joshua Decter
7:00 p.m.
Beck Building
Museum of Fine Arts, Houston
5601 Main Street, Houston
mfah.org

Friday 12
CONFERENCE
Through February 14
Texas Society of Architects 2016 Design Conference: Designing and Building
742 South Polk Street, Amarillo
texasarchitects.org/descon

Saturday 13
OPENING EXHIBITS
Through April 17
Mark Mothersbaugh: Myopia
Jones Center
The Contemporary Austin
700 Congress Avenue, Austin
thecontemporaryaustin.org

Saturday 20
RUN
Dallas Center for Architecture Form Follows Fitness 5K
8:30 a.m.
Klyde Warren Park, Dallas
tdfollowsfittness.com

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CLOSING EXHIBIT
Janet Cardiff & George Bures Miller: The Infinity Machine
The Menil Collection
1533 Sul Ross Street, Houston
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FEATURED

Contingent Beauty: Contemporary Art from Latin America
Museum of Fine Arts, Houston
1001 Bissonnet Street, Houston
mfah.org

CLOSING FEBRUARY 28

Drawn primarily from the work of 21 artists collected by MFAH over the last five years, Contingent Beauty explores the tensions inherent in Latin America’s complex social realities. The 32 works on view combine aesthetic refinement with biting social critique to respond to issues affecting the region such as poverty, gender inequality, government corruption, globalization, the War on Drugs, and the legacy of colonialism. The artists represented include Tania Bruguera (Cuba), María Fernanda Cardoso (Colombia), Los Carpinteros (Cuba), Grupo Mondongo (Argentina), Guillermo Kuitca (Argentina), Miguel Ángel Rojas (Colombia), Javier Téllez (Venezuela), and Tunga (Brazil).

Modernos: Design for Living in Brazil, Mexico, and Venezuela, 1940–1978
The Blanton Museum of Art
200 East Martin Luther King Junior Boulevard, Austin
blantonmuseum.org

CLOSING JANUARY 17

Modernos examines how design transformed the domestic landscape of mid-20th century Latin America. Sheltered as it was from the destruction of World War II and its aftermath, this was a time of rapid economic growth and artistic activity in the region. Spurred by an influx of North American and European artists and designers, the thrust for a “modern way of living” took hold as an ideology — particularly in Brazil, Mexico, and Venezuela — and domestic space was seen as a fitting laboratory to explore its meaning. On view are 130 works, including furniture, ceramics, metalwork, textiles, and graphic design by Lina Bo Bardi, Clara Porset, Miguel Arroyo, and others.
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The MechoNet Network Interface (MNI) is a compact, multi-functional device from MechoSystems that enables controls, switches, and motors from numerous manufacturers, including Lutron, Somfy, Wattstopper, QMotion, and others, to communicate via the MechoNet low-voltage network. MechoNet supports feature-intensive, two-way communication and is scalable to whole-building control. According to the manufacturer, MNI makes it easier and less expensive for all types of motorized window coverings and associated systems to operate harmoniously with MechoSystems' products on one network.

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A Language of Movement

Lawrence Halprin and his choreographer wife, Anna, developed a way of notating movement that they called “mation.” Its revelations influenced the design of Fort Worth’s Heritage Park Plaza.

by Leigh A. Arnold
photography by Charles Davis Smith, AIA

Halprin’s early concept plan for Heritage Park Plaza exhibits his masterful control of the movement of water and people through the landscape.

The environment exists for the purpose of movement.
— Lawrence Halprin, in Progressive Architecture 46 (July 1965)

On a bluff overlooking the Trinity River, just on the north edge of downtown Fort Worth, Lawrence Halprin’s Heritage Park Plaza sits vacant. Closed to the public since 2007 due to structural and safety concerns, Halprin’s urban park and water garden — the only one of the public spaces he designed for Texas that remains intact — is gradually sliding into ruin after years of neglect.

(Aside: Halprin also designed the original landscaping of NorthPark Center in Dallas; however, after several expansions of the shopping center over the years, his original design has been modified. Heritage Park Plaza, Halprin’s most-preserved public space in Texas, is often cited as one of his best-loved achievements, along with such major projects as the Franklin Delano Roosevelt Memorial in Washington, D.C., the Sea Ranch Community in California, and Freeway Park in Seattle.)

At the time of its completion in 1980, Heritage Park Plaza was a prime example of Lawrence’s commitment to landscape design that synthesized corporeal movement, kinesesthetic awareness, and community involvement. The plaza is defined by a series of interconnecting rooms made of poured-in-place concrete and active water features, such as fountains, runnels, and walls that guide the visitor through a sequence of spaces toward the expansive overlook onto the confluence of the Clear and West Forks of the Trinity River and beyond.

The movement of water is a key aspect of Lawrence’s design. Not only did the water features help dissolve the noise of traffic beyond the park’s walls, they also provided a connection between...
Halprin, partially through the influence of his wife, Anna, considered the role of the landscape architect as that of a "design choreographer." The raised ramps and overlooks at Heritage Park embody what he meant by that.

the park and its location above the Trinity River. As the National Trust for Historic Preservation noted, "in parks such as Heritage Park, where water is integral to the design, the loss of water moving through the landscape because of disrepair and neglect so thoroughly impacts the aesthetic and the experience that the design becomes unintelligible." As noted in the Plaza's entry on the National Register of Historic Places, Heritage Park Plaza allowed Lawrence "...to further develop his skills at choreographing water to create sequential human experiences or 'motation,' a theory of site-specific movement developed by Halprin and his choreographer wife Anna."

Through his relationship with Anna, Lawrence developed a creative process that combined experiments in choreography and emphasized infrastructural networks, multidisciplinary collaboration, and ecological concerns. In looking to Heritage Park Plaza in Fort Worth, we can gain a greater understanding of Lawrence and Anna's cross-disciplinary relationship at a more localized level; and by contributing to the awareness of the current state of Heritage Park Plaza, we might also encourage recognition and support of the park's pending renovation and re-opening.

Lawrence distinguished his role from that of architects and planners, describing the landscape architect as a "design choreographer" with a kinetic approach to movement through landscape." Many of his best-known projects — the aforementioned FDR Memorial in Washington, D.C., Ghirardelli Square in San Francisco, and Lovejoy Plaza in Portland, Oregon —
Water was a key part of Halprin’s design. It not only mitigated traffic noise coming from beyond the park, it established the space’s innate sense of movement.

demonstrate the influence of his and Anna’s interdisciplinary practices. The duo never formally collaborated on specific projects; however, they worked in tandem, constantly observing one another as they developed systems and practices that combined their individual interests in dance and design. “Larry developed a keen sensitivity to how people related to his environments in terms of movement and activities,” commented Anna, “— simply because we worked together throughout our married life, he giving me a greater understanding of the use of space and I giving him a greater understanding of the use of movement in that space.” As scholar Alison B. Hirsch stated, “His [Lawrence’s] success depended on collaboration, particularly the artistic symbiosis that existed between him and his wife.”

Perhaps Anna’s greatest contribution to Heritage Park Plaza was her influence on Lawrence’s use of choreography through this motaition.
Lawrence described his thinking about the system this way:

For some time now, I have been working toward a way of movement notation. In setting myself this task, I assumed that such a system ought to be useful for designers working with pure movement: in dance and theater, for the newer choreographers whose aim has been to fuse sculpture and painting with theater; as well as for those of us designing for environment — architects, planners, and landscape architects. This approach to notating movement is a tool that should prove very useful for environmental design, but it was not developed for that purpose alone. I hope it will have universal application for every kind of movement.

Within the realm of landscape design, Lawrence employed notation as an alternative to traditional representational devices such as architectural plans and elevations. His interest in movement design is clear when navigating Heritage Park Plaza: The visitor is unconsciously choreographed through a series of layers and sequences of concrete walks, stepping stones, stairs, and out onto an elevated walkway, taking them away from the heavily trafficked street facing the entrance to the park and into the quiet and meditative space designed to encourage peace and contemplation.

Anna participated in several local events and was a key figure in raising awareness about Heritage Park Plaza in Fort Worth's art community. Prior to its adoption by the Bicentennial Committee in 1974 and subsequent funding that came with such an adoption, money for the project was raised in modest increments through an annual celebration on the riverfront, titled Mayfest. The first such event occurred in 1973 with a children's dance around a Maypole led by Anna herself and dancer Xavier Nash. Anna continued to visit Fort Worth frequently, notably giving a lecture and demonstration at the Fort Worth Art Museum (now the Modern Art Museum of Fort Worth) on May 23, 1976.

Outside her relationship with Lawrence, Anna is well known as an avant-garde dancer and choreographer within the visual art and dance communities. During the prime of her development in the late 1950s and early '60s, performance art was undergoing radical changes. Traditional roles were being challenged — viewers became active participants, and performances left the stage in favor of the spontaneity of unorthodox spaces. Anna's biographer Janice Ross commented that "Anna's goal was to reengage the gestural vocabulary of everyday life as art and to cast..."
the spectator as a more active participant.” Alongside Anna, dancers and performance artists such as Merce Cunningham, Trisha Brown, Yvonne Rainer, Simone Forti, and Steve Paxton emerged as key figures in the dance and performance revolution of the 1960s and '70s.

While notation was crucial to Lawrence’s development as a designer for movement, he is best known for the creative framework he called “RSVP Cycles,” which influenced his interest and desire to work in a participatory process. The acronym stands for Resources, Scores, Valuations, and Performance and is also a play on the French phrase Rendez-vous as an invitation to participate. Lawrence developed the framework in the 1960s, publishing his initial findings in a book of the same name in 1970. Concurrent with the development of the RSVP Cycles, Lawrence and Anna established the community participation process “Take Part” as a way to put the RSVP Cycles into practice. The Take Part events were staged in several communities — Wilmington, Delaware; Morningside Heights, Harlem; and Tulsa, Oklahoma, among others — as a way to encourage broader community participation to help understand existing problems within a city’s plan, working with the people who directly engaged the areas on a daily basis.

An early application of the workshop occurred June 26–27, 1970, in Fort Worth in preparation for a Lawrence Halprin & Associates 1970–71 report on the Trinity River and Downtown plan for the city. The two-day process began with a City Walk — a choreographed exploration of downtown Fort Worth, scored by Lawrence. He asked participants to get out of their cars, offices, and suburban dwellings and experience the city in 100+-degree heat. The results were clear. Lawrence reported: “After this personal experience of heat, unpleasantness, delay, and frustration at the lack of getting about, the workshop consensus was that a superior mass transit system must be built.” The program in Fort Worth concluded with a helicopter ride to demonstrate the interconnection between the river, the park, and the rest of the city and, on the final day, a drive on the freeways and byways.

Lawrence was ahead of his time in his appreciation of the Trinity Riverfront as a site for development and community engagement, as he recognized in 1976: “Next to the Trinity itself, the bluffs are Fort Worth's greatest natural asset. Their physical form is an amphitheater 50-80 feet high and almost a mile long. They
A detailed plan of Heritage Park Plaza produced by CHNMB, which completed work on the park after Halprin closed his office in 1976.

are well-wooded and command fine views in several directions.” The City Walk was crucial to getting the community directly involved with city planning, something that seems common or even obvious now, but was quite revolutionary for its time.

Though Lawrence generated the initial concept and basic design for Heritage Park Plaza in 1976, the development of the park was a collaboration with Satoru Nishita, a principal at Lawrence Halprin & Associates. The complicated timing of the commission is largely responsible for the extent of Nishita’s involvement: Lawrence closed the doors on his firm in 1976, after which time Nishita established CHNMB Associates to carry out the remainder of the park’s development in tandem with Lawrence and the Fort Worth-based engineering firm Carter & Burgess. The final design is an expanded version of Lawrence’s initial sketch, as noted in an early report summary dated April 1, 1976: “Mr. Halprin sketched out a plaza concept which he envisioned appropriate for the bluff overlook area. In summary, his sketch included a series of plaza levels with a sequence of water cascades running along and down the various plaza levels.”

Heritage Park Plaza’s location on the riverbank to the east of the Paddock Viaduct and just north of the historic Tarrant County Courthouse (1895) commemorates the original location of the fort that established the city in 1849. References to this history are found throughout the design of Heritage Park Plaza, most notably on a water wall facing the plaza’s west entrance that features an abstract rendering of the fort’s ruins in granite. Below the wall, a plaque commemorates the fort and provides historical context. The only other writing visible in the design of the plaza is a phrase in raised bronze letters on the southernmost wall, which reads: “Embrace the Spirit and Preserve the Freedom Which Inspired Those of Vision and Courage to Shape Our Heritage.” In addition to recognizing the historical significance of the site, Heritage Park Plaza served as a gift to the nation, in celebration of the 1976 Bicentennial.

Since its closure in 2007, many have advocated for the park’s restoration and reopening. Downtown Fort Worth, Inc. has taken the lead in fundraising for the restoration costs, with support from the Amon Carter Foundation, the Sid Richardson Foundation, and Streams & Valleys, Inc., a nonprofit organization dedicated to preserving the Trinity River and the group that commissioned the park from Lawrence in 1970. Fort Worth-based design firms Bennett Benner Partners (BBP) and Studio Outside make up the design team moving forward in a joint venture to restore the park to its original design in consultation with Philadelphia landscape architect Laurie Olin. Certain aspects of the park — such as Halprin’s original lighting system, which is cast in the concrete — will need to be updated with a completely new design. Others, like the water features, will be easier to restore to their original condition.

The benefit of time has given BBP and Studio Outside a better understanding of what planting materials fared well over the years and what might be a more appropriate substitute for long-term planting. According to R. Gannon Gries, AIA, the project manager for BBP and the Heritage Park Plaza restoration, Halprin’s attention to the Trinity Riverfront was ahead of its time, as the city of Fort Worth has only recently recognized the importance of interconnection between the riverfront and a revived downtown. (See also the Trinity River Vision, a master plan for an 88-mile-long Trinity River Corridor that was adopted in 2003 by the Fort Worth City Council as a means of making the riverfront “beautiful, accessible, enjoyable, and productive.”) According to Gries, the two firms are still in the research phase of their proposal but are hopeful that Heritage Park Plaza will open sometime later in 2016.

Lawrence passed away in 2009, leaving Anna to continue their legacy — an interdisciplinary approach to dance, choreography, and landscape design. Their collaborative relationship inspired “The City Dance of Lawrence and Anna Halprin,” a 2008 performance in Lawrence’s Ira Keller Fountain in Portland, Oregon, where dancers and musicians activated the space through movement and sounds inspired by the Halprins. The reopening of Heritage Park Plaza will, it is hoped, inspire similar use of this park and will help to activate an area of Fort Worth that holds the key to future interaction with the Trinity Riverfront.

Leigh A. Arnold is Assistant Curator at the Nasher Sculpture Center.
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Texas Society of Architects

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Concave and convex wall and soffit panels were installed in an overlapping pattern using multiple colors.

Reveal detail could not be roll-formed; rather, 10-ft lengths of the reveal were fabricated and then saw cut in the field to the radius required for the project.

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Case Study

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CONTENT ARCHITECTURE DESIGNS A HOUSE FOR AN ARTIST AND CAR ENTHUSIAST, THEN SHIFTS GEARS IN MID-CONSTRUCTION.

by Aaron Seward

Project  Casa Lobo
Clients  Erick and Mara McCumber Calderon
Architect  Content Architecture
Design Team  Jesse Hager AIA, Heather Rowell, Seth Borland
Photographers  Peter Molick, Paul Hester
Most custom homes are eccentric in one fashion or another, tailored as they are to one person’s or one family’s specific requirements. Casa Lobo, a new house designed by Content Architecture in Houston’s East End, takes that notion to the extreme.

The owner, Erick Calderon, met the architects — Jesse Hager, AIA, and Heather Rowell, Assoc. AIA — through his tile importing company, La Nova. They became friends, and when Calderon purchased a vacant lot off of Navigation Boulevard just east of downtown, where he planned to build his ideal abode, he called on Content.

Tile importing is his business, but Calderon’s passions are diverse. He wanted his new house to be the perfect place in which to explore them. His first love at the time Content began its design process was racing and fixing BMW 2-Series cars. He envisioned an ideal space where he and his buddies could work on their vehicles both indoors and outdoors. He imagined being able to park at least five BMWs on the property, in various states of repair, at any given time. It was to be, in the words of one wry observer during a recent site visit, his “bro hangout.”

Calderon’s other passion is art. His organization, Light Art Interactive, develops “products and projects that explore how humans interact with color and light,” according to the website. He needed a studio space where he could build and program his creations, which include color-changing lamps and sculptures that interact with sound and other environmental factors, but also flower vases and objets d’art he calls Up Blocks — chromatic compositions of hand-painted, 3-D printed blocks.

Content needed all of this on a tight budget.

Halfway through construction, he met a girl at the Coachella Valley Music and Arts Festival, fell in love, and married her.
Erick and Mara McCumber Calderon enjoy their home's covered patio, an area that was to be occupied by cars under repair in the original design.

The house's raw, industrial materials — structural steel, corrugated metal siding, CMU — echo nearby buildings in the East End neighborhood.

The interior treatment is minimal and cost-conscious, but thoughtfully detailed, with Calderon's art on the walls and his company's tile on the floors.
to accommodate a hydraulic automobile lift. Between the garage and the patio is a flat-roofed CMU stair tower that rises above the single-slope roof of the elevated metal building.

The only air-conditioned spaces in the house are the living areas on the second floor; the garage and the stair tower are naturally ventilated. The roof of the tower is lifted; its walls are punctured with rectangular openings — offering some small-scale Piranesi-like views — and, in the initial concept, the rollup door of the garage featured perforations, allowing natural ventilation of these spaces courtesy of the chimney effect. The lifted tower roof also admits daylight, making what could have been a static, claustrophobic cell into a dynamic environment activated by exterior conditions. “It’s not what everyone would want, but Erick likes being able to step out into this space and experience the weather,” says Hager.

Inside, the architectural approach is minimal, economical. The flooring is 4-ft-by-4-ft dark gray tiles — supplied by Nova, of course. The walls are white-painted sheetrock. The ceiling follows the slope of the roof in the master bedroom and living room, but elsewhere the architects dropped flat ceilings of various heights relative to the size of the room. The ceiling of the studio/guest room is 10-ft-high, in the utility room and bathrooms they are 9-ft-high, and at the entry it’s 8-ft-high. The deep cutouts of the windows are splayed to frame views of surrounding landmarks: a tree on the corner, the plaza on Navigation, Minute Maid Park and the downtown skyline.

The bedroom is directly above the garage. It has an interior window that allows Calderon to gaze at his autos without leaving the comforts of his chamber — or what was to be his chamber. Halfway through construction, he met a girl at the Coachella Valley Music and Arts Festival, fell in love, and married her. The appearance on the scene of Mara Mcclumb Calderon, and the baby that she is soon to birth, had its effect on the “bro hangout” and Calderon’s lifestyle. Gone for the expectant family man are the days of racing and all-night light-experience programming sessions. Here are the days of domesticity. The bedroom closet had to be increased in size to accommodate Mara’s clothes, eating up space that would have accommodated the hydraulic car lift. A bathtub was added to the spare bathroom. And the studio, which, as of this writing, is still home to two MakerBot 3-D printers, is soon to be the baby’s room.

Casa Lobo (a name chosen by Calderon) is indeed eccentric. Who knows how long it will last? As is, it embodies the awkward transition period between man-child and grownup. Who will the Calderons be in five years? Whoever they are, Content will be able to find an architectural expression for them: “We pride ourselves in the diversity of our work,” says Hager. “They’re all different. We don’t have a signature style. We never know where we’re going to end up when we start.”

Aaron Seward is editor of Texas Architect.
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Today, the word “data” tends to evoke such Information Age icons as silicone semiconductors, communications satellites, and smartphones. Add architecture to the consideration, and chances are the mind will turn to computer-aided evolutions in the field: digital fabrication, non-Euclidian geometries, dynamic control systems, and so on. But data has been part of the English language since the 17th century. It was derived from the Latin datum, literally “something given,” and was used in philosophical writings to describe the facts that formed the basis of a line of reasoning or calculation.

In this issue of Texas Architect, we explore some of the ways in which both the older and newer meanings of data are being applied to architectural projects and processes. We’ll see some architects teaming with experts from disparate disciplines to bring a broader skill set to their information-gathering exercise and others interviewing potential end users to provide a more successful building. We’ll also learn about a facility whose electronic infrastructure has made it one of the most advanced of its type in the world, and we’ll hear from a firm that employed monitoring systems to get to the bottom of the same unexpected outcome in several of its completed projects.

In each of these stories, architects use data to improve the design and performance of their buildings. They show that data — whether facts gathered and interpreted through a program of social outreach, or terabits of information processed and transmitted via electronic equipment — presents a wide variety of pathways for engaging architecture and making a positive impact on the built environment.
Social Studies

AALTO'S BAKER HOUSE DORMITORY AT MIT INSPIRES A
STUDY OF STUDENT HOUSING AT UT AUSTIN AND A REVIVAL
OF THE MODERN MOVEMENT'S SOCIAL ASPIRATIONS.

by Lawrence W. Speck, FAIA

Project 2400 Nueces
Client Education Realty Trust, Inc.
Architect Page
Design Team Lawrence W. Speck, FAIA - Principal Project Designer; Brian D.
Roeder, AIA - Senior Project Manager; John Schmitt - Project Architect, Interiors;
Bryan Haywood - Project Architect, Core & Shell
Photographer Casey Dunn Photography
Much of the extraordinary energy of the early Modern Movement in architecture focused on the notion that the built environment could have a profound impact on the everyday lives of ordinary people. Architects like Le Corbusier, Mies van der Rohe, Walter Gropius and Alvar Aalto were not designing museums and prestigious corporate headquarters in the 1920s and '30s, but were focused instead on schools, healthcare facilities, housing and urban design, and on their potential for creating social benefit.

Over the decades that followed, sociologists and psychologists would join architects in studying and projecting environments that could support and promote desirable lifestyles and social structures. In the late 1940s, three young psychologists, Leon Festinger, Sidney Schachter, and Kurt Back conducted a landmark investigation into the impact of architectural design on married students living in campus housing at MIT. They observed the way that both physical distance and functional distance (taking into account common daily patterns of activity) had an effect on patterns of acquaintance, friendship formation, and even social attitudes.

At the very same time, Alvar Aalto was designing his landmark dormitory, Baker House, virtually adjacent to the housing where the three young psychologists had done their study. Aalto had written in 1940, “The present phase of modern architecture is doubtless a new one, with the special aim of solving problems in the humanitarian and psychological fields.”

In his early design for Baker House, Aalto focused on the same concerns that were at the core of Festinger, Schachter, and Back's research — how student rooms would be organized, whether students would share a room or live in singles, how shared amenities like bathrooms and living rooms might be clustered together, and how all of these things would affect student socialization.

Twenty-five years after Baker House was built, I was hired to do a study of student housing at MIT and was astounded at the almost universally positive response of residents at the time to the very supportive social environment of Aalto's dormitory. Twenty-five years after that, I was recalled to MIT to give a paper in a symposium celebrating the 50-year anniversary of the building. I was surrounded by former residents, student life staff, and university administrators who were lauding the transformative effect of the building on the lives of five decades of MIT students. It was phenomenal to hear so many non-architects acknowledging the building's potency in improving friendship formation and a positive academic atmosphere for residents over its long history.

Fueled by the clear potential that Baker House had demonstrated in making a positive difference in the lives of students at MIT, I joined with Dr. Sam Wilson, a colleague in the anthropology department at The University of Texas at Austin; David Sharratt, a graduate student in architecture; and Richie Gill, who was doing his thesis in Plan II (honors liberal arts), to conduct a small study of student housing at UT and its impact on student success. We were all interested in how design of on-campus housing...
Opening spread The 2400 Nueces entry lobby offers access to shared amenities such as a lounge, conference room, and computer lab, as well as UT's International Office.

Facing Alvar Aalto's Baker House, built in the 1940s, was one of the earliest documented examples of the transformative effect that architecture can have on student lives.

Left 2400 Nueces' 306 residential units include a wide range of living configurations to serve a diverse population.
Top The first floor also houses resident services and administration offices.
Middle left The sixth floor student lounge includes a shared kitchen and is connected to outdoor courtyard spaces.
Middle right 2400 Nueces establishes a high density, mixed-use environment in the West Campus neighborhood.
Bottom The computer lab and student lounge encourage the residents to be a part of the university community.
might enhance or detract from a student's ability to adjust to his or her first year of college and perform well at UT.

We discovered that all UT students were assigned a projected GPA during the admissions process, a practice that sought to measure each student's potential for success at the university. We thought that, if we took the difference between the projected GPA and a student's actual freshman GPA and found the average differences for the various residence halls, we could get a focused picture as to what effect the characteristics of the various housing environments might have had on student performance.

The variation of this comparison from one residence hall to another was dramatic. The chart below illustrates the range of differences between housing environments where students did substantially better than their predicted GPA, and housing environments where students did substantially worse than their predicted GPA. Since all housing environments have very similar support systems in terms of programs, resident assistants, etc., we could focus on what, in the design of the physical environment, might have made a difference.

Over a period of a few months, we asked several hundred undergraduate students to write short essays responding to a range of prompts that asked them to evaluate what in their physical environment might contribute to their adjustment to college in their freshman year and to their academic performance. The comments in these essays were keyed to each

**Like Baker House, 2400 Nueces was designed with a wide variety of unit types and many different options for community and privacy.**

of the 14 residence halls to try to correlate student comments with GPA outcomes. A number of design characteristics were clearly contributing, in the students' estimation, to their success, just as a number of other features were deemed detrimental.

In the lowest performing dorm, for example, a student commented, “Communal spaces are hidden away in the basement, so there is very little traffic in that area, decreasing interaction.” A student in the highest performing residence hall, by contrast, observed of his dorm, “Right as you walk in the door, there is a sense of community from seeing people playing ping pong or gathered around a table studying.”

Students keyed their success in college substantially to feeling like they belonged and were accepted in a group, and they linked that closely to a few salient characteristics of their environment. Their top priorities were whether their residence hall encouraged interaction (60%); had quality common facilities that were well located (39%); and had hallways, circulation, and bathroom arrangements that supported a sense of community (34%).

At about the same time as we were doing the UT study, I was involved, through my architectural firm, in the design of a new student housing project in West Campus at UT. Applying some of the lessons that had come from the study of the 14 on-campus residence halls, 2400 Nueces was
planned with enhanced friendship formation in mind and promotion of a nurturing academic environment as a strong priority.

Like Baker House, 2400 Nueces was designed with a wide variety of unit types and many different options for community and privacy. Like the best performers in the UT study, common spaces were clustered and positioned to promote informal encounters and casual socialization. The mix of units and the arrangement of shared amenities were both very different from the many other student housing projects sprouting in West Campus at the time.

After a year of operation, we conducted a post-occupancy evaluation of 2400 Nueces, asking many of the same kinds of questions we had asked in the earlier UT study. The results were startling. Of the respondents, 44% reported that their friendships were better at 2400 Nueces than in student environments where they had lived before. When asked about changes in their GPA, 26% reported that their grades had improved in their year at 2400 Nueces.

Though social science research has continued to unearth evidence of the importance of the physical environment in the psychological and sociological health of our cultures, this has not been an area of widespread discussion in architecture in recent decades. Why? As we have resuscitated an interest in the forms of the Early Modern movement, we have not been so committed to the social aspirations that generated many of those forms. Architecture plays a fundamental role in the success of people in terms of their health, their sense of community, their work productivity, their family life and their overall happiness. We, as architects, should talk explicitly about our role in all these regards, and we should gather evidence of our contributions to help the general public place more value on what we do.

Lawrence W. Speck, FAIA, is a principal with Page and a faculty member in the School of Architecture at The University of Texas at Austin.
Out of the Shadows

bcWORKSHOP RAN FOCUS GROUPS AND WORKSHOPS TO GATHER INFORMATION FOR THEIR DESIGN OF THE COTTAGES AT HICKORY CROSSING, A HOUSING FIRST PROJECT THAT WILL SERVE PEOPLE OFTEN DEEMED IMPOSSIBLE CASES.

by Audrey Maxwell, AIA

Project The Cottages at Hickory Crossing
Clients Central Dallas Community Development Corporation (CDCDC); CitySquare; Dallas County Criminal Justice; Metrocare Services; UT Southwestern Medical Center
Architect buildingcommunityWORKSHOP
Design Team Brent A. Brown, AIA; Jim Oppelt, AIA; Benje Feehan; Jennifer Mayfield, RA; Omar Hakeem
Photographer Craig D. Blackmon, FAIA
Imagine you don’t have a home. Just think about what it would be like. I don’t think most of us truly understand what that means. For formerly homeless individuals, the simple act of turning the lock on their front door is life-altering,” says Brent A. Brown, AIA. It is that sense of security and empowerment that The Cottages at Hickory Crossing aims to provide for 50 of Dallas’ chronic cases of homelessness. Brown, The founder of buildingcommunityWORKSHOP, along with developer John Greenan of Central Dallas CDC, set out six years ago to tackle the problem through a variation on the Permanent Supportive Housing model.

The United States Interagency Council on Homelessness (USICH) defines Permanent Supportive Housing (PSH) as “...decent, safe, affordable, community-based housing that provides tenants with the rights of tenancy and links to voluntary and flexible supports and services for people with disabilities who are experiencing homelessness.” This housing model targets the chronically homeless, who struggle with psychiatric disabilities, substance abuse, and persistent health issues. According to USICH, the homeless population’s death rate is already four times that of the general population, making prioritization of high-risk cases even more critical.

Permanent Supportive Housing models — also known as Housing First models — have been implemented since the 1980s. While the Cottages project follows the guidelines of existing typologies, the team believed an alternative model could improve outcomes. A similar project — Martin Luther King, Jr. Village in Sacramento, California — was used as a case study. It consists of cottages in a mix of single and duplex models and, like Martin Luther King Village, clusters the units around shared space. To test the duplex model, beWORKSHOP held focus group workshops with formerly homeless individuals.

A game board was created with game pieces representing various amenities, from bedrooms to shared spaces. Participants were asked to recommend amenities and arrange elements on the “site” with discussion aimed at gathering spatial information backed by emotional and experiential reasoning. Through the focus groups, beWORKSHOP determined that individual units were preferred. Participants cited the importance of creating identity, refuge, and comfort. They desired a diversity of spaces that could provide a range of options from extreme privacy to social interaction.
Within the clusters, the architects varied the cottages’ roof forms to create identity while employing a consistent material palette.

The site is bordered on two sides by elevated interstate freeways, where some of Dallas’ homeless individuals have established an encampment.
Right above Inward facing units are clustered for privacy and provide views of semi-private landscape islands.

Right below A central green provides access to nature within the site’s urban context.

Overleaf The efficient 355-sf units flank the central green with services buildings defining the eastern edge.

Feedback from the engagement process, examination of site conditions, and historical research influenced the “cottages on the green” site design. The 2.9-acre site is bounded by interstates on two sides with a busy local street on another. By clustering the individual cottages with their backs to roadways and radiating the clusters around a common green, the buildings en masse create a perimeter barrier. Segmented fences covered in rose vines create additional visual and acoustic privacy. All of the clusters, circulation, and shared spaces are positioned toward a half-acre central green to maximize views and connectivity. The 11,212-sf roof of the services building defines the site’s edge along Malcolm X Boulevard. With 4,324 square feet of air-conditioned space, the bar building containing on-site social and leasing services creates a porous edge and supervised gateway into the grounds. Strategic siting encourages community interaction while providing a sense of protection, a need expressed by the formerly homeless focus group participants.

Based on this feedback, the design team refined their shared space model, abandoning duplexes for free-standing individual units. Each cottage is 355 sf plus a small front porch. Open in plan, the bedroom and bath are separated from the living space by a millwork bar containing kitchen and storage functions. The straightforward plan provides tenants solitary space, space for interpersonal relations, and opportunities to engage with neighbors. While the same material palette is employed throughout, each cottage is individualized through manipulation of the roof shapes.

"Imagine you don’t have a home. Just think about what it would be like. I don’t think most of us truly understand what that means."

"Imagine you don’t have a home. Just think about what it would be like. I don’t think most of us truly understand what that means."
TYPICAL UNIT SECTIONS

SITE PLAN
- TYPICAL UNIT
- STORAGE/UTILITY
- SERVICES BUILDING
- LAUNDRY BUILDING

1/2 2016
The landscape design was critical to the cottages on the green concept. Hocker Design Group led the effort to create an idyllic setting that would enhance comfort and promote healing. “The concept fosters the creation of an environment in which the resident can reconnect with nature and community inside the urban context of the larger city. It provides accessible site opportunities through productive community gardens and a central green with flexible programming potential,” said David Hocker. Meandering walks connect each cottage in a cluster, defining a shared landscape island. Low-maintenance trees, shrubs, and grasses provide texture, color, and shade. City-required parking stalls were pushed to the perimeter, and curbless interior roadways were implemented to give precedence to pedestrians. The streetscape along Malcolm X Boulevard and Louise Avenue was also overhauled, introducing street trees and hardscape to encourage pedestrian circulation. Cottage design, siting, and urban context were all carefully considered in order to further the Housing First concept.

Back in 2009, when Dallas CDC and bcWORKSHOP were considering the design merits of a cottages model, another group of agencies was pursuing funding opportunities for permanent supportive housing. The groups converged, creating a dynamic partnership that included Metrocare Services (clinical mental health services), CitySquare (site-based social services), Dallas County Criminal Justice Division’s Mental Health Steering Committee (identifying target clients), and UT Southwestern Medical Center (principal investigator for demonstration project). The W.W. Caruth, Jr. Foundation Fund at Communities Foundation of Texas has provided the largest financial boost, with private fundraising and government grants covering the balance of project costs. This capital, along with the diverse partner group, made the development of the project possible. As a result, 50 of Dallas’ most vulnerable residents will have a place to call home this winter.

The Dallas County Department of Criminal Justice’s Jail Diversion Program identified 300 highest utilizers of services as potential residents.
More than 3,000 homeless people are estimated to be living in Dallas. The Cottages staff conducts assessments using recognized tools like the Vulnerability Index & Service Prioritization Decision Assistance Tool (VI-SPDAT) to determine the 50 neediest individuals. Each will be provided a lease with vouchers to cover their rent. No different than an apartment complex, residents are free to come and go, but they must follow campus policies. By providing housing first, precedent projects have shown that users are better able to seek the care they need. This is especially true when resources are targeted and easily accessible. The combination leads to better success rates and tangible cost savings to the public. A study of a Housing First project in Portland, Maine, showed significant decreases in emergency room visits, jail time, and healthcare visits by residents in the first year. They received more care at less cost, resulting in an average annual savings of $944 per person.

The effectiveness of the Cottages model will also be measured. Program evaluation staff at UT Southwestern will assess the improvements in social, economic, mental health, and functional outcomes in the 300 chronically homeless residents identified. Both those housed at the Cottages and those on the waiting list will be followed. The evaluation will assess criminal justice involvement and document the impact on individuals’ medical, mental health, and substance abuse issues. The financial burden on the healthcare system and on society will also be appraised.

The Cottages are taking on a complex societal problem by providing long-term housing to a population too often in the shadows. Meanwhile, under the web of interstate overpasses just west of the site, a contingent of Dallas’ homeless population has appropriated space and is rapidly building a tent city. The agglomeration of makeshift shelters stands in stark contrast to the orderliness of The Cottages, where people who were once chronically displaced will now have a home of their own, complete with a lock on the front door.

Audrey Maxwell, AIA, is a principal at Malone Maxwell Borson Architects.
Staying Engaged

LAKE|FLATO ARCHITECTS IS KNOWN FOR ITS SUSTAINABLY DESIGNED HOMES. WHEN SOME OF ITS CLIENTS STARTED NOTICING HIGHER-TAN-EXPECTED ENERGY BILLS, THE FIRM REVISITED THE HOUSES AND INSTALLED ENERGY-MONITORING DEVICES TO GET TO THE ROOT OF THE PROBLEM.

by Corey Squire, LEED AP O+M
photography by Casey Dunn and Frank Ooms

In July 2014, a group of us from Lake|Flato drove three hours west of San Antonio to Uvalde, Texas to install an energy-monitoring device on a newly completed ranch house. The occupants, retired full-time residents, had moved in over a year ago and loved the house and the lifestyle they had on the ranch but felt that their utility bills were, in their words, “a little higher than [they] had expected.” Before the trip to the site, we had attempted to figure out the source of their high electricity bills but were not sure what to make of them. This was not a project that was loaded up with “green gadgets,” but from a sustainability perspective we had virtually done everything right. The house was small – just over 2,000 sf – had limited, well-shaded glazing, and was oriented for ideal solar access. The clients had opted for an efficient ground source heat pump for space conditioning and water heating, and the project had been zoned so that the bedroom and living space could be set to different temperatures. The occupants are energy-conscious...
people who described unplugging kitchen appliances when not in use to avoid phantom loads, as well as keeping the house cool and wearing sweaters in winter.

Despite these efforts, the house was using about twice the energy that we had anticipated, and the goal of our trip was to find out why. The device we were installing was an eMonitor, an energy monitoring system that tracks and logs the energy for every circuit in the home. The data is uploaded to the Internet in real time via the home's Wi-Fi and is accessible from anywhere in the world.

Circuit-by-circuit monitoring allows us to study both energy end uses and time-of-use, helping us understand both where and when energy is used. This information can help us study patterns and diagnose problems and can provide us with a deeper understanding of the project's performance. At Uvalde, we installed 44 current transformers in the main electrical panel, hooked the system up to the Internet, and waited for the data to begin to upload. Within five minutes, we discovered where all the energy was going: the pool.

Though many, if not most, of our residential projects have pools, before this day we had not thoroughly explored pools from an energy perspective. Pool pumps are not included in typical residential energy models, and most of the design, specifications, and scheduling of the system is traditionally left to the pool contractor. The Uvalde pool pump was pulling a constant 3,000 watts, or 72 kWh per day – more than the 62 kWh per day that an entire typical Texas house consumes. Not long after the installation of our energy-monitoring system, we were able to re-program the pool pump to run only five hours a day, and the total energy use of the project dropped by 40%, saving the occupants almost $2,000 per year in electricity. We have since learned a great deal about pools and have developed and implemented officewide pool energy design guidelines with the goal of making our pools as efficient as possible.
Opening Spread Goat Mountain Ranch

Right Calibrating daylight measurements at Goat Mountain Ranch.

Facing Hacienda Ta Ta.
Lake/Flato spends time studying its completed projects to improve their performance. Often, the firm learns lessons that improve its future design work.
Since our trip to Uvalde, we have installed eMonitors on several additional homes, and by studying these projects along with the LEED for Homes certified Hacienda JaJa, a project that has been logging energy since 2011, we have expanded our understanding of the forces that drive residential energy. A major lesson learned is that we need to understand what systems are using the most energy so we can devote our time and resources where it will be most effective. The Uvalde pool, for example, used 50% of the whole building’s energy, yet most of our sustainability effort was spent on the envelope, a system that used significantly less. Our study of the Hog Pen Creek residence really furthered this line of thinking when the occupants began receiving $1,000/mo. electric bills.

Hog Pen Creek, a full-time home on Lake Austin, is another project where we are using an eMonitor to analyze and reduce energy consumption. This project is similar to Uvalde in that, from a sustainability perspective, we did virtually everything right. The project is small, around 2,500 sf, compact in its organization, and limited in its glazing. It is divided into two wings, one full-time and one guest, each equipped with systems designed to limit energy based on use patterns. The main house is conditioned and supplied with hot water via an open loop geothermal system that draws cool water directly from Lake Austin. The guest wing is conditioned by efficient split systems that can be easily turned on or off depending on occupancy. Similarly, the hot water system is instantaneous to prevent tank losses during periods without guests.

The energy model had predicted a high-performing project, but unlike Uvalde, which was using twice the energy we had expected, Hog Pen Creek was using four times more energy than was modeled. This time, when we hooked up the eMonitor system and waited for the first bits of data to upload, we knew the pool energy would be significant but also that something else must be causing such high energy use. The pool pumps and heaters were pulling a constant 7,000 watts, 60% of the total energy of
the house, but we also found significant and unexpected energy use from the lighting control system, the security system, and the irrigation. These systems were not included in the energy model and little to no time was spent thinking about their potential energy use yet, combined, the systems accounted for 85% of the project’s total energy.

The problem with our energy models was not one of depth, but one of breadth. We had the details to predict the energy use of the systems that were being modeled, but we were not modeling the systems that were using most of the energy.

Reflecting on our research, it was clear to us that we live in a new reality of residential energy use. Like many firms, we are exploring what it means to design and build high-performing projects in an era where traditional solutions matter less, and new solutions are becoming less and less architectural. A glass box, though a poor architectural solution, might perform better than an otherwise efficient project with a pool. Determining which project would be more “sustainable” is a question that we are still tackling.

One thing we know for sure is that there is a need to broaden thinking and design considerations from “designing a high performing house” toward “encouraging a high performing lifestyle.” The pools matter; the set points matter; and the lights that are on when the occupants aren’t home matter. Our research has shown us that all of these things seem to matter more than the R-value of the roof, the window-to-wall ratio, or the rest of the features that many of us, as architects, are more comfortable talking about. The new reality of residential energy use can feel both intimidating and
Before reprogramming, the pool at Hog Pen Creek used more than 60% of the energy of the entire home.
Facing Goat Mountain Ranch

Right At Hog Pen Creek, less than 50% of energy consumption came from systems that are traditionally modeled.

Liberating — intimidating, because we need to learn about all of these systems that have traditionally been outside our scope, but liberating, because traditional “design” is beginning to have less of a correlation with actual performance than we had once believed. This frees us to orient and glaze the building to optimize daylight and space, knowing that energy won’t be affected significantly.

A major lesson learned is that we need to understand what systems are using the most energy so we can devote our time and resources where it will be most effective.

Overall, the biggest lesson has been the value of staying engaged. Uvalde, Hog Pen Creek, and Hacienda Jarama are all good performers today, not because we are design geniuses, but because we remained engaged. This is true for all projects, not just residential. As an architect, if you don’t know how your project is performing, it’s not performing well. Many in the profession have caught on to this idea, including the AIA, which now requires actual energy data to be submitted with most design awards. Our strategy for engagement is to make energy monitoring devices standard for the vast majority of our residential projects. When the project has been completed, we teach the occupants how to use the eMonitoring web interface and encourage them to check their energy use regularly and even experiment by switching things on and off to see their relative energy use in real time. After six months, we analyze the data and prepare a personalized “energy user’s guide”, a report that shows how energy is being used and a series of strategies that can be implemented to run the home more efficiently. Our goal with this initiative of following up with residents is not to tell our clients how they should live, but to empower them to understand the energy implications of their decisions. Research has shown that occupants who track their own energy use consume up to 20% less energy than comparable occupants who do not, another significant savings not picked up in traditional energy models, but one we are happy both to implement and to take advantage of.

Corey Squire is Sustainability Coordinator at Lake|Flato.
A Machine for Healing

THE NEW PARKLAND HOSPITAL BUILDING HAS BEEN CALLED THE WORLD'S FIRST ALL-DIGITAL HOSPITAL, A HEALTHCARE FACILITY WHERE TECHNOLOGY AND DESIGN MERGE TO IMPROVE FUNCTIONALITY, LESSEN THE INSTITUTIONAL FEEL, AND STAY ON THE CUTTING EDGE OF ADVANCES IN MEDICAL SCIENCE.

by Ron Stelmarski, AIA

Project Parkland Hospital
Client Parkland Health and Hospital System
Architect HDR + Corgan
Design Team HDR: Thomas J. Trenolone, AIA; Jim Henry, AIA; Robert "Hank" Adams, AIA; Mike Moran, AIA; Heidi Higgason, AIA; James Atkinson, AIA; Dan Thomas, AIA; Kamran Elahi-Shirazi; Jeff Fahs; Cyndi McCullough; Kevin Lynch; Robyn Roelofs; Bob Case; Chad Anderson. Corgan: Chuck Armstrong, FAIA; Matt Mooney; Tina Larsen, AIA; Joe Haver, AIA; Lore McGilberry; Nathan DeVore, AIA; Paige Murphy; Kirk Johnson, AIA
Photographer Assassi Productions
When confronted with creating "the hospital of the future," the design consultant and construction teams looked back to 1954, when the original Parkland Hospital was built, to try and anticipate the next 50–75 years. There was very little technology truly integrated into the architecture back then, as X-ray machines and penicillin were the most advanced tools available to doctors. The planning of a massive, 21st-century healing environment required side-by-side teamwork from start to finish to ensure total coordination.

The hospital was to become an all-digital facility, but that meant there would need to be a robust, wire-based backbone. Joseph Longo, VP of Information Technology at Parkland, shared his experience achieving operational effectiveness, safety, and efficiency within such a technically advanced project. Given rapidly-changing technology, it would be too easy to specify infrastructure that would quickly become outmoded. For instance, Longo explains, when the project was initiated around eight years ago, "the market leader for mobile communication devices was Blackberry." The team wanted new media and new devices, but these were always chosen based on their capabilities — there was no chasing of the trendiest products. Technology has been integrated in a purposeful way throughout, not specifically showcased.

A key goal was to have information at the clinicians' fingertips. "And that started with infrastructure, or what the IT industry would call the harmonization of systems," says Longo. The goal was to allow for necessary updates or replacement of only certain components, as needed. All of the unseen technology has a meaningful impact on the physical architecture and the patient, visitor, and staff experience. "It was never a case of the technology imposing on the architecture," says Tina Larsen, AIA, project manager with the Corgan team; "rather, the technicians said, 'tell us what you want to do and we will make it work'."

From a planning perspective, the building is very systematized and modular. The physical needs of the infrastructure were accommodated by diligent spacing and placement of the electrical and IT closets. Rack storage for the equipment was also specified in taller-than-normal heights to conserve space while accommodating more technology. Prefabricated and accessible plenums carry the technology laterally above the corridors, and a robust antennae system provides continuous coverage to cellular and life-safety paging devices. All of this behind-the-scenes work allows a heightened level of care. As minor as it may seem, a tap-in, tap-out system allows staff seamless access to information as they move from one computer to another. Not only does this eliminate the need to log in and out, but the "virtual desktop" moves with them.

Many specialty program spaces benefited from the ubiquitous technology. The neonatal intensive care unit (NICU) of the old Parkland building was cramped and uncomfortable, but was easy for staff to oversee. The new NICU is a more comfortable fit and is not restricted to what the eyes can see. Families will also find the welcome addition of all-private patient rooms. This causes the support systems, including nurses and supplies, to be more distributed, but technology solves this problem: RFID tagging allows for easy locating and distributing of equipment from a separate, centralized
Facing Clinicians work with a tap-in, tap-out system that allows them to access their desktop on monitors throughout the facility.

This page The IT infrastructure at Parkland is located in back-of-house spaces, leaving the occupant areas free for a warmer, more comfortable treatment.
"equipment garage." Patients have more freedom with integrated biomedical devices and more access to entertainment, including video, audio, and educational programming.

One major difference between the new Parkland and what we think of as traditional hospitals is that Parkland doesn't look or feel like an institution. Healthcare facilities must be efficient, secure, and spotless — and this often makes for sterile environments that can be alienating. The

**Given rapidly-changing technology, it would be too easy to specify infrastructure that would quickly become outmoded.**

exact opposite is required for patients who are healing, of course, and for their concerned family and friends who may spend many days or weeks at the hospital looking after their loved ones. Although many surveillance cameras are at work at Parkland — more than 2,000, in fact — the cameras, sophisticated door controls, and sensors capable of tracking supplies as well as people allow security personnel to be sequestered in a single, centralized monitoring room, where they remain largely invisible.

Surveillance will always be a matter of some dispute, but at Parkland it has been made unobtrusive.

In addition, the auditory experience throughout the facility is much improved; Parkland is a noticeably quiet environment. The television version of a hospital, with lights flashing and alarms ringing, has been dramatically mitigated, if not eliminated. In an effort to lower the noise level, alarms and what used to be paging via intercom can now be sent directly to individuals' personal communication devices. The experience is now as pleasant and peaceful as a trip to the hospital can be.

Corporate and education facilities are continually designed around a "work and learn anywhere" concept of technology integration and physical environment, but Parkland may just have left them in the dust. At Parkland, one of the most complex building types has gone all-digital and improved the overall experience of visitors and performance of systems. Storage of data and physical inventory form a productive relationship. The intention was not to design a "futuristic" building; rather, with an eye to the future, this project shows a path where technology is not a distraction or a way to pass time, but an elevation in the quality of our built environment.

Ron Stelmerski, AIA, is design director for Texas practice at Perkins+Will.
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Digitally Derived

The rise of digital design and computer numerically controlled fabrication has unleashed a realm of creativity in architecture previously trapped on paper. Now almost any shape the mind can conceive can be modeled and physically produced efficiently. It often happens, however, that our finest digitally derived creations come down to labor-intensive assemblies and the dampening wake-up call of architecture's old foe: gravity.

In this Portfolio section on digital derivation, we check in on the winners of the Field Constructs Design Competition. Occupying various sites throughout the Circle Acres Nature Preserve — a former quarry and dumping ground in the South East Austin Montopolis neighborhood — for two weeks last November, the four winning installations gave a taste of what this method of designing can do and highlighted some of its challenges. They also drew the public to a strange and instructive landscape they might otherwise never have known about or bothered to visit.
FIELD OF DREAMS

Four installations — winners of the Field Constructs Design Competition — occupied a brownfield site in East Austin for two weeks in November. The projects on view drew attention to the quickly aligning trends of digital fabrication and environmental sensitivity.

by Jack Murphy, Assoc. AIA
photography by Whit Preston

Architecture was once said to be technologically decades behind other constructive disciplines. Post-World War II mass production yielded the modern airliner for aviation, but Levittown for architecture. Now, thankfully, we’re catching up. Rapid prototyping soft- and hardware allow designers to directly test and manufacture at the human scale, from jewelry to complete building components. Our expanded tool kit arrives just as we’re also tasked with addressing our collective environmental crisis. These advances in fabrication and environmental investigation were key components of Field Constructs, a recent competition in Austin that featured four installations by talented, young designers.

Field Constructs Design Competition (FCDC) was co-directed by Rachel Adams, Associate Curator at the University of Buffalo and previously at The Contemporary Austin; Catherine Gavin, former editor of TA; and Igor Siddiqui, principal of ISSSStudio and assistant professor at The University of Texas at Austin School of Architecture. As these three discussed ideas for a competition involving site-specific installations, the opportunity arose to partner with Ecology Action to locate the project at Circle Acres, a 9.7-acre creek bed-turned-quarry-turned-landfill brownfield in Austin’s Montopolis neighborhood. From there, the idea expanded to become, in the organizers’ words, a competition focused on “new technologies, materials, and models of practice.”

FCDC was formally launched in November 2014. Its call for proposals, widely circulated online, yielded over 60 entries from four continents. An invited jury narrowed the ideas to a shortlist of 18. From there, the curators selected four projects to be realized at Circle Acres. Their choices maximized the diversity of the designers’ ideas, materials, and physical locations — both onsite and in practice — while ensuring the teams had the experience to realize their work at a difficult site on a limited budget of $5,000 per project.

In mid-November, after months of preparation, teams arrived in Austin for a busy week of
fabrication and installation. “Digitally derived” in this case also meant “labor-intensive.” The exhibit opened to the public during Big Medium’s East Austin Studio Tour, which, for the first time this year, featured artists south of the Colorado River. FCDC opened on a rainy Saturday with the curators and designers leading a tour of the exhibit.

From the entrance on Grove Boulevard “Blurred Bodies” was the first project encountered. Designed by Studio Roland Snooks of Melbourne, Australia, and assembled with students from Texas A&M and UT Austin, Blurred Bodies’ steel sheets were generated using algorithms that describe swarm patterns found in nature. Standing in a small clearing, the camouflaged cloud shimmered, despite being held together with twelve thousand rivets. The installation was nearly completed by the opening — “The problem with complexity theory is it’s complex,” mused Roland in his presentation — but it made no difference, in its mostly finished state the assembly was fascinating. The shapes
are part of Snooks’ ongoing experimentation; he is already at work on similar carbon fiber and titanium prototypes.

“Hybroot,” up next, crawled away from viewers down a nearby embankment. Part root, part robot, it was designed by Kory Bieg, principal of OTA+ and a professor at UT Austin. The installation tests the limits of a recently-acquired CNC lathe: Each branch is composed of individually milled quadrants whose fabrication took two hours apiece, meaning the completed work involved about 160 hours of tool time. Once milled, the units were glued together and painted. Originally rendered in an open field, the piece benefitted from the steeper terrain of its final location, as it rose to head height before diving back into the ground. Its color graduates from a bright green sampled from the site to an artificial yellow, with deeper recesses painted a darker blue — a chromatic success against its autumnal backdrop.

As visitors followed the path into the meadow, “99 White Balloons” began to react. Cambridge-based INVIVIA designed the responsive installation to reveal our invisible sensorial datascape: Arcs of white latex balloons with LED collars rose and fell with changes in temperature, while anchoring posts, hiding the Arduino controllers, responded to sound. This was FCDC’s only powered — and only kinetic — installation. (The power comes from small, photovoltaic cells.) Supports were placed to avoid the meadow’s landfill cap, leaving INVIVIA’s slow balloon wave to hover among the thorny Central Texas plant life. Seen at a distance, the performance was a calming ballet.

Finally, “Duck Blind in Plain Site” was a collaboration between Brooklyn’s OP.AL, led by Jonathan Scelsa, AIA, and Jennifer Birkland, ASLA; and And-Either-Or’s John Paul Rysavy, Assoc. AIA. The former acronym
stands for Optical Art, Architecture, and Landscape, and their egg-shaped installation delivered in all three disciplines. The shape reads as two skins: an inner surface of tesselated duck-shaped CNC-cut folded plastic blocks, finished in bright stickers; and a hairy exterior reminiscent of a Nick Cave sculpture, with dyed strands of Raffia grass woven into the blocks by a small army of volunteers. The pairing recalled the meadow location, sitting above the artificial landfill cap but surrounded by natural flora. Rysavy described the structure as a “cellular diaphragm,” and thankfully it was strong enough to survive the rush of kids that instantly commandeered the pod to road-test its colorful interior.

These four pieces harmonized to showcase a range of innovative fabrication techniques. Such an ecology of style was a conscious move by FCDC’s curators, for whom the competition was a design project in itself. To that end, Pentagram’s Austin office contributed graphics and branding, making for the best presentation materials to accompany any competition in recent memory. Following their lead, Igor Siddiqui designed a handsome exhibition in November 2015 to visually and spatially explain the project in UT Austin’s McJane Gallery. Renderings of the 18 shortlisted projects, along with 12 curator’s choices, were displayed on water jet-cut steel plates assembled by UT students. Each display was a conic ellipse of unique size, angle, and height, the result of a parametrically controlled model: Mass production now becomes mass customization.

With successful competition results in hand as their “proof of concept” for the venture, the curatorial team has already started to brainstorm programmatic adjustments for FCDC 2.0. What will they think of next?

Jack Murphy, Assoc. AIA, is an architectural designer at Baldridge Architects in Austin.
I became an architect to make a long-lasting impact on communities; to lift spirits, to add value to people's lives and to positively shape the way people live and use space.

Joseph Lai, AIA  Member since 2012

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AIA Dallas has honored seven projects with its 2015 Built Design Awards. This year's jury included Sharon Johnston, FAIA, founder and principal at Johnston Marklee; Colin Neufeld, principal at 5468796 Architecture; and Amin Tadj of NADAAA. The jury deliberated over more than 60 entries from Dallas architects, choosing the winners based on each design's response to its cultural, social, environmental, and contextual challenges.

Winners
1. Clearfork Campus, Fort Worth
   Cunningham Architects
2. The Richards Group, Dallas
   Perkins+Will
3. New Parkland Hospital, Dallas
   HDR + Corgan
4. House of Olympic Proportions, Port Townsend, WA
   Shipley Architects
5. CCR1 Residence, Trinidad, TX
   Wernerfield
6. Richard J. Lee Elementary School, Dallas
   Stantec
7. Saint Michael and All Angels Columbarium, Dallas
   Max Levy Architect
AIA Fort Worth held its annual Excellence in Architecture Design Awards jury on October 20th at The Modern Art Museum of Fort Worth. The jury — Randy Brown, FAIA, of RBA in Omaha, Neb.; Emily Little, FAIA, from Clayton & Little in Austin; and Bill Aylor, AIA, of Lake/Flato in San Antonio — parsed 31 projects submitted by local architects, selecting nine to receive awards. Among projects of varied size, function, and budget, three Honor Awards, four Merit Awards and two Studio Awards were presented.

### Honor Awards

1. **Ceverine School, Maissade, Haiti**
   - Thomas Stewart, AIA

2. **Amphibian Stage Productions, Fort Worth**
   - Ibañez Architecture

3. **Huynh Residence, Fort Worth**
   - Norman D. Ward Architect

### Merit Awards

4. **Hollenstein Career and Technology Center, Fort Worth**
   - VLK Architects

5. **Near South Studios, Fort Worth**
   - VLK Architects

6. **Weatherford College, Bridgeport, TX**
   - VLK Architects

7. **3850 Washburn, Fort Worth**
   - Ibañez Architecture

### Studio Awards

8. **Fallen Log**
   - konstrucjio studio

9. **Chroma**
   - Bart Shaw, AIA
Who's your architect?

As a restaurant owner we wanted to focus on our business and revenue-driving competencies. Hiring a great architect allowed us to focus on our business at its earliest stages. Collaborating with someone who knows the importance of structure and design sets you up for success.

- Kevin Fink, Chef/Owner of Emmer & Rye

A commercial architect is trained to create beautiful, functional spaces for people to enjoy. Architects address the specific needs of clients by looking at the big picture – turning project constraints into design opportunities, optimizing square footage, layout, and budget. Working with an architect will create lasting value for your business.

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Resources

Casa Lobo, Houston
Contractor Irima Projects
Consultants STRUCTURAL ENGINEER: INSIGHT Structures
Resources PREFab CABINETY: IKEA; OPENINGS: Ram Industries; TILE: La Nova Tile; PLUMBING: Zuccheti, Grohe. Cifial (Western Plumbing and Supply); LIGHT FIXTURES: FineLite, Eureka (M&M Lighting); COUNTERTOPS: NeoLith from LaNova (Installed by The Stone Store); GLASS: Lone Star Glass; ART: Light Art Interactive; LOW VOLTAGE: GT Technology; TILE MANUFACTURERS: Leonardo, Viva. Aparici; TILE INSTALLERS: Rodriguez Flooring and Cabot & Rowe

2400 Nueces, Austin
Contractor Hessell Phelps
Consultants MECHANICAL: Ideal National Mechanical Corp; PLUMBING: Telcos Corporation; ELECTRICAL: Power Design Incorporated; STRUCTURAL: Architectural Engineers Collaborative; LANDSCAPE: Design Workshop
Resources ROUGHBACK LEATHERS: Mezger Enterprises; METAL STAIRS: Miscellaneous Steel Industries; DECORATIVE METAL RAILINGS: Sterling Dula Architectural Products; WEATHER BARRIER: WR Grace; METAL SHINGLES: Dr. Kidd Co. (Lorin Industries); METAL PLATE WALL PANELS: Win-Con Enterprises; ROOFING: Dr. Kidd Co. (Firestone Building); GLAZED ALUMINUM: Kawneer (Win Con Enterprises); PORTLAND CEMENT PLASTER: BASIC (Texas Exterior Systems); TOILET & BATH ACCESSORIES: Bradley Corporation (S7S Spec 10 Sales); RESIDENTIAL CASEROW: Normal Kitchens Limited; ELECTRIC TRACTION ELEVATORS: Schindler Elevator; RESIDENTIAL PLUMBING FIXTURES: Symmons; FLUID COOLERS: Evapco; PACKAGED GENERATOR: MTU Onsite Energy; PANELBOARDS: GEXPRO

The Cottages at Hickory Crossing, Dallas
Contractor Capstone Classic Construction
Consultants ACOUSTICAL ENGINEER: DP(A) Acoustics; CIVIL ENGINEER: Radlee & Associates; ENERGY CONSULTANT: Alert Residential Inspection; LAMINATE ARCHITECTURE: Hocker Design Group; LEED CONSULTANT: Contacs; MEP ENGINEER: MEP Systems; STRUCTURAL ENGINEER: Click Engineering; ZONING AND PLANNING CONSULTANT: Permuted Development
Resources CAST-IN-PLACE CONCRETE: Holcom; UNIT MASONRY: Acme Brick; WOOD TRUSSES: Rushin Truss; WOOD SOFFITS: Georgia Pacific Wood Products; FOAMED-IN-PLACE INSULATION: Demilec; TYVEK: DuPont; METAL ROOF PANELS: Alliance Steel; RESIDENTIAL WINDOWS: AMSCO; COMMERCIAL STOREFRONT: Oldcastle Building Envelope; GYPSUM BOARD: CertainTeed Corporation; PAINT: Sherwin Williams; PLUMBING FIXTURES: American Standard; PTHP: General Electric; COMMERCIAL HVAC: Trane

Parkland Hospital, Dallas
Contractor BARA (Balfour Beatty Construction, Austin Commercial, H.J. Russell & Company and Azteca Enterprises)
HARDWARE CONSULTING: ASSA Abloy Door Security Solutions; ELECTRICAL/LOW VOLTAGE ENGINEERING: Telosisty; WATERPROOFING CONSULTANT: Conley Group; DESIGN BRIDGE TO OLD PARKLAND: Moody Nolan; VAI Architects; DESIGN OF THE PARKING GARAGE: Omnipro; COMMISSIONING: CCRD

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Poteet Architects' Poolside Pavilion

Roughly two years after Poteet Architects completed a gut renovation of a two-story, 5,000-sf, yellow brick Victorian house in San Antonio's King William historic district, the clients — a family of six — came back wanting a pool and a pool house. At first, the vision for this outbuilding was grand: a real home away from home with a kitchen, a bathroom, and a bedroom on two stories, complete with air conditioning. But there wasn't enough room on the site to accommodate it all. “The more we worked on it, the simpler it got,” says Jim Poteet, FAIA. The bathroom was moved into a remodeled portion of the main house; the shower and kitchen were placed outside; and the pavilion itself became a simple, screened, 12-by-12-by-32-ft building made out of Alaskan Yellow Cedar. It contains a wet bar, a seating area, and a raw-plaster fireplace. A bamboo hedge at the property line provides privacy while allowing the breeze to pass through. The building has the same footprint as the pool, and they are oriented at 90 degrees to one another, forming a T in plan. The structure is slightly cantilevered over the water, and an 8-by-10-ft sliding screen door gives the inside direct access to the pool: a jumping platform or just a place to sit and dangle your toes in the water. Also on the site, Poteet provided a fire pit, an 8-ft-diameter spa connected to the pool by a runnel, and an enclosed, green-roofed portion of the pavilion that houses the pool mechanicals and some bicycle storage. A Ken Little sculpture on the side of this utility room — a neon airplane — casts a blue glow at night.