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JANUARY // FEBRUARY // 2015

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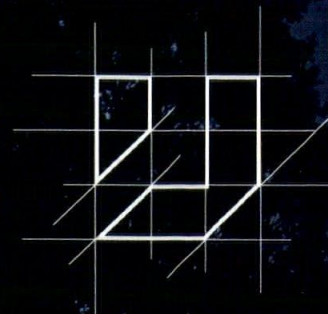
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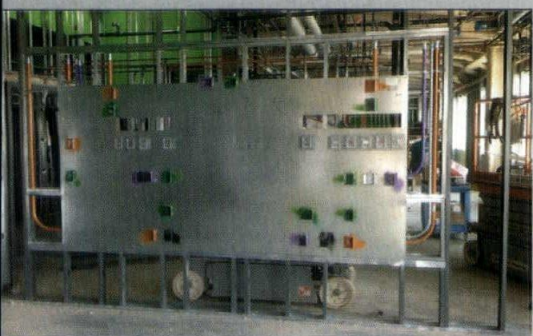
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Chicago Architect, the primary outreach tool of AIA Chicago, is published six times a year as an authoritative resource for architects, the larger design community and the public about architecture and related issues of interest to Chicago architects. The magazine communicates industry trends, the value of high-quality design and the role of AIA Chicago and its members in the world of architecture.

PHOTO BY JOHN STURDY

PRESIDENT'S LETTER

Stewardship and service.

We use these words when we talk to our clients, when we talk about our clients and when we discuss our buildings.

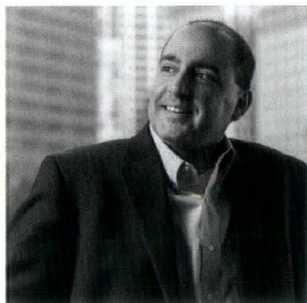
But they also describe us as a profession. They are part of our ethos.

We design buildings that will be of service to our clients for decades. We design buildings that will be good stewards to the environment.

These words also apply to the member organization we belong to and the people who lead it.

There are people who dedicate years of their life to the service of others in the stewardship of the AIA. We should be grateful for their contributions and their time. Our board, our presidents and our staff dedicate a great deal of time to our AIA Chicago.

We need to thank them and appreciate their contributions. I, for one, am grateful for the dedication of all of my predecessors and especially



the most immediate one, Scott Rappe, AIA, who handed over a healthy, thriving and improved AIA Chicago. He led us through one of the most successful

conventions in recent memory, improved our focus as a board and has left us with a financially strong organization. Please thank him next time you see him.

One of my colleagues once said they didn't understand why you would get involved in AIA. "You don't get business from other architects," he groused. "What's the point?"

My response was simply, why wouldn't you? This is an organization that provides amazing support for architects, helping individuals unlock

the value in their work.

Recently I heard a story about a couple of architect brothers named Pond, one of whom was also trained as a lawyer. The legal-eyed brother realized that architects were not as good at business as they were at design, and were easily taken advantage of. So, as a good steward, he created the first standard agreement. This contract became what we know today as the AIA Standard Contract Document.

ONE OF MY COLLEAGUES ONCE SAID THEY DIDN'T UNDERSTAND WHY YOU WOULD GET INVOLVED IN AIA. MY RESPONSE WAS SIMPLY, WHY WOULDN'T YOU?

The Pond brothers were from Chicago, and they are part of our legacy. Through their firm, Pond and Pond, the brothers created memorable architecture that still graces the campuses of University of Michigan, Purdue University and University of Kansas. Yet by creating the standard document — a tool for all to use — the brothers also left another legacy.

That is what the American Institute of Architects does: It sees a problem, finds an opportunity and addresses it.

We can all make contributions to our profession in small and large ways.

As I take on the stewardship of this organization, I ask for your assistance with three things:

- ▶ Nurturing the emerging professional;
- ▶ Engaging the public; and
- ▶ Maximizing exposure for our profession.

AIA Chicago represents the design and architecture community in our city and beyond. Add your voice to the conversation.

Anthony LoBello, AIA

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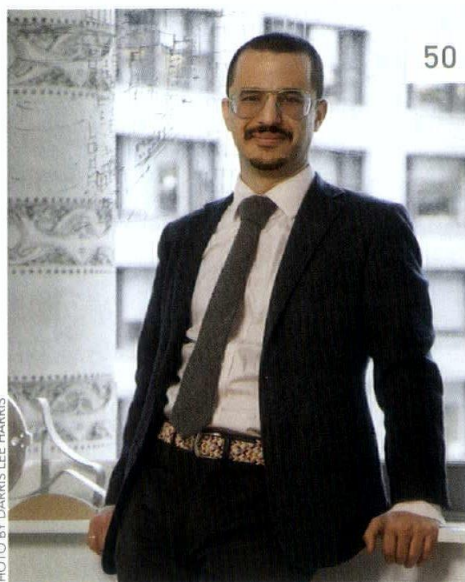
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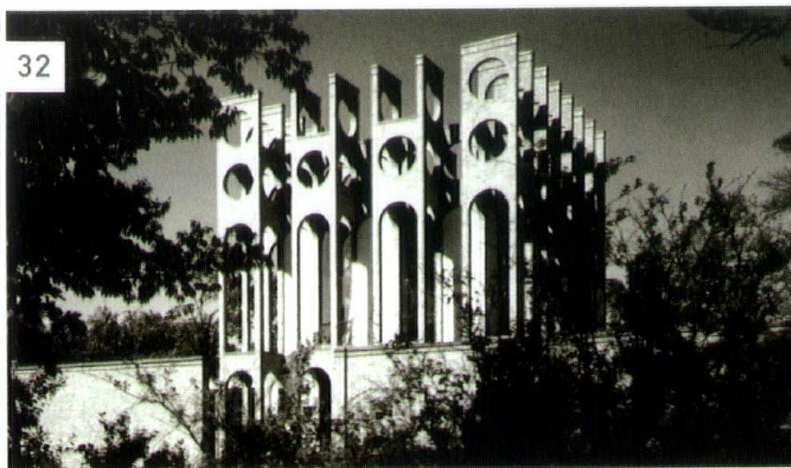


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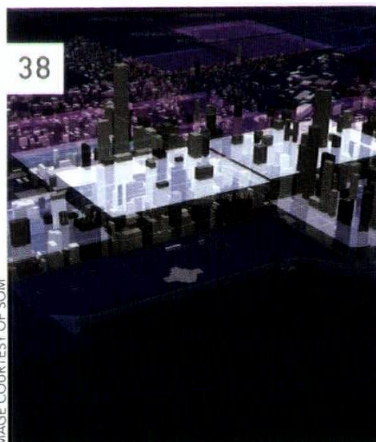


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PHOTO BY BRUCE VAN INWEGEN, VAN INWEGEN DIGITAL ARTS

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RIVERWALK TALK

Mayor Rahm Emanuel and Alderman Brendan Reilly's proposal to create a special sign district along the Chicago River Corridor



The proposed Chicago Riverfront Special Sign District would regulate the size of signage, and its aesthetic treatment, along the developing riverwalk.

MANY CITIES THROUGHOUT THE WORLD, from San Antonio to Shanghai, have transformed their waterfronts into entertainment and commerce hubs replete with flashy, iridescent lighting displays. Chicago's riverfront, currently being transformed into a recreational and commercial corridor, isn't going down that route.

In fact, if a new ordinance proposed last September by Mayor Rahm Emanuel and 42nd Ward Alderman Brendan Reilly passes the full city council, the riverfront will be neon-clutter-free guaranteed.

The proposal to create the Chicago Riverfront Special Sign District regulates the size of signage

and its distance from the ground-level for buildings along the river. "As we move to transform the Chicago River into Chicago's next great waterfront, we want to ensure that the riverfront is protected from signage that negatively impacts the visual environment," the mayor said in a statement.

These rules include signage limited to only the principal tenant of a building, with a maximum of 550 square feet for a building with a height of 500 feet or more. Signs on high-rises must be directly below the highest roof line, and only "halo-lit" lettering – back-lit letters that create a glow of light around the letters – will be allowed.

The riverfront street wall is emerging as a prime real estate location, acting as a counterweight to the Michigan Avenue street wall. "It makes sense that a building would want to proclaim its location," said Sharon Romack, President of the River North Business Association (RNBA), whose members include a majority of businesses in the River North neighborhood, including Trump International Hotel and Tower.

Romack emphasizes that, as a commerce-driven group, RNBA's members realize the importance of signage, architecture and the aesthetics of River North. "The businesses feel that [the ordinance] adds to the whole community feeling of River

North," Romack said, adding that public space is "extremely important" and often discussed during meetings.

Contrary to stories on the grapevine, the Special Sign District proposal was not conceived because of the "Trump" sign placed on the lower part of the Trump Tower.

"I was frustrated by the fact that we had a number of legacy signs approved by my predecessor that were gigantic," Reilly said. "And new businesses coming to Chicago would see the existing conditions and say 'Gosh, I want that!' and without ramping down the allowable square footage, that would've become the new norm."

Reilly and the Special Sign Task Force assigned with determining the regulations have been making substantial changes to all areas of city

code as it applied to signage over the last 18 months, including off-premise advertising, off-premise billboards and digital signage.

"The Trump controversy moved this piece of the signage packaged towards the front of the line because it was getting a lot of attention," Reilly said. "So perhaps it gave us a nudge, but all things signage were being considered by the Emanuel administration and the City Council."

For Carol Ross Barney, FAIA, whose firm Ross Barney Architects is the main architectural force in developing open, public spaces along the downtown riverfront, the ordinance creates the mechanism for signage to be "both regulated and reviewed."

Having served as chair for the Wilmette Appearance Review Commission, Barney has

worked with signage very closely. "It's hard to write a qualitative sign ordinance," Barney said, "but it's easy to write a quantitative one and work from there."

A main common thread between Barney, Romack and Reilly is that they are happy the riverfront is getting a lot of attention from the public, and excited that it will be Chicago's "next waterfront."

"These new standards give the building owners what they need, which is certainly business identification," Reilly explained. "But [the proposal] strikes the balance with not wanting to have an inordinate amount of sign clutter in an area where we have some of our most important architecture."

by Adilla Menayang

TUMBLE ON

New Chicago Park District facility on the North Side opens its doors

SITUATED ON THE CITY'S NEAR NORTH SIDE at 412 W. Chicago Ave., the recently opened Park 560 facility, which will be named Jesse White Community Center and Field House upon community approval, serves not only as a Chicago Park District facility, but also as the new home for the Jesse White Tumbling Team. The new building comprises a set of self-contained architectural volumes, assembled together into a community center meant to serve as a welcoming beacon to the area.

"The community center and field house was built through a partnership between the city of Chicago, the Jesse White Foundation and the Chicago Park District," explains Jessica Maxey-Faulkner, the park district's spokesperson. The project also led to improvements to Park 560's perimeter, "including landscaping, pathways, paving, parking areas, bike racks, benches and lighting."

Both the center and the acrobatic team it houses were named after the current Illinois secretary of state, who himself was very much



The newly opened Park 560 facility, which will be named after the Illinois Secretary of State, features a clear view into the park building's programs—including a peek into the Jesse White Tumblers' practice area—for passersby on the street.

involved with the project, according to Joseph Gonzalez, FAIA, global director of design for Ghafari Associates. Gonzalez was in charge of design for the 30,000-square-foot structure, and is familiar with the area—he had previously designed the nearby renovated CTA Brown Line station at Chicago Avenue and Franklin Street,

just a short five-minute walk down the street.

"He [Jesse White] is a very dedicated man who was very involved with his center," says Gonzalez of the building's namesake. "The second level is for the offices of the Jesse White Foundation, and it was important that there are two viewing areas that look down over the Tumblers' practice



PHOTOS BY HEDRICH BLESSING

The Jesse White Community Center & Field House is comprised of architectural volumes to accommodate a variety of spaces. The tinted glass offers privacy while allowing in abundant daylight.

area as well as the gymnasium. So when they're in the office, they're really able to get a feel for what's going on."

So far the facility has met a warm reception from community residents, says Maxey-Faulkner. Tumbling participants have also been enthusiastic, an important goal for the project team, seeing as the program serves as a positive outlet for inner-city youth. White founded the Tumblers in 1959, and he still coaches and makes appearances with the team. More than 15,000 young men and women have benefited from the Tumblers, according to Maxey-Faulkner.

Their new home features large street-facing glass windows that make any activity inside visible to the passersby out on the street. "It was very important that we draw people into the building, as the site is along Chicago Avenue. So if you're walking along from east to west and you come in at the corner, what we've set up is this ability to see through to the gymnastics room where the Tumblers practice, basically from the street," remarks Gonzalez. "That sense of transparency was a priority."

The team at Ghafari worked closely with McHugh Construction and Wolff Landscape

Architecture on the project and conceived the center as being accessible for all in the community. The building places its core elements such as toilet rooms, elevators, mechanical rooms and receiving areas in the center, and they are hidden from plain view. And while most of the volume is filled by the two main athletic spaces—the gymnasium and the tumbling practice area—the outlying program consists of classrooms, a computer lab, fitness center and other community spaces.

The educational wing was another aspect White wanted to emphasize for the new center. "This wing can almost operate independently, with its community rooms, teaching areas and the dedicated computer lab," says Gonzalez. "White wanted the community center to be looked at not only for gymnastics, but for teaching and learning as well as fitness."

From the outside, the larger volumes are denoted by their reddish brown façade color, while white metal panels complete the exterior for the more educational components. The foundation's offices on the second floor are also articulated on the building's south façade, all breaking down what would normally look like a giant monochrome block into a more engaging

and welcoming public space. "Field houses tend to typically look like big buildings, and it was very important that this feel a little bit more welcoming along the street," says Gonzalez. "You can see the larger volume of the two gymnastics areas are sort of set back, and the smaller boxes give a sort of playful quality to the composition, and we think that responds very well to the street."

It was also important to balance the need for abundant daylighting with the desire for privacy in certain spaces, Gonzalez adds, saying "we really wanted to make heavy use of light throughout the space." While the main lobby is visible to those on the street, spaces such as the fitness center and computer lab use a more translucent glass to shield activity from outside view; classrooms bring light in through clerestories.

Many efforts were made to ensure the center's building quality and particularly its sustainability. "We were very systems-oriented when it came to the building core—where it was positioned, minimizing duct distribution, and so forth," says Gonzalez. Those efforts may soon pay off, as the project is currently seeking LEED Gold certification.

by Raissa Rocha



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INNOVATING PRESERVATION

How the Fulton Market District plans to integrate past into present

THE FULTON MARKET DISTRICT, bounded roughly by Ogden Avenue and Hubbard, Halsted and Randolph streets in the West Loop neighborhood, is a hotbed of activity. Walk down the stretch of West Fulton Street, and one travels back in time to Chicago's meatpacking heyday, as loading docks bustle with workers who are spraying down sidewalks, preparing to load meat into chilled warehouses and trucks.

The area is rapidly changing though, and parts of the neighborhood have already transformed into a luxury-laden playground of industrial chic condo conversions, new businesses and sleek restaurants. Maintaining the 217-acre district's integrity while welcoming this metamorphosis from food distribution hub to recreational, residential and business center was key when the city of Chicago's Historic Preservation Division launched a detailed preservation effort last year.

After a preliminary designation of the historic district last April, in June the Commission on Chicago Landmarks accepted the recommendation of landmark status from the Department of Planning and Development (DPD). It then proceeded to request written consent from property owners in the proposed district.

"This was an area of the city that wasn't covered by a plan that guided future development and that would guide the zoning principles behind reviewing new developments," says Eleanor Gorski, AIA, director of historic preservation. "So that's what really kicked off this effort."

The guidelines proposed by the city of Chicago would not require existing property owners to conform to the preservation standards, but instead apply to new construction or redevelopment within the district. This would need to be approved by the Chicago Plan Commission and city council. New building permits that are found to be within the



PHOTO BY RAISSA ROCHA

The historic Fulton Market District is burgeoning with architecture both new and old. Pictured behind the red brick Fulton Central Market building is the new office building for Google Inc. on West Fulton Street.

landmarked area would require further review with the DPD and the preservation division, adds Peter Strazzabosco, deputy planning and development commissioner.

"We often get a question about why the actual boundaries of the area are so crazy and not regular. This was a subset of a larger study area, and we really wanted to take the best of the best that represented those themes of the historic manufacturing, food distribution and food production in the city," Strazzabosco says of the plan. "We also used National Register district guidelines, and that means you cut out a lot of buildings that don't contribute to those historic themes or have been too altered."

The structures in the landmarked district emphasize community and function over elaborate architecture, and the exteriors of buildings in the area directly reflect their original purpose, according to Gorski. "Here in Fulton, you really see the manufacturing and warehousing uses reflected in the first floor and the loading docks," she says.

Even though stylistic choices were much simpler compared to other building designs at the time, architects and owners had been very conscious of image during the time of their original construction. "They weren't just putting blank boxes, as we would see in an industrial parkway today," says Gorski.

The buildings were also meant to be adaptable. As businesses grew more prosperous, more stories were added, creating a need for sturdy and structurally sound foundations. The

historic buildings were typically built as two-story structures in a historicist style, featuring Tudor revival and Romanesque details such as brackets, corbelling and mini turrets. These details gave the buildings more prominence compared to utilitarian architectural styles.

"A curious thing about the history is that there were many fires because of the smoking of meats and manufacturing processes. Often times they weren't rebuilt, so there's a lot of flux in the types of architecture these [properties] are built in. It's unlike any other district we have," adds Gorski.

Seeking to strike a balance between historic preservation and accommodating new development, the preservation group found through a focus study that some small businesses such as tech startups weren't interested in the new glass buildings populating the rest of the city and surrounding suburbs. "They were really interested in an urban authenticity," Gorski notes, citing it as an example of the desire to remain grounded to a district's stylistic origins.

Part of the Fulton Market Innovation District plan that was adopted last July to guide the area's development, this historic preservation component seeks to maintain the neighborhood's urban authenticity. "This in itself will support the area's viability as an innovation district, by being the type of work environment that typically younger professionals prefer to work in," says Strazzabosco. He adds that a final approval from city council is expected sometime in mid-2015.

by Mary Ellen Shoup and Raissa Rocha



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AIA Chicago Honors Professional Excellence Awards at Annual Holiday Party

This past December, AIA Chicago joined forces with the Society of Marketing Professional Services (SMPS) for a joint holiday party at Studio Paris in Chicago's River North. AIA Chicago capped off an astounding year with a celebration of the 2014 Professional Excellence Awards winners.

WTTW television personality Geoffrey Baer was the recipient of the Distinguished Service Award; Place Lab's Nootan Bharani, AIA, took home the Dubin Family Young Architect Award; and Landon Bone Baker Architects was honored as the Firm of the Year.



READ MORE ABOUT ALL THE PROFESSIONAL EXCELLENCE AWARDS WINNERS AT AIACHICAGO.ORG/NEWS.



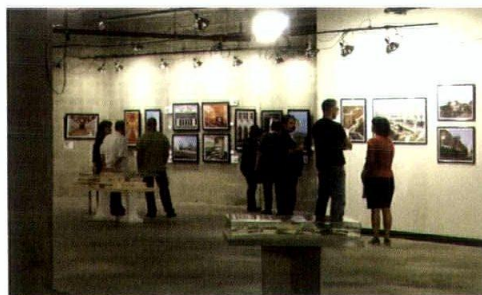
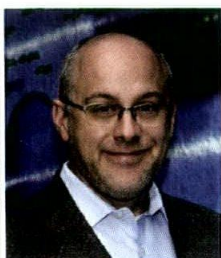
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The inaugural **Chicago Architecture Biennial** for 2015 now has an official theme: "The State of the Art of Architecture," taking its name from a 1977 conference organized by **Stanley Tigerman, FAIA**. The first commissioned project for the biennial, a photo essay on the city of Chicago by world-renowned photographer Iwan Baan, was also announced, and will survey the city's architecture and examine the narrative of its built form.

AltusWorks

promoted Kenneth R. Allen, LEED AP BD+C, from project architect to architect/associate. He will continue to lead the firm's education practice and develop projects focused on facility analysis, planning and management, expansion, and renovation.



Legat Architects recently celebrated its 50th anniversary with a special exhibit, "The Art of Architecture," that showcased the portfolio and talents of founder **Joseph Legat, AIA**. The exhibit took place in Legat's hometown of Waukegan and displayed an array of works, from a sketch of the firm's first school to a watercolor painting of Waukegan's city hall.

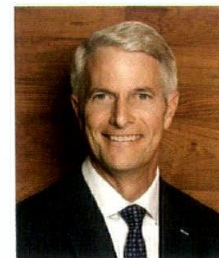
Perkins+Will was named winner of Best Architecture Firm – Large in the inaugural Best in Building Awards. Established by the U.S. Green Building Council, the awards honor the year's best products, projects, organizations and individuals that impact green building.

Pappageorge Haymes Partners is partnering with Fifield Companies on a new residential tower in River North. The 305-unit concrete and glass tower at 347 W. Chestnut will feature a sleek, curved façade, and provide residents with private balconies and green terraces for a variety of outdoor living options.



HOK welcomed two new leaders to its team:

- ▶ **Gerry Guerrero, AIA**, (left) joined the firm as senior vice president and co-director of the global justice practice. Prior to HOK he was at Carter Goble Lee, and also served as principal at Dewberry for 25 years.
- ▶ **Dan Sullivan, AIA**, (right) joined the Chicago practice as senior vice president and marketing principal. Most recently he was an associate principal at RSP Architects.



Eric Davis, AIA, has been appointed to serve a five-year term as a commissioner of the Cook County Zoning Board of Appeals. He is currently president of Public Design Architects.



COMMERCIAL
SOLUTIONS

TWO
INDUSTRY
LEADERS.

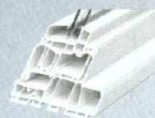
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ALUMINUM



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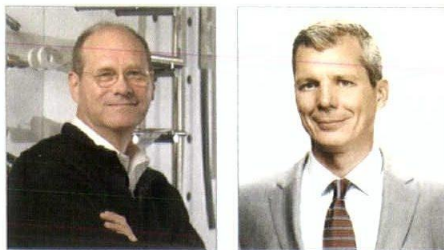
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Skidmore, Owings & Merrill announced that structural engineering partner **William F. Baker** (left) has been elected to the Royal Academy of Engineering.

In addition, **Peter Kindel, AIA**, (right) from the firm's Chicago office, was named one of four new directors across the firm.

The future headquarters of UI Labs and the new Digital Manufacturing and Design Innovation Institute (DMDII), designed by **SOM**, has broken ground at 1333 Hickory Avenue on Goose Island. Slated to open this year, the facility includes a manufacturing floor for demonstrations, classrooms, a lecture hall and collaborative meeting rooms.

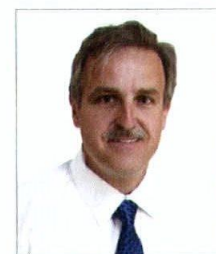
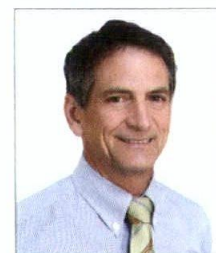


Wight & Company announced the promotions of three architects:

- ▶ **Michael Lubbers, AIA**, (top) LEED AP, was named vice president and will continue as creative director for the firm.
- ▶ **Andrew Joseph**, (center) LEED AP, and **Craig Siepka, AIA**, (bottom) LEED AP, were both promoted to vice president/design principal.



The new **Studio Gang Architects**-designed Theatre Center broke ground in Glencoe last fall. The 36,000-square-foot project is located on the site of the former Woman's Library Club of Glencoe. Contractor W.E. O'Neil is also involved in the project, which is slated for LEED Gold certification.



The Illinois Veterans' Home project, designed by **Harley Ellis Devereaux**, is a five-story long-term care facility slated to house 200 veteran residents at the southwest corner of N. Oak Park Avenue and W. Forest Preserve Drive at the edge of city limits. With a target of LEED Silver, the facility is scheduled for completion in fall 2016.



RENDERING BY MAD ARCHITECTS

The upcoming Lucas Museum of Narrative Art, planned along the lakefront on a site currently occupied by a Soldier Field parking lot, released its first set of renderings. Beijing-based firm MAD Architects is behind the design of the project; **Studio Gang Architects** will design the landscape and create a bridge to connect the museum to neighboring Northerly Island.

Design Workshop, an international landscape architecture and urban planning firm, announced the opening of its Chicago office. Director Jon Brooke, previously a principal at Hoerr Schaudt, and associate Sara Egan are heading the new Midwestern location.

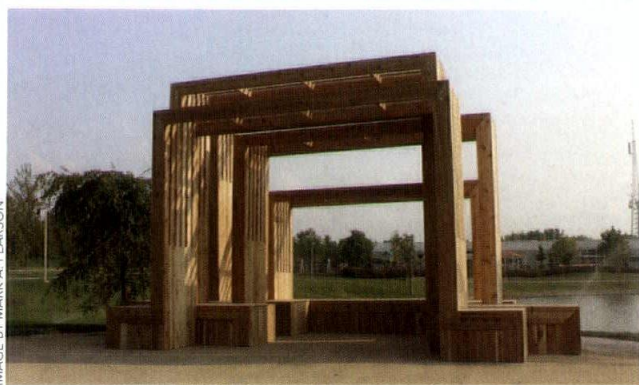


IMAGE BY MARK A. PEARSON

A new design/build program at College of DuPage (COD) is allowing students to apply principles learned in the classroom to real-life construction. The first project, a summer gathering space and pavilion on the college's main campus in Glen Ellyn, was a site-responsive solution meant to foster social interaction in a temporary outdoor structure. Plans are now under way to secure funding for a second Design + Build Studio for summer 2015; the new annual project is guided by **Mark A. Pearson, AIA**, LEED AP, associate professor of architecture at COD.

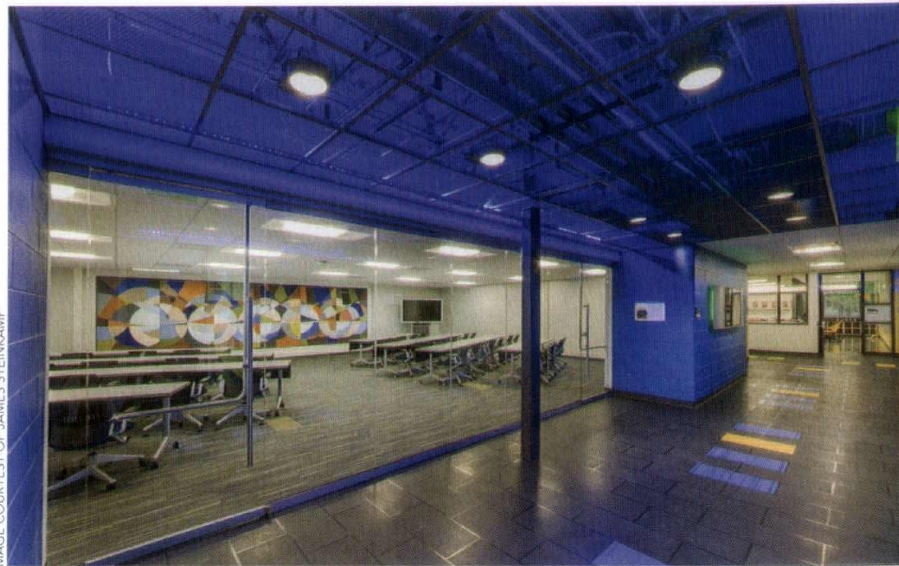


IMAGE COURTESY OF JAMES STEINKAMP

The **Cordogan Clark & Associates**-designed John C. Dunham STEM Partnership School opened its doors at Aurora University in fall 2014. The learning facility serves students in third through eighth grade from four regional public school districts, and is the result of a unique collaboration between the participating districts and Aurora University that is designed to emphasize STEM education.

In other firm news, **Adana M. Johns, AIA**, LEED AP BD+C, has joined Cordogan Clark & Associates as senior managing architect. She was previously associate project architect for AECOM.



The 2014 **Neighborhood Studio** of the graduate architecture program at the Illinois Institute of Technology exhibited "Making Culture: Prototype for an Urban Gathering Space" at the Connect Sofa Chicago 2014 Expo. The group's installation re-imagined the Packard Automotive Plant in Detroit by "exploring the architect's role in the making of a neighborhood."



Richard Wilson, Assoc. AIA, has joined Adrian Smith + Gordon Gill Architecture as director of urban design. He previously was design director at Gensler's Washington, D.C., office.

SPOTS DESIGNED TO 'PARK' PEOPLE, NOT CARS, OUTSIDE LOCAL BUSINESSES

Metropolitan Planning Council aims to quantify economic potential of converting parking spots to 'people spots'

BY CHRISSY MANCINI NICHOLS AND KARA RIGGIO



PHOTO BY STUDIO THOMAS

dSpace Studio's "The Wave," the city of Chicago's People Spot on Southport Avenue, showcases the design opportunities for architects—and increased economic potential for neighborhood merchants—by creating gathering spaces out of parking spots. "The Wave" was honored with an AIA Chicago Small Projects Award.

People Spots, a City of Chicago initiative, repurposes existing on-street parking spaces into seasonal parklets designed to "park" people instead of cars. At the Metropolitan Planning Council (MPC), we've been promoting these types of placemaking tools in metropolitan Chicago since 2008, and we know they have a lasting positive effect on neighborhoods. To measure that impact, this summer we recorded activity at all nine People Spots on an average day, from 9 a.m. to 7 p.m., and interviewed nearly 40 nearby business owners and more than 100 People Spot users. Our research found that not only have these People Spots added well-

designed, safe, comfortable places for people to rest and gather in busy urban shopping districts, but they also generate increased foot traffic and sales for local businesses, and inspire community leaders to do more.

Each People Spot is outfitted with seating and planters, which provide a barrier to the street, and all Spots are wheelchair accessible. Local businesses pay for and maintain each of the nine People Spots across the city—and the investment pays off. Some 80 percent of business owners we interviewed said they've experienced increased foot traffic as a result of the Spots. We counted about 450 people per

day using the spots—not a bad tradeoff for 16 parking spaces! Some business owners reported up to a 20 percent increase in sales. A whopping 93 percent said the feeling of the street is more positive since the People Spot opened.

Their comments were equally telling. They said, "It makes people comfortable," "Gives a better sense of community," "Gives us a better image," "It's attractive," "Makes the street look cleaner" and that "No question it has enhanced the pedestrian experience."

When asked if the People Spot drove businesses to invest more, Heather Way Kitzes, executive director of the Lakeview Chamber of

Commerce, found that building two People Spots (Lincoln Avenue and the AIA Chicago Small Project Awards-winning "The Wave" on Southport Avenue) had even broader impact.

"They prompted us to look and reevaluate all that we were doing ... to up our game in other places," says Kitzes. Business owners take pride in the Spots. Francisco Fourcade, owner of Osteria Pizza Metro, finds it valuable to keep the People Spot directly in front of his business "looking sharp and clean." Michael Salvatore, owner of Heritage Bicycles, which faces the People Spot on Lincoln Avenue, soon realized people "would look directly at my storefront, so I invested in subway tiles on the front of the store so it would look nice." Salvatore calls the Spot "Instagram Heaven" which also helps to promote his business on social media.

While maintaining a People Spot requires some effort, Francis Lee, owner of De Rice in Bronzeville, found that the time he put into the People Spot was certainly worth it because

"people do pay more attention" to his restaurant and they "feel safer and more comfortable with the Spot being there."

Many business owners found the People Spots encouraged pedestrians to slow down and take a fresh look at the shopping and dining opportunities in their neighborhoods. Maria Rodriguez, owner of El Nuevo Mexicano in Lakeview, said, "The People Spot has called more attention to our restaurant. The bright colors, the artwork and plantings have made Clark Street a lot cozier in front of my restaurant." Dane Redaway, manager of the Akira clothing store in Andersonville, finds the Spot outside his store to be "like a town square" that's better for business because "people sit and stare at the storefront windows."

Maureen Martino, executive director of Lakeview East Chamber of Commerce, saw the potential to use the Spots to activate a stretch of Clark Street that needed a boost in foot traffic. Not only is a People Spot perceived as a way to

increase pedestrian traffic, but many respondents said it helps make the street feel safer because it extends the sidewalk.

Thoughtful design of each of Chicago's nine People Spots has created what many survey participants called an "urban oasis" within the bustle of street activity. The challenge in the design is to convert a parking space into a park that is safe, aesthetically pleasing, removable for the winter and affordable for the business district. That's no small feat, but neighborhoods across the city have demonstrated that it is a worthwhile endeavor that has brought more people—who are spending more money—into the neighborhood businesses.

The study results demonstrate the power of returning a small amount of street space to people. **CA**



FOR A VIDEO ABOUT THE PEOPLE SPOTS and more information on MPC's research and results, visit METROPLANNING.ORG/PEOPLESPTS.

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HEARTLAND HOUSING'S APPROACH TO DESIGN

How to produce impactful development through collaborative process

BY HUME AN

My first project as an affordable housing developer was a \$33 million moderate rehab of a 197-unit senior building. Nearly 10 years and several hundred million dollars worth of development later, the project remains the most challenging one I've done to date.

Part of what made it so difficult was dealing with the complicated multilayered funding structure. Another part was the challenge of closing a tax-exempt bond deal in one of the worst bond markets in recent history. But overall the biggest challenge was contending with an unsatisfactory design development process in which I felt out of step with my architect and general contractor, and in which the expectation was that my job as developer was to passively accept what the design team gave me and incorporate it into my budget. Paired with this attitude was the presumption that because the project was a moderate rehab, it would be straightforward, and a "canned" approach used on previous developments would be good enough.

Not only was the design the most difficult aspect of the project, it also had the longest lasting negative effects. By the time we closed on financing, we had solved the complicated financing structure and sold the bonds. Unfortunately, for several years after construction was completed, we dealt with some of the negative consequences of our design process, such as leaky plumbing, a faulty air conditioning system, and carpeting in units that was quickly destroyed and required replacement after only a few years. Fortunately, most of these issues have



Harvest Commons, a joint project by Heartland Housing and Landon Bone Baker Architects, transformed the vacant Viceroy Hotel into an 89-unit affordable housing development model.

since been corrected, but only at great expenditures of time, hassle and money. At the end of the day, I felt as if the project had taken its toll on me and many of the other staff at Heartland Housing, and we vowed that we would never let that happen again.

Consequently, after that project, Heartland decided to pursue an integrated design process. The integrated design process is one in which professional silos are removed, and all the key stakeholders communicate and collaborate throughout design development. This is attractive because it empowers everyone impacted by the building and encourages all parties—from the developer to property management to the service provider—to be engaged in the design process and provide valuable feedback from multiple key perspectives.

To date, we've applied this process on five developments, and doing so has allowed us to

successfully develop complicated and multifaceted projects that incorporate green design, historic preservation, urban agriculture, small scale animal husbandry, cooking/nutrition, social enterprise, community art and most importantly, high quality housing for vulnerable populations, many of whom have a history of chronic homelessness, substance abuse issues and/or mental illness.

Incorporating so many disparate elements has proven to be exciting and incredibly challenging, especially given that these facets are often in tension with one another. For example, on a granular level, selecting a highly energy-efficient window that also meets federal historic standards is a significant challenge.

The integrated design process was absolutely essential to making these projects work because it enabled the key players to get on the same page, collectively set high goals early on, and map out and execute a coordinated game plan. The

THE PRACTICE

Town Hall Apartments, Chicago's first LGBTQ-friendly, affordable senior housing facility, was designed by Michael Hanley, AIA, of Gensler and is one of Heartland Housing's newest developments.

be applied to future design.

Finally, we are working to come up with a more formalized set of questions or design considerations to help ensure we've comprehensively thought about and addressed all of the key issues impacting design, construction and operations. While doing so represents some extra thought and maybe extra work (it's arguable that more upfront work leads to less work overall) we believe including the architects, designers and contractors as integral partners in the entire build-out process is well worth the avoided headaches, the happier residents and the better developments that result. **CA**

//////////
Hume An is the director of real estate development for Heartland Housing.

results, notwithstanding a few minor issues here and there, have been fantastic. Heartland simply has better developments than it did before. They're better for our residents, better for the environment, better for the surrounding community and better for the bottom line.

Moreover, because of the success of our recent projects, Heartland Housing has garnered numerous design and development awards and has received business in several new markets.

As Heartland looks to the future, we continually strive to improve our approach to development. Recently we've begun conducting focus groups with prospective residents to get a better idea of their specific needs and to seek their feedback. We are also looking to "embed" development staff inside of our existing buildings for several weeks at a time so they can observe firsthand what does and doesn't work, and then translate these observations into lessons learned that can



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THE PREMIER GUIDEBOOK TO CHICAGO ARCHITECTURE, NOW IN ITS THIRD EDITION

AIA Guide to CHICAGO

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THIRD EDITION

American Institute of Architects Chicago

Edited by Alice Sinkevitch and Laurie McGovern Petersen

Preface by Geoffrey Baer; Introduction by Perry Duis

The third edition of the *AIA Guide to Chicago* brings readers up to date on ten years of dynamic changes with new entries on showcases like the Aqua building, Trump Tower, and Millennium Park, as well as on smaller projects.

Praise for an earlier edition of the *AIA Guide to Chicago*:

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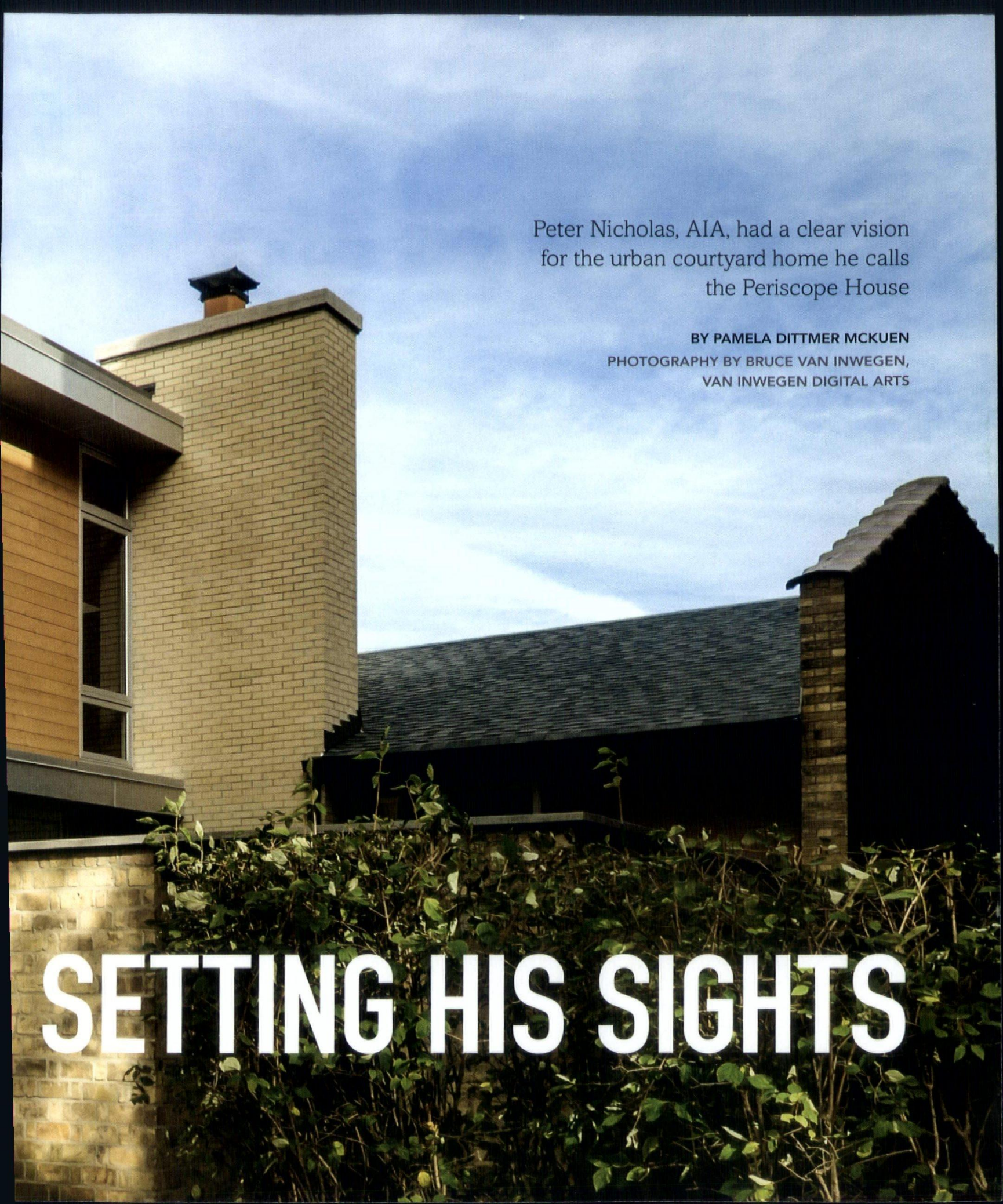
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Edited by Alice Sinkevitch / Laurie McGovern Petersen



The new glass-fronted master bedroom suite projects above and beyond the garden wall to resemble a periscope.

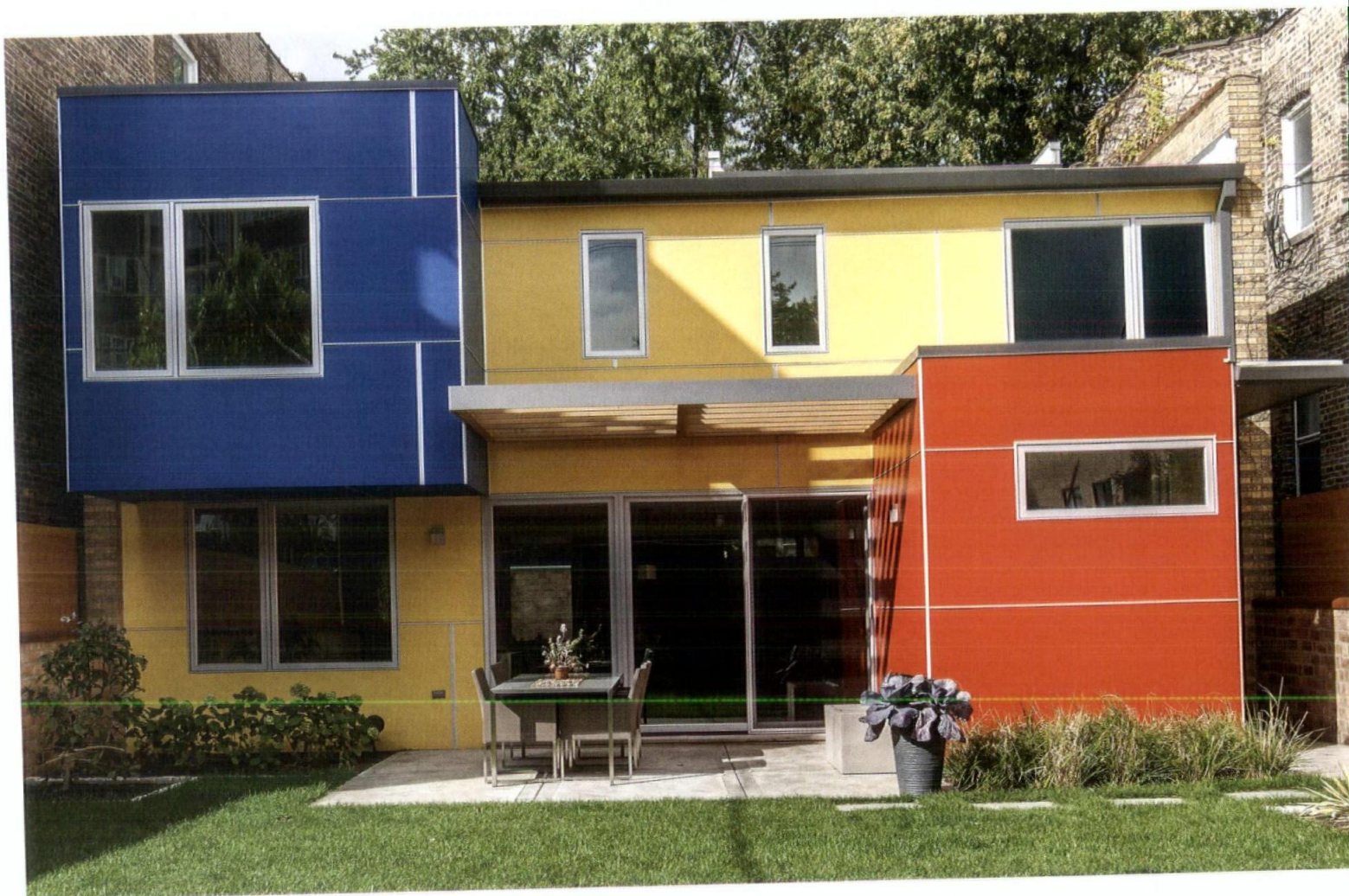


Peter Nicholas, AIA, had a clear vision
for the urban courtyard home he calls
the Periscope House

BY PAMELA DITTMER MCKUEN

PHOTOGRAPHY BY BRUCE VAN INWEGEN,
VAN INWEGEN DIGITAL ARTS

SETTING HIS SIGHTS



Conventional wisdom holds that if an architect were to design and build a home, the sensible approach is to secure a client first.

But that's not the direction Peter Nicholas, AIA, took with his Periscope House renovation in the Edgewater Glen neighborhood. The architect and developer held fast to his modernist vision for the previously little two-story on Magnolia Street and, despite numerous offers, refused to sell it to anyone who wanted something else.

"There were lessons that came out of doing this," says Nicholas, founder and president at Nicholas Design Collaborative. "No. 1 is do what you love."

It all started one day in late 2012 when Nicholas got a phone call from his friend and former college classmate, Michael Silver, who wanted to show him a piece of property. Silver, also an architect and developer, had bought it inexpensively and thought he might tear it down and start anew.

The 1,200-square-foot brick home was of 1970s

vintage and surrounded by a brick garden wall on a 37-foot by 125-foot lot. It had two bedrooms, two baths and a one-car detached garage. The interior was in shambles and poorly laid out.

"It was an odd building I couldn't visualize new life for," says Silver, president of In/Sight Architecture. "It had no basement, no side yards and a big wall in front. It made no sense to me."

But it made sense to Nicholas, who in turn bought it from Silver.

"Something I'd always dreamed about doing was a courtyard house in an urban setting, a little oasis within the hustle and bustle," says Nicholas. "This looked like the opportunity to me."

Serving as developer, architect, general contractor and interior designer, Nicholas drew up his plans and applied for a permit. The complete renovation transformed the potential teardown into a highly efficient, four-bedroom, three-bath home with private front and rear courtyards. A series of boxy additions creating sculptural elements more than doubled the size to 2,500

ABOVE The rear facade and two new additions, clad in primary colors, are playfully reminiscent of Lego building blocks. **OPPOSITE** Defined spaces within an open floor plan optimize function, movement and personal interaction.

square feet. Most notable is the second-story master bedroom addition that extends over and beyond the plane of the existing front garden wall. This projection reminded Nicholas of a periscope—hence the name, Periscope House.

"The front garden wall sits farther back from what is allowed, so we were able to project the building over the wall and still meet the requirements of the setbacks," he says.

Below the glass-fronted periscope, which is paneled in cedar and aluminum, is a spacious family room that frames the entry courtyard with oversized sliding glass doors, allowing interior and exterior spaces to connect. The existing flat rear façade was activated by two projecting additions. One contains the mudroom, bathroom and utility functions on the first floor, and the other expands an undersized second-floor bedroom. These volumes are clad in cement board panel, with each volume being a different primary color. The dining room is oriented toward the rear courtyard beyond a sliding glass door.

"I designed with the site in mind, doing what I

thought was most appropriate and interesting to me, not necessarily for any particular market," he says. "I really didn't care what anyone else thought."

"I applaud him," says Silver. "I never would have thought of that."

As the closing date approached and the permit was almost in hand, Nicholas realized he could afford the property but not the renovation. He needed to find a client who would allow him to proceed as planned. And he needed to find that client quickly.

Nicholas first commissioned a set of 18 life-like renderings that captured how the finished house would look. Then he took to the Internet. He built a now-defunct website to showcase the project and illustrated it with the renderings. He also contacted the online real estate magazine *Curbed Chicago*, which ran a story about the Periscope House under its "Extreme Makeovers" banner.

The first day after the story ran, the website got 500 hits. The second day it got another 500. People were interested. Nicholas' real estate broker, Earl Ruthman at Century 21 Affiliated in Lincolnwood,

"SOMETHING I'D ALWAYS
DREAMED ABOUT DOING
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NICHOLAS. "THIS LOOKED
LIKE THE OPPORTUNITY
TO ME."



suggested putting the house on the "Multiple Listing Service" to see what might happen.

"I could have sold it to 50 people, but I turned them down," says Nicholas. "They'd say, 'I really love the look of your project. I love the neighborhood. I have four kids, I need more bedrooms.' I couldn't do it. I had the thing designed, and it was about to be permitted. If I change it, that process starts over, and it's six months before I can do it. Frankly, what I've got here is what I think it should be."

"It was amazing," says Ruthman. "We basically sold it from a plan he had online. We had many offers, and no one was negotiating price. I wish I had 20 of those houses to sell."

Fortuitously, the right buyers turned up. They were excited about Nicholas' vision, and the few changes they made were upgrades. The build-out began in October 2013. Sustainability being one of the hallmarks of Nicholas' work, he salvaged the building envelope, floor and roof structure, as well as the garden walls.

"The most significant green feature of this house is the fact that the existing structure is saved, avoiding tons of additional construction waste being added to a landfill, not to mention the waste of energy and materials dedicated to duplicate building elements that already exist," says Nicholas.

The home's energy-saving features include spray foam insulation and double-paned insulated windows. Radiant heating coils embedded in a

stained and polished concrete first floor are fueled by a high-efficiency boiler that also provides heat for domestic hot water and for the forced system heating on the second floor.

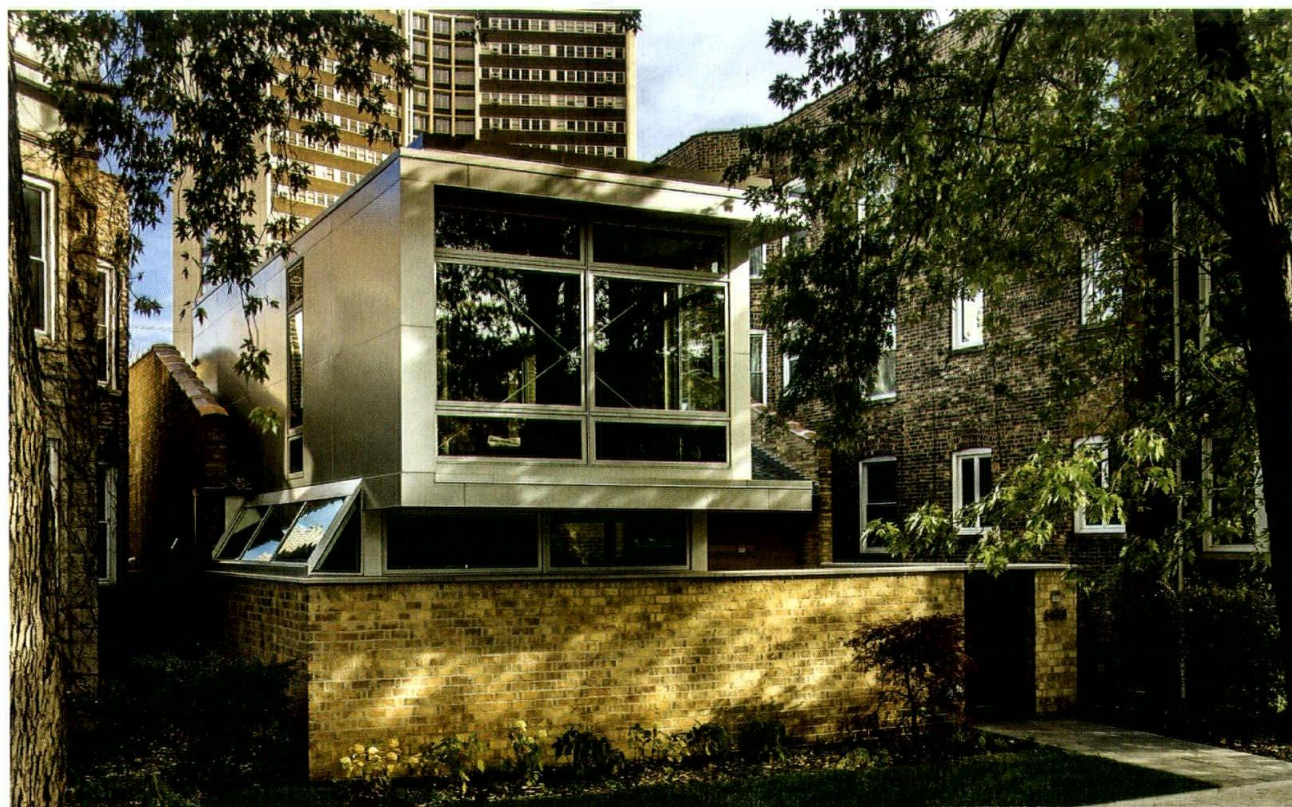
On the interior, Nicholas employed consistency to limit the power of materials and create unbroken lines. For example, throughout the first level, the cabinetry and paneling are the same rift-sawn white oak stained a light gray, while the polished concrete floor throughout is stained a warm gray. Achieving uniform color is not without its challenges, says John Fricano, president at Fricano Custom Cabinetry. His company supplied and installed the cabinetry and wall paneling.

Fricano explains: "Rift-sawn white oak has some color variations, even when they are from the same sequence. You're dealing with a natural product, so from where the sequence starts to the end, there might be a slight color variation. It's not dramatic, but seeing how the Periscope House has so many windows, any slight change in color will be picked up. When you have multiple sheets together, they have to be 100 percent the same color. It took some extra time to adjust the strength of the stain to make sure everything was uniform."

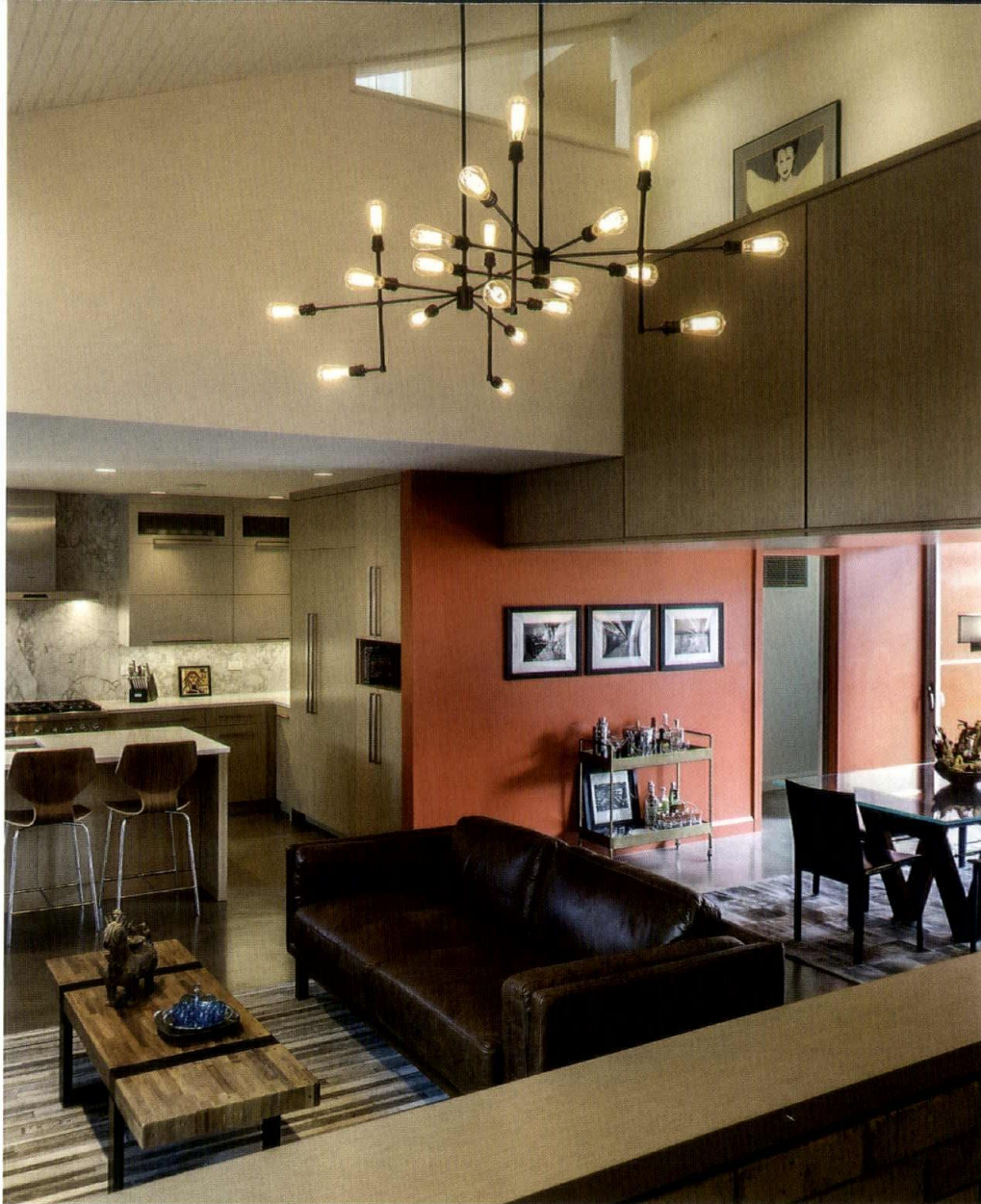
Tony Vera, president of VeraFloor Systems, was also challenged to sustain consistent hue. His assignment was to match the color and texture of two concrete adjacent floor slabs that had been poured several months apart. The solution was to do an initial light grind of the slabs to create a

"WE BASICALLY SOLD IT FROM A PLAN HE HAD ONLINE. WE HAD MANY OFFERS, AND NO ONE WAS NEGOTIATING PRICE. I WISH I HAD 20 OF THOSE HOUSES TO SELL."

—EARL RUTHMAN



Beyond the brick garden walls lies a hidden treasure of serene outdoor living spaces and a three-car garage.



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 PETER NICHOLAS,
 NICHOLAS DESIGN
 GROUP
 RENDERINGS //
 JACOB WAHLER,
 CHICAGO
 STRUCTURAL //
 HUTTER TRANKINA
 ENGINEERING; WAYNE
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 CARSON MADDOX
 STUDIOS, CHICAGO

Flooring and millwork subcontractors were challenged to maintain consistency of hue in the polished concrete floors, cabinetry and paneling.

uniform profile and a bondable surface. Then a micro-top overlay was applied to connect the slabs before the staining and polishing steps.

The only structure Nicholas demolished was the detached one-car garage. To overcome the lack of a basement, he built a three-car garage 15 feet tall; a storage mezzanine could be added at a later time. A glass-and-aluminum door, 16 feet wide, faces the house, allowing the garage to become a multi-use recreation room and to provide useful space for entertaining during the fair weather months. The garage completes the enclosure of the back courtyard and ensures visual and sound privacy.

Although the severe winter last year delayed completion of the home by three or four months, the project wrapped up by late summer, and the new owners moved in.

"I like doing new houses, but this one is very

interesting in what we were able to do with the existing structure and the dialog between the old and the new," says Nicholas. "You wouldn't guess it's an old house, but if you look closer, there are elements of the original, polished up and redone."

The second lesson Nicholas says he learned from the experience: There is a segment of the market that can afford to build a new house or undergo an extensive renovation, but prefers not to go through the process with an architect because of the time and expense. However, they still wish to have input.

"If I put something out there of quality and the design level of a custom house, I'm doing 95 percent of it," he says. "Someone chooses it because they love what they see, and they have the opportunity to be involved in the building and selection of finishes. It saves me a lot of time, and it saves them a lot of time. For me, it's a great model going forward." **CA**

MAKING HISTORY MODERN

The lasting work and influence of Ike Colburn



BY JAY PRIDMORE
PHOTOS COURTESY OF THE COLBURN
FAMILY COLLECTION

Around 1963, mid-century modernist I. W. (Ike) Colburn found the perfect site and perfect client for what would be the most striking work of his short but prolific career. The site was on the edge of an O. C. Simonds-designed park overlooking Lake Michigan in Lake Forest. The client was himself. Here he could apply his ideas about the “emotional dimension” of modernism, as he put it.

Colburn produced a deceptively simple house. Mostly one story, it was rigorously symmetrical with a perimeter of brick walls and gardens, which separated the largely glass envelope from the street. Its unforgettable centerpiece, not simple, was a forest of brick buttresses on all four sides of a second-floor living room. Because the buttresses (or “towers,” as they were also called) were pierced with elongated arches and oculi, the Colburn Residence became known locally as the “Swiss cheese house.”

But this was hardly the end of the story, nor even the beginning. In fact, the project ignited controversy as soon as Colburn presented plans for approval by the town council. Lake Forest residents were shocked by a style they could hardly comprehend. A neighbor deplored it, in a letter to the local Lake Forester newspaper, as a “faux Taj Mahal.” The town council rejected the first scheme, but gave in to the second to avoid the litigation that Colburn seemed sure to press.

The Colburn House, completed in 1965, became famous. Carl Condit toured it. Ezra Stoller photographed it. Among a flurry of press coverage, *House and Garden* magazine featured it with the headline, “An Architect Finds His Dream Client,” and Colburn used it as a showpiece to convince other clients—the duPonts of Delaware, the Armours of Lake Forest, for example—to have the architect design modern houses for them.



The I. W. Colburn residence in Lake Forest created a stir for its seemingly outlandish profile, despite the rigorous symmetry of its plan. The decorative buttresses were taken down in 1973, the rest of the house razed in 2005. Today it is widely mourned as a lost classic of mid-century modernism.





But then, 10 years later, news was that the Colburns were to move and the towers would come down. It was said that after his trouble with the town, then the approbation, Colburn preferred not to leave the most dramatic gesture of his career to someone else. The local newspaper wondered if Lake Forest couldn't pass a law to prevent the destruction.

The buttresses did come down, though it was not only out of spite. There were indications that the masonry was failing, due in part to Colburn's preference for Chicago common brick, which has interesting colorization but is also porous. The slender sculptural structures were submitting to the harsh local winters.

Memories of Ike Colburn's house—later torn down and replaced by a faux manor house—are vivid and almost unanimously positive. At least three Colburn buildings of similar design have had similar structural problems and were restored by loving owners. Today, images of the Colburn House, plus scores of his other buildings that remain, are testaments to his supreme skill as a designer. Many current architects have said that his work—modernism infused with notes of history—was an inspiration for them.

I. W. Colburn was born in Boston in 1924, graduated from high school in Wellesley, Mass., and summered with his family on Boston's North Shore, an area of fishing villages and towns like Salem, which is a veritable museum of early American houses. He determined



TOP The duPont residence in Rockland, Del., sited asymmetrically near the Brandywine River.

BOTTOM The Gregory residence in Wayzata, Minn., expressed as well as any of Colburn's houses the architect's expression of "grace, glory and aspirations" in modern residential architecture.



RECOLLECTIONS ARE
THAT COLBURN'S
ARCHES, A BOW TO
HISTORICAL
ARCHITECTURE,
OFFENDED STRICT
MODERNISTS. IN FACT,
HIS ARCHES AND HIS
SYMMETRY PRESAGED
THE "NEW
FORMALISM" WHICH
WOULD LATER MARK
THE MODERN
MOVEMENT AT PLACES
LIKE LINCOLN CENTER
IN NEW YORK.

early that he would study architecture and went to Yale, dismissing Harvard, because he did not want the "Breuer line," as he called the Bauhaus influence in Cambridge.

Colburn's studies were interrupted by World War II and his being wounded in the Battle of the Bulge. He spent part of his recovery in Paris, where he was dazzled by its 19th century architecture. Then, back at Yale, he studied in a studio overseen by Chicago's Paul Schweikher, a "visiting critic." As a distinguished senior, Colburn was invited to join the firm of Schweikher and Elting at their office outside Chicago, which he did in 1951.

The International style was the order of the day at the time, though Schweikher had been experimenting with different approaches, including the Japanese influence, which appealed to Colburn. Shortly after 1954, when Colburn went out on his own, he got several good residential commissions in Lake Forest and designed them in a distinctly Japanese manner. The open plans and light (even movable) walls became important features of his work even

In Lake Forest, the McLennan House is wrapped around a light-filled atrium.

when he shifted to his favorite material, brick, and when his houses became large and stately.

Colburn stayed busy, in part because he thrived on Lake Forest's active social circuit. Around 1960 came his breakout project, the McLennan House on Lake Michigan in the suburbs. It was essentially a glass cube with an atrium inside, all enclosed by a two-story brick arcade. With the precise geometry of Mies, plus the arches of an Italian villa, it got AIA recognition and then a prominent spread in *Life* magazine, headlined "The Romantic Swing in Architecture."

Recollections are that Colburn's arches, a bow to historical architecture, offended strict modernists. In fact, his arches and his symmetry presaged the "new formalism" which would later mark the modern movement at places like Lincoln Center in New York. In any

case, the McLennan House opened the doors for Colburn to use history for the “emotional” response that he sought. In the Runnells House, also in Lake Forest, he used something resembling a three-gable barn (in this case of brick, large glass openings and a “Florida room”). In the Gregory House in Wayzata, Minn., the profile resembles a hilltop castle in Tuscany.

Colburn understood the underlying design of past styles to apply them abstractly. His former clients still remember Colburn talking about Palladio and the “golden mean” as he largely created spaces for living (and entertaining) that could be both intimate and spacious. When he broke free of the strict symmetry around 1968 that marked his early major works, “he kept talking about the ‘20-foot module,’” said Elise duPont. For Mrs. duPont and her husband, the former Delaware governor Pierre duPont, Colburn built a sprawling mostly-one-story house on a ridge overlooking the Brandywine River outside of Wilmington. It is asymmetrical but ordered by the module and also by a sense of geometry that Colburn’s wife, Frannie, attributes to “his extraordinary visual memory.”

In 20 years at his Chicago office, Colburn produced nearly 100 works, mostly houses, three churches (including St. Anastasia in Waukegan), a synagogue (Temple Jeremiah in Northfield) and a handful of academic buildings (at the University of Chicago and Bryn Mawr College). In 1973 he moved to Manchester, Mass., to live in a shingle-style cottage overlooking the Atlantic Ocean. In Manchester he stayed busy, rehabilitating the town’s neglected inner harbor, and purchasing and restoring many buildings nearing 200 years of age. He also rehabbed stately houses of neighbors, at least one by Peabody and Stearns. His New England work proved that he had a deft touch with traditional architecture as well.

But to the end—he died in 1992 at the age of 67—he retained the



modernist sense. The restoration work made it increasingly clear that his understanding of historic architecture informed the modern, and vice versa. He acknowledged as much when he wrote, in one of the few surviving descriptions that he penned of his work at large, that “a mature architect should be concerned with man’s grace, glory and aspirations... Although materials come and go, man’s ability to feel has remained constant.”

There is some mystery in these words. The clarity of his work and career invite us to understand what he meant. **CA**

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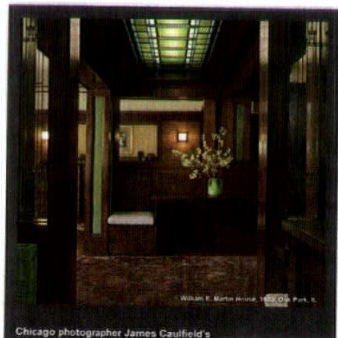
Jay Pridmore is the author of “Building Ideas: An Architectural Guide to the University of Chicago” and of a forthcoming monograph on Ike Colburn.

Pictured is the St. Anastasia Catholic Church in Waukegan. Colburn designed two churches and a synagogue in a career that concentrated mostly on residential commissions. He stated that religious architecture was any architect’s highest calling.

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Chicago photographer James Caulfield's Frank Lloyd Wright images on display at the

Full of Chicago photographer James Caulfield's images of Chicago, Wright is being exhibited through October 20 at the Museum of Contemporary Art. Both interior and exterior views of houses, Wright designed houses and early temples, among many others. An exhibit of James Caulfield's art collaboration with Frank Lloyd Wright is being published by the Museum of Contemporary Art.

- Horizontal Architect: The Curvilinear Buildings of Frank Lloyd Wright in Oak Park and River Forest, Illinois
- Prairie Renaissance: Chicago and the Birth of a New Architecture
- Frank Lloyd Wright's Early Temples
- Louis Sullivan: Creating a New American Architecture

Many of the photos from the books and prints can be seen by visiting www.jamescaulfield.com. Additional information about the exhibit and the artist's work is available at www.jamescaulfield.com.

If you plan to be in the Spring Green or Madison areas, be sure to take advantage of the opportunity to see these landmarks of modern American architecture.

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After meeting over 200 architecture firms, I was amazed that so many of them were committing these costly sins of mismanagement and miscommunication, without ever realizing it. I can stop even one more firm from repeating its own fate. Then this is worth it. [Read More...](#)

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SENSORS & SENSIBILITY

Big Data's evolution from info hype to actionable intelligence is poised to leave a lasting impression on architecture

BY PATRICK SISSON

Anybody taking a close look at lamp posts around Chicago this year may catch an unlikely glimpse of the future of architecture. A series of curved four-by-ten-inch plastic boxes wired into the same grid powering the city's streetlights sit silently, working to make sense of the urban fray.

These little boxes are the frontline sentries of the new "Array of Things," a potentially revolutionary project led by the Urban Center for Computation and Data of the Computation Institute, a joint initiative of Argonne National Laboratory and the University of Chicago, in partnership with the City of Chicago. The program employs a network of sensors seeking to not just record the activities and environment of the city, but bring to fruition actionable data about our atmosphere, noise, traffic and activities. Open-source, real-time and city-supported, these tools are nodes in a new urban hive mind, an experiment that goes beyond similar setups in other cities to see what happens when we go from a broad scope (a few citywide temperature readings a day) to a hyperlocal lens (hourly light readings for a single building over the course of a year).

"We're a city that likes to think about itself and think about planning; it was sort of a built-in ethic," says Douglas Pancoast, a School of the Art Institute of Chicago professor who works on the project and helped design the plastic "shield" protecting each sensor. "We were already being influenced by people in the city who had pretty

interesting ideas about ways this information could be optimized for architecture."

Chicago may be ground zero for seeing how listening and looking closer at the mechanics of the city can bring about an era of more responsive, cost-efficient and sustainable architecture. Test units of Pancoast's hand-soldered babies were deployed in Hyde Park this past November, and newer units are currently being installed in the Loop. As the program expands, the possibilities of Big Data as an architectural and urban planning accoutrement grow.

Pancoast speaks of a future where Bluetooth sensors measure pedestrian activity, climate sensors create block-by-block models of sunlight and shading, and monitors suggest maps of wind topology that could identify the best places to anchor wind turbines. The bigger applications of this number-crunching technology—from building layout to façade design—promise a fundamental shift from structures influencing behavior to behavior influencing structures.

"Architects are so concerned about the physical form, they pay cursory attention to function," says Deepak Aatresh, an entrepreneur with a background in semiconductors and the CEO of Aditazz, a Silicon Valley startup that applies building information modeling to health care design. "It's a skill set that's new, and people need to learn how to do it better."

Aatresh and his company, who have won awards building for clients such as Kaiser



CHICAGO MAY BE GROUND ZERO FOR SEEING HOW LISTENING AND LOOKING CLOSER AT THE MECHANICS OF THE CITY CAN BRING ABOUT AN ERA OF MORE RESPONSIVE, COST-EFFICIENT AND SUSTAINABLE ARCHITECTURE.

ABOVE When VOA designed Roosevelt University's new Student Living, Academic and Recreation Center, a climate data deep dive helped them perfectly align the building to maximize energy efficiency.

Permanente, have a reputation for digging deep into behavior modeling during the design process. A questionnaire looking at processes would identify patient flow, and algorithms would analyze this information to compute the ideal layout and location of different stations and services. One proposal included creating a mobility system to liberate patients from a bed and allow them to move about the facility.

Aatresh says the focus on behavior and, more importantly, going from established protocols to putting processes under the microscope still

requires a big jump.

"People intuitively believe that you need to double the space to serve twice as many people," he says. "When I tell them I can make your process twice as efficient in the same amount of space, they don't understand that."

Part of Aditazz's formula revolves around extensively testing the data in the virtual world, saving time and money by locking down the design earlier. Susan Heinking, AIA, vice president and director of sustainability at VOA, agrees that this type of analysis lets architects make the leap from assumptions to proven applications. It can upend expectations. When VOA designed the 35-story Student Living, Academic and Recreation Center for Chicago's Roosevelt University and looked at heating and energy costs, it wasn't a surprise that the proposal included a gray, precast wall on the north side of the building to shield it from winter winds. But, after crunching climate data from the Department of Energy, the team was able to perfectly align the building to maximize savings.

"You can assume things, but until you use data to verify that assumption, you're running with your best guess," she says. "I got into a heated discussion with a colleague during a window analysis. You can say east-west orientation makes sense, obviously, but directly east-west may not actually be the best solution. It may be 10 degrees off. With Big Data, the answer is right there, you can choose to accept it."

The same could be said of city planning. Flux, a software startup spun out of the secretive Google X Labs last year, wants to provide city planners with a citywide perspective. By digitizing zoning, building code and other third-party data, Flux gives developers and planners a way to visualize the possibilities of a parcel of land. According to Chris LaRosa, Flux product manager, the vision is a data marketplace that makes information such as wind or sun patterns immediately available without the added time or money it would take to gather on site.

While the thousands of pages of city code isn't new information, the ability to look at how changes and opportunities alter the development landscape could be a game-changing way to analyze zoning changes in a rapidly urbanizing world, where denser design may be a requirement.

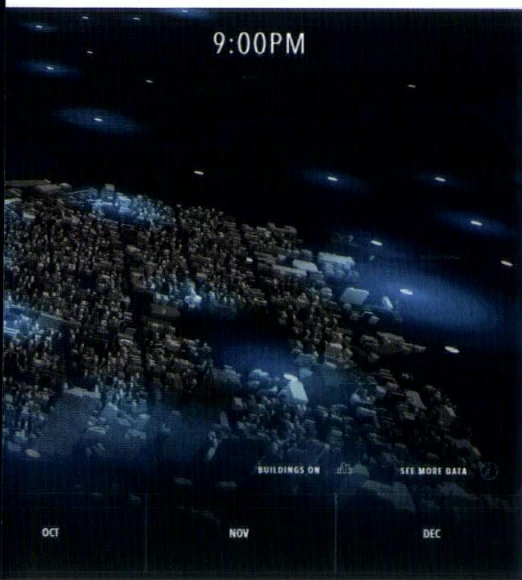
"Our program enables people to tell the whole story in a way," says Flux CEO Nick Chim. "So much of good architecture is driven by the



constraints of the site.”

Those who have seen the Chicago Architecture Foundation’s City of Big Data exhibition, a 3-D model of the metropolis overlaid with data from sources including Twitter and city service requests, have already seen the power of visualization (and neighborhoods that may have a bit of a rat problem). Matthew Shaxted, a computational designer at Skidmore, Owings & Merrill who helped build this God’s eye view of city information, has seen how his firm’s investment in these technologies is already paying dividends.

Standard SOM practice now includes running façade treatments through data analysis to see what shape may be the most energy-efficient over time; the firm’s complicated Lotte Super Tower in Seoul, South Korea, which went from a square base to a circular top, required extensive analysis to figure out the correct shapes to realize the tricky façade. Shaxted sees smaller, even more local experiments as showcases for how behavioral analysis, data and city planning intersect. A



program that overlaid stormwater drainage across the city with open green spaces suggested a system of park overhauls that could significantly reduce basement flooding in Chicago, and mapping student behavior at the University of Chicago revealed popular, informal routes through campus that have since been formally recognized to improve pedestrian flow. Shaxted says it’s still in its early days, and the “big wins” from this process haven’t been realized, but they’re coming.

“Bringing real data like this validates your design,” he says. “You make better design decisions.”

Data does not, however, have to trump design, and with today’s responsive programs, the insights gleaned from computation can easily be integrated, according to professor Alvin Huang, AIA, principal at Synthesis and one of the organizers of the Acadia conference on computers in architecture. Since the advent of programs such as Grasshopper, a watershed 3-D modeling program, the responsive design programs that today’s architects are using integrate perfectly with data-driven design.

“We define things by relationships,” he says. “These physics solvers allow us to manipulate data in an intuitive way. It allows us to remain engaged in the design process and apply first principles.”

As more information is brought to bear on the built environment, it’s a matter of time before more real-time analysis can suggest even more responsive solutions. The “Array of Things” has been nicknamed the breadboard for the city, according to Pancoast, a reference to the white planks of wood electricians used when first experimenting with circuitry. As we wade further into the intersection of mass urbanization, computer design and the Internet of things, the small boxes may be harbingers of smarter design to come.

“We believe this way of thinking, and the capacity to do these kind of projects, will be everywhere,” Shaxted says. **CA**

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ENHANCING INTERIOR COMFORT

While Improving Overall Building Efficacy

BY C.C. SULLIVAN AND BARBARA HORWITZ-BENNETT, CONTRIBUTING EDITORS

1 CREDIT

LEARNING OBJECTIVES

After reading this article, you should be able to:

- ▶ **EXPLAIN** how environmental effects of building interiors can impact human comfort, productivity, workplace satisfaction and mood.
- ▶ **DESCRIBE** various approaches to daylighting and how each approach optimizes building interiors and benefits building performance.
- ▶ **DISCUSS** shading systems, their applications and how they can have a positive effect on occupant comfort.
- ▶ **LIST** the benefits of lighting controls and underfloor air distribution toward improving the interior environment while reducing energy use.

NOTE: This article is excerpted from the October 2014 issue of *Building Design+Construction*. For the complete AIA/CES course—and to complete the 10-question exam for the opportunity to earn 1.0 learning units—go to:

WWW.BDCNETWORK.COM/INTERIOR-COMFORT.

PROVIDING MORE COMFORTABLE CONDITIONS to building occupants has become a top priority in today's interior designs. "Today, owners have a better understanding of the impact of thermal comfort on the productivity of building occupants," says Amarpreet Sethi, CEM, HBDP, BEMP, LEED AP, a sustainability expert in the Building Optimization Studio of DLR Group, Seattle (www.dlrgroup.com). "They are increasingly seeking design firms that understand how to maximize comfort through design and the selection of systems."

Corporate management is beginning to recognize that human comfort has a direct effect on employee productivity, workplace satisfaction, worker fatigue and performance. "Owners and developers that prioritize human comfort in building design attract and retain high-quality employees, producing higher-quality work," states Star Davis, senior lighting consultant in the New York City office of engineering firm Arup (www.arup.com). "This value can be difficult to quantify, but the most visionary owners understand that good environmental design will improve the bottom line on many levels for years to come."

Research conducted over the past decade has attempted to quantify the health and comfort benefits of interior design, particularly with regard to occupant performance and productivity. Even without such studies, building occupants themselves are acutely aware of how their immediate environment affects them. "We spend, on average, more than 90 percent of our day inside, so our expectations are greater in terms of how the space performs," says Steven South, IIDA, LEED AP, senior interior project designer and senior associate in Perkins+Will's New York office (www.perkinswill.com).

The line between home and workplace also has become blurred, as the prevalence of mobile devices and social media creates a situation

where workers and students are constantly multi-tasking, says Linda Rodts, IIDA, LEED AP, lead interior designer, EYP Architecture & Engineering, Boston. All that technology impinges on people's downtime. "Employees and students need to find ways to relax and unplug, so building designers need to ensure that they provide this capability through the use of materials, color and pattern, selection of furniture types and lighting design," says Rodts.

Building rating systems also play a role in encouraging designs that enhance indoor comfort. LEED and Green Globes typically evaluate or grade a building on its thermal comfort criteria, or whether the system designs meet ASHRAE 55 standards for thermal comfort.

DAYLIGHTING, DONE RIGHT

Arguably the first thing that comes to mind when envisioning an uplifting, comfortable interior is good quality daylighting. But introducing natural light into a space in a controlled, uniform manner is easier said than done. "One must find a balance between enhancing productivity, maximizing views, reducing energy consumption and creating a high-quality environmental experience, while dealing with the negative aspects of heat gain, solar glare and loss of privacy," says Rodts.

This is complicated by the desire to maximize daylighting with the need to increase the building envelope area, which adds to the cost of the envelope and raises the building's energy use intensity. Sethi, who specializes in energy modeling, recommends incorporating windows on more than one façade to allow for more uniform daylighting while maintaining a smaller envelope area and footprint.

The rule of thumb: locate windows primarily on the north and south elevations while limiting extensive east- and west-facing glazing in order to reduce glare and solar heat gain, says Erik Ring, PE, LEED Fellow, design director of MEP

Engineering, LPA Inc., Irvine, Calif. (www.lpainc.com). To optimize daylighting, designers should carefully select glazing levels, evenly distribute windows and skylights, and consider using architectural shading devices and light-colored interior ceiling and wall finishes to prevent bright and dark areas that create glaring visual conditions, says Ring, who serves on the U.S. Green Building Council's LEED Indoor Environmental Quality Technical Advisory Group. DLR's Sethi recommends the following daylighting strategies:

- ▶ Employ an integrated design approach to strategically limit space depth. This allows you to bring in daylight from more than one direction.
- ▶ Optimize orientation with an appropriate external shading device.
- ▶ Maximize clerestory window area while keeping the total glazing to roughly 30 percent of the wall area.
- ▶ Maximize visible transmittance with a low solar heat gain coefficient.
- ▶ Provide different internal shading solutions for the view window versus the upper daylight portion of the window.

The key, says Sethi, is to maximize foot-candles while keeping the ratio between the daylight at the perimeter and farthest from the room at less than 1:5. This is a critical ratio and can be an effective guideline for minimizing glare. Davis, an adjunct professor of lighting and daylighting at Parsons The New School for Design, says the best daylighting design begins with a careful determination of the building's solar access. Building massing, glazing and a program layout based on light follow from that first determination. "This is an incredibly strong organizing principle which supports architecture and the people in the building," says Davis. Her firm, Arup, designed the entire hub for the Metropolitan Transportation Authority's new Fulton Center in downtown Manhattan around a central oculus that collects sunlight and reorients and directs it deep underground to the station platforms and gathering spaces below. This design approach provides natural wayfinding and organization to the space, while creating a dynamic, daylit environment.

CLIMATE'S ROLE IN THE CREATION OF DAYLIGHTING STRATEGIES

Climate also dictates daylighting design, says



Taking advantage of the site's natural coastal gifts, this building team in California used a glass façade and 100 percent natural ventilation to create a space where occupants feel and sense daylight, views and breezes.

Sethi. In the Pacific Northwest, movable external shading louvers are an effective way to reflect light into the space during sunny conditions and can be adjusted when the sky is overcast. In the sunny Southwest, the devices can be fixed to save on cost.

An understanding of how the sun moves through the space at different times of the year in different climates can also inform daylighting design—for example, by positioning workstations to avoid glare on computer screens. Davis points out that our increasing reliance on digital screens—laptops, monitors, tablets or smartphones—poses a new threat to daylighting design. These displays have limited brightness relative to luminance levels in the natural environment. "For this reason, much of good daylighting design is about limiting the brightness ratios in a room so that it supports the task activity," says Davis. "This means bringing the amount of daylight allowed in a space way down—to 0.1 to 5 percent of what's available outdoors."

Preferences for go-to daylighting solutions vary

among designers. Jon Wiener, AIA, principal, SRG Partnership, Portland, Oregon (www.srgpartnership.com), is a fan of *top lighting*, which he says is easy to control and distribute evenly across a space. Sethi says she prefers to stick with high-performance glazing, skylights and clerestory windows, which are a particularly effective in moving light deep into a space. "These provide simple solutions with minimal maintenance or moving parts and can improve the uniformity and balance of daylight in a space," she says.

South-facing shading devices also can double as light shelves and reduce solar heat gain and glare, improving the uniformity of daylight from the perimeter to the core of the space. For renovations where the exterior is not being altered, shading systems and *window films* can be highly effective solutions with a significant impact on the comfort of building occupants, says P+W's South, past president of the International Interior Design Association (IIDA) New York Chapter.

Tubular skylight systems, particularly for high-volume spaces and classrooms, are another option. "We find that tubular skylights provide even, consistent, and controllable daylighting compared to other daylight approaches such as expansive vertical glazing or larger rectangular skylights," reports LPA's Ring.

The key to getting daylighting right: "Design studies, design studies, and more design studies," says SRG's Wiener, who has more than 30 years of architectural experience under his belt. Every individual case requires its own tailored solution. "We always build physical models and test countless design options in a heliodome," says Wiener. "We create digital models as well, and do countless daylight simulations to confirm that the light is evenly distributed throughout each room type."

THE PROPER USE OF SHADING DEVICES

Another way to control lighting levels, glare, and solar heat gain is shading devices. *Interior shading systems* are less expensive and easier to maintain than exterior shades but only address solar irradiation that has already entered the building. *Exterior shading systems* intercept the heat gain outside and keep the heat load out of the building. A shading system can reduce the building's cooling load, which can sometimes mean that a smaller, less costly cooling system

can be specified.

Both vertical and horizontal systems can successfully screen the sun during the harshest times of day. Horizontal louvers or fins can also serve as light shelves to bounce light deeper into the interior space when desired. Such devices can be positioned below a rank of clerestory windows to direct the natural light deep into the core of the building.

Perkins+Will's South says he prefers exterior shading systems for new construction as they can be integrated into the architecture and thereby add to the aesthetic. Davis points out, however, that dynamic sun and sky conditions can limit the effectiveness of such devices to a couple hours a day, usually during one season of the year. In such cases, says Davis, *operable systems* should be considered. Be aware, though, that operable systems can come with maintenance and control problems, and they cost more than static systems.

Fixed systems have their place and can work quite well with proper massing and orientation. Arup oriented Duke University's new Nicholas School of the Environment, in Durham, North Carolina with long northern and southern exposures. "Horizontal shading on the south façade shades directs sunlight in the summer, spring and fall, while allowing lower-angle sun to penetrate during the cold winter months," says Davis. Sunlight coming from the south is relatively easy to control, so a singular fixed solution can work for the entire year. On the north façade, vertical fins divert early morning sun penetrating at low, oblique angles.

Interior shades, blinds or louvers work well in climates with predominately cloudy sky conditions. Davis points out that exterior shading systems can block usable light, thereby working against daylight penetration. "In these environments, an operable interior system will provide a solution for controlling direct sunlight and glare" when it occurs, she says.

Davis says building massing also has a lot to do with sunlight control. East- and west-facing façades may receive several hours of direct sunlight, which is nearly perpendicular to the window, followed by no solar exposure for the remainder of the day. "An operable interior system can be the right solution based on the orientation and solar exposure of a particular façade," says Davis.

Energy codes requiring more daylighting and lighting control are another factor. Setting up

these systems typically includes the installation of several sensors to monitor daylight conditions throughout the day. Sethi recommends that the sensors be programmed with a delay to avoid having the shades continually reacting to minute changes such as passing clouds. Occupant override controls may be called for in some cases, particularly in settings such as high-end restaurants or video conference rooms, where room darkening would be desirable.

The risk with an override is users pulling down the shades and then forgetting to reactivate the system. Sethi advises setting up the occupant override as a temporary option, which reverts back to the automated shading system control after a preset period.

"Typically, we use automated shading systems when it is part of a whole daylighting strategy and the client is on board from the beginning," says Perkins+Will's South. "It's best to use these in conjunction with a building management system so that the client can see the benefit of automated shading and to ensure that the system is working as designed."

ADVANCED LIGHTING CONTROLS: NO NEED TO HIT THE SWITCH

Lighting controls have been around for some time. What is changing is the sophistication and cost-effectiveness of these systems, not to mention stricter code requirements that are pushing designers to specify them more frequently. The International Energy Conservation Code has mandated requirements for such features as automatic lighting shutoff and interior light reduction for the past decade, while manual zone controls. However, lighting designers anticipate that this will soon change as the codes begin to require automated control of artificial illumination in spaces with ample daylight.

California's stringent Title 24, known as "T24," is already raising the bar. "In the past specifying lighting controls in our projects took the form of simple two-level switching and occupancy sensors," says James Montross, PE, CEM, LEED AP BD+C, managing director of MEP Engineering at LPA Inc. (www.lpainc.com). "On larger projects, we controlled the lighting over larger areas with lighting control panels." But with T24, he says, "The controls provide continuous dimming in response to occupant needs or available daylight."

Traditional lighting controls systems consisted of occupancy sensors, vacancy sensors and lighting control relay panels. The latest systems offer more advanced capabilities, such as *self-adapting intelligent sensors* that "learn" about their spaces and adjust their sensitivity to modulate light levels based upon room use. "This reduces the occupant's frustration when a sensor doesn't turn on as the person enters the room," says Sethi.

Control systems can be programmed for shorter time delays for different periods of the day. At night, for example, when the cleaning staff is emptying trash containers, the lights can turn off after five minutes instead of the typical 15 to 20 minutes.

Digitization is making these controls cheaper and easier to install and program. Designed as plug-and-play systems, the latest controls quickly snap together with a Cat5 wire, according to Montross, and additional controls, such as multiple occupancy sensors and photocells, can easily be plugged in. These controls can also interface with the HVAC system, receptacle control (a new T24 requirement), and daylight dimming control. "If needed, the lighting can be programmed with user level software and provide the demand response power reduction of 15 percent, which is a new code requirement," says Montross.

Occupant override can be a problem with lighting control systems, just as they can be with automated shade systems. When DPR Construction built its first net-zero office in San Diego, dimming control systems were not part of the design. This meant that, early in the morning, someone had to remember to shut off the electric lights once the daylight level came up with the sun.

For their net-zero Phoenix office, DPR made sure to install robust lighting controls with multiple lighting zones. In this setting, daylight sensors gradually dim the lights as the sun rises; the process is so subtle that people usually don't even notice it. At night, the lights shut off every half an hour: DPR employees have to get up and turn the lights back on in their zone.

Light fixtures can now be programmed not to exceed a maximum level. This prevents occupants from pushing illumination levels beyond optimal energy efficiency. "By providing individual lighting, such as desk or task lighting, you can manage energy usage while giving

occupants control over their individual lighting needs," says Alyssa Scholz, IIDA, principal and director of interior design in HGA's Los Angeles office (<https://hga.com>).

Arup's Davis points out that occupants can be discouraged from overriding automated lighting controls if the design can camouflage the controls system in action. Arup put this into practice with the design of a largely indirect lighting system for the new Skanska headquarters in New York's Empire State Building. Inside the offices, the dimmed lights are overwhelmed by daylight in the space so that it is difficult or impossible to perceive the changes in electric light output, says Davis.

"Old habits die hard, so the natural reaction for many people is to turn on electric lights even if they are not needed," says Wiener. SRG Partnership has been setting up occupancy sensors so that the electrical light fixtures don't go on when someone enters the room. Instead, skylight louvers are triggered to open up so that the room immediately brightens upon entry.

SRG Partnership implemented such a strategy in the design of a Lane Community College academic building in Eugene, Oregon. Inside the four-story building, occupancy sensor-controlled louvers were installed below the skylights so that when people enter the space, they are greeted with daylight, which then evens out incrementally until it reaches its target level.

"We also design the hallways and corridors with lower light levels so that the rooms appear brighter when people enter them," says Wiener. "The goal is reduce the use of artificial light, which avoids the heat generated from the lighting as well as the energy it consumes."

NEW UNDERFLOOR AIR DISTRIBUTION AND RADIANT WATER SYSTEMS

Another trend for improving interior comfort is the use of enhanced HVAC system designs, including underfloor air distribution (UFAD) systems. Rather than running ducts overhead and pushing air with fan power, underfloor systems typically use a plenum and the natural effect of warm air rising to introduce conditioned supply air, known as displacement air distribution.

Jeff Harris, PE, director of mechanical engineering for HGA's lead office in Minneapolis, says UFAD's value is two-fold. "One, you get the cleanest air in the breathing zone because it does not mix with the existing air as much as an

overhead system does." In other words, having the warmer air rising to the ceiling reduces contaminants at the occupant level, thereby enhancing indoor air quality. "Two, occupants can adjust the vents themselves, giving each one control of airflow through the floor diffuser."

The supply air is typically delivered at a warmer temperature, which usually results in fewer temperature-related complaints among users. The higher set points also enable MEP designers and facility managers to take advantage of more than 100 percent economizer hours. Tapping into passive ventilation a greater percentage of the time translates into energy savings and enhanced IAQ.

DLR's Sethi notes that one key aspect of these systems is that they deliver higher supply air temperatures at a low velocity. In addition to delivering cooling air masses directly into occupied zones, this approach minimizes drafts and helps eliminate some interior heat gain at its source.

Furthermore, underfloor air systems can allow for a 20 percent reduction of outside air to meet minimum ventilation requirements, a point that is recognized in LEED credits for ventilation efficiency and in the ASHRAE energy codes.

Displacement ventilation is listed in ASHRAE Standard 62.1 with an air distribution effectiveness of 1.2, as compared to 1.0 for typical overhead systems. The ratings mean that displacement ventilation requires 20 percent less fresh air than the overhead cooling system; it also means that 20 percent of the 30 percent increased ventilation needed to qualify for a LEED credit is achieved simply by using a displacement ventilation system.

The latest versions of these products are trimming their total energy usage by utilizing perimeter HVAC systems that don't require fan power. One of these, the linear trough system, can deliver convective heating to the perimeter with little or no airflow, much like baseboard heating. This means that during the cooling season, a low plenum pressure could provide sufficient airflow through the troughs to meet perimeter zone cooling needs for most of the buildings in North America.

To optimize the design of these systems, it's important to carefully manage supply air temperatures, as they tend to rise along the perimeter of the building and can lead to increased airflow requirements for cooling. David Atwood, general manager of Integrated Interiors

in Boston, cites ASHRAE's UFAD Design Guide, which recommends keeping duct outlet velocities in the 1,500–3,000 fpm range and directed toward the building perimeter. This approach may also enable you to reduce the length of ductwork required for the system.

The design process should determine the supply air temperatures, the warmup heating sequence, and the ASHRAE 62 calculation (including ventilation effectiveness, diffuser selection and air velocity) to ensure that the anticipated energy savings will be realized. This may require the use of *computational fluid dynamics*, says Sethi. "For larger spaces, like performing arts centers, a CFD analysis may be recommended to ensure the airflow requirement is met throughout the space and appropriate mixing of air is achieved by the diffuser quantity and location," she says.

Your team must also set up the supply air distribution system to avoid *thermal decay*, which is caused by unequal zone air temperatures. "For instance, if supply air has to travel too far under the floor, it will warm up too much," explains Scholtz. "You also need to pay attention to the return air path to avoid mixing return air with the supply air."

Finally, building teams must have a clear understanding of how occupants will use the space. This requires engaging and educating users about how to optimally support system operation. "Gaining this buy-in can determine key locations for diffusers so they will not be perceived as causing drafts and subsequently be covered up by users, which then alters system balance and occupant comfort," says Sethi.

One alternative to underfloor air distribution, especially in high-performance buildings, is a radiant system. "Water-based radiant piping distribution systems are either embedded in the concrete floor slabs or in ceiling panels," says Wiener. "We have found this approach to be very comfortable and more energy efficient than air-based heating and cooling systems."

In order to enhance comfort and efficiencies, Wiener's designs typically utilize the inherent thermal mass of the building structure to moderate temperature swings. In order to do this, the mass must be exposed to the air and to the people—not covered with insulated assemblies or air pockets such as with a raised floor, which would work against this moderating effect. **CA**

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NOT-SO-HEAVY METAL

Boutique hotel employs metal cladding to reflect inner steel framing

BY AMY MCINTOSH

After spending more than a decade in the planning, design and construction phases, a former tarp-covered skeleton in River North is now home to the Godfrey Hotel. The 221-room metal-clad boutique hotel has a contentious history. The concept for the hotel originated in 2003, but the economic downturn sent the original developer into foreclosure five years later and left the building sitting unfinished at the corner of LaSalle and Huron streets for nearly four years.

Despite the project's journey, the aesthetic choices remained the same. With a new developer at the helm, the hotel type shifted, from an extended stay to a boutique, but the team stuck with the original plan of creating a staggered steel truss framing system with metal cladding on the exterior.

"It is a steel frame building, which was unusual for that building type, especially in this city where those kind of residential or hotel buildings are pretty much exclusively done as poured-in-place concrete structures," says David Jennerjahn, AIA, principal for Valerio Dewalt Train Associates and the project's architect. "We thought it would be appropriate for the aesthetic of the building to use a metal skin to express that steel frame that lies within the building."

Aside from aesthetics, there were other drivers behind the choice to use metal panels. The lightweight panels would put limited stress on the building's steel frame. Additionally, the metal system's speed-to-market capabilities were in line with the fast installation time offered by the steel structural system—ultimately proving to be an ironic incentive, given the fate of the project.

As the building sat unfinished with

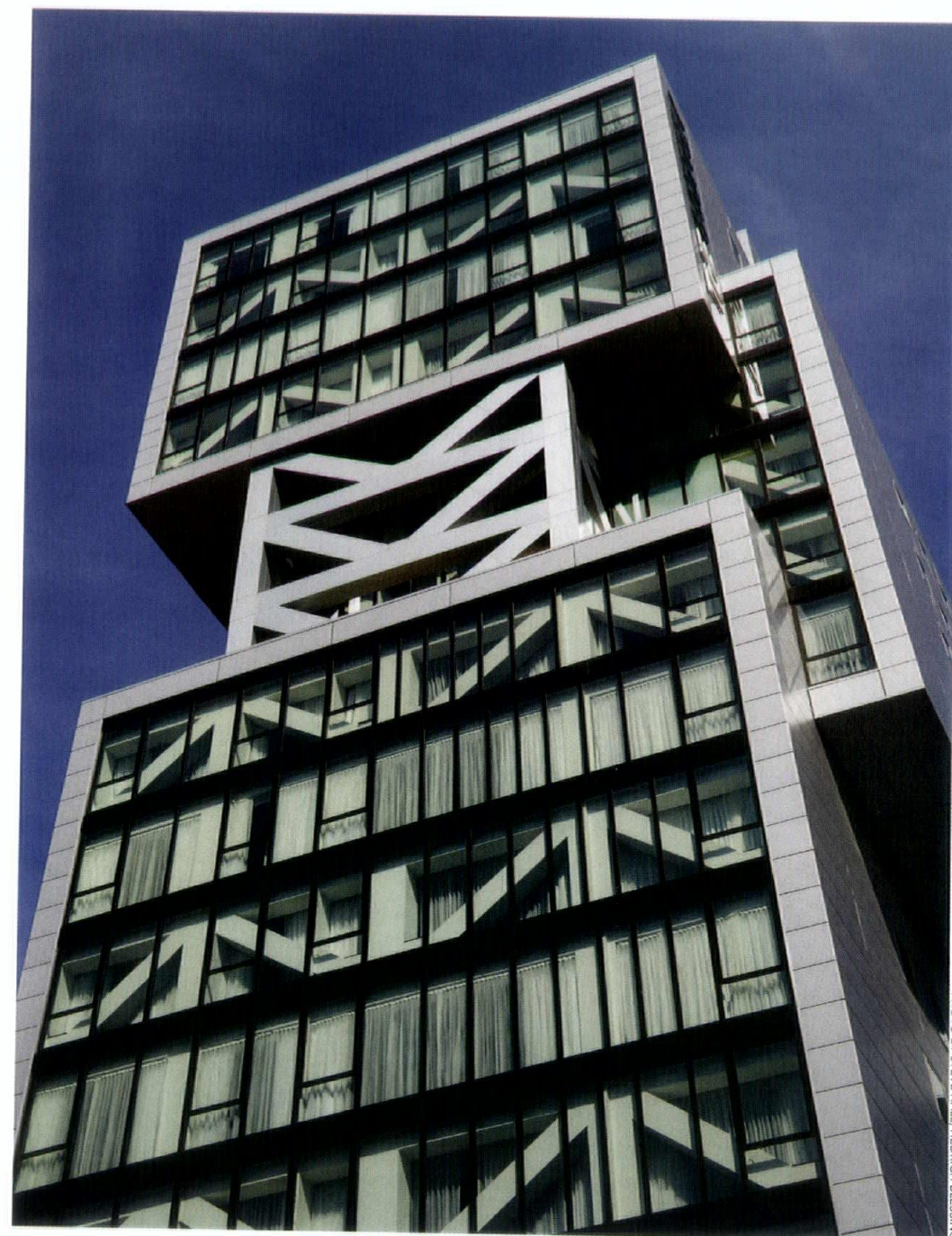


PHOTO BY STEVE HALL, HEDRICH BLESSING

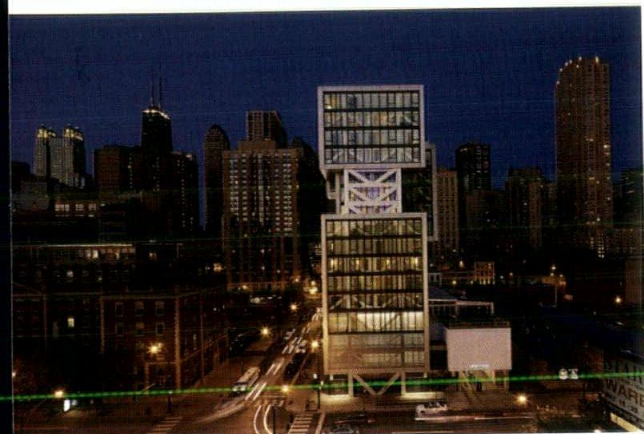
The 221-room Godfrey Hotel is clad in 60,000 square feet of metal architectural wall panels. The lightweight cladding provides insulation, as well as a weather and vapor barrier.

approximately 20 percent of the original panels installed, a protective film applied during the manufacturing process remained attached to the panels. As time passed, the film was essentially "baked" onto the surface and could not be removed without leaving behind a

residue. By the time construction resumed in 2012, the manufacturer had since discontinued the surface color and finish that had been installed. The decision was made to remove the panels, scrap them and put the project out to bid for a new manufacturer.

SPEC SHEET

Ultimately, 60,000 square feet of Metl-Span's 2-inch thick, 30-inch wide, 22-gauge/26-gauge CFA Architectural Wall Panels in embossed silver were installed over stud framing and attached with concealed fasteners in the side joint. The insulated metal panels provide a weather and vapor barrier in addition to their thermal qualities, combined in one panel.



"Think of it like an Oreo. The cookie on the outside is the metal skin that wraps around the filling inside," Jennerjahn says. "The weather barrier wraps around the insulation, which wraps around the inside layer. When these panels are stacked one on top of another, there's an interlocking joint that provides the water-tightness, as well as a way for the panels to interlock to each other so they stay airtight." This design also allows for a place to attach the skin to the structure of the building in a concealed manner, resulting in a smooth exterior skin.

The exterior skin of the Godfrey is not the only feature that makes the hotel stand out in the neighborhood. The building's shape is a departure from traditional high rises. Geometric cutouts and exterior walls on the middle floors extend past the rest of the façade. Even with the unique shape of the building, the team did not face any difficulty with installation.

"The metal systems, on the contrary, were quite easy to contend with the sharp geometric corners that we created. Even though the building pushes in and out to make the sculptural moves, the metal system was really accommodating for those transitions in and out of plane or turning corners,"



LEFT The finished hotel stands prominently in Chicago's River North neighborhood. **RIGHT** Despite the geometry of the building, the metal cladding system was "accommodating" during installation, Jennerjahn says.

Jennerjahn says. "There was some special attention paid to details, but it was actually a very accommodating system."

The tight site footprint meant limited room to store building materials. As a result, the panels were delivered in phased loads, temporarily staged on a roof and installed immediately.

The Godfrey officially opened for business in February 2014. The skeleton is no more, and the River North intersection can now boast a distinctive

building whose exterior metal skin reflects the mechanics of the interior framing system.

"We're very pleased with the building and how the skin of it stands out in the surrounding buildings. You don't see very many of that façade system being used in Chicago," Jennerjahn says. "For a boutique hotel that's trying to set itself apart as a unique place to stay in the city, it added to that aesthetic and that uniqueness." **CA**

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EXPLODING CAMPUS

SAIC's new director of architecture lays out future of expanding program

Jonathan Solomon, AIA, joined the School of the Art Institute of Chicago (SAIC) in August to begin a five-year term as director of the Department of Architecture, Interior Architecture and Designed Objects (AIADO). Before moving back to Chicago, where he grew up, Solomon was associate professor and associate dean at the School of Architecture at Syracuse University.

Zurich Esposito: How long has SAIC's architecture program existed?

Jonathan Solomon: The architecture program is about eight years old. We are in our sixth year of accreditation and just received an eight-year accreditation. AIC created an accredited architecture program out of a handful of studios and 60 students. Given the rigors of the NAAB accreditation process, our success is notable.

ZE: That must feel like a relief, given the frequency associated with the early accreditation process.

JS: The long-term period of accreditation works for us. We have the ability to re-center, defining ourselves relative to our own sets of goals and relative to the core values of the SAIC.

ZE: The director's role must entail managing a lot of administrative details. Those aside, how do you view your big picture role here?

JS: SAIC has an excellent international reputation in the fine arts, like painting and sculpture. It doesn't really have an equally prominent identity for design, and certainly not specifically for architecture. My role is helping to craft that identity, through programming, teaching and support of faculty, students and alumni, and ultimately to spread that identity around.

ZE: How is the architecture program itself structured?

JS: At the undergraduate level we offer a BFA with a pathway in architecture that prepares

students for entry into professional master's degree programs in architecture, or any further education or career for which the skills of design and design thinking and research are of value. At the master's level, we have the accredited M.Arch. degree: a three-year graduate degree essentially for people with no previous training in architecture, and a two-year degree program for people who come with a set of prerequisites. We have about 60 students in the M.Arch. program.

ZE: What makes the school particularly unique among other schools of architecture in Chicago?

JS: Scale is an important distinction; we are very small. We are both a small program and a small institution overall. And our institutional home is not a university; we are housed in a fine arts and design college attached to one of the world's premier museums. All of this allows us to have a degree of flexibility and maneuverability that our peer institutions might have less access to.

ZE: How does this affect the student body?

JS: There's a cultural distinction between what it means to study architecture at an art school and what it means to study in a university environment. That's a distinction in the types of students who are attracted to this program, and

it's a distinction in the attitudes and the approaches and expectations of the institution.

ZE: Do you view the other Chicago schools of architecture as competition?

JS: Ultimately it's not SAIC's role to compete with large professional programs. Our strength and potential is to attract unique and interesting individuals who come from broad backgrounds and have a broad range of skills, and are able to do the things that, as the world and the profession changes, architects are going to be increasingly called on to do: to think laterally, to work collaboratively, to work in a problem-based fashion iteratively.

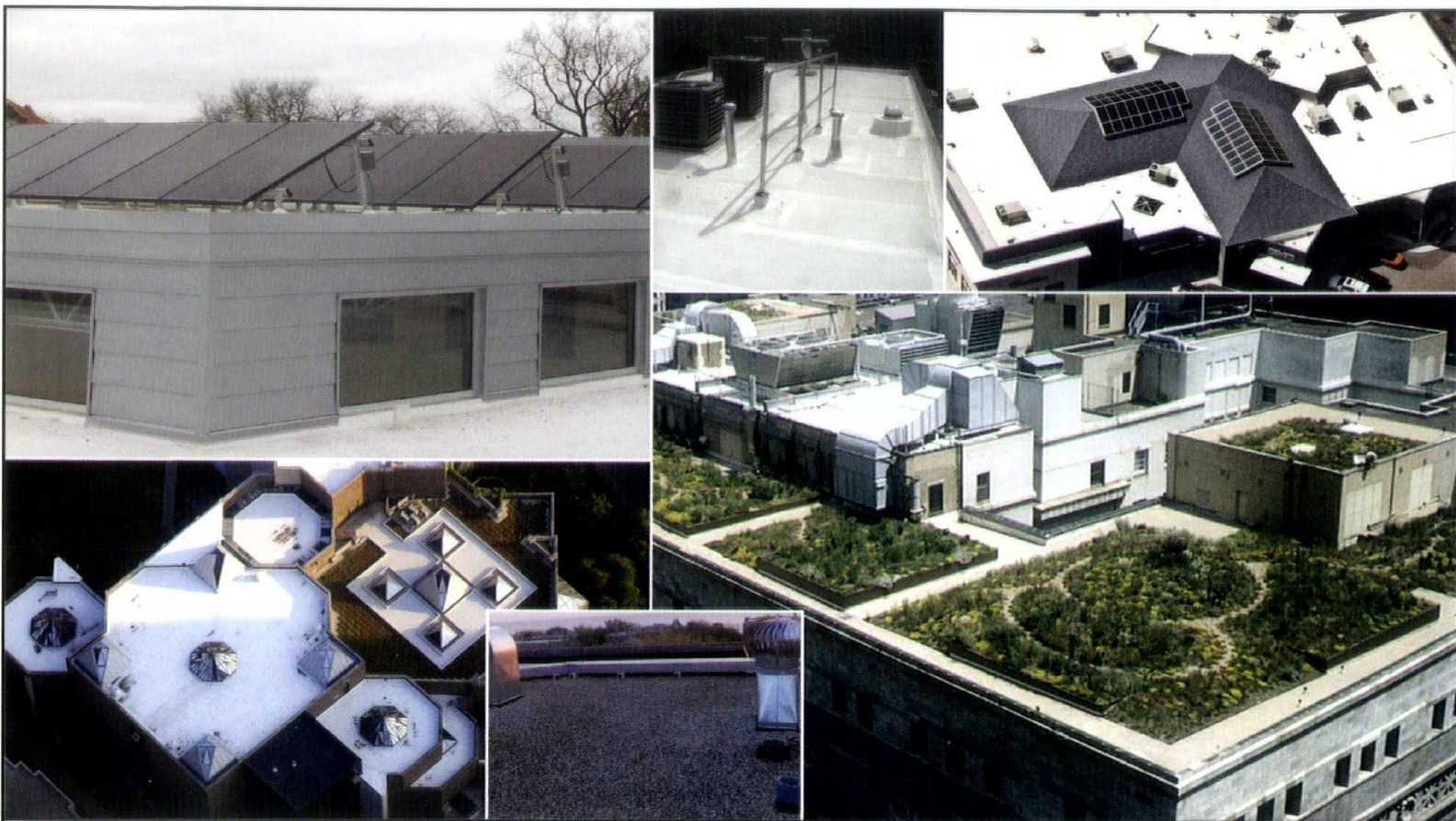
ZE: How are your graduates faring in the professional community?

JS: Although it's a relatively new and small group, we have graduates in firms in Chicago and in cities around the country. I've been thrilled to meet heads of offices who tell me the graduates they've hired are great. I would rather be the director of the school that had one or two graduates in your office who really stand out as individuals, than the director of the school who you relied on to supply you with five or six hires every year. In many ways we are already that school, and we can do that better and better. **CA**



PHOTO BY DARRIS LEE HARRIS

Zurich Esposito meets with Jonathan Solomon, AIA, at the School of the Art Institute of Chicago's architecture studio in the Sullivan Center.



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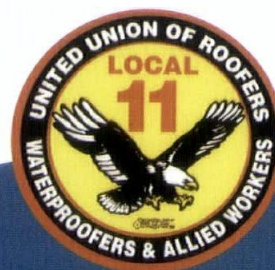
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