

A FEELING OF **Discovery**

Paul Naprstek of Robert A.M. Stern Architects has been intrigued by intricate campus architecture since college, and he encourages that approach as director of building technology

— **Craig A. Shutt**

SIMILAR LOOKS

RAMSA's designs for two 452-bed residential colleges at Yale University feature similar palettes of brick and limestone detailing, evoking the school's original Gothic designs. Photo: dbox.



Paul Naprstek. Photo: Robert A.M. Stern Architects.

Paul Naprstek was struck by the intricacy and hidden details around him as he walked the Northwestern University campus as an undergraduate in the late 1970s. The school's Deering Library and sorority quad, both designed by James Gamble Rogers, famed for his 1920s and 1930s university buildings, evoked a sense of discovery at every turn. Today, he enables the noted Modern Traditionalist architect Robert A.M. Stern and his 300 colleagues to design buildings with that same sensibility as director of Building Technology at Robert A.M. Stern Architects (RAMSA).

Naprstek attended Northwestern's famed journalism school, but it was the beauty of the campus's buildings that stayed with him. "They made me fall in love with architecture," he says. "The sorority quad had small passages everywhere and dormer windows poking out of every corner. There was always something new to discover." RAMSA is now recapturing that feeling in its design for Yale University, where eight of the existing 12 colleges (as well as the university library) were designed by Rogers.

The project consists of two 452-bed residential colleges, Yale's new Pauli Murray and Benjamin Franklin Colleges. Fraternal twins with similar palettes of brick and limestone detailing, they evoke Rogers's original Gothic designs.

"They're a little bit controversial," Naprstek admits. "A lot of architects think the new colleges should present a modern appearance and that Yale is taking a step backward with these designs. But I think there's something wonderful about being able to evoke that sense of discovery every time students walk through the buildings." He notes that Yale's two Modernist residential colleges, both by Eero Saarinen, have consistently been the least popular with students.

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The colleges incorporate precast concrete elements in two critical locations: tall chimneys that draw the eye to the buildings' roofs, and a tower that serves as a focal point for the entire complex.

Both feature precast concrete architectural panels with embedded brick as well as exposed precast accents.

The chimneys presented a challenge because the lower portions of the building will feature hand-laid brick, requiring the masons to align their bricks with the embedded brick in the panels above, which were erected first. For a time, it created the disorienting look of brick hanging off the chimney tops. "It will come together when the masons finish up," Naprstek promises.

"The chimneys are functioning units, but they also hold toilet vents and other equipment," he explains. "We used precast concrete because it provided an envelope with a narrow thickness that gave us more room." Two separate pours were used for each side: the first pours provided a limestone-like color, for the exposed precast accents. The second, with embedded thin bricks, matched the reddish hue of the mortar in the hand-laid brick façades below.

ARCHITECTURAL HISTORY

Naprstek's interest in joining the profession took time to develop after he decided he didn't have "the killer instinct" to become a newspaper reporter. Instead, he used his experience at the school's radio station to help start an alternative-rock station

in Rhode Island, which led to his falling in love with New England architecture.

He wound up in Boston, Mass., working as a typist for two years at the Harvard Graduate School of Design. In the first year, he worked under Henry N. Cobb (of Pei Cobb Freed & Partners), while in the second year, he worked for the GSD's Urban Design Program under Moshe Safdie (of Safdie Architects). "Hanging around the faculty, the guest critics, and the students made me want to be an architect, too." He received his Masters of Architecture from the University of Pennsylvania in 1987.

His early work included producing contract documents for projects by prominent architects, including stints at Tobey+Davis in Reston, Va., (now SmithGroupJJR in Washington, D.C.), where he worked on the National Museum of the American Indian Cultural Resource Center with Polshek & Partners and the U.S. Bureau of the Census Computer Center with Davis Brody Bond. He then moved to Gruzen Samton in New York, N.Y., where he spent 14 years working on the Queens Family Courthouse with Pei Cobb Freed and the Yale University School of Management with Foster + Partners.

He moved to RAMSA in 2011 to work on Yale's Residential Colleges. "I think it's going to make a big splash when it opens," he says. He also contributed to the design for the Schwarzman College at Tsinghua University in Beijing, known as the MIT of China. "It's a very interesting project. We get a lot of very interesting projects."

Like most leading international design firms, RAMSA sometimes relies on local firms to serve as architect of record, who execute working drawings and perform construction administration. But RAMSA also takes on full-service contracts, handling all architectural responsibilities. Those projects have included the George W. Bush Presidential Center, the Caspersen Student Center/Wasserstein Hall/Clinical Wing at Harvard Law School, and Yale's new residential colleges.

NEW POSITION CREATED

RAMSA also has taken a different approach to quality issues. In 2013, the partners approached Naprstek about creating a full-time position devoted to quality assurance and quality control. Since then, it has grown into the Department of Building Technology, with three full-time staff and numerous senior architects he "borrows" from studios on an as-needed basis to conduct reviews.



HIDDEN JOINTS

RAMSA's designs often look to disguise or hide joints in panels organically, as was done at Harvard Law's new building. Photo: Peter Aaron / OTTO.

'My goal is to inject a dose of reality into the design process.'

Full-service projects are checked twice in the CD phase, but all projects are reviewed at the end of schematic design and design development. The department focuses on constructability and code compliance, but as seasoned architects who have done construction administration, they also strive to spot design elements that could be compromised without adequate documentation. "My goal is to inject a dose of reality into the design process. I also want to proactively provide insight into issues that could arise."

From the beginning, he envisioned an educational component to the role, teaching in-house classes and developing guidance materials for staff. He also serves an informal role as messenger between project teams. "When you have more than 50 active projects going on in eight studios, quite often one team will be wrestling with a problem that has already been addressed by another. By being aware of what everybody is doing in every studio, my assistant, Marianna Monfeld, and I have been able to make connections that would have been missed otherwise."

Developing the position from scratch provided an interesting challenge. "Other firms have people in charge of QA/QC, but I don't think any of them structure it exactly as we do."

He provides a key aid to the contingent of young architects just out of school that RAMSA employs. "They know architecture and how to draw, but they don't know how the pieces fit together," he explains. "Schools figure everyone will learn that on the job. My role is to be their teacher for this."

COMPLEMENTARY DESIGNS

RAMSA has designed four major buildings at Marist College in Poughkeepsie, N.Y., along with several smaller ones. Several, including the North Campus Housing project, feature precast concrete panels faced in a random ashlar Champlain gray granite fieldstone. Photo: Robert A.M. Stern Architects.



The firm is trying to change the perception of QC, he notes. “The stereotypical QC guy is an old curmudgeon in the back of the office who yells at people for not dimensioning their window openings to a 4-inch brick module,” he quips. “RAMSA wasn’t looking for that kind of person. They wanted someone with a design orientation who can also teach people how to build.”

Making designers consider constructability at all points creates challenges. “It’s difficult to be both a designer and a technician. We like to think of ourselves as Renaissance men, but there is more to know than any one person’s brain can hold. It’s hard to be strong in all aspects at once.”

PRECAST CONCRETE’S VERSATILITY

While RAMSA has designed many buildings in a Modernist vocabulary, it is the Modern Traditionalist buildings that have established the firm’s reputation. It has designed brick- and stone-faced buildings in vocabularies that look back to a time when these materials formed the actual structure of the building.

“We have to reconcile our design vocabulary with the way buildings are constructed in the twenty-first century,” he says. For the larger buildings, using precast concrete panels as a backing material for stone or brick has provided a format that RAMSA has often employed.

That approach can be seen on the campus of Marist College in Poughkeepsie, N.Y. RAMSA is nearing completion of its fourth major building (along with several smaller projects), all faced in a random ashlar Champlain gray granite fieldstone similar to that on the nearby campus of the U.S. Military Academy at West Point.

The first two buildings used CMU and metal-stud backup systems, but the two most recent buildings—the 789-bed North Campus Housing facility and the Natural Sciences & Allied Health Building—feature precast concrete panels. In both cases the approximate 1½-inch-thick stones (versus 4-inch-thick pieces in the earlier projects) were adhered to the panels. The panels emerge at the window surrounds, where they give the appearance of limestone.

Some stone pieces near the edges of panels were applied at the site, rather than in the plant, so they could straddle the joints between panels. L-shaped pieces were used at corners to give the stones the visual depth of traditional masonry. “The smaller size of the stone pieces allowed us to treat them like a brick rather than cut stone.”

Embedded brick was used for North Hall and Library at Bronx Community College in the Bronx, a campus originally planned for

New York University by Stanford White. The 98,600-square-foot building, which achieved LEED Silver certification, features precast concrete panels embedded with buff Roman brick and light gray cast-stone trim.

“We modeled its design on other distinctive libraries,” he says. “Our goal was to emulate the look of hand-laid brick and limestone.” Precast concrete aided the design by allowing for thin joints between the half-brick lines that were cast in. “Since they weren’t actually being mortared into the wall, we could minimize the joints and better match the look of older neighboring buildings. We prefer to use half bricks whenever possible to create flexibility.”

Condensing the brick and panelization with one supplier also moved the drawings along quickly while providing the desired historic look. “It’s not a modern look at all, but it’s been a big hit with the students.”

Another example is the Harvard Law project, a 266,000-square-foot building that achieved LEED Gold certification. Variegated limestone anchored into precast concrete panels provided the envelope. “RAMSA takes the lead in locating panel joints on all of its projects, to ensure as many as possible can be obscured within changes of plane or material, or hidden behind external elements such as downspouts,” he says. “Where the joints must be exposed, we try to stagger them rather than have a vertical line up the building’s face.”

The architects resisted the normal impulse to locate the joints in front of structural columns. “This necessitated a lot of supplemental steel to support the precast anchors, but we felt it was worth it.” RAMSA again called for selected stones to be left out and hand-set in the field so they could straddle panel joints.

Turning corners presents a key issue, one he always reviews during QA/QC reviews. “Young designers often draw perfect elevations, but forget what happens when you turn the corner. Given the fact that modern stone is usually 2 inches thick at most, your stone will look like a piece of paper unless you take pains to detail it differently.”

RAMSA has employed several strategies to increase the perceived depth of the stone, including calling for L-shaped pieces, binding two pieces with an imperceptibly thin epoxy joint, or developing details like the “RAMSA Corner,” an articulated corner detail that has been used successfully at 15 Central Park West and Superior Ink in New York, N.Y., as well as in other projects RAMSA has designed.

To overcome those obstacles and create efficiencies, RAMSA involves the precaster at an early stage, often via a “design-

Embedded Brick

Embedded buff Roman brick and light gray cast-stone trim highlight the precast concrete panels on the façade of the North Hall and Library at Bronx Community College in the Bronx. Photo: Peter Aaron / OTTO.



assist” contract. “We try to benefit from the precaster’s expertise when locating joints. They know such things as the maximum sizes the panels can achieve for transportation and the criteria for locating anchors. In some of these projects, achieving the look we provide at the budget available couldn’t have been accomplished any other way.”

RAMSA tries to exploit all of the capabilities that precast panels offer. “When we design with punched windows, the potential exists to install the windows at the precaster’s plant, so that when the panels are erected, the building’s exterior is nearly complete.”

TEACHING EXTENSIONS

Naprstek has become the office’s de facto expert on building codes. “I never took a class in building codes,” he says. “I just got interested in trying to find the right passages to address a specific condition, and I eventually turned it into a sort of game.” He created “cheat sheets” in Excel, listing the numerous code citations addressing each issue.

“They became a useful index, especially because the pre-2008 New York City Building Code was so poorly indexed and cross-referenced. As people in the office discovered that I could find the answers to their queries, they came to me with questions about things I didn’t know, so I learned a little more.” He also led the effort at his previous firm, Gruzen Samton, which was hired by the NYC Building Department to research the implications of

transitioning to using the International Building Code (which it did in 2008).

A colleague at Gruzen Samton, who also taught at NYU’s Schack Institute of Real Estate, invited him to teach an evening class on building codes, which he did for nearly 6 years. “I enjoyed preparing for class and finding ways to explain the code in a light-hearted way that avoided being boring. I built it up each year and got better each time.” He also served on a technical advisory committee reviewing the 2014 update of the NYC code.

He’s found another outlet for his teaching interests, using another of his former skills—that of college disk jockey. For the past 1½ years, Naprstek has posted an appreciation of a hit song from 1966 to 1968 to his Facebook page, putting it into the context of the times and showing how later songs were inspired by earlier ones. The pieces, which link to a YouTube version of the song, began as short pieces but now average 1,000 words.

“I found I enjoyed doing it and spent more time researching each entry,” he says. “I focus on the music and its development rather than gossip about the bands. It gives me a lot of pleasure to write those on Saturday mornings. Most people know the songs, but they don’t see how the trends developed over time.”

His interest in teaching and creating a feeling of discovery will continue, he says. “This field is always growing and offers a great learning experience. I’ve been working at it for 30 years, and I find new areas of interest all the time. And I enjoy passing those along to others.”