ARCHITECTS' CHOICE

Face to Façade

FOR CENTURIES, BUILDING WALLS HAD ONE BASIC PURPOSE: TO HOLD UP A ROOF. THE INVENTION OF THE MODERN GLASS CURTAINWALL IN THE 19TH CENTURY EXPANDED THE CAPABILITIES OF A BUILDING EXTERIOR TO ADDRESS ISSUES SUCH AS SITE CONTEXT, PERFORMANCE, AND AESTHETICS. FOUR ARCHITECTS SHARE THE SYSTEMS THAT HAVE WORKED—OR THAT THEY'VE MADE WORK—FOR THEIR NEEDS.

Text by **Brian Libby**

BAGUETTES, SHILDAN

Take Bridgewater State College's Marshall Conant Science and Mathematics Building, a Y-shaped facility facing three different contexts: a grassy pedestrian quad, a wooded grove, and an industrial area. Boston firm Payette wrapped the entire building with a glass curtainwall system that stands behind a series of baguette clips made from terra-cotta, metal, or wood depending on the elevation. The baguettes, manufactured by Shildan, act as a sun-shading system, but also helps each façade "reflect the environment it exists in," principal Todd Sloane, AIA, says. "It's a cost-effective solution to solving each façade as a design problem."

CUSTOM CURTAINWALL, FAR EAST GLASSWARE

Las Vegas firm Friedmutter Group also sought to tweak a conventional curtainwall for its design of the Cosmopolitan hotel and casino on the Strip. "The Cosmo is one of the few casinos that engage the street," says Christopher Knotz, AIA. "It's made of hundreds of glass panels at all different angles." The aluminum mullions of the 80-foot-tall curtainwall, by Far East Glassware, contain steel tubes to meet Seismic Zone 2B requirements. A more typical strategy, Knotz says, would utilize a distinct, secondary steel system behind the curtainwall. "It's rare having steel inside the mullions, but it was required because of how far the panels had to extend."

"IT'S HOW WE APPLY THE TERRA-COTTA, THE WOOD, OR THE CORRUGATED PANELS THAT MADE EACH WING UNIQUE."

—TODD SLOANE, PAYETTE

GLAZED TILES, METROBRICK AND TRIKEENEN TILEWORKS

AECOM's Minneapolis office also enlivened another longtime cladding material: brick masonry. For the Mercy Health-West Hospital in Cincinnati, AECOM and local firm Champlin Architecture were influenced by Ohio's ceramic-arts tradition and designed a colorful mosaic of glazed brick over an insulated precast panel system. Each of the 160,000 tiles—manufactured in 19 sizes between 2 and 8 inches square by Metrobrick and glazed by Trikeenen Tileworks—is mapped across the façade in a pattern of blue and green hues. "There's a greater playfulness," says AECOM principal Mic Johnson, AIA. "And I've yet to find people who don't like a little bit more color in buildings."

CEMENTITIOUS RAINSCREEN PANELS, TAKTL, AND PHOTOVOLTAIC PANELS, SANYO

Tradition wasn't enough of a starting point for a new 96-bed dormitory at Chatham University in Pennsylvania. Among the United States's first non-single-family houses to seek Passive House certification, the project was a challenge for Mithun's San Francisco office. Taktl cementitious rainscreen panels clad the double-skin, wood-framed façade. To achieve net-zero energy, the building also features Sanyo's bifacial photovoltaic panels. "The rooftop photovoltaic system folds down and creates a façade layer to the south," says principal Sandy Mendler, AIA. "People think of Passive House ... [as] just for houses. But it does make a lot of sense for institutional-scale buildings."

TODD SLOANE
Principal, Payette

CHRISTOPHER KNOTZ
Senior associate architect, Friedmutter Group

MIC JOHNSON
Principal, AECOM

SANDY MENDLER
Principal, Mithun

LEFT, TOP TO BOTTOM: PAYETTE; STUDIO J/ERIC JAMISON
COURTESY FRIEDMUTTER GROUP; MITHUN
RIGHT, SIDEBAR: PETER ARKLE