

# Polonsky Shakespeare Center

**In Brooklyn's burgeoning cultural district, the Theatre for a New Audience's new headquarters relies on structural sophistication to present an open, welcoming face to the neighborhood and a flexible space to the performers.**

ALL THE WORLD MAY IN fact be a stage, as one of Shakespeare's best-known lines suggests; the jury will be out indefinitely on that. All the city, however, is definitely a stage—the Downtown Brooklyn Cultural District (formerly the BAM Cultural District) in particular. The eyes of Fort Greene's residents and businesspeople, the arts community, developers, and others are sharply focused on this experiment in neighborhood revitalization through investment in cultural institutions. No less than the artists within, the facades and profiles of these buildings perform for and communicate to the public.

The area's newest component, the Polonsky Shakespeare Center, gives the Theatre for a New Audience (TFANA) its first permanent home and extends its community-outreach policy into a visual metaphor: a boldly cantilevered front curtain wall, framed like a proscenium, highly transparent, and

vibrant as a high-resolution monitor. Passersby get a full view of activities and displays in the lobby, including its main staircase and second- and third-story landings. The column-free lobby and exterior plaza blend together across the facade, with serpentine stainless steel inlays running beneath the glass and connecting with aluminum divider strips set in the lobby's terrazzo floor, emphasizing continuity rather than borders. A pointillist depiction of Shakespeare by Milton Glaser, TFANA's regular graphics collaborator, shifts between abstraction and portraiture depending on one's perspective relative to the lobby wall, reinforcing the impression of the playwright's complexity and universality. Classical theater, this building says to passersby, is inclusive and open; it addresses everyone, not just cultural insiders or economic elites. Have a look inside, and feel free to wander in.

With a mission "to develop and vitalize the performance and the study of Shakespeare and classical drama," says founding artistic director Jeffrey Horowitz, TFANA defines new audiences not only in demographic or economic terms but by their openness to ideas and discovery. This policy calls for a highly adaptable building that lets directors vary its structures and perspectives, Horowitz adds. "When it comes to production of Shakespeare and classical drama, there's no one way of doing these



**Above left** Construction photos reveal the structural steel beams that support the Polonsky's cantilevered front curtain wall, with ample diagonal members. **Above right, top and bottom** The tight site in the Downtown Brooklyn Cultural District posed challenges during construction of the hybrid structural system, a steel frame in front and CMU in back.



plays.... We built into the theater's design the concept of change."

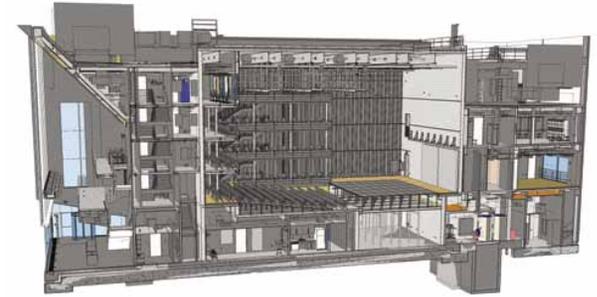
With a 299-seat capacity, nine available configurations (variations on either a thrust-stage or proscenium form, with trap space available below about half the stage), and a three-level seating plan, the Polonsky's Samuel H. Scripps Main Stage is proportioned to allow both the intimacy of a downtown black-box theater and the epic scale that Shakespeare and other dramatists require. Scenes like King Lear's mad raving on the stormy heath, Horowitz comments, "feel squashed" when performed in rooms without adequate height; more subdued moments, on the other hand, call for acoustics that do not force actors to bellow to be audible. The distance from center stage to the back of the orchestra roughly equals the distance to the top balcony (slightly over 100 feet), and the height from the stage to the rigging beams attached to the roof steel is a generous 34 feet 9 inches; the Polonsky thus places the whole audience in a unified space and supports performers' articulation at any volume. Floor-to-floor levels measure just 8 feet 6 inches in the balconies, ensuring that no one in the audience is far from the action.

Optimizing sonic clarity was not easy at this site: the Polonsky sits on top of multiple subway lines. To control vibrations from both the subway and basement equipment, says Lynch, the building is "actually structurally two buildings made to look like one ... [it] feels like one building, but it's structurally separate." A 2-inch gap separates the backstage from the thrust area, orchestra, and lobby, helping to isolate mechanical rumbles. The entire front half of the Polonsky floats on 8-inch-thick steel-reinforced rubber pads, interspersed in the void space between a 12-inch structural slab and a 30-inch mat slab on piles at foundation level. Coordination among structural engineering by Robert Silman Associates, acoustical design by Akustiks, the MEP work by Flack + Kurtz, and principal design work by H3 was enhanced by 3D modeling in Revit throughout the process.

The structural system is a hybrid design using steel in the lobby to support the cantilever, mixed steel and CMU infill for the outer 20 feet of the auditorium, and all CMU enclosing the remainder of the auditorium, stage, and backstage area to provide optimal acoustic insulation. All-steel acoustic "guillotine" doors, 6 inches thick and 10 feet by 10

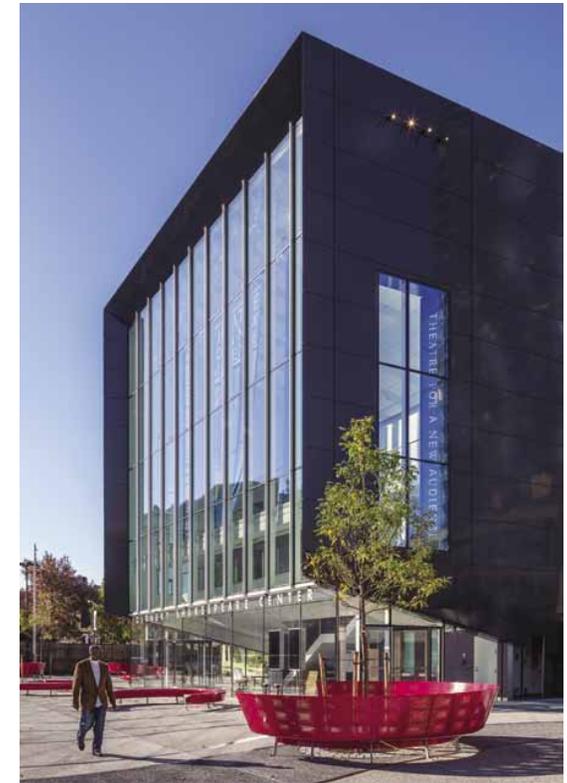
**Right** A Revit structural image of the Polonsky Shakespeare Center.

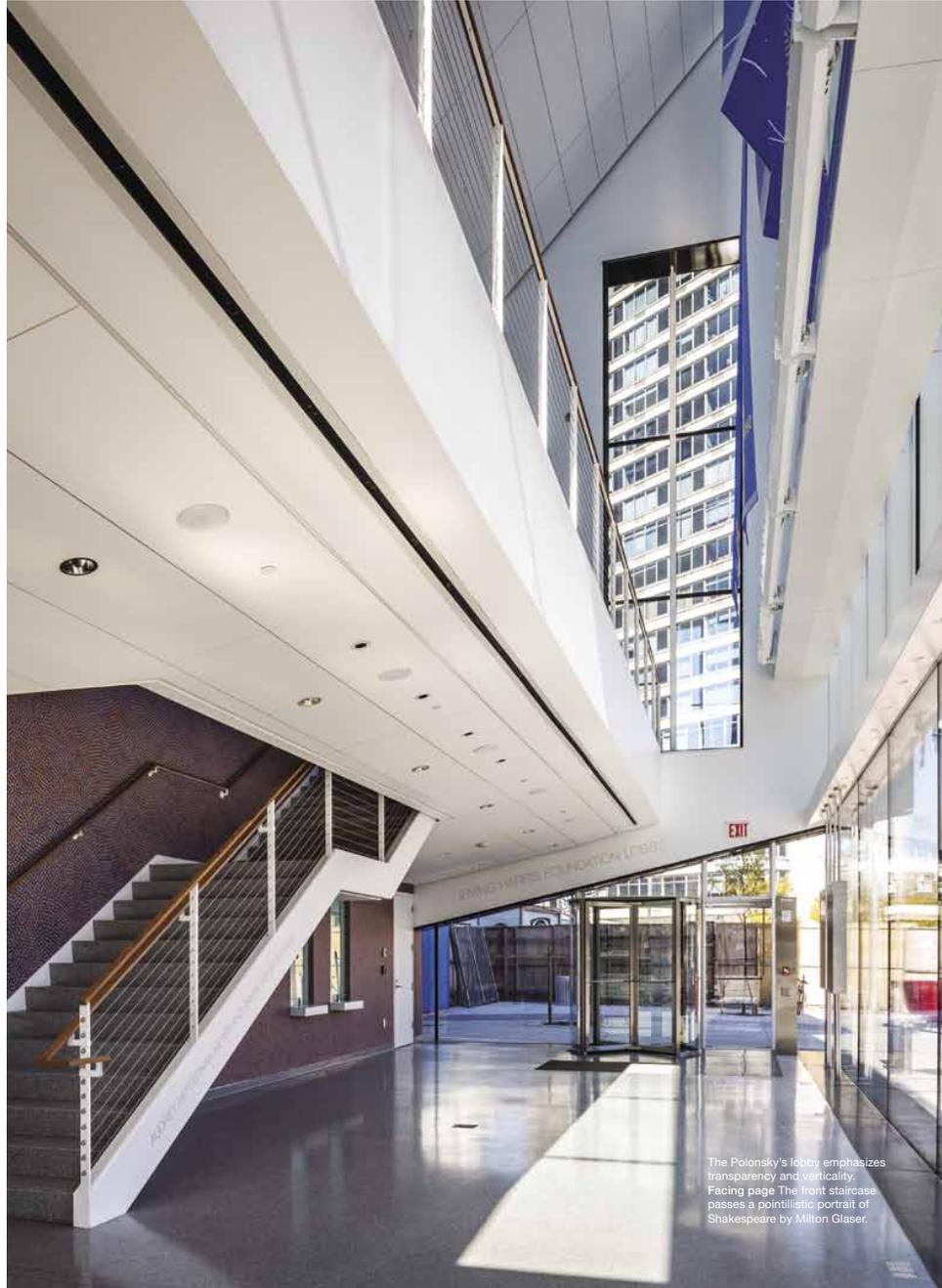
**Below** The Polonsky's front curtain wall and entrance open onto a public plaza with serpentine stainless steel inlays.



feet, appear on the wings, sliding on a 40-foot track bolted into the concrete blocks (itself so large that the construction crew had to load it into the building through a backstage rear window). These doors can be closed for maximum acoustic protection or opened, either to allow natural light and air in from backstage during rehearsals and other non-performance times or to deepen the stage for certain performance effects. An army, notes project architect David Haakenson, could march in from backstage through these doors for a battle scene in a production of Macbeth.

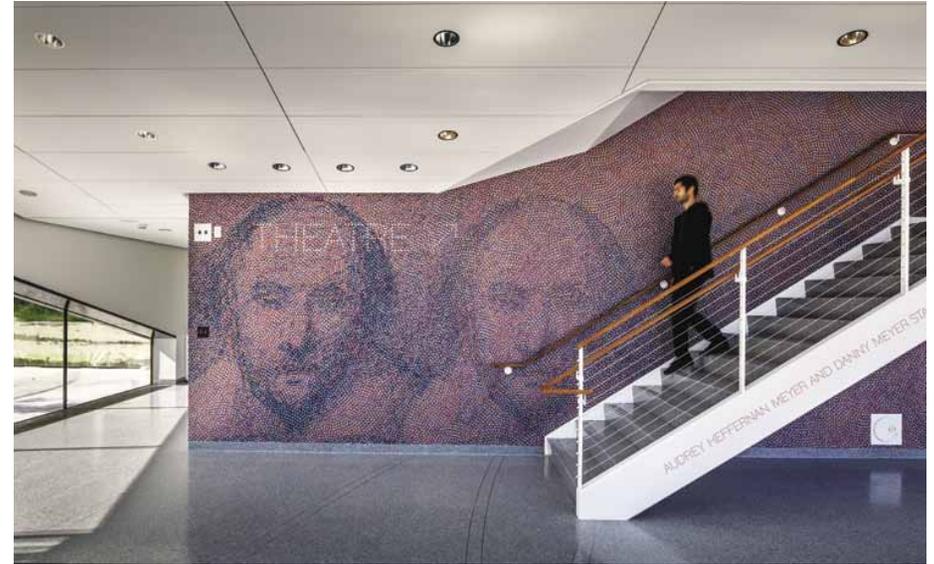
The theater's internal features, H3 partner Geoffrey Lynch notes, are sturdy and minimalist: W10 columns with intumescent paint; exposed steel fascias; steel stairs, stringers, handrails, visible roof beams, and catwalks; and all-black detailing in both the auditorium and back-of-house spaces (not just the floors and walls but the baseboards, corner guards, signage, outlet covers, acoustic doors, and even pantry appliances). He describes the atmosphere as "raw, but kind of a refined raw ... a very, very complex black box [and] a very intimate one" whose surfaces are "not to be treated delicately [but] to be whacked pretty hard." The front curtain wall, like many features of the building, presents a simple appearance supported internally by complex design and engineering. To create the elegant screen-like facade and minimize structural interruption, the architects specified an expansive curtain walls: four rows of triple-glazed panels for the top three floors, 5 feet, 1 inch by 11 feet, 1 inch each, atop a ground level of 7-foot-8-inch by 11-foot-3-inch double-glazed panels. The upper assembly is held by slim steel T mullions suspended from what Haakenson, calls "the mother of all beams," a 30-inch by 30-inch horizontal tube beam at roof level. That beam is in turn supported by diagonal cross-bracing within a complex structural system calling for a total of 84 columns and 686 other structural members. Columns include hollow structural section members HSS 6x6x½, HSS 6x6x¾, HSS 9x5x¾, and 11 different dimensions of wide-flange members ranging from W6x25 (15 in total) to W18x71





The Polonsky's Lobby emphasizes transparency and verticality. Facing page The front staircase passes a pointillistic portrait of Shakespeare by Milton Glaser.

The speaker. © Francis Dzikowski/Esto



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Geoffrey Lynch,  
H3 Hardy Collaboration Architecture

#### **POLONSKY SHAKESPEARE CENTER**

Location: 262 Ashland Place, Brooklyn, NY  
 Developer: New York City Economic Development Corporation, New York, NY  
 Architect: H3 Hardy Collaboration Architecture, New York, NY  
 Construction Manager: F.J. Sciamie Construction Company, New York, NY  
 Structural Engineer: Robert Silman Associates, New York, NY  
 Structural Steel Erector: Atlantic Detail & Erection, Far Rockaway, NY  
 Ornamental Metal Erector: David Shuldiner Inc., Brooklyn, NY  
 Curtain Wall Fabricator: Gartner Steel and Glass (Josef Gartner, USA, a division of Permasteelisa North America Corp.), New York, NY  
 Curtain Wall Erector: Tower Installation LLC, Windsor, CT

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