

Brick by Brick

Architecture
and Interiors
Built with Bricks



Beyond Red: A Look at the Numerous Aesthetics of Brick

Shape, Size, and Color May Fluctuate, but Brick's Intrinsic Nature as a Material Derived from the Earth Is Universal



The curvaceous brick forms of Studio Zhu-Pei's Imperial Kiln Museum, Jingdezhen, China (opposite), and BLAF Architecten's gJG House (above).

While architectural work in wood, stone, and concrete will always remain adaptable and reliable, brickwork is the only material that will never cease to be considered craftsmanship. Multilayered and multicolored, with sharp or sinuous corners and arches, brick can be transformed and recontextualized over and over again according to its place and mode of use. Brick's engineering capabilities helped ancient civilizations build impressive structures such as the steep mudbrick Meroitic pyramids from the final period of the Kingdom of Kush in Northern Sudan and the monumental Roman Baths of Caracalla. Precisely because of their organic and malleable nature, clay bricks have the power to raise a building to the highest level of sophistication, but also to produce the most unassuming form of shelter. While it remains the most basic and humble of building materials, brick can be anything we want it to be—as long as we acknowledge “what the brick really wants,” as the late architect Michael Sorkin wrote.

It may seem at first glance, as it is virtually omnipresent, that there must be a standard for the measurements of a single brick. Yet metrics apply in different countries that dictate the length, depth, and height of one modest clay brick. While in the United Kingdom the standard modern brick measures 8.5 × 4 × 2.5 inches (21.5 × 10.2 × 6.4 centimeters), India's typical brick

measures 7.5 × 3.5 × 3.5 inches (19 × 9 × 9 centimeters), and the United States' widely used modular brick is 7.6 × 3.6 × 2.2 inches (19.3 × 9 × 5.7 centimeters).

While the cult of the brick is global, it has its own characteristic elements according to its source—the traditional gray brick ubiquitous in China or the multicolored earth bricks used in Denmark, for example. Whether it be made of red clay, rammed earth, or recycled material, brick can respond to both the architect's needs and the user's experience.

The architect and critic Carlos Mijares Bracho, arguably Mexico's pioneer in experimental brick architecture, wrote “Brick is the first building material that can be called—strictly speaking—a prefabricated material.” He continued, “With brick—earth, water, and fire—it is possible to make floors, walls, columns, pilasters, arches, lintels, and domes; but also steps, moldings, ornamental elements, textures, and diverse rhythms and rigging.”

While it is eventually up to the artisan or the architectural designer to find the adequate fit for construction, one thing that remains common is the sourcing of the material. Places built along the banks of a river often rely on its mud as the base for creating a local clay for sun drying or firing as bricks. Examples include mud-and-straw bricks from the Nile region, used since ancient Egyptian civilizations, and the centuries-old traditional methods used in Taos, New Mexico, both of which help regulate increasingly extreme temperatures.

Every work of architecture made in brick corresponds—or should correspond—to the local climate, the history, and the people inhabiting or transitioning a space. Throughout the history of modern urbanization, residential buildings were widely constructed in brick. However, this was not always the case, as architect Francesca Torzo writes in her “Notes on cities and places. Copenhagen,” where she speaks of the city's history of building with clay bricks stating that, at one point, after the massive fire of 1728, “wooden constructions were banned and brick became the reference material, even for private buildings.” A similar argument was made by “the architect of New York” Rafael Guastavino, who, in the late 19th century, applied his signature thin-tiled Catalan vault to multiple buildings and stations all over the city under the patented argument that they would never catch fire.

In the Binh Thanh district of Ho Chi Minh City, Vietnam, Sanuki Daisuke architects created a multipatterned cinder-block facade providing privacy, light, and ventilation.

While fire is always a concern, the main feature of these compression-only vaulted structures is their ability to span considerable distances without the need for further support by beams or columns. They provide visual continuity and harmony, while also creating phenomenal aural experiences.

An example of a residential architectural design planned around vaulted ceilings is the Vault House by South Korean studio OBBA. Its curved, redbrick walls wrap around a central barrel vault. Two main oval shapes intersect between open-air and indoor spaces, creating sweeping rooms in all directions with openings that frame the sky and the surrounding landscape.

One of the most familiar forms of brickwork is the row house, found in London as the 17th-century townhouse; in Philadelphia, in the early-18th-century narrow alleyways only wide enough for a carriage; or in Brooklyn, New York, as the ubiquitous 19th-century brownstone. This typology of near-identical homes has withstood the test of time and continues to be widely sought after among city-center residents in metropolises worldwide, who seek small, open-plan, and primarily vertical spaces.

The adaptive reuse of old buildings and fitting new homes into vacant lots are challenges best faced when using brick. Studio Ben Allen, for example, known for its use of double-height vaulted ceilings, created an extension for the backyard of an existing Victorian house. Handmade York bricks make up and bear the weight of two barrel vaults that extend the kitchen and dining/study room, making way for natural light on both ends.

In other, not-so-narrow places where, nonetheless, houses are built one right next to the other in similar styles, it is interesting to find reinterpretations of traditional brick architecture. In Münster, Germany, the Haus am Buddenturm by hehnpohl architektur bda—somewhat reminiscent of Marcel Breuer's brutalist Whitney Museum in New York—contrasts with the city's classic aesthetic, keeping a respectful nod to the gable house profile.

Sinuous walls like those of the Baker House at MIT by Alvar Aalto are designed for acoustic purposes to lessen the outdoor traffic noise. Far from the city and in the woods, its contemporary counterpart could be the gjG house in Belgium by BLAF Architecten, which is made of reused bricks.

Cinder blocks—perforated bricks in an array of patterns—are prominent in regions with a tropical climate, such as Vietnam or Brazil, where the cobogó brick originated. Cities in Vietnam, where space is an issue, opt for narrow multi-story homes that make their way into tight lots. Here, solutions like cinder-block walls are essential.

Similarly, an entire building can be enveloped by a perforated screen allowing for sheltered balconies, while filtering sunlight and providing protection from the elements, as in the reticulated facades of the Bat Trang House by VTN Architects or the Brick Cave by H&P Architects, both in Hanoi. A residential building in the Rwanda neighborhood of Addis Ababa, Ethiopia, by New York firm AD-WO, is likewise comprised of a core building with a 6-foot (2-meter) offset surrounding brick wall bridged with plant-filled connecting balconies.

CAD-generated software now makes it possible to design textured and decorative walls like those of Admun Design & Construction Studio in Tehran or the “grapes” on the winery facade developed by Gramazio & Kohler in Fläsch, Switzerland, with ETH Zurich.

Zigzagged, curved, and stepped brickwork designs create rhythm and repetition, often with results that are aesthetically pleasing to the eye and the body in general. We seek places that bring us solace and ease, and we look for patterns and compositions that remind us of sequences we know from nature. What's more, the brick offers a direct connection to the earth itself and a sense of grounding.



A range of bricklaying techniques adds rich texture to the facades of Gallery House in West Bengal by the Abin Design Studio.

At Casa Joven in San Francisco, Argentina, the architects have used a perforated brick screen to distance the house from the street.

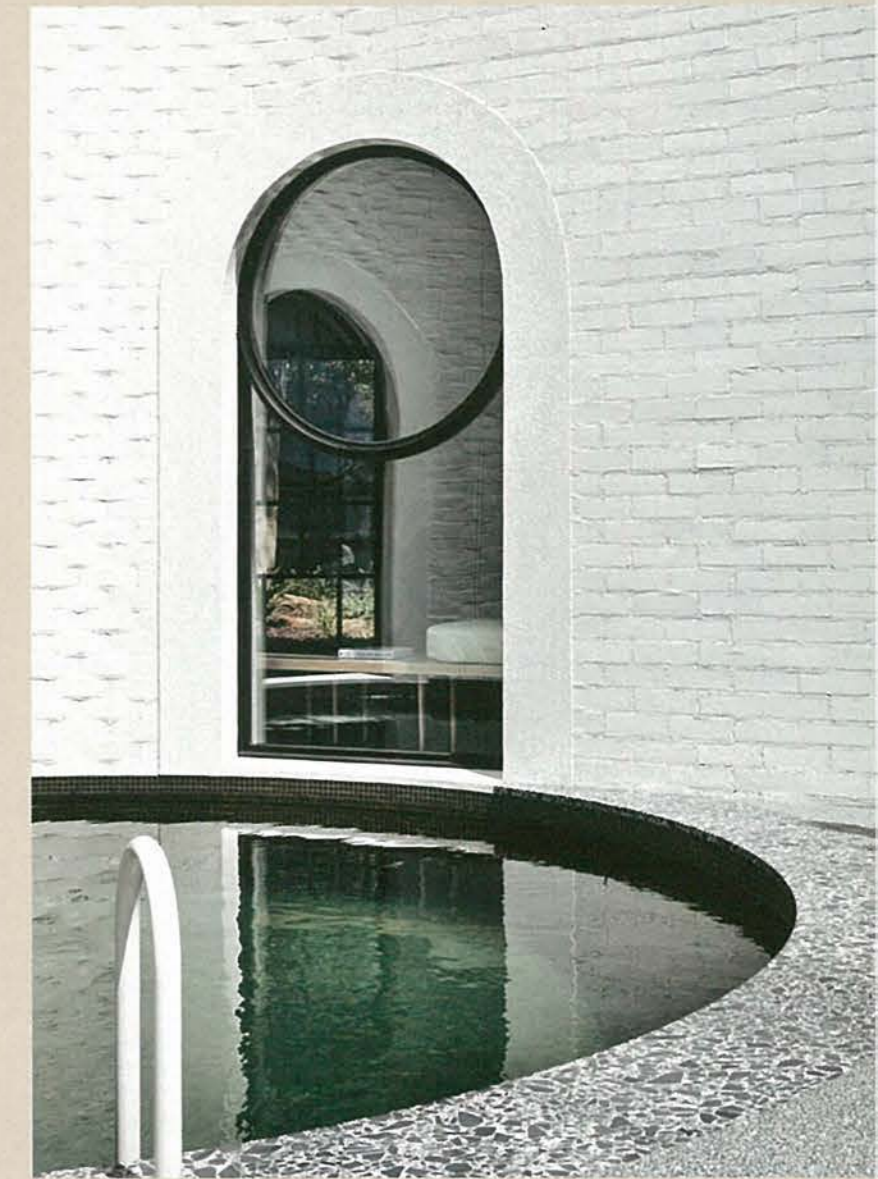


Petersen Tegl bricks are used to construct the irregular angular forms of two sister buildings at The Rye in Peckham, London.

As part of the regeneration of Site Apostolinnen in Mechelen, Belgium, architect dmVA mounted a skylight on a brickwork base.



A beautifully curved, whitewashed brickwork facade is the principal feature of an extension to Caroline House in Melbourne, Australia.



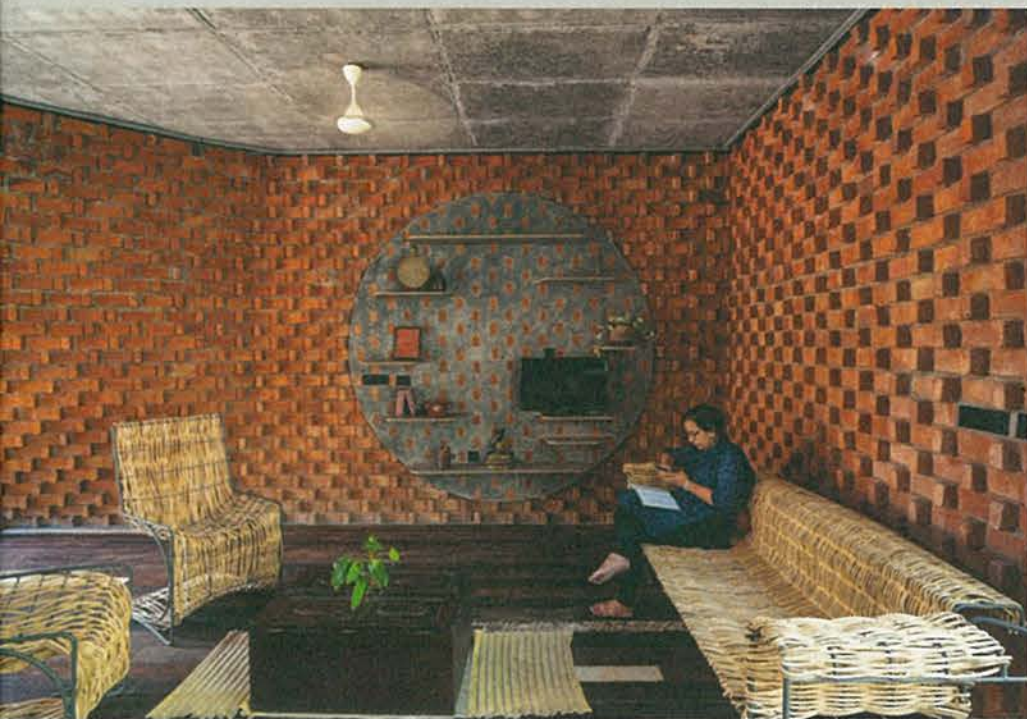
The brick vaults at Studio Zhu-Pei's Imperial Kiln Museum, Jingdezhen, China, are based on the form of a traditional kiln.



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The venerable brick is one of the oldest and most sustainable building materials in the world. It is simple yet versatile, modest yet resilient, global in usage yet local in appearance. Its warmth and design appeal continue to seduce contemporary architects and define the aesthetic of contemporary architecture. This book showcases the best examples of modern brick applications, focusing on residential buildings and interiors. Dive into a collection of modern projects from around the globe, and discover how traditional forms are revitalized and made contemporary. Bricks continue to build the way forward.



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