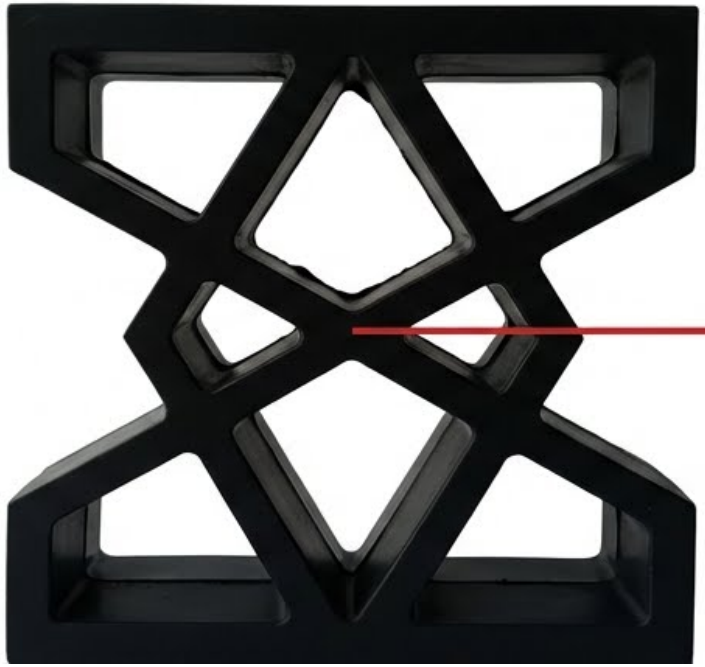
MODULAR GEOMETRIES

FROM UNIT TO SYSTEM



Architecture is the will of an epoch translated into space. This presentation deconstructs the concrete block from a singular static unit into a kinetic system of tiling, interlocking, and light manipulation.

A study in the logic of the grid.

THE FRAME VS. THE VOID

The square is the fundamental canvas of modularity. While the outer dimensions—the chassis—remain strictly orthogonal to ensure structural integrity in the grid, the interior volume allows for variation. The 'Scoop' design demonstrates subtraction within a standardized footprint. By carving out a U-shape, the block retains the compressive strength of a brick while offering the depth of a vessel.

VENTILATION AS ORNAMENT

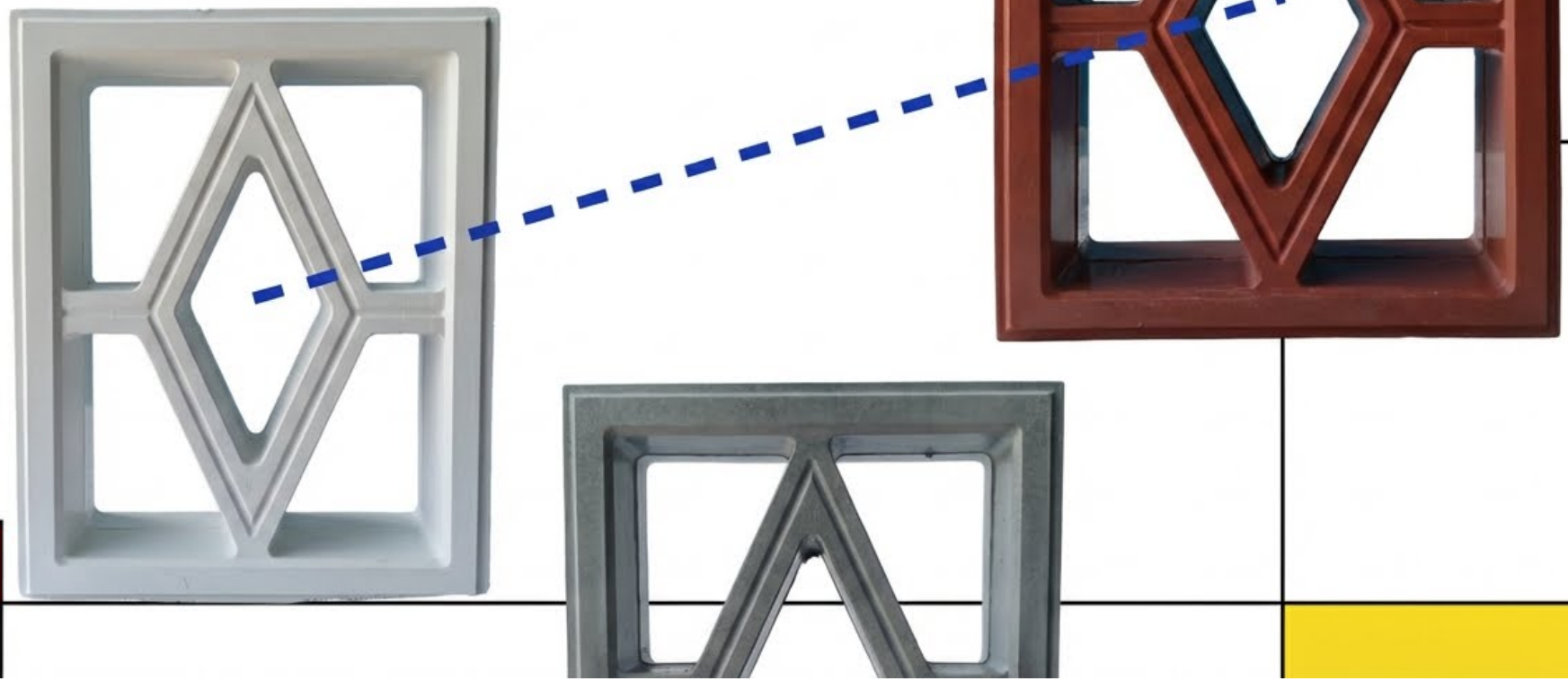
Radial symmetry creates a fail-safe pattern. In these breeze blocks, the aperture serves a dual function: allowing airflow for passive cooling and creating floral abstraction. The pattern creates a continuous lattice regardless of the block's orientation in the Z-axis.

ROTATIONAL

INDIFFERENCE

THE DIAGONAL GRID

The solitary block contains only a fragment of the geometry. It is only in assembly that the true form reveals itself. When tiled, the internal diamond cutouts bridge the gap between units, creating a secondary diagonal lattice. The eye ignores the vertical stack of the concrete and follows the continuous diagonal line of the void.



HONEYCOMB DENSITY

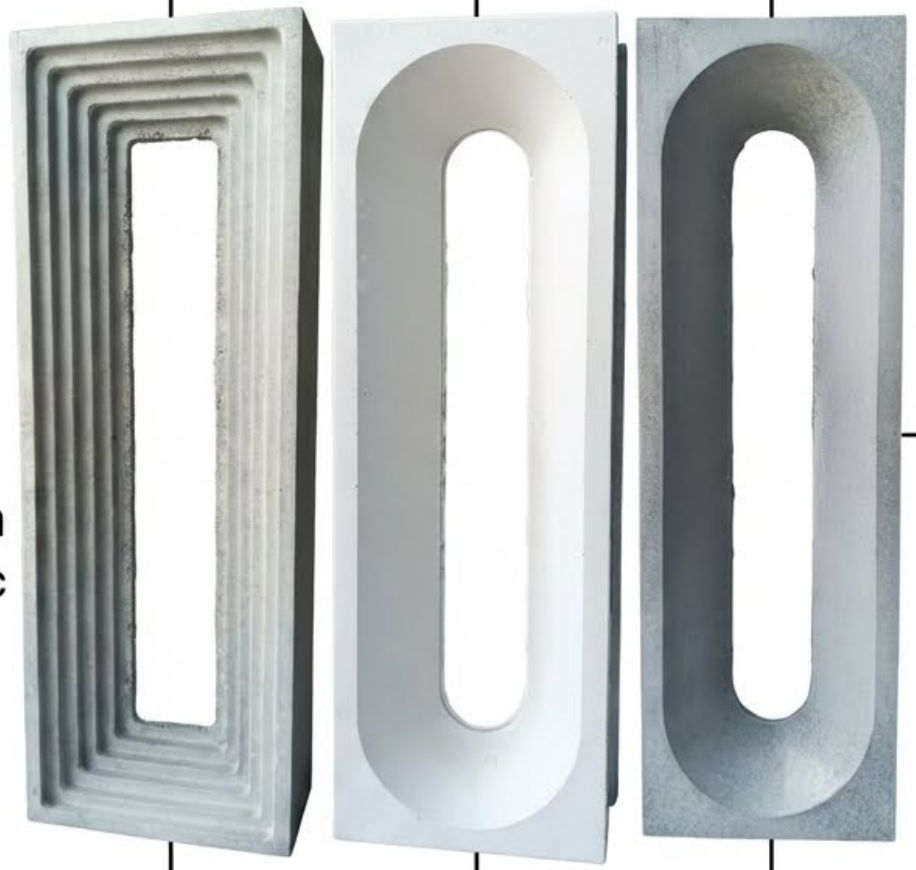
TESSELLATION

Breaking the orthogonal grid. The hexagon offers organic, hive-like scalability. Unlike the square, which distributes load vertically, the hexagonal interlock creates a woven structural density.

Note the 3D relief in the Starburst tile; the facets are angled to catch light differently, ensuring the surface color shifts dynamically throughout the day.

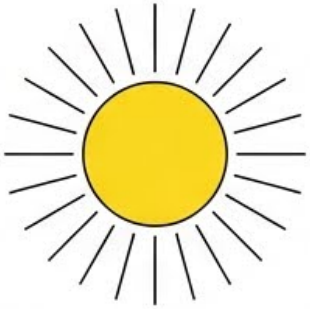
VERTICAL RHYTHM

Elongation via repetition. The pill aperture and fluted pilaster lines compress the horizontal axis and emphasize the vertical. When installed in in a sequence, these blocks transform a static barrier into a rhythmic screen, mimicking the spacing of a colonnade or bamboo fencing.



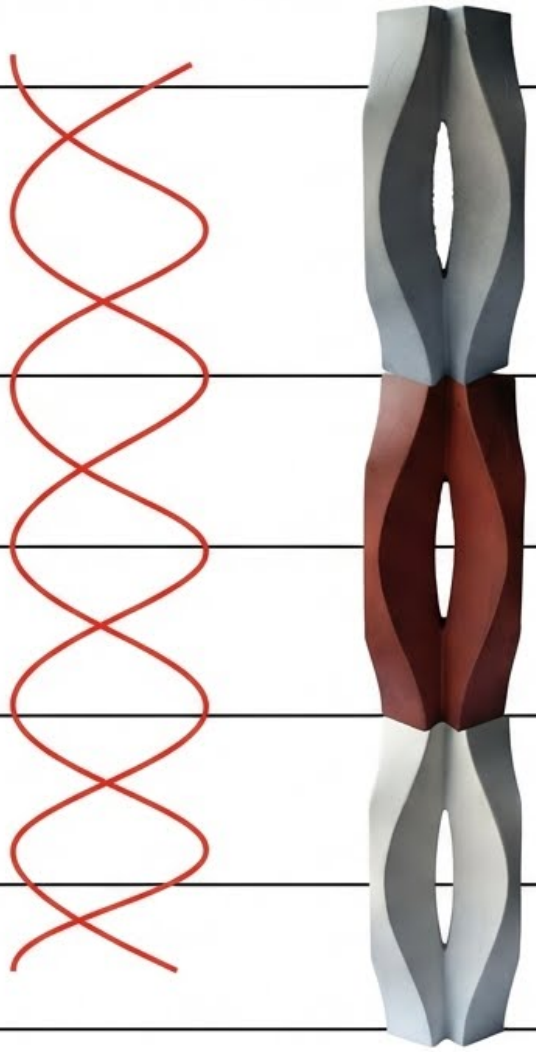
CHIAROSCURO: THE LIGHT TRAP

These blocks are not defined by their outline, but by their depth. The varying angles of the internal recess function as a sun-dial. A flat facade is static. A deep-relief facade is temporal. As the sun moves, the shadows lengthen and retract inside the funnel, changing the texture of the building from hour to hour.



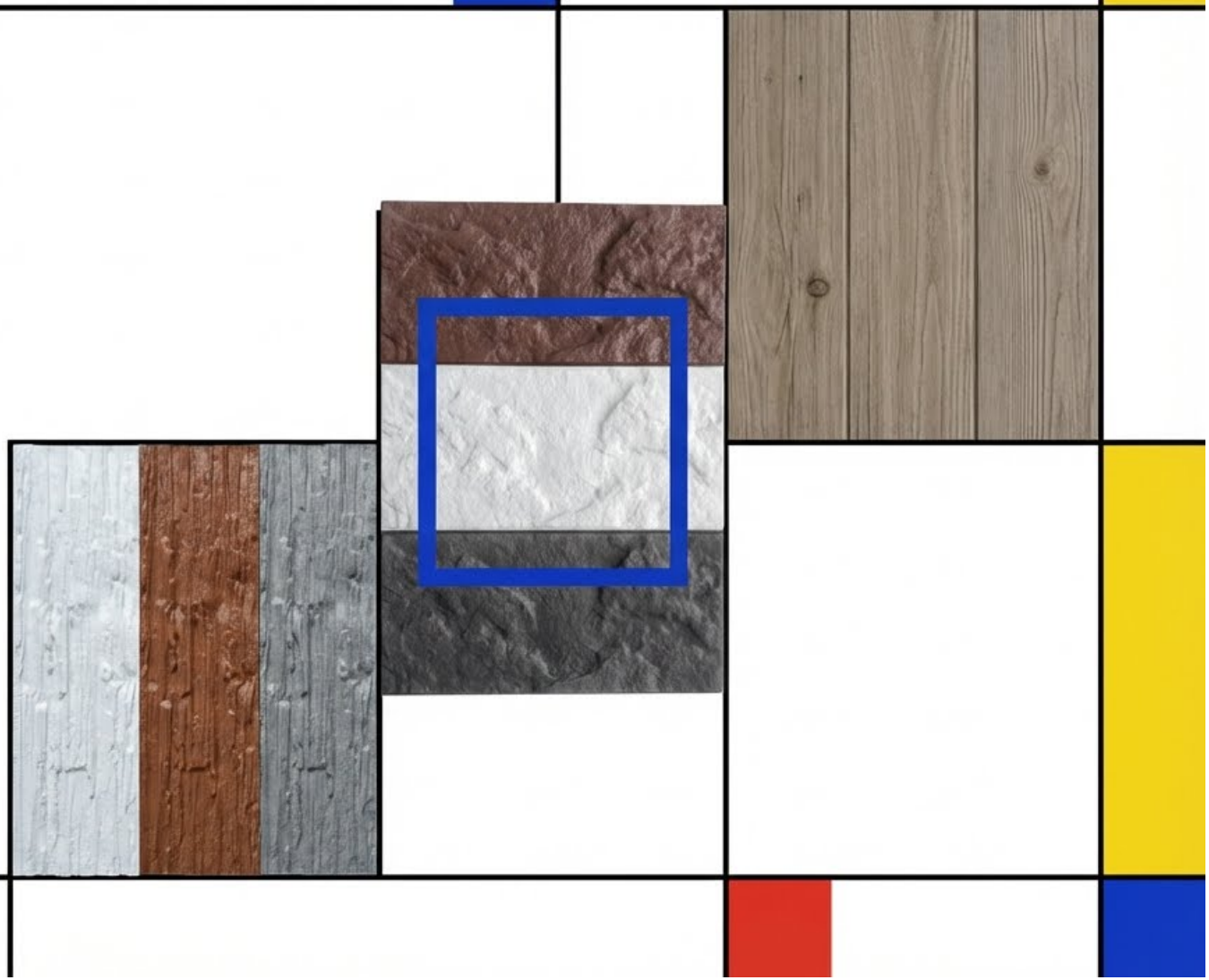
THE
THE ROTATIONAL COLUMN

Sculptural stacking. These units are designed to twist as they rise. A single repeating mold allows for the construction of complex, helical pillars.
Modularity in the Z-axis allows for free-standing sculpture from standardized industrial parts.



MATERIALITY & TEXTURE

The industrial grid need not be sterile. By stamping organic textures—such as wood grain or hewn stone—onto the standardized block, we reconcile the conflict between the natural and the manufactured.
This introduces tactile variation to the visual uniformity of the wall.

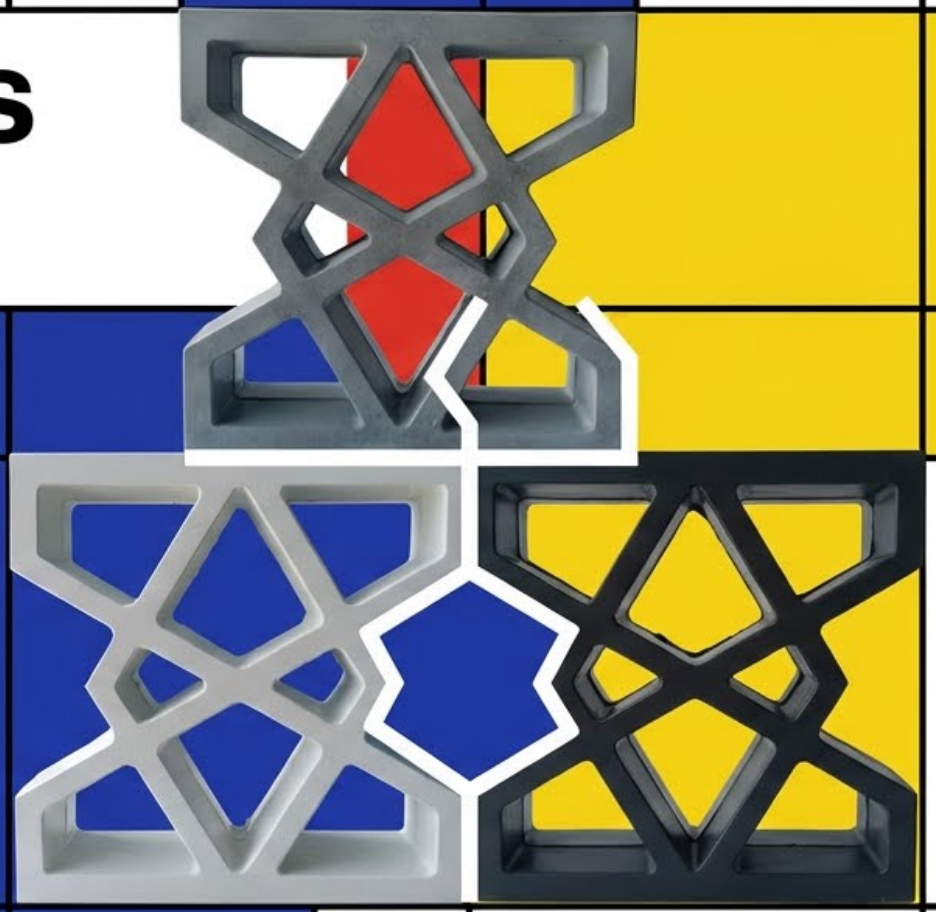


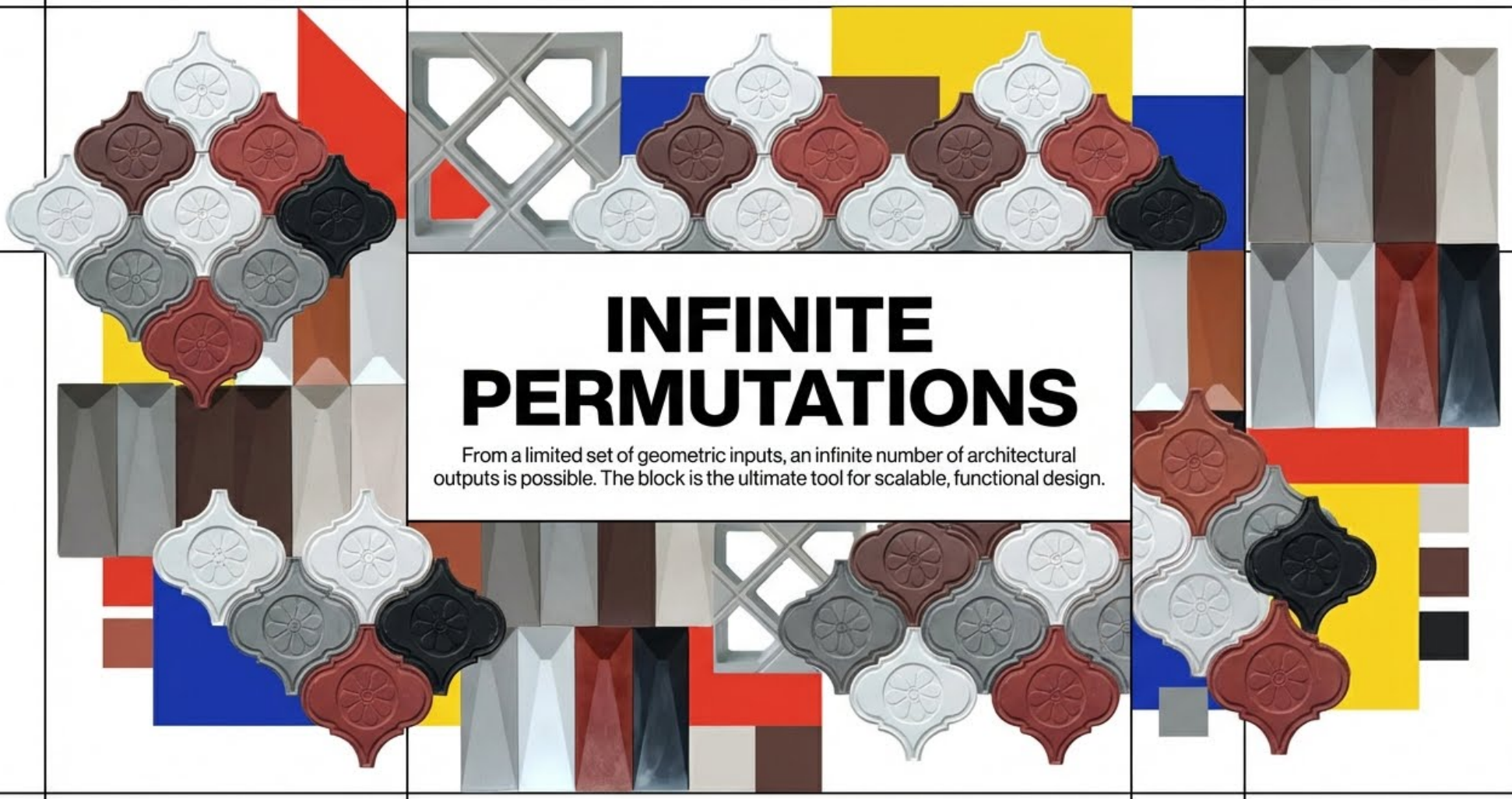
POLYCHROMY

The block as a pixel. Scalability allows for the application of color theory on a macro scale. Variations in tone can be used to define zones, create gradients, or simply disrupt the monotony of the grey concrete canvas. The facade becomes a mural.

THE CONTINUOUS WEAVE

Dissolving the unit. These shapes blur the boundary of the individual boundary of the individual block. When stacked, the ‘X’ of one block connects seamlessly to the ‘X’X’ of the neighbor. The wall ceases to look like a stack of bricks and begins to resemble a continuous woven fabric.





INFINITE PERMUTATIONS

From a limited set of geometric inputs, an infinite number of architectural outputs is possible. The block is the ultimate tool for scalable, functional design.

Form follows function. The unit serves the system.