

## Material *Values*

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Why do we as designers place so much importance on material selections and implementations? These are arguably the most influential decisions in terms of a building's contextual character and message to users. The physical characteristics of materials are often integral to their metaphysical qualities. In addition, they have the ability to create functional order with which users can synthesize buildings. Physical attributes like translucency, texture, color, and joinery have an important role in the sensory experience of a building, both inside and out. Functional order and synthesis can be achieved as materials convey hierarchy, continuity, and context.

A look at Renzo Piano's careful selection, experimentation, and implementation of materials illuminates their potential for creating architectural masterpieces with specific contemplative and functional qualities. Piano refers to materials as having *values*. Buildings are often categorized on a continuum – where polemic opposites sit at each end. Material selection provides architects with a way to freely slide along this continuum. In this way, Piano's *values* can be interpreted as materials which are used in a graduated manner, to achieve an intended result, perceptual or rational. These material *values* establish a building's position on any continuum of evaluation.

Piano identifies these polemic arguments in architecture and carefully selects his relative position. In *Logbook*, he states that, 'the architect walks a knife-edge between art and science, between originality and memory, between the daring of modernity and the caution of tradition.' It seems as though his awareness of these relationships emboldens his designs. He selects each material with the understanding that its incorporation impacts all relationships within a design and therefore positively alters its outcome, both physically and metaphysically.

The physical characteristics of materials communicate metaphysical meaning in a variety of ways. Light transmission through materials creates a graduated scale where opacity and transparency sit at opposite ends of a perceptual continuum. Piano takes advantage of the material *values* on this scale at the Cy Twombly Gallery, where he uses opaque plaster walls, a translucent linen ceiling, fritted glass at the roof structure, and completely transparent glass at the window walls of the entry and rear gallery. The subtle articulation of graduated light transmission is hardly perceptible but creates corresponding hard and soft textures and spaces. Technically a simple gesture, this graduated light transmission creates transcendent space. As Piano states, 'the act of building is not and cannot be just a question of technique, for it is charged with symbolic meaning.' Piano's experimental nature and material finesse allows him to achieve a metaphysical space for observing the artwork where layering creates softness and the artworks seem to glow in the changing daylight. The *values* of translucency all coalesce in a sensory space that is understated and alive.

Piano also states in *Logbook*, 'the idea that technique and art belong to separate and parallel universes is as harmful as it is recent.' Clearly his knowledge of construction and his skill for material layering is a result of an integrated design methodology. His material joinery benefits from this hands-on upbringing and experimental nature. The ease with which he joins disparate materials allows him to not only resolve the connections, but also truly express an intangible idea within the detailing. The carefully

executed windows at the Cy Twombly Gallery symbolize a harmony of intention and implementation. The large glass planes are carefully inserted prior to being 'locked' into place by a heavy stone base piece. The juxtaposition of opacity and transparency, weight and weightlessness, permanence and impermanence is celebrated in this detail. The visitors experience a seamless and mullion-free view into the gallery and perceive that the design and construction were happening simultaneously. Upon approaching the building's entrance, one is subconsciously aware of the sublime minimalism of the façade achieved by these integrated details and is initiated into a successive process of experience as they enter the gallery. In the introduction to his book *Details of Modern Architecture*, Edward Ford states that 'detailing was born when craftsmanship died.' Piano disproves this theory here and throughout the building as he shows that detailing is a craft in itself which is integrated into the total design process and significantly influences the metaphysical experience of a building.

While the physical properties of materials clearly possess transcendent metaphysical capabilities, they also provide functional order and help to synthesize a building's purpose or meaning. The material *values* here serve to explain the building in a somewhat rational manner so that the users better understand its intended pattern of use. The Cy Twombly Gallery uses a relatively limited palette of materials which articulates the elements of the entire composition. Stone, concrete, wood, plaster, fabric, and glass are used to express the *values* of the gallery. The heavy stone and concrete give the impression of exterior mass and permanence. The light oak floor and artwork frames provide anchoring in the ethereal space. Piano says, 'the idea of space, emotionally speaking, is like that of music – it is immaterial' and so the soft, white plaster walls and hovering ceiling create the seemingly-infinite gallery spaces. The large glass windows provide views into and out of the entry and rear gallery. Visitors, whether consciously or subconsciously, read the materials and understand the space for viewing and contemplation. Piano uses the relative material *values* as a hierarchy which differentiates one material from the other and he is careful to use each material for its intended purpose, whether it be for providing a sense of vastness (as with the walls and ceiling) or finiteness (with the stone, concrete, and wood). In this way, functional clarity and harmony between material and meaning are achieved.

In addition to this interior functional order, Piano carefully uses material *values* to provide a contextual order at the gallery's exterior. The Cy Twombly Gallery, located across the street from the Menil Collection, takes cues from the surrounding buildings and their materials. The existing gray Menil Collection and surrounding support bungalows create a humble, unified order situated in a park-like setting. The bungalows are all oriented toward the Menil museum whose large, overhanging roof canopy makes it accessible from all sides. Despite its gray cladding, the scale of the central museum and its white structural members and roofing canopy distinguish it as the primary force in the landscape. In response to these existing elements, Piano selected cast stone for the façade of the Cy Twombly Gallery. He felt that a different *value* needed to be established; one which did not challenge the existing relationships but gently receded in the landscape. Like the Menil Collection, the roof structure of the Cy Twombly Gallery also uses white steel members for its roof canopy and in this way alone, relates to the larger Menil museum. The contextual *values* established in this landscape are the planted lawns, the gray facades, the stone cladding, and the white structural members. These exterior material *values* unite the two museums in their structural/roofing systems while reinforcing the idea that the main collection and the supporting bungalows have an established relationship which is not to be disturbed by the new, smaller museum. The east entrance of the Cy Twombly Gallery also suggests that Piano was trying to minimize the presence of the new museum in the previously established museum

neighborhood. Regardless of their orientation or cladding material, green space unifies each of the disparate buildings and helps visitors to read all of the buildings as a whole.

Materials articulate a building's purpose and clarify its objectives, both rational and irrational. By assigning different material *values*, designers can increase the range with which users perceive space and order. Piano's Cy Twombly Museum illustrates carefully established material *values* which are often difficult to perceive but are always contributing to the spatial experience. The gallery subtly encourages contemplation and observation as users clearly understand its functional order and local context. Piano's experimental design process seamlessly integrates material exploration and implementation while challenging the limits of *value* and perception.