

architects and stone

making the right choice

By Mark E. Blunck

Architects and clients choose stone for its aesthetic qualities. Many issues of durability, workability and maintenance enter the equation, but it's the look and feel of the material that determines its final selection.

For the PF Chang's in Palo Alto, Calif., a mixture of slate, granite and marble complement each other in maintaining a design theme.

All photos courtesy MBH Architects, Alameda, Calif.

*"And it stoned
me to my soul..."*

Van Morrison, 1970

Since the ancient Greeks and Romans, natural stone has been selected for its association with the great civic buildings of the past. There's a specific reason that capitol buildings and other governmental structures are clad with this material - it imparts nobility, permanence and prestige that are important factors in the design and function of these places. Even modern, slick aluminum-skinned government buildings incorporate stone elements for this vital classical connection.

For buildings with more-modest uses - from retail stores to single-family homes - stone, in its many variations, still plays an important role in the overall presence of a design. The main factor in selection is its compatibility with other building elements in terms of color and texture; a versatile stone achieving an appealing sensual feel is slate, an affordable and effective material that brings life to a building with its diverse colors and patterning.

The selection of any architectural building element is the result of collaboration between the client, owner, architect and developer, all of whom have widely varying degrees of expertise in product knowledge and availability. When products such as stone are specified, this process is further complicated by the natural variation that occurs in these materials.

A carefully reasoned choice, made at the beginning of a project with a stone sample, can be completely altered as the delivered material may bear only a passing resemblance to that initial sample. Significant stone variation can occur from each quarry; an important method to minimize those potential pitfalls is through the use of submittal samples.

Stone is more than the standard granite countertop or marble-clad wall. One example is seen with one of the most-successful American restaurant firms is P.F. Chang's China Bistro, headquartered in

Scottsdale, Ariz. The company's director of architecture and design, Brian Stubstad, leads the design effort for its award-winning restaurants across the country, and collaborates with a small select group of architectural firms to create beautiful works.

One of the strong dramatic features of many P.F. Chang's projects is the large interior surfaces completely clad in slate. A pleasing combination

of deeply saturated and variegated reds, golds, greens, copper and darker colors - often on the same wall surface - creates a lively tapestry of dramatic, almost painterly artwork.

The rich colors of the slate tiles are further enhanced with irregular textures to create depth and movement along the surface. These multi-hued walls contrast with more monolithic wood veneer or wall coverings



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on adjacent surfaces, and accentuate colored concrete or slate floors in the lobby and dining areas, so that the walls become prominent focal points.

This diverse color palette changes occasionally, with black slate tiles separating yellow limestone banding running along the wall surface to emphasize the strong architectural lines of the building. While stone is a perfect material for a restaurant, it's necessary to seal the material on the floor for stain protection; a sealant will bring out the expressive colors.

An important consideration with some slate floor tiling is possible unevenness that can create a hazard to staff and customers. Maintaining acceptable variations with the tiles and minimizing grout lines ensures a safe floor surface.

Another building type often employin slate and other stones are



While builders might find a place for slate as a flooring accent near a doorway or on an outside patio, architects find the variation in the stone's look can make for an interesting wall cladding.

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For architects, it's not always an either/or situation. At the San Francisco Wax Museum, natural stone with window fittings and copings worked well with standard brick-type masonry

multifamily housing structures, an ever-increasing presence in dense urban settings. Architects specify slate and natural stones on street and lower-level elevations to bring a traditional historic look to these buildings.

This architecture is commonly inspired by modern design and construction principles, and these buildings are often situated adjacent to much-older structures. Exterior stone cladding serves to establish a certain degree of dignity and contextualism with the surrounding built environment.

Many other types of stone are employed in the design industry for interior uses, from lobbies to bathrooms and kitchens. A rich-toned marble or granite lobby floor in a restaurant or home will create an impressive sense of arrival and gives aesthetic satisfaction to the owner.

The importance of stone in residential applications is concentrated in bathroom and kitchens, as improvements in



In some cases, architects take a lead from existing structures in determining stone selections. At the Sherman Oaks, Calif P.F. Chang's, the design included bands of a creamy limestone used in the construction of the shopping mall attached to the restaurant.

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these rooms are the most-effective method to increase home value. Stone in the bathroom creates a clean modern look without appearing cold or sterile, and granite is commonly specified for its non-porous nature - essential material qualities for bath and kitchen areas.

There's also limestone, which once covered the Great Pyramids in Egypt and created bright geometric forms in the desert. Over the millennia, the white limestone either wore down from natural erosion or ended up recycled as building material in nearby Cairo, but it is easy to visualize those pyramids as dazzling white monuments in the intense desert sun.

The San Francisco Wax Museum by MBH Architects was initially envisioned to be completely clad in limestone, but was deemed as too costly. Jerusalem limestone was chosen for its durability and dignity, and is installed on the building's base, windowsills

and coping in order to make a historical association with legendary British and French designs.

The intricate detailing of the limestone components is indicative of the high degree of design and material quality for the entire building. The limestone also greatly influenced the selection of other building materials, including cement plaster coatings containing limestone ingredients.

Architects specify stone and other building materials based on input from clients, owners and city planners. The designers will attempt to create visually impressive works, and those decisions can change throughout the design and building process.

While pure aesthetics is the primary factor in a design decision, other factors play an important role ... and all of this is carefully taken into account at all steps along the way.

Mark E. Blunck has written over 80 published design and architecture articles since 1987 for the national award winning publication Iowa Architect, along with Inland Architect and Echoes magazines. He thanks Wilse Alfonso of MBH Architects in Alameda, Calif. for her insight into this article.



An architect's selection of stone can affect other building materials as well. Initial plans to completely clad the San Francisco Wax Museum in limestone went by the wayside due to cost; instead, limestone went into select fixtures, and limestone ingredients were included in materials such as cement plaster coatings.