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BY LEE G. JONES

**Q** I had a client who wanted plaster applied directly to masonry on a building exterior. My response was that it could be done, but it might eventually become defective and fall off the wall due to freeze/thaw cycles. Was I incorrect in answering this way? Is there something that discourages or encourages plaster application directly to masonry on commercial building exteriors? — R. Kent Patton, Oklahoma City, Okla.

**A** I don't have figures that differentiate between residential and commercial applications, but in this instance, I don't believe it matters. The advantages for using such a system apply to both commercial and residential construction.


In our reference library, we have books on the art of plastering that date as far back as the 1890s. Several chronicle the development of plastering and all kinds of construction methods and materials. They include recipes for various types of stucco or portland cement plaster, and the many types of masonry that stucco has been applied to since before the Egyptians. Among the types of

masonry mentioned are stone, brick, terra cotta tile, and all kinds of concrete.

One of these books, **Hollow Tile Construction and Stucco Finish**, published in 1924, describes all the advantages of using terra cotta tile and stucco. They include the infinite shapes one could form the tile into, its resistance to fire and vermin, the increased number of cubic feet a man could lay a day versus brick, and dimensional stability of terra cotta tile versus wood. One of the most common shapes and sizes of these terra cotta tiles found in the book's many illustrations is amazingly similar to that of the modern cinder block, or concrete masonry unit. Though the actual material has changed from clay to concrete since the 1920s, the form of the block has not.

CMU is a very common building material today. Because the portland cement-type stucco is composed of essentially the same materials, the bond between the two is very strong, provided that the block is coarse enough and has not been coated or otherwise contaminated. According to Mark Fowler of Northwest Wall and Ceiling Bureau, at least 15 percent of the stucco applied

in the Northwest is applied over CMU. He also notes that the CMU/stucco system is the standard in Europe: "Most all commercial and residential [construction] is stucco over some type of CMU."

Stucco has several properties that make it an ideal choice for finishing masonry. First, masonry is often porous, which allows for a good mechanical bond. Second, masonry is usually absorbent, which allows for the liquid part of the stucco to penetrate into the masonry and establish a good chemical bond. Third, the stucco can be used to even out irregularities in the masonry finish. Fourth, stucco has endless decorative potential: It can be tinted, have various types of aggregate for innumerable textures and effects, and trowelled to countless looks. Finally, when properly mixed and applied, stucco provides a moisture-resistant finish to the masonry surface. 

## About the Author

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