



Wachuwannano

BY MICHAEL A. GARDNER,
A.K.A. MR. WACHUWANNANO

ET TU, HORSE HAIR?

Let him have some plaster, or some loam.

—William Shakespeare

A Midsummer Night's Dream

Sam Wanamaker was a man of vision.

Blacklisted during the McCarthy era, the Shakespearean and Hollywood actor and director—remember *Those Magnificent Men in Their Flying Machines* and *Private Benjamin*? — fled to London rather than testify against his colleagues. During his exile, he went searching for the site of the Globe Theater, the original home of Shakespeare's plays. He was horrified to discover that the original Globe no longer existed and had been replaced by a brewery.

Seeking to rectify this wrong, in 1970 Wanamaker established the Shakespeare Globe Playhouse Trust. His goal? To raise enough money to completely reconstruct the Globe using authentic 1595—the year construction on the original structure began—materials and techniques. By 1990 he had succeeded, and in 1994 the new Globe Theater, 200 yards from the original site, had opened. Wanamaker, unfortunately, never saw the tangible result of his life's work. He died in late 1993.

One of the materials used in the reconstruction process was lime plaster. Gypsum plaster had been introduced to England by King Henry II in 1254, but 16th century builders preferred lime plaster for wall construction, believing that it had a greater structural integrity and better “sanitary qualities” than its gypsum counterpart. During that era, gypsum plaster was used for decorative purposes only. If the Globe Theater plaster reconstruction craftsmen were true to their word, they followed two lime plaster material preparation techniques used in the 16th century that have become almost forgotten in the modern era.

First was the practice of slowly slaking lime putty. To make the lime plaster as hard as possible, the raw lime was slowly hydrated over a long period of time, generally a minimum of three months, in a covered pit or trough. The longer the hydrating process, the harder the plaster. A lengthy slaking process also allowed sand to be gradually added to the mix, thus ensuring its uniform dispersal throughout the material and helping to prevent cracks.

During the 16th century, it was a very common practice to add cow or ox hair

to plaster. The hair improved the plaster's cohesive properties and helped it bind to the substrate, which in 1595 was probably either wooden slats or thatched, dried reeds. During the reconstruction, hair was used as a plaster binding additive; however, goat hair had to be substituted for cow hair when no authentic long-haired cows willing to donate hair could be located. Synthetic fiber began to replace hair as an additive approximately 100 years ago.

In the 20th century, imagine having a project wait three months for the lime putty to slake. 🏠

Resources

- Shakespeare's Globe Web Site
- *New York Times*, various editions
- Various plaster texts including *Plaster Specifications* (1938); *Millar* (1927); *National Lime Plaster Specifications* (date unknown)
- *Time* magazine, June 23, 1997

About the Author

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