I am involved in a renovation of a library designed in 1910 and built in 1912. A substantial portion of the project was built using hollow clay tile that was subsequently covered with 1 inch of gypsum plaster, but it also appears that some of the walls have had gypsum lath mechanically attached to them. The lath subsequently covered with about a half-inch of plaster. I thought gypsum lath was a more modern product, but when was it invented? —B.C., Oregon

It is very probable that the hollow clay tile substrate portion of the project dates from the original time of construction, for hollow clay tile was used extensively as a structural material during the early part of the 20th century. It was a strong and versatile substrate that easily accepted plaster, usually portland cement based, as a direct-applied finishing material.

Today’s gypsum board had as its predecessor a product called “Sackett Board,” a composite material made of layers of thin plaster placed between four plies of wool felt paper. The manufacturing process for Sackett Board was patented in 1894 by Augustine Sackett, the man generally considered to be the grandfather of the gypsum board business.

Sackett Board, according to United States Gypsum, A Company History, was “approximately 1/4 inch (thick) . . . and 32 inches in width and 36 inches in length.” Its major drawback, from a usage perspective, was “the open edges (which tended to crumble) and the rough paper surface (that) did not provide a satisfactory wall finish.” However, it turned out to be an excellent base for the application of gypsum plaster and soon became a replacement for wooden slat lath in many geographic areas. By 1909, Sackett’s company was producing more than 45 million square feet of material annually. In that same year, he sold his business to USG and joined their board of directors.

In 1910, a process for wrapping the board edges was created. In 1913, a method for eliminating the two inner plies of felt paper was perfected. Eliminating the extra felt paper made it easier to form the board. It could now be manufactured in 48-inch widths and 8-foot lengths. Apparently, however, the board was still manufactured to an approximate thickness of one-quarter of an inch until the early 1920s, because it was not until 1922 that a process for air-entraining the core of the board—a procedure that made the board much lighter and allowed it to be manufactured to a greater thickness—was patented.

Therefore, it is possible that the gypsum lath in the project under question could date from 1912. A form of gypsum lath was being produced at that time, and there existed a functioning gypsum plant in Montana, established in 1909, that was able to serve the Pacific Northwest market.

It is more likely, however, that the gypsum lath was installed during a renovation project that occurred subsequent to 1912, for if the product in question looks like modern day gypsum lath, it most likely was manufactured after that date. From our chronology, it is fairly easy to see that what passed for lath prior to 1912 was significantly different in composition and appearance from the product that was sold just a decade later.

It is likely that the lath was added to the library as a part of a renovation project that occurred during the period from 1920 to 1940 as gypsum lath was used extensively as a plastering base during that time. Its use as a plastering base is well-documented in textbooks that date from the early 1920s.

About the Author
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