MASONS, LIKE OTHER WORKERS, NEED A BREAK

It seems to be a well known fact that, when building a cobblestone wall, the mason could only construct a limited height each day, since the weight of stones exerted on the fresh mortar might cause sagging or collapse of the wall. For this reason, the mason constructed a few rows of stones, then worked on some other area or building for several days to allow the mortar to solidify. This solidification is a chemical process which proceeds slowly.

In most instances, the mason made his own lime, or procured it from a commercial kiln. Limestone, or calcium carbonate ($CaCo_3$), was burned in a kiln which drove off carbon dioxide (CO_2), leaving calcium oxide (CaO), also called quick lime. When water was added to this oxide, it became slaked lime ($Ca(OH)_2$) and when added to sand, comprised the mortar which the mason used. In order for the mortar to solidify, the slaked lime had to take CO_2 from the air, and thus harden to its original state, calcium carbonate. Some of the carbonate had been formed before the stones were set in it, but to reach a state which could support appreciable weight, it had to undergo more hardening. This process was probably not complete for a considerable time.

When examining homes, it is sometimes difficult to determine where the work stopped, but it seemed logical that the mason would build one quoin height at a time. At Sod-19, it was first noticed that there was a crack between stones horizontally at the bottom of a quoin. This finding suggested that a study be made to test the idea that such a crack represented an interruption in building. The schoolhouse at Sod-16 proved to be an excellent subject, since the front of the building was in the best light at the time of our visit, and observation, both visual and photographic, was uninterrupted by plantings.

A crack was found at the bottom of a quoin on the front wall at the southeast corner of the school. Overlapping photographs were taken from the edge of the quoin, following the crack toward the door. These photographs are found at the end of the Sodus section in the Wayne County album, and the page facing Wal-1 shows five of these photos marked with an arrow to indicate the crack. The photographs were taken so that a stone on the right edge of the picture can be found on the left edge of the next photo.

It is our opinion that stones and mortar below the crack were laid at one time, and after an appropriate time, the next series of rows was laid. Since the first mortar had hardened in the intervening time, the upper mortar did not make a complete fusion with the lower, and thus the crack is visible in the vertical mortar.

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We were surprized to find in one house that the break occurred at the bottom of a quoin, only to be repeated two rows above. This did not seem to fit the theory, but when one considers that any break in building, for whatever reason, might result in the same kind of interrupted crack. Such breaks in continuity of building may be the result of vacations, rainy days, and a host of other interruptions.

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