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Excavation of an Early Nineteenth Century Brick Kiln at the Gardner House in Hart County, Kentucky

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Abstract

Located on the Western Kentucky University Green River Preserve, the Gardner House is one of the oldest standing brick structures in Hart County. Constructed ca. 1796-1810 by Thomas Coats, this hall-and-parlor house boasts unique architectural details including original interior doors, floors, and chair rails; Federal-style mantles and window recesses; a mortared limestone block foundation; and Flemish-bond brickwork with Munfordville cornices and door and window jack arches. Recent excavations of remains of the temporary brick kiln or "clamp" adjacent to the house provide insights into its construction. The 16 x 12 ft clamp was erected over a continuous hard clay floor up to 5 in thick. Green bricks were stacked on their stringer faces in different configurations to form three benches, which were separated by wide flues. The eastern side of the clamp was bordered by another bench or a brick wall that likely served as a wind break. After the bricks were fired, limestone was packed into the flues and burned to produce lime, creating a distinctive deposit that is partially fused to the clay floor below. After disassembling the benches, the loose lime was later mixed with sand in the flues to create the mortar and plaster used in the house construction.