

BRICK KILNS IN COUNTIES LIMERICK AND CLARE

By

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Recent excavations during several infrastructure projects in Counties Limerick and Clare have produced evidence of post-medieval brick production.

A brick clamp (or temporary kiln) is a rectangular construction for firing bricks. The 'green' bricks are stacked on the ground in rows ('benches') and alternate header and stretcher layers built up to form an externally battered structure. The gaps between the lower rows of bricks were filled with fuel (peat or wood) and ignited. These gaps would have facilitated a through draught. The clamp was most likely turf covered and the slow firing of the bricks would generate large amounts of white smoke. The clamp would have burned for a number of days or weeks before the finished bricks could be taken down ready for use. An average sized example might have been stacked up to 5m high and produced 20,000 to 30,000 bricks. The post-medieval production of brick was accelerated by shortages of structural timbers and the simple form of clamp pre-dates the mechanised production of bricks in the mid nineteenth century.

Brick clamps had no permanent superstructure and the produce was removed for use elsewhere, these kilns often leave little evidence in the archaeological record. There are, however, a number of common characteristics indicative of brick making.

Three brick making clamps were found near Clareabbey, County Clare in advance of construction of the N18 Ennis Bypass. It would appear that other clamps survive (as low earthworks) nearby, suggesting that brick production was undertaken on an industrial scale. Brick making requires two bulky raw materials – clay and fuel. On the flood plain of the River Fergus both are plentiful. Finished bricks are also bulky and low value and would be suited to water transport. Brick was also imported into Clarecastle, County Clare as ship's ballast but it seems more likely that the brick in the buildings in the town derived from a local source.

The best preserved clamp was composed of six rows (benches) of unmortared brick. These benches were 4.5m to 4.7m long, 0.35m to 0.45m wide and two or three bricks high. Between the benches were deposits of black burnt peat. The bricks were handmade and were an orangish red colour (terracotta). Some of the bricks on site were burnt and were a greyish brown colour. These bricks might be thought of as 'wasters' – those that were either under or over-fired – were uneven and varied in size from 9in. by 4in. by 2½in. (227mm by 100mm by 65mm) to 9¼in. by 4¼in. by 2¾in. (235mm by 110mm by 70mm). All the bricks were unfrogged. A frog is a depression imprinted in the upper surface of a brick, made to save clay, reduce weight and increase the strength of built structures.

On the alluvium rich flood plain of the river Shannon at Coonagh West, County Limerick a relict industrial landscape survives on reclaimed pasture. Archaeological fieldwork associated with the Limerick Southern Ring Road, Phase II (LSRR II), identified brick clamps, brick-holes (clay quarries) and brickyards. Brick clamps, similar to those at Clareabbey and brick-holes were excavated by Fiona Reilly in 2005. The Coonagh brickfields were used to provide bricks for eighteenth century, and later, building projects in Limerick City (for example the Arthur's Quay tenements). An advertisement in the *Limerick Chronicle*, 3 May 1806 offered to sell,

‘...THREE CLAMPS, containing Three Hundred Thousand of well burned hard BRICKS of a beautiful red colour, at One Guinea per Thousand (in the yard)...They are convenient to Land or Water Carriage...’

Local people recall brick making continuing at Coonagh until the early twentieth century and the *Geological Survey* in 1907 noted that poor quality bricks were being made there.

A single clamp, fired for a local construction project, was sometimes located near to the building works. For example at Manusmore, County Clare a small clamp was found a few hundred metres from Manus House during the Ennis Bypass excavations. It is thought that the brick-faced house was built in the eighteenth century. Similarly, the well preserved base of a brick making kiln was found in Dollas Upper, County Limerick during the laying of a Bord Gáis Éireann pipeline. It is thought that this kiln was not part of an industrial undertaking but was a one-off, although the destination for the bricks has not been recognised. At Dollas Upper, a series of seven parallel rows of bricks was observed and had a combined measurement of approximately 7m by 9m. The individual rows were between 0.42m and 0.46m wide and were spaced at 0.6m to 0.7m apart. The brick benches survived to a height of between 0.25m and 0.30m and, in places, had three courses of brickwork. The bricks themselves were both brown and red in colour and were clearly handmade and unfroged. The bricks typically measured 9in. by 4in. by 2³/₄in. (240mm by 100mm by 70mm) and were poorly fired, unmortared and laid alternately header then stretcher. Loose brick rubble was found between the rows, overlaying a very charcoal rich deposit that was confined to the spaces between the benches. Five metal finds were recovered from the excavation; they were an iron horseshoe, an iron nail, a curved iron stem and a flat, rectangular metal object.

The kilns described from Clare and Limerick seemingly date to no earlier than the eighteenth century. Other excavated examples in England and the Netherlands, while of very similar form to the Irish examples, may be as early as the fourteenth century.

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