

8. Gilman Road Lime Kilns

The garden of the block of flats in Gilman Road conceals one of the secrets of Mousehold's industrial history. This is the site of the last working lime kiln in Norwich, and thought to be the last working kiln of its type in Britain. The fires were finally extinguished in 1968.

The kiln was built about 200 years ago as an underground structure made of red brick and flint. It had a ring or doughnut-shaped layout, and was reached by a staircase. Coal and chalk were poured into a central pot about 5m (16 ft) in diameter, then fired, and the resulting lime was removed from below through chutes accessed via a vaulted, circular tunnel. Once it was fired and reached working temperature, the kiln could burn almost continuously, just requiring stoking and only needing to stop for maintenance.



The kiln is preserved below ground, now marked by a circle of gravel and shrubbery in the garden, and it is still accessible via a metal trapdoor and ladder.

2. The lime works at Gilman Road. Reproduced from Ordnance Survey map 1:25,000, 1885.

Lime Burning

The aim of 'lime burning' is to produce quicklime from chalk or limestone rich in calcium carbonate. The chalk is roasted at a temperature of over 900°C, and the calcium carbonate is converted to calcium oxide, a corrosive substance known as quicklime. When sprinkled or 'slaked' with water, quicklime gives off heat and steam, and turns into calcium hydroxide. The resulting slaked lime putty is ready for use for mortar or plaster.

[Click here for a factsheet on lime burning at Whitlingham.](#)



3. Lime burners at work, from 'Microcosm' by WH Pyne, 1808.



4. Inside the Gilman Road lime kiln, 1971, showing circular access tunnel and central firing pot with extraction chute. The investigator is the chalk geologist Norman Peake.



5. Steam rises from slaking lime, at an experimental kiln firing at Whitlingham, 2010.

The old chalk pit is now backfilled, landscaped and partly built over. It was known as Edwards' Pit in the 19th century. It was a popular site for fossil collectors, such as Arthur Rowe (1858-1926), whose specimens collected here are now in the British Museum. Over 12 m (40 ft) of chalk was exposed here, including a layer of very hard white chalk 'so hard that they cannot burn it'.

Photo credits

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