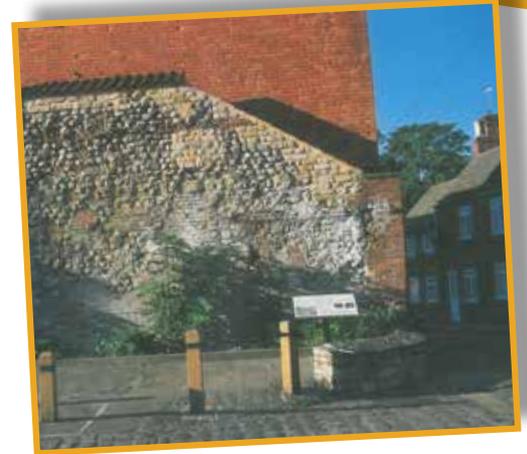




## Building with bricks

People have been using bricks as a building material for over 9000 years. A mud-brick tower discovered in Jericho is one of the earliest-known brick structures in the world. Bricks were first used for building in Britain by the Romans who came to this country in AD 43. Roman bricks were very thin (about 40mm). Some were used in the construction of the Mint Wall in Lincoln which was built in about AD100-120 and still stands today.



**Roman bricks in the Mint Wall at Lincoln**



**Thornton Abbey gatehouse**

When the Romans left Britain in the early part of the 5<sup>th</sup> century, brick making died out in this country and was not revived until the 13<sup>th</sup> century, during the medieval period. The earliest medieval bricks were brought across the North Sea from the Low Countries (Holland and Belgium) into ports on England's east coast such as Boston and Hull. At that time European merchants were coming to live in England and with them came craftspeople skilled in brick making.



**Tattershall castle**

Rather than being imported, bricks were being made in the east of England by about 1300. Large areas of Lincolnshire are clay-rich so there was plenty of raw material available in the county for making bricks. The earliest surviving brick building in Lincolnshire is Thornton Abbey gatehouse in North Lincolnshire, which was built in 1382.

Bricks were a new and fashionable building material, but they were very expensive. Only the wealthiest people could therefore afford to use them to build their houses. By building in brick you were demonstrating how rich and fashionable you



were. Perhaps the most well-known brick building in Lincolnshire, and one of the most important, is Ralph Lord Cromwell's Tattershall Castle, which was built between 1432 and 1448.

However, other brick buildings were built at about the same time in Lincolnshire and many survive to this day, including a series of smaller brick towers which are built in the style of Tattershall Castle. Cromwell built his own mini Tattershall Castle at Woodhall Spa in the 1430s. His Tower on the Moor was a hunting lodge where

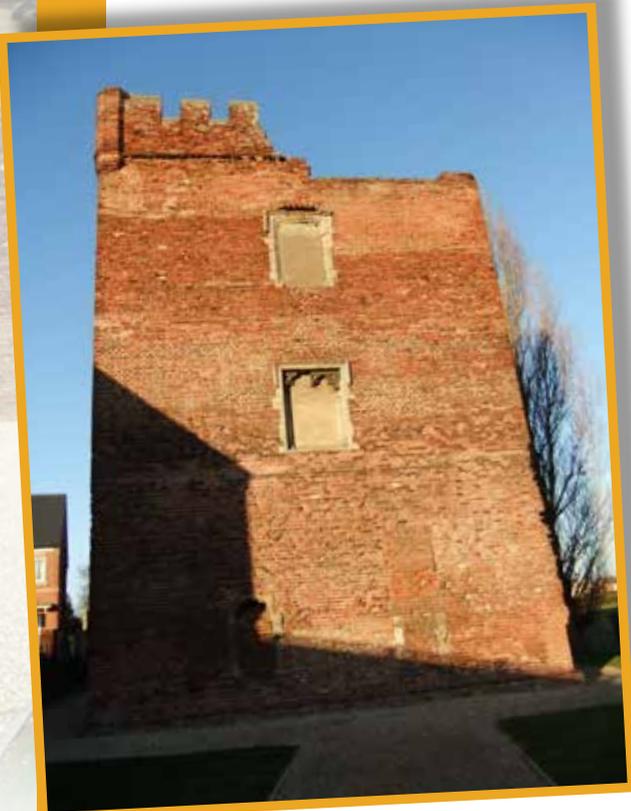


**Tower on the Moor at Woodhall Spa**

he entertained his friends. Only the stair turret survives today but we know that it was originally a four storey square building and that the octagonal stair turret still standing was joined to its north-west corner.

At Ayscough Hall in Spalding a brick building dating from the 1420s, which includes a tower, is almost hidden by a series of later extensions. A little later, in about 1460, Richard Benyngton built Hussey Tower in Boston.

Hussey Tower is very similar in style to Tattershall Castle and the Tower on the Moor. Almost square on plan and three storeys tall with a battlement-style parapet at the top, it has an octagonal stair turret like the one at the Tower on the Moor. Rochford Tower at Fishtoft, which is only about 2 miles south-east of Boston, was also built in very much the same style at about the same time as Hussey Tower.



**Hussey Tower**



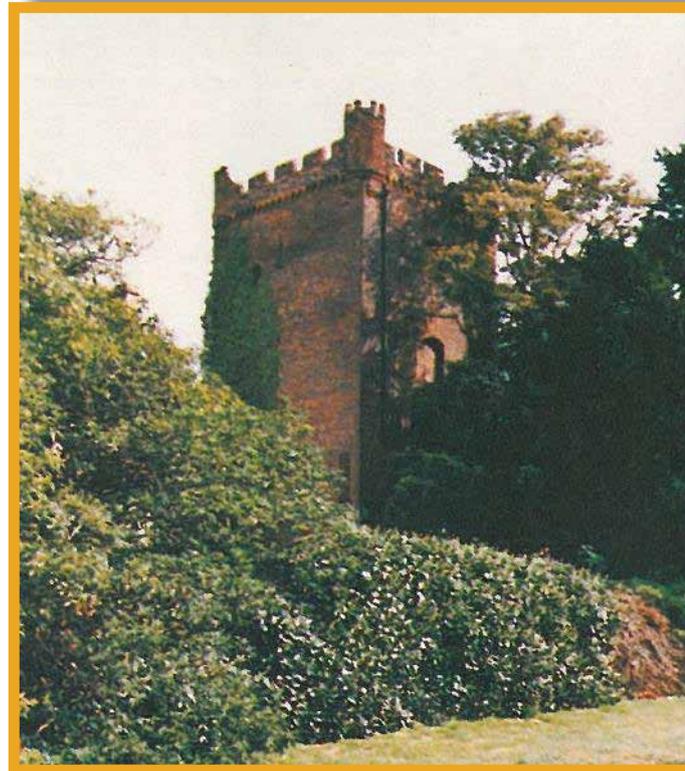
The owners of these buildings were clearly showing how important and fashionable they were by building their houses to look like the home of Cromwell; one of the most powerful men in England. It is even possible that the same builder worked on all of these buildings.

### **Making medieval bricks:**

Medieval bricks were usually made close to where they were going to be used to save the difficulty and expense of transporting them. Brick-making was a seasonal activity. The clay was dug locally in the autumn and left over the winter to expose it to frosts. In the spring it was tempered by mixing it and treading it until it was of an even and easily-worked consistency. Sometimes sand was added during the tempering stage. The clay was then ready for use.

Some bricks were shaped entirely by hand, but a wooden rectangular mould was often used in order to produce bricks that were more uniform in size. With moulded bricks the working surface and the inside of the mould were sprinkled with sand to stop the clay sticking to them. A lump of clay was then kneaded into a rough brick shape and pressed into the wooden mould, making sure that it filled the mould right into all the corners. The excess was then trimmed from the top using a wetted flat stick or a wire and sent back to the clay pile to be used in following bricks. After being removed from their mould the shaped bricks were stacked carefully to dry for about 3 to 6 weeks. When they were dry they were ready for firing.

The bricks were fired in a wood-fired kiln or a clamp. A permanent kiln was constructed for use where brickmaking was taking place over a long period of time. In Boston, kiln sites have been discovered near St Mary's Guildhall



**Rochford Tower**



and on the east side of the town close to the Maud Foster drain. They would have been very similar constructions to the one shown in the illustration, which is of a kiln being excavated at Nuneaton in Warwickshire.

A more temporary clamp was used where bricks were being made on site for a particular building job. The clamp was a temporary structure of fired or unfired bricks, in which the bricks for firing were stacked. Flues were left in the base of the walls and filled with faggots for lighting. When the clamp was alight these were blocked and the clamp was left to burn itself out, which could take 3 to 6 weeks. Because the temperature was not even throughout the kiln or clamp, some of the bricks burnt darker than others. These dark bricks were often used to make chequerboard (diaper) patterns in brickwork. There is a diamond - shaped diaper pattern of dark bricks in the north wall of Hussey Tower.



**Diaper pattern at Hussey Tower**