

## Appleby Archaeology January 2010

Many members braved the weather to attend the Annual General meeting of the Appleby Archaeology Group and to listen to two very interesting talks from members of the group.

Barbara Blenkinship spoke on Lancaster Delftware Pottery. She had had to change her emphasis as her talk had been planned to follow a talk on the archaeological excavations of the Lancaster Pottery in 2007 and 2008. Unfortunately this had had to be cancelled.

Undaunted Barbara gave a history of the pottery, whose foundations had been unearthed by North Pennines Archaeology (NPA) prior to development of the site. The excavation revealed the footprint of the pottery, which closely corresponded to an early 19<sup>th</sup> century map showing the original building. .

Delftware is tin-glazed earthenware which, typically, has blue decoration on a white ground. Tin glaze production in this country was started in Norwich by Flemish Potters in the sixteenth century and by 1754 there were three main centres in England, Liverpool, Bristol and London. The manufacture of tin glaze pottery requires a particular type of clay and the largest deposit in the British Isles is to be found at Carrick Fergus in Northern Ireland. This was convenient for importing the clay to Liverpool and Lancaster where it was mixed with local clay.

No one including, Lancaster Museum ,seemed to know about the pottery until NPA began its work. It is now considered to be a site of national interest, as the sites of the other tin glaze potteries are now covered by substantial Victorian buildings. The pottery made at Lancaster was exported to the American colonies and very little was documented.

At that time Lancaster was one of the busiest ports in England, larger than Liverpool, and fortunes were being made exploiting the sugar rum and slave trades. To balance these imports merchants needed to sell goods in return. An enterprising Quaker merchant, John Beakbank, went into partnership with other merchants from Lancaster and built the pottery in 1754 on the south bank of the Lune. It was a substantial three storied building with a 55 yard frontage to the quay. They recruited experienced delftware potters from Liverpool to make the pottery manufactured until around 1786 when the river Lune began to silt up and navigation by ocean going ships became very difficult. Around the same time creamware from the Staffordshire potteries was surpassing delftware. The site was taken over by the Lancaster Gas Light company in 1826 and the gasworks finally closed in 1958.

The pothouse was demolished around 1940 leaving substantial foundations that were excavated in 2007 to reveal a plan of the pottery and details of the kiln. The Lancaster kiln is the most complete delftware kiln ever excavated in Britain and is of enormous interest to ceramic historians.

Barbara used a picture from an 18<sup>th</sup> century tile panel from the Netherlands to explain the working of the pothouse. The tile showing schematic view of the interior of a three storied delftware pothouse fits closely with the evidence

from Lancaster and illustrates the stages in pottery production from moulding the clay to selling the product. Saggars, which are protective casings of fire clay in which delicate ceramic articles are fired, are shown being dried. These are identical to those found at Lancaster.

The vast number of shards that were found on the site would have been discarded as waste but many appear well fired and have helped to identify patterns. The pottery made at Lancaster was everyday ware, such as plates, cups and chamber pots, which would have been required by settlers in the New World. There is no evidence, so far, of non-essentials such as vases. The pottery was, however, well painted and decorated. Barbara then showed a series of pictures of pot shards to illustrate the variety of patterns, colours and rim designs, some of which have never been recorded in any book on British delftware. One striking pattern, of a China man sat in his garden under a smiling sun was previously unknown. Not all the wasters are pot shards as a huge amount of discarded kiln furniture, such as bits of saggars, was found and is now being studied,

Barbara concludes by emphasising the importance of the site to ceramic historians. Production sites are the most. From the shards found on the site it has been possible to establish what was made there and as a result some extant delftware which had previously been thought to have been made at Liverpool and other British potteries may need reattribution.

A second member, Martin Joyce, described how a find made during excavation of the Roman fort at Vindolanda in the summer of 2008 had inspired a study of the Roman Calendar.

The find consisted of a small strip of metal perforated by a line of holes and inscribed with the word *September*. Some of the holes were labelled with additional letters, *K*, *N* and *ID*. Archaeologists believed the strip could have been part of a complete disk recording all twelve months of the year and small enough to have been carried by, say, a Roman legionary whose job, every other day, was to advance a peg located in the holes, thereby keeping track of the date. Though September is the ninth month in our modern calendar, the fact that the name has its root in the Latin for seven is a consequence of the fact that the earliest Roman Calendar began in March. It also had only ten months - January and February weren't "invented" until later! Other surprises about Roman timekeeping included the fact that they operated an eight-day week and the fact that they counted their dates backwards. Thus where we might say "28th of September", an early Roman would have said "3 days before the first of October". To make this system slightly easier, as well as the first of the month (the Kalends), dates were measured from two other fixed points in the month: the Nones and the Ides. Looking again at the Vindolanda find it was clear that the location of the letters *K*, *N* and *ID* fitted precisely with the position of the Kalends, Nones, and Ides for this month.

More recently, however, commentators have proposed that the Vindolanda find might actually have formed part of a much more sophisticated mechanism. They suggest that it was in fact designed to tell the time rather than the date - in other words that it was a clock rather than a calendar. Vitruvius, writing around 25BC describes an astronomical or "anaphoric" clock consisting of a two-dimensional star map (i.e. an accurate representation of the constellations), pivoted on Polaris, the pole star, and rotated by means of a water-mechanism. When the varying position of the sun

through the year (the so-called ecliptic track) is included on the map it may be used to model the time of sunrise and sunset. A "model sun" consisting of a peg located in a hole drilled at the appropriate point in the ecliptic track for a given date will "rise" and "set" at the same time as the real sun and thereby enable one to tell the time.

The advanced theory then is that the Vindolanda find is the remains of the ecliptic track of such a clock. The star-map on which it would have been mounted and pivoted (presumably of wood) has been lost, but the holes in the surviving metal fragment represent the position where the model "sun" would have been located and advanced every second day. More complete examples have been found on the continent but nothing of this nature has ever been seen in Britain.

Whatever the true nature of the Vindolanda fragment it remains a truly fascinating and intriguing find.

Both speakers answered questions from members before being thanked and warmly applauded.