

Archaeology at Wellington Quarry, Herefordshire

Worcestershire Historic Environment and Archaeology Service have recently been commissioned to undertake a major post-excavation project to analyse the results of many years of work at one of the most important archaeological sites in the West Midlands.

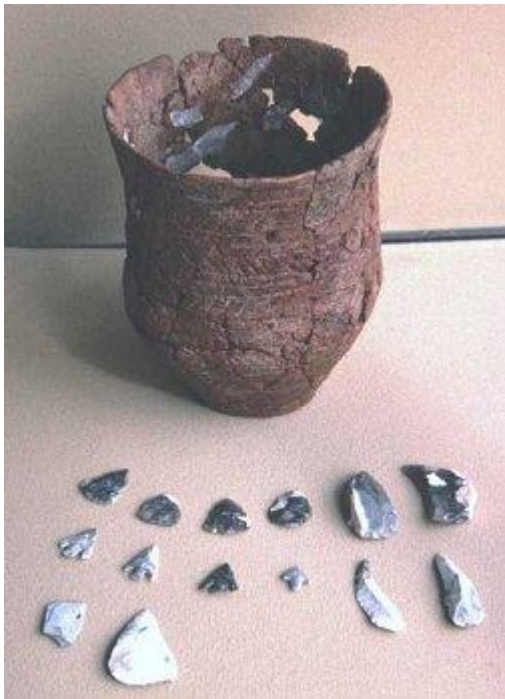


Archaeologists at work at Wellington Quarry

Between 1986 and 1996 a small team working in advance of quarrying at Wellington in Herefordshire recorded significant archaeological deposits scattered across an area of more than 37 hectares of farmland. Although the quarry company, Redland Aggregates (now Lafarge Aggregates), voluntarily supported the costs of the fieldwork and some preliminary reporting, it is only now that a grant has become available to fund the extensive post-excavation programme that the site warrants. This grant has come from English Heritage using a source of funding called the [Aggregates Levy Sustainability Fund](#) which is drawn from a new environmental tax being levied on the aggregates industry.

Over the coming year a range of specialists working on the project will look at the extensive evidence recovered and which includes:

- A group of Early Neolithic pits (4000 - 3500 BC);
- A wealthy Beaker burial (2750 - 2500 BC);
- A late Iron Age settlement (100 BC - AD 50);
- A Roman settlement, villa and associated activity (1st to 4th centuries AD);
- Exceptionally well preserved medieval corn drying ovens (13th century AD).



Beaker Burial

These deposits occur within complex alluvial sequences (fine silt and clay deposits laid down by flooding). These deposits have interleaved with the periods of occupation described above, deeply burying the archaeological remains and contributing to the excellent conditions of preservation found at the site.

The archaeologists working on site have also found evidence for numerous former watercourses, the relict channels of which contain important palaeoenvironmental remains (waterlogged wood, plant fragments, pollen, molluscs and insects). These have been shown to date from as far back as 8000 years ago. Using this evidence and that from the periods of occupation of the site, the project specialists will be able to gain an understanding of 7000 years of environmental change and human impact on the landscape in what is generally a very little researched region of England.

In addition to the analysis being undertaken through the ALSF, work is also being carried out funded by Lafarge Aggregates on results of work undertaken since 1996, work which continues to this day. Important additional discoveries include:

- Environmental deposits dating from over 13,000 years ago near the end of the Ice Ages
- 2750 BC)A Mid to Late Neolithic post circle and central pit (3500
- Late Bronze Age activity (10th to 8th centuries BC)
- An early medieval watermill (early 8th century AD).



Early Medieval Mill

These both complement and enhance the data from the earlier investigations providing further evidence of how people have lived in and used this floodplain landscape over many thousands of years.

The early Neolithic pit group, Wellington Quarry, Herefordshire

A group of 13 Neolithic pits provide the most important evidence for early human activity at Wellington. The pits were all circular to sub-circular. They measured between 0.60 and 1.24 metres across and up to 0.50 metres deep, although some truncation may have occurred. The pits had steep sloping sides or were slightly 'bag-shaped'.



The pits had to be excavated very rapidly due to the conditions under which the site was worked. The fill was taken back to our offices for processing to retrieve the numerous fragile pottery fragments and tiny flint flakes present, as well as for environmental sampling to retrieve charred seeds, other plant remains and small animal bone fragments'.

The associated pottery assemblage comprised nearly 1000 sherds, weighing almost 10 kg. The majority was present in two of the pits, with approximately 10 vessels in one and about 6 in the other. Three others also produced limited quantities. The pottery is in a quartz tempered fabric with variable quantities of temper present (Gibson 2002). The vessels represented are open and carinated bowls with wide rim diameters. A small closed or hemispherical form cup was also present. The rims are all rounded or rolled forms in two cases with faint but deliberate radial fluting on the top of the rim. The bowl forms are typical of the traditions of the early to middle 4th millennium BC, and are widespread over Britain, Ireland and continental Europe.



Neolithic potsherds, Wellington Quarry

The pits rich in pottery also included broken quartz pebbles, some apparently burnt and crushed. These closely resembled the principal temper used. This raises the potential that pottery was manufactured at the site, a possibility supported by presence of three stone burnishers or smoothers.

Ten of the pits also contained flint, the total assemblage comprising 443 pieces and numerous spalls from sieved samples. Most of the flint was good quality material which, allied to a paucity of core preparation flakes, suggests that prepared cores might have been imported to the site (Bellamy 2002). Diagnostic retouched forms include leaf-shaped arrowheads, a serrated flake, scrapers and flake knives, which are consistent with the dating, provided by the pottery. The assemblage provides evidence of a range of activities including flint knapping, hunting, the preparation of foodstuffs and the working of other materials.



Neolithic flint blade, Wellington Quarry

Although conditions of preservation for animal bone were poor, cattle, pig and sheep or goat were represented in small quantities. Charred plant remains were also present, including numerous hazelnut shell fragments and small but significant quantities of cereal, which where identifiable was emmer wheat.

Pit groups and associated assemblages represent an important class of site with a high potential to contribute understanding of the function and role of such features and material culture in Neolithic society and of regional patterns of use and practice. Current

interpretations suggest that they are liable to have been associated with transient settlements, but, were unsuitable for storage and rarely contain deposits which can be interpreted as straightforward domestic refuse (Thomas 1999, 64-74).

The Wellington pit group provides the first example of these characteristic features to have been excavated in Herefordshire. The finds indicate that there is a strong domestic component, however, ceremonial or ritual practice is also implied since the material deposited appears to have been carefully selected. Analysis of the distribution, form and fill characteristics of the pits will provide a depositional context for consideration of the associated artefactual and environmental data. This has the potential to provide important evidence relating use and function of the pits and associated remains as well as related economic and social practices reflected by the material and patterns of deposition. Material has been submitted from within the pits for radiocarbon dating (charred plant remains) and will help refine our understanding of the period of use of these features and associated artefacts.

Wellington therefore provides an important site type for this region and has particular potential for comparison with the Middle and Later Neolithic pit groups investigated only 30km away in the Walton Basin (Gibson 1999). The importance of the pit group and other early prehistoric activity at Wellington is reflected by inclusion of an article about the site in the recently compiled Regional Research Framework Seminar Papers covering this period (<http://www.arch-ant.bham.ac.uk>).

Iron Age and Roman Wellington (2nd century BC to 4th century AD)

During the Iron Age and Roman periods, the area now occupied by the processing plant at Wellington Quarry formed the focal point of a substantial farm.

Much of the 'core' of this settlement has been preserved beneath a protective capping of sand and gravel. However, prior to these remains being covered up, archaeologists undertook small-scale investigations in this area. This has allowed us to test the character of the archaeology in the 'core' of the settlement while beyond here, work undertaken in advance of quarrying has revealed much of the surrounding pattern of fields and tracks which supported this community and linked it to other settlements in the area.

At the heart of the farmstead were a series of ditched enclosures containing houses and workshops around which were the fields cultivated by the inhabitants. Although only fragmentary information has been recovered, it appears that the origins of this farmstead lie sometime during the Middle to Late Iron Age (c 200 BC or later). Occupation continued until the late Roman period (c 350-400 AD).

Wellington Gravel Quarry 1989

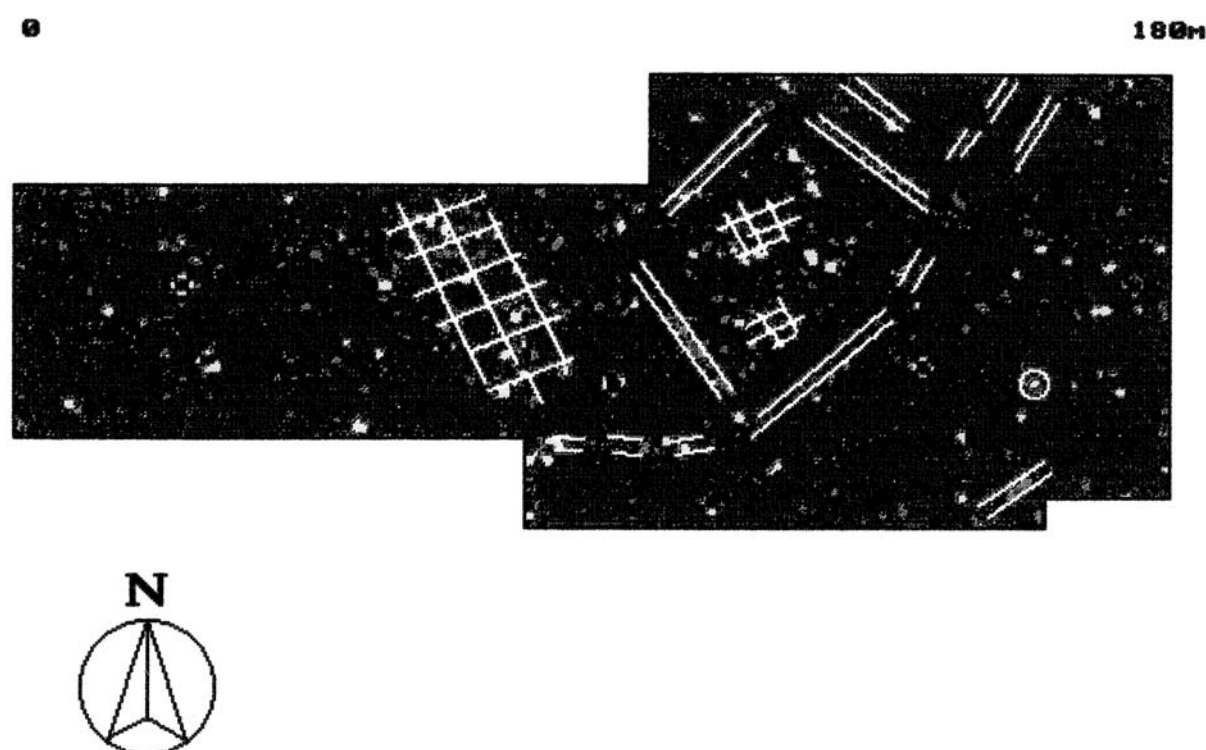


Figure 7

An early example of the use of geophysical survey. Ditches of the Late Iron Age to early Roman enclosure are interpreted from the data recorded (marked as parallel white lines)

Initially, the buildings within these enclosures would have been roundhouses constructed of timber, wattle and daub and thatch. These would have been similar to those shown in the reconstruction drawing below and would have been used as both homes and workshops.



Whilst on a national scale many changes were brought about by the Roman invasion, for rural communities such as that at Wellington little would have changed from the Iron Age. However, gradually over time, new styles of pottery came into use and a wider range of goods would have become available from the local markets. Some of these would have been local and regional wares, others imported from far afield in the Roman Empire.

Other changes may have occurred in the food they ate and the way it was prepared and presented but many aspects and traditions of the native Iron Age lifestyle would have survived as the two cultures merged and adapted their ways.

The main reconstruction (above right) shows the interior of Roman roundhouse in which food is being prepared. Although the pottery styles are Roman, in many respects this scene could also be set in the Late Iron Age.

For example, large jars and cooking pots similar to those used in the Iron Age continued to be made and used, though these were now mass-produced both locally and regionally. Handled tankards are common and appear to be a regionally preferred pottery style, suggestive of a continued sense of local identity. On the other hand large olive oil and wine storage jars (known as *Amphorae*) and the appearance of pestle and mortar-like bowls known as *Mortaria* (used for grinding up herbs and spices) indicate that new styles of food and cooking were adopted. In wealthier households food was now served on fine tablewares like Samian (from the province of Gaul - ie France) and Nene Valley Ware (from Cambridgeshire).

Despite these shifts in lifestyle, it was not until late in the Roman period, towards the end of the life of the farm that major changes occurred in the houses they occupied. Sometime during the 3rd century AD a complex of stone-founded buildings was constructed in the 'core' of the settlement. We know little about these buildings except that they were far more substantial and Roman in style than had previously been built at Wellington.



Roman wall line revealed in 1986-7

The presence of roof tiles, a type of tile known as a box-flue tile and fragments of wall plaster suggest that these buildings may have considerably more luxurious and grand than any previously present or indeed than those normally found across Herefordshire. In particular the box flue tile may be significant as such tiles are usually associated with buildings with underfloor heating systems (hypocausts).



Indications of further stone footed buildings were uncovered in 2006 during construction of a new access road to the plant site. These lay some distance from the building/s identified in the 1980's and suggest that more than one stone building range may have been present.

Was this a villa?

Stone founded buildings with hypocausts, tiled roofs and plastered walls are often associated with the Roman sites known as villas. This name carries many implications and should not be used for every major building, however, it seems possible that the farm at Wellington in its latter years could be described as such.

For a start, there seems to have been more than one building range suggesting that these were not only the living quarters for one extended family but that they may have had a range of functions. Apart from the buildings the nature of the farm seems to change at this time as well. There is evidence for drainage of marshy land to the west, for canalisation of the Wellington Brook, for the construction of well-built roads linking it to other areas and for the use of corn-drying ovens of a type and scale which would have had the capacity to process corn for much more than a single extended family. These suggest that the farm may now have been the centre of a large estate, a characteristic feature of villa sites in the full sense of the word.



Roman road with side ditches. Note the ruts in its surface which probably reflect use of heavy carts



Peat filled drainage ditch



*This artist's impression of a Roman villa at Sandy, Bedfordshire provides an idea of the type of settlement believed to have been at Wellington
(© Bedfordshire County Council)*

After the Romans

Probably the most important discoveries at Wellington are also some of the most recent. In 2000, a large timber structure was discovered in a large pit dug into the gravel close to a former channel of the Wellington Brook. The structure comprised a frame of 3 large oak timbers and the remnants of a planked floor. Dating was limited – we thought it might be Roman – and at first we didn't know what it was.



The pit containing the timber frame opened out into the adjacent watercourse suggesting a link, however, the key to the mystery lay under one corner of the frame – a large broken millstone had been used along with several timber wedges to prop this corner up where it had been undermined (probably by water). The stone was far too large to be a hand-turned quern and indicated that we must be looking at a mill.



Millstone and timber wedges supporting the corner of the frame

To find out whether this was a Roman mill we took samples for radiocarbon dating and also for tree ring dating (dendrochronology). Some months later a date came back which to our considerable surprise and delight placed the structure, not in the Roman period, but in the late 7th to early 8th century AD. This falls towards the end of a period often referred to as the 'Dark Ages' since we know so little about it either from documents or archaeology. This was a rare and highly important find which made the national press.

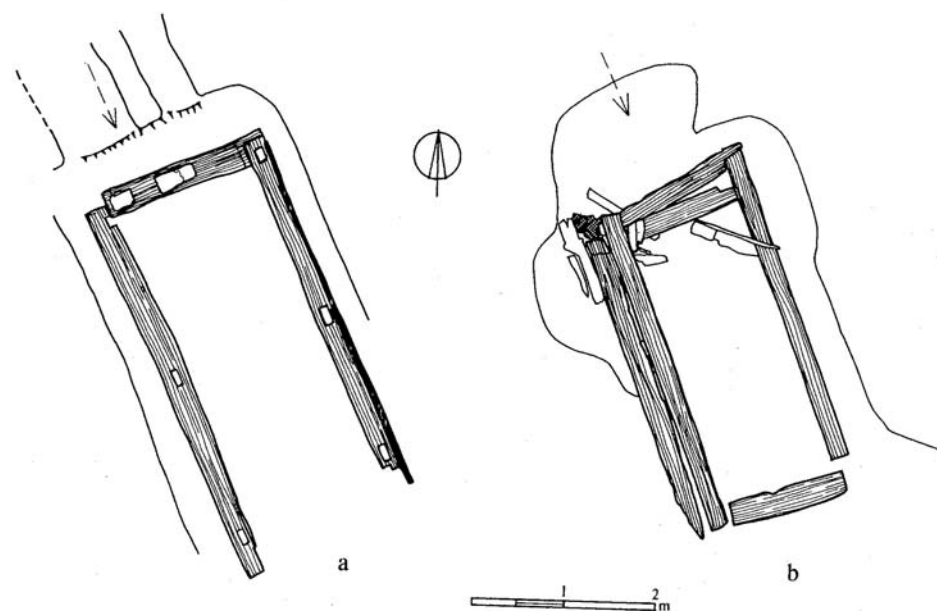
As if this wasn't enough, two years later a second mill dating from the first half of the 8th century AD was found further downstream of the first. This was a rather different structure but again millstone fragments and association with the watercourse indicated that we had another mill and that Wellington could now boast 2 examples from this very poorly understood period of our past! The importance of these is that they represent the re-introduction of a technology first introduced to England by the Romans but lost or forgotten in the intervening period. Although only a handful of sites have produced mills of this date, by Domesday (1066 AD), 6000 watermills are recorded showing how important they were to become within the medieval economy.



Remains of the second mill. In the foreground is the former stream channel with timber revetments. In the background is a stone platform which would have supported a timber-framed millhouse

Early Medieval milling at Wellington

The importance of the discovery and the rarity of mills of this date led to Wellington's inclusion in a book about the archaeology of milling which closely compared it with a mill of similar date discovered on a Saxon royal estate at Wareham in Dorset.

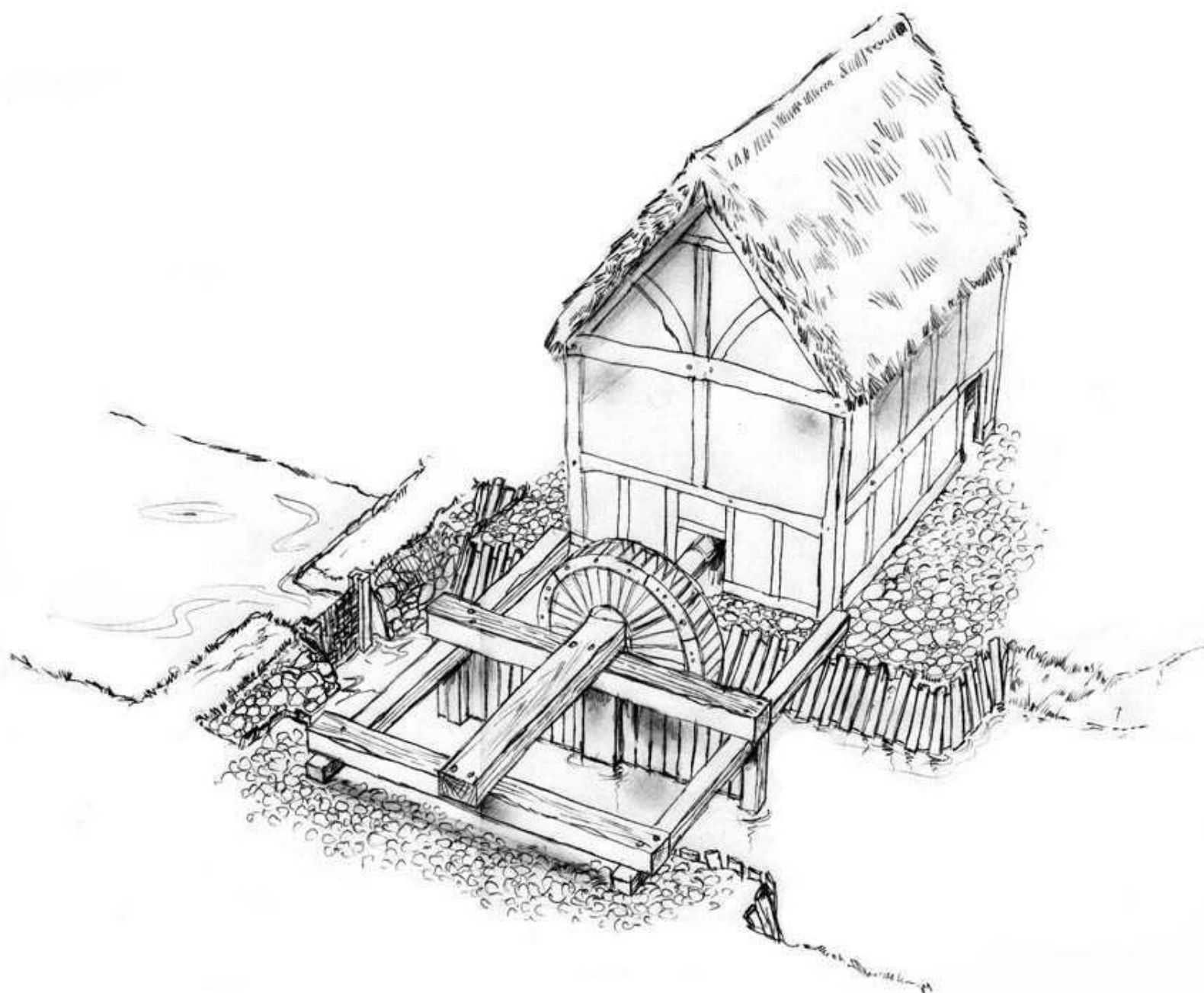


31 Plans of two closely-comparable Anglo-Saxon vertical waterwheel emplacements, at Worget, Dorset, **a**, and at Wellington, Herefordshire, **b**. The cross hatching on **b** indicates the remains of a large millstone, used to prop up the corner of the frame where it had been undercut by water erosion. The arrows indicate the direction of water flow. Worget after Maynard; Wellington courtesy of Robin Jackson, Worcestershire County Council

Nearly all examples of early medieval mills have been discovered on the royal estates of the kings of this period and it seems likely that the Wellington mills are no exception. A Mercian royal estate was centred nearby and these two mills almost certainly lay within the estate bounds and belonged to the Mercian royal family.



Fragments of worked wooden objects preserved in the wet conditions around the mills



Artists reconstruction of the second mill at Wellington