YORKSHIRE ARCHAEOLOGY TODAY

No.16

Looks familiar...

Thirty years on from Coppergate, another 'Viking-Age' timber house is found at Hungate...

Inside:

YORK ARCHAEOLOGICAL TRUST

Yorkshire Archaeology Today

Spring 2009

Contents

Cover Photo

Excavation of the timber-lined sunken building in the Deep Trench of Block H, Hungate (see pp4-8)

Number 16

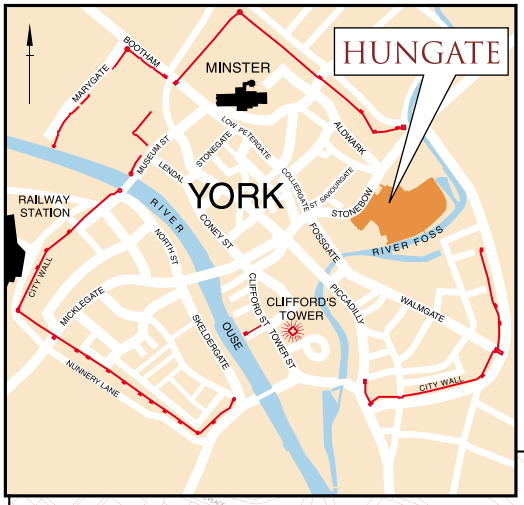
Editors: Richard Hall, Christine Kyriacou
Picture editor, design & layout:
Lesley Collett
Printed by B&B Press, Parkgate, Rotherham

Yorkshire Archaeology Today
is published twice a year.
UK subscriptions: £8.00 a year.
Overseas subscriptions: £12.00 (sterling) a year.
To subscribe please send a cheque payable to
Yorkshire Archaeology Today to:
York Archaeological Trust,
47 Aldwark
YO1 7BX
or through Postgiro/CPP to:
ACCOUNT 647 2753
National Giro, Bootle,
Merseyside, GIR 0AA

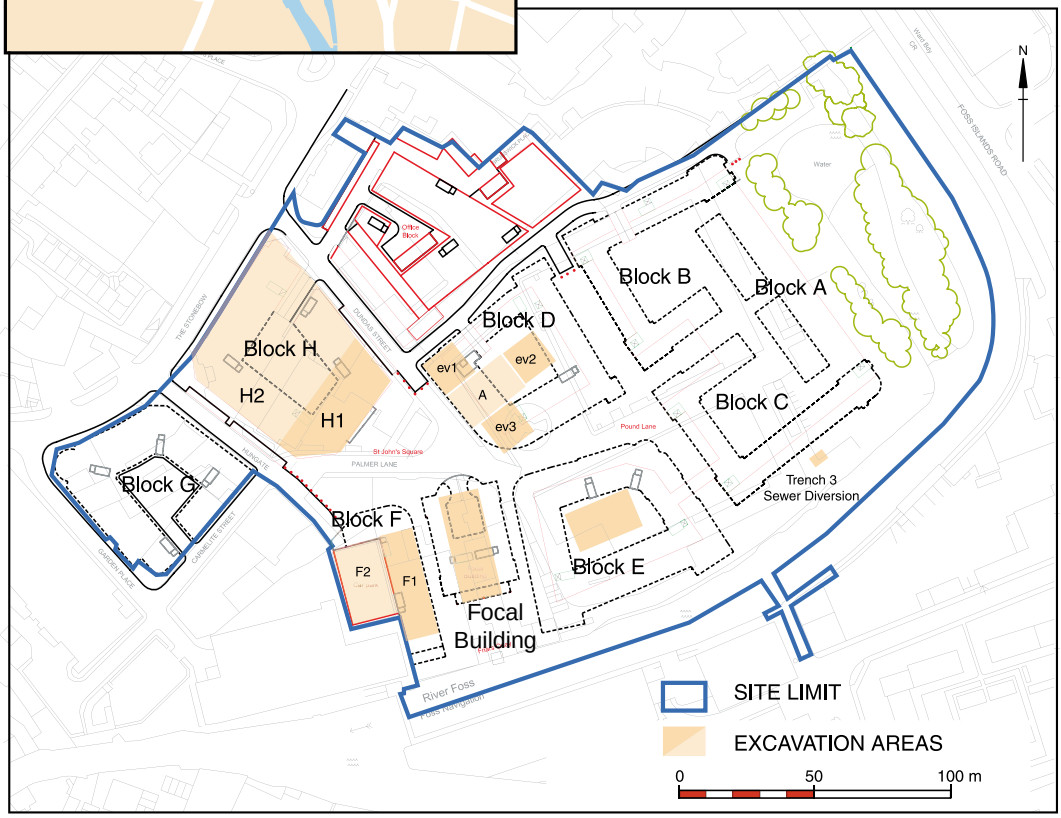
Yorkshire Archaeology Today is published by York Archaeological Trust. Editorial and contributors' views are independent and do not necessarily reflect the official view of the Trust.

York Archaeological Trust is a registered charity, Charity No. 509060:
A company limited by guarantee without share capital in England number 1430801.
Tel: 01904 663000
Email: ckyriacou@yorkat.co.uk
http://www.yorkarchaeology.co.uk
ISSN 1474-4562

Hungate: from H1 to H2



The last time I wrote about Hungate for *Yorkshire Archaeology Today*, in 2007, we were finishing off the excavation of features that cut into a deep deposit of 'horticultural' soil across Block H1. This dump of soil appears to be linked with agricultural activities such as soil improvement and even the keeping of animals in the period c.1600 – c.1780. We were also preparing for the first season of *Archaeology Live!* on the Hungate excavations.



Top: Location of the Hungate development; **Left:** Excavation areas within the development blocks.

A lot has happened in the intervening period; the team has, to say the least, been very busy.

The main aim for H1 was to find the extent of the medieval graveyard around the lost church of St John's in the Marsh. This was achieved relatively early on, as later property boundaries appear to deliberately respect the limit of burial. Once we found where the burials were, we recorded the archaeology in situ and left the burials alone, as they are not going to be disturbed by the development.

With that out of the way it was just a case of excavating down to natural soils across the rest of H1. The only things standing in our way were some pits; quite a lot of pits, in fact more pits than you could imagine. In some places the sequence was relatively simple, though in others there was in excess of a 2m depth of intercutting pits that needed to be disentangled, recorded and excavated. We finally completed this in the latter half of 2008.

We are currently assessing the information from the excavations in H1, and the story is coming together. The earliest activity we have found comes in the form of worked flints, such as scrapers and flakes, as well as the cores from which the tools were struck. Unfortunately we

Above, left: Intercutting pits in area H1
Above, right: Recording a complete Roman pot found within a Roman burial

did not find any definitely prehistoric features, although the volume of materials we recovered suggest that there was prehistoric activity in the area.

The first clear archaeological features were from the Roman period. An early soil deposit across the trench had Roman finds within it, as did a number of discrete pits. However, the best Roman feature was a ditch, running on a NW-SE alignment, which had been cut by two later Roman burials. Each had recognisable coffin stains, and accompanying pots had been placed over the foot end of each coffin. The fact that the burials were cut into the ditch backfill suggests that the ditch survived as a depression, or had a bank on one side, so was still a visible marker in the Roman landscape.

There was apparently no activity across H1 from the end of the Roman period until the mid-10th century, when a series of alternating black and orange deposits were laid down towards Hungate and pits were dug extending back across the site. We are not sure what the striped deposits represent, though they may be deliberately laid to raise the ground level, but we have a lot more of them to excavate in H2. The pits are linked with waste disposal.

The pits continued in use until the latter half of the 12th century, apparently showing no changes linked with the end of the Viking period.

During an apparent hiatus of activity during the 13th century, a soil deposit had formed further back from Hungate and later activity from the 14th,15th and early 16th centuries was more 'industrial' in character. The later features were more easily identified as ovens, clay quarry pits and possibly the footings for a timber building. There was a huge amount of activity linked

Below: Archaeology continues whatever the weather!
Below, right: *Archaeology Live!* 2008 trainees are introduced to pits

with the construction of the Cordwainers' Hall, though this building was on the very edge of our excavation.

As soon as the excavation team had finished working on the last features in Block H1 they jumped across to H2 and quickly recorded the features cut into the horticultural soil deposits there. The team worked quickly and efficiently to disentangle and excavate the sequence of features which add to what we found out in H1. Once that task was completed, we stripped away these levels and the horticultural deposits underneath, to reveal what we would be working on for the next three years.

During 2009 we will be concentrating on the area immediately adjacent to Hungate. The early results show that, bar a few intrusive cut features, like wells and pits, the surviving archaeology is dated to the end of the Viking period and earlier. There are also glimpses of what may be more Viking-Age buildings, similar to the one found in the Deep Trench (see page 4), although perhaps without surviving timbers.

The centre of H2 is dominated by lots of pits and ovens, similar to those seen in H1. Finally, the northern corner of the site could be dominated by a large Roman terrace; but we won't be able to confirm this until we start to excavate this area.

On the training side of things we are currently running our first spring session of *Archaeology Live!*, whilst planning our third summer season of *Archaeology Live!*. The training model has worked very well during 2007 and 2008, with hundreds of trainees finding out more about the history of York and how to excavate and record archaeology. We have also introduced a series of weekend courses and expanded on our out-of-season mentoring courses. Finally, we also provided a training course for the archaeology undergraduates from the University of Bradford during 2007, 2008 and will do so again this year…So as you can see, there is lots going on in Hungate Block H.

If you are interested in any of the training that we provide make sure you have a look at our web pages – www.dighungate.com

Finally, a big thank you to the team working with Hungate as they have done, and continue to do, fantastic work, both on and off site.

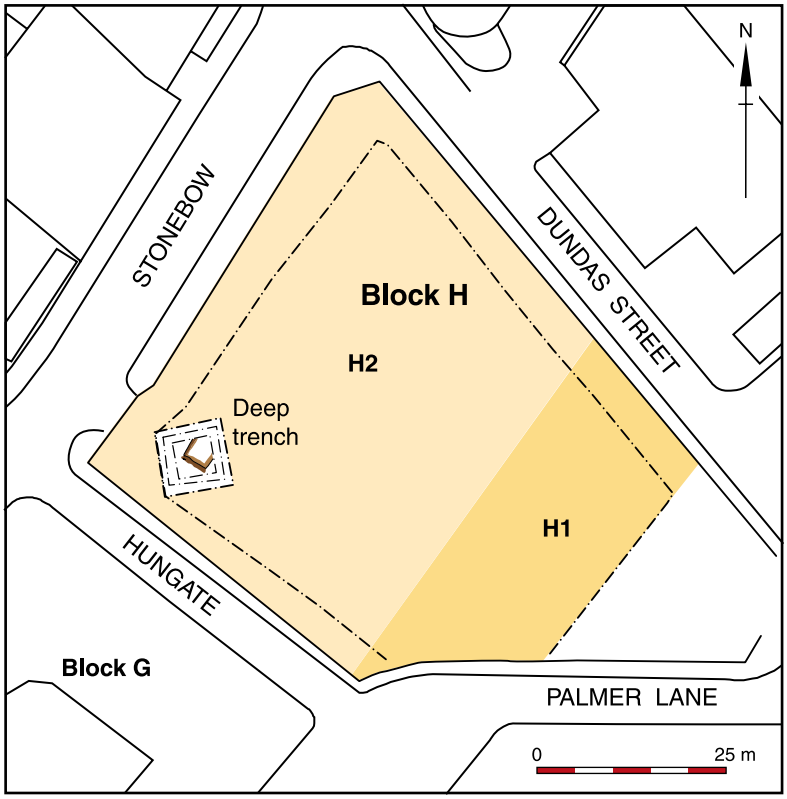
Toby Kendall

The Vikings come to Hungate...

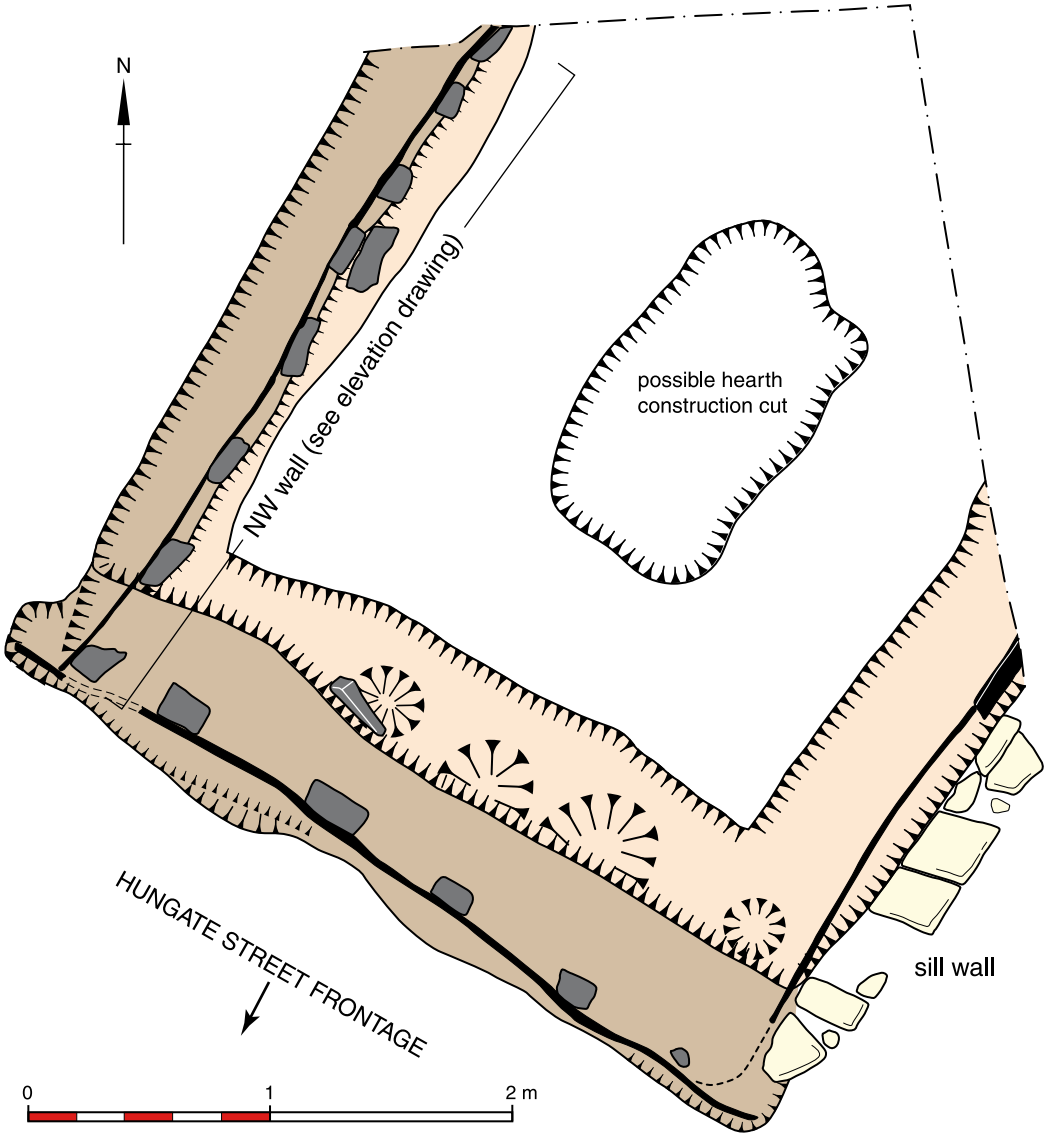
In autumn 2008 a deep trial trench was sunk into Block H of the Hungate re-development site in York, and a Viking-Age sunken floored building was unearthed. Now that the excavation of this trench has been completed, we can bring you the full story of what was revealed.

The reason for digging this trench in an area that will be explored fully later on in the excavation campaign was that the character of the archaeological deposits in this part of Block H was unclear. Circumstances had prevented the sinking of trial trenches in this area during the archaeological evaluation of the entire site earlier in the decade. So it was not clear how deep the archaeological deposits were, whether they were waterlogged and contained organic material and whether there were complex occupation deposits and structural remains. Without that information it would not be possible to devise a strategy that would maximise the archaeological information recovered in the less than three years remaining to excavate Block H. The trial trench dug to answer these queries measured about 9m square and was stepped in by 1m on each side with each 1m of depth; as it reached a depth of well over 3m, it was therefore only 3m square at the bottom.

At a depth of 3.4m below the present ground surface, layers of clay and silty sand were encountered, which had presumably been laid down during infilling of the River Foss channel in Prehistoric times. Above these natural deposits were further layers of sand and clay, but these were more mixed and contained Roman pottery, and are thought to have formed a levelling deposit of redeposited natural. This deposit was in turn overlain by what was almost certainly a ploughsoil; its surface consisted of parallel ridges and furrows 1m apart, and it contained 2nd/3rd century Roman pottery. Above the ploughsoil was a series of deposits, cut by the occasional pit; large Roman pottery sherds indicate that these layers were primary dumps, not soil which had originally been deposited



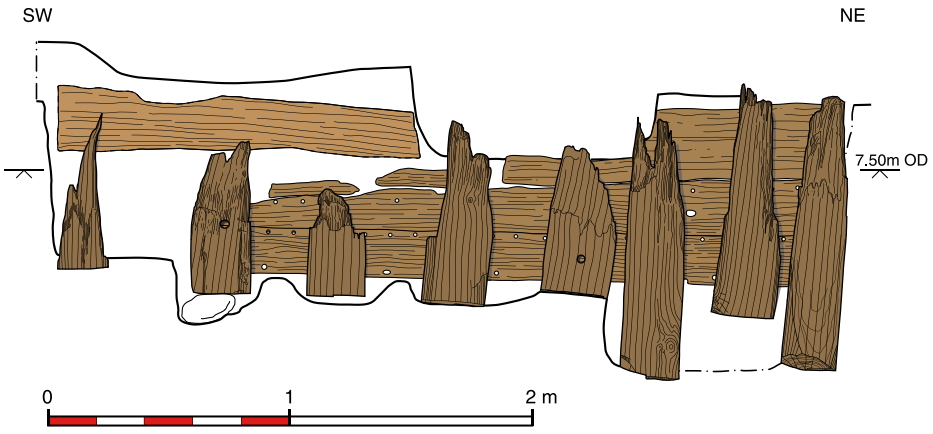
Above: Location of the Block H Deep Trench.
Below: View of the deep trench, looking south-west. The deposits and features in the upper half of the trench are mostly 19th - 20th century in date while those in the lower part and the base date to Roman and Anglo-Scandinavian periods.



Plan of the sunken-floored building. The lighter brown shading represents the original construction cut while the darker brown is a later extension.

elsewhere and then moved here. However, a human skull and other human bones suggest that at least one burial had been disturbed as these layers accumulated.

No features dating to the Anglian period (5th–early 9th centuries) were identified, and the next phase of activity, comprising post-holes and stake-holes followed by more dumps and pits, is dated to the late 9th/early 10th centuries. Structural features and probable cess pits indicate that there was occupation close by. Judging from the pottery evidence, the dumping and pit-digging continued well into the 10th century.



Elevation of the north-west wall

Above: The sunken floored building, looking north-west, showing the original north-west wall (top), the original south-west wall construction slot (centre left) and the later south-west end of the building with timber lining (left)

Cut into these deposits was the south-west end of a large, timber-lined rectangular cut at least 4.3m long by 3.5m wide and 0.8m deep. The north-west lining was particularly substantial, and is thought to represent the original construction. It consists of horizontal, edge-laid boat timbers used as planks, held in place against the sides of the cut by large, radially-split uprights which had themselves been set in a narrow construction cut. This structure is similar to the late 10th-century buildings found by YAT in 1976-81 at 'The Viking Dig' at 16-22 Coppergate, York. However, there was a possible hearth cut in the centre of the structure's floor, suggesting that it was a single-storey sunken-floored building, in contrast to the Coppergate examples, which are interpreted as having two storeys. However, single-storey buildings of this date similar to the Hungate structure, with centrally-placed hearths, have been found in London.

All the walls of the new Hungate structure rested to some extent on the unconsolidated fills of earlier pits. This caused some settlement of the timber uprights in the south-west and north-west walls and, to counteract these problems, the structure had been partially rebuilt. The original south-west wall was removed, and the building's construction cut was extended by about 0.5m to the south-west, making the building that much longer. The lowest 0.4m of the walls in this extension were lined only with clay, not with planks, except where planks had to be used to retain the loose fill of a pit exposed in the south-east side; but above 0.4m horizontal planks were used to line the upper parts of the walls in the extension. The one surviving plank in the south-west wall was set into recesses dug in the sides of the

Right: General view of the sunken floored building, looking south-west.

construction cut to hold it in place. Uprights were used in the extension, as in the original part of the building, to retain the wall planks, but some of them were little more than stakes and the others were not set in a construction cut, so it is unlikely any of these timbers were load-bearing. Instead, it is likely that a stone sill wall on the external ground surface, immediately to the south-east, supported the load-bearing wall on the south-east side. In addition, two uprights seem have been added to the north-west side, perhaps as a reinforcement due to subsidence; and the spaces between the uprights were filled with clay, concealing the planks behind them.

A thin sandy clay layer with patches of mortar and gravel in the base of the cut may have formed a floor, but otherwise the layers filling the building's subterranean space consisted of organic clay silt backfill deposits. As the possible hearth cut did not contain a hearth structure, it is suggested that the building had been intended as a dwelling but was not used for this purpose due to structural instability and dampness; instead, it may have been used for some ancillary purpose such as storage.

Although a mid - late 10th century date for this building had been indicated by the pottery, it was possible to obtain a more precise construction date through dendrochronology (the study and dating of the pattern of tree rings seen in the structural timbers). It seems that the building was almost certainly constructed in the late 960s and, most remarkably, incorporated timbers from a boat built about a decade earlier.

Stake-holes and post-holes, particularly south-west of the building, may have been contemporary with it; there was limited evidence for the build up of external deposits associated with the use of the building. Daub-rich deposits around the margins of the structure could represent its destruction by burning. The building may not have been in use for much more than a decade, as the activity that followed it probably dates to the late 10th century.

Lifting the boat timbers

Overlying the sunken structure were many organic dump deposits. These dumps tipped into the sunken structure and it is likely that these dumps had the dual purpose of waste disposal and infilling, a continuing necessity due to continued settlement of the backfills. The dumps were regularly cut by rubbish and cess pits, post-holes and stake-holes. At least two post-hole alignments and a linear cut are thought to have formed the boundaries of plots of land perpendicular to Hungate. There was no evidence of dwellings, although possible beam-slots, hearths and a stony surface point to occupation close by. A stony surface in the south-east corner of the trench could point to an Anglo-Scandinavian origin for a side street off Hungate, later known as Haver Lane. According to the pottery evidence, this activity continued beyond the Norman conquest and into the 12th century.

The later medieval levels appear to comprise further dumps and pits, but were increasingly truncated by later features; and post-medieval deposits are probably absent for the same reason. The only probable post-medieval (17th/18th century?) feature noted was a brick-lined well. A stony surface towards the south-east corner of the trench, dated by pottery to the 16th century, could be a post-medieval version of Haver Lane.

Drawing an elevation of the north-west wall

The medieval deposits were cut by the north-east end of a rectangular, brick-lined sunken structure, probably dating to the later 19th century. This structure was in turn cut by the massive concrete and brick foundations of a building identified as hay and straw merchant's premises on the 1907 health survey map of the area. Both buildings were heavily truncated, and no floor surfaces survived. Several ceramic drains were associated with these buildings; these probably included a main sewer beneath the last, stone sett surface of Haver Lane, although only the north-west side of the drain cut was encountered. Of the 20th-century building in this area, only a concrete foundation and an external tarmac surface to its west remained. The superstructure and much of the foundations to the east had been removed by clearance as part of the current redevelopment.

In conclusion, the deep trench excavation has given very useful insights into the remaining archaeological deposits and features in Block H. The overall depth of archaeological deposits was less than had been suspected, but waterlogged deposits containing organic material occur in the bottom metre. The general character of the Anglo-Scandinavian and later land-use suggests backyard activity, buildings, pits and dumping. This strongly suggests that the street Hungate was established by the 10th century, and that there were buildings fronting onto this street (possibly along the entire south-west side of Block H) in the Anglo-Scandinavian and medieval periods. What was surprising was the intensity of the 10th- and 11th-century activity, followed by a change in land use. It is tempting to link the rise in activity with the rapid growth of the town and the use of the River Foss waterfront in the Anglo-Scandinavian period, and the apparent changes with the disruption caused by the formation of the King's Pool following the Norman Conquest. We can look forward to the Block H excavation helping to answer these bigger questions.

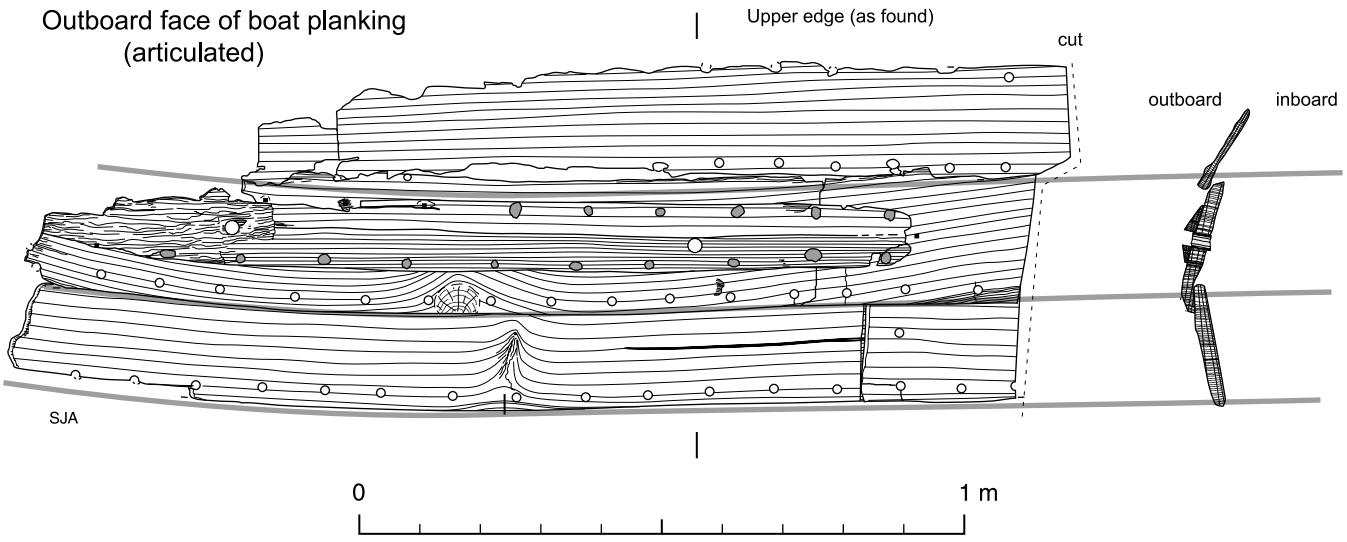
Kurt Hunter-Mann

Rocking the Boat

At first sight, the plank-lined rectangular hole defining a sunken-floored building looked very similar to the majority of the type found by YAT in 1976-81 at 16-22 Coppergate, York – a series of upright posts set into the base of the pit, with a set of horizontal boards between the posts and the earth sides of the sunken area. Some of the posts have single auger holes cut through the face of the timber between 150 and 250mm from the butt end. These holes are redundant; they do not hold pegs to fasten posts to the boards behind them. It was initially thought that this was evidence of their re-use, but study of the timbers from Coppergate has allowed us to rule this out. These holes appear quite frequently on posts in these structures and we now believe they are relicts of the movement and handling of the timbers. Pegs would be tapped into the holes to form hitching points, around which ropes or straps could be fastened to drag or lift timbers from the woodland where they were felled to the construction site. Once on site, the pegs could be pulled out or, as we have seen, cut off flush with the face of the post. Colleagues in Norway tell us that this practice is still current in parts of their country.

> " although this is a 'Viking-Age' structure, the planks are not from a Viking boat…"

Below: Steve Allen, YAT's wood technologist, examines the timber structure *in situ*.



Articulated boat timbers re-used in the Hungate building

All of the posts are oak, and have sub-rectangular cross sections created by splitting or hewing the timber with axes. The butt ends are usually cut square to the axis of the timber, but not necessarily very neatly. Sometimes the wedge or kerf cut out of the timber when felling it or cutting it to length has not been trimmed away.

Sapwood, and sometimes the outermost sapwood surface or bark edge, is present on most of the posts. Though this softer wood has suffered damage or rot whilst buried, there is no trace of any pre-burial or woodworm damage. These facts tell us that the timbers were placed in the ground very shortly after they were felled. It also means that we might get very good dates for the felling of the tree/construction of the building from the dendrochronologist. Six of the posts were sampled by Ian Tyers, and were dated to the mid - late 960s. The tree ring sequences match very well with those from Beverley, Barton-on-Humber and, of course, York, which means that the wood source was local rather than imported.

When the planks were first exposed on site it was obvious that there was something unusual about them. Some had holes in them which did not relate to the building; and when we got a good look at them, they appeared to be boat planks. After lifting the posts we could confirm this, but there were still some surprises. Firstly, there was a scarf or end-to-end joint between the lowest planks on the south side of the building. Secondly, the planks were still fastened together, not by iron nails as we had expected, but by small wooden pegs. Thirdly, an extra shaped piece of wood had been nailed to the outside of one of the planks. Finally, the planks were still articulated. What we seem to have is part of the starboard side of a boat with a rubbing strake or wale, re-used to revet the south side of the building cut, with more planking, probably from the same boat, used to line the north side of the cut.

Boat planks are surprisingly rare finds in York. A small slab of thirteenth-century articulated planking was found at Coppergate in 1982, reused as part of a revetment, and a longer run of planking, found at Hungate in 1959, formed part of a later medieval revetment on the bank of the River Foss. All of these finds are much later than our planks, and this is the first time that Anglo-Scandinavian boat timbers have been found in York. It is also the first time re-used timbers have been found in the walls of a building of this period in York. And although this is a 'Viking-Age' structure, the planks are not from a Viking boat…

Most North European boats of this period are clinker-built, that is, the planks which form the hull have partially overlapping edges. Boats built in the Scandinavian tradition have the overlapping edges of the planks fastened

Above: Lifting the boat timbers. Peg holes can be seen on the right-hand edge of the timber which has been removed.
Inset: detail of the wooden pegs used to join the timbers.

together using iron clench-nails. The nails are driven in from the outside, through the overlap, and then riveted over a flat plate or washer on the inside of the boat. Although they come in many different sizes, can have different hull forms and are of different dates, every one of the boat finds from Scandinavia, and most of those from areas settled by Scandinavians, uses these clench-nails. Our boat, however, uses wooden pegs to fasten the clinker planking, not iron nails. It is clearly from a separate boatbuilding tradition.

Only four comparable finds have been made in this country, three from the London waterfront of 10th-century date and one from Sussex, possibly of the 8th-9th centuries. The planks used for the New Fresh Wharf, London, boat are from trees which grew in south-east England. However, the original home of this form of construction, based on archaeological finds, is believed to be the southern coast of the Baltic Sea, in what is now Poland and north-east Germany. It may represent a 'Slavonic' (or certainly northern German) form of boatbuilding, superficially similar to but distinct from Scandinavian practice. Current research suggests that this may have been one of several boatbuilding traditions brought to the British Isles in the migration period of the 5th-6th centuries.

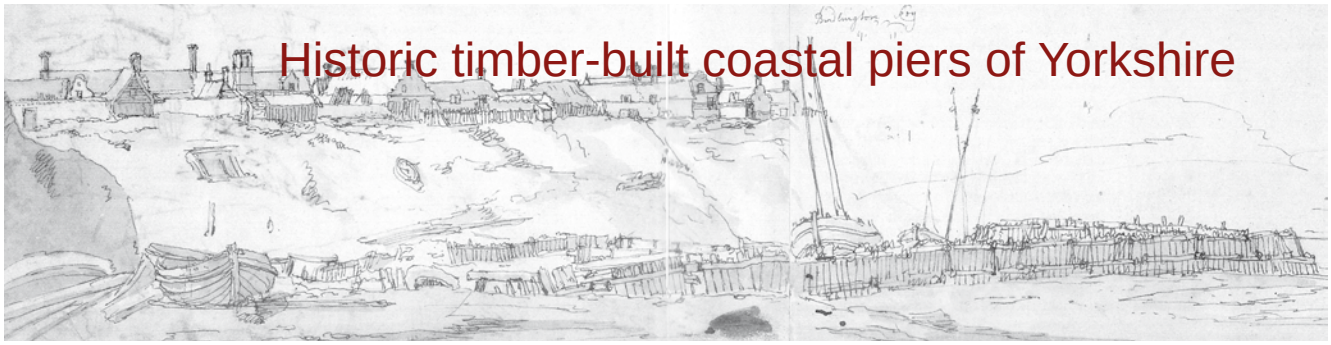
Timber from the Baltic region tends to be close and straight-grained, unlike the timber from which our planks were cut, so the Hungate boat was probably built in the British Isles. In order to tie down the date of our boat and answer some questions about its place of origin, four of our planks have been sampled for dendrochronology. We now know that our boat was built from trees cut down no earlier than AD953, which is the latest surviving ring on the boat timbers. The tree ring sequences fit well with those from south-east England, though we cannot yet be sure of a more precise location.

The dendrochronology of the boat tells us the date after which it must have been built, and the dates from the building tell us the date by which the boat had been broken up for reuse. This suggests it had a maximum working life of twelve years, much shorter than we had expected.

All of the timbers discussed here are from part of one building seen in the trial trench, and we know they pass beyond the area of excavation. More timbers from the building still remain to be excavated in the next few months, and we hope this will start to give us a better idea about the construction and modification of the building, the exact dates when this happened, the technology available and, not least, the boat with which much of this building was lined.

Steve Allen

Historic timber-built coastal piers of Yorkshire

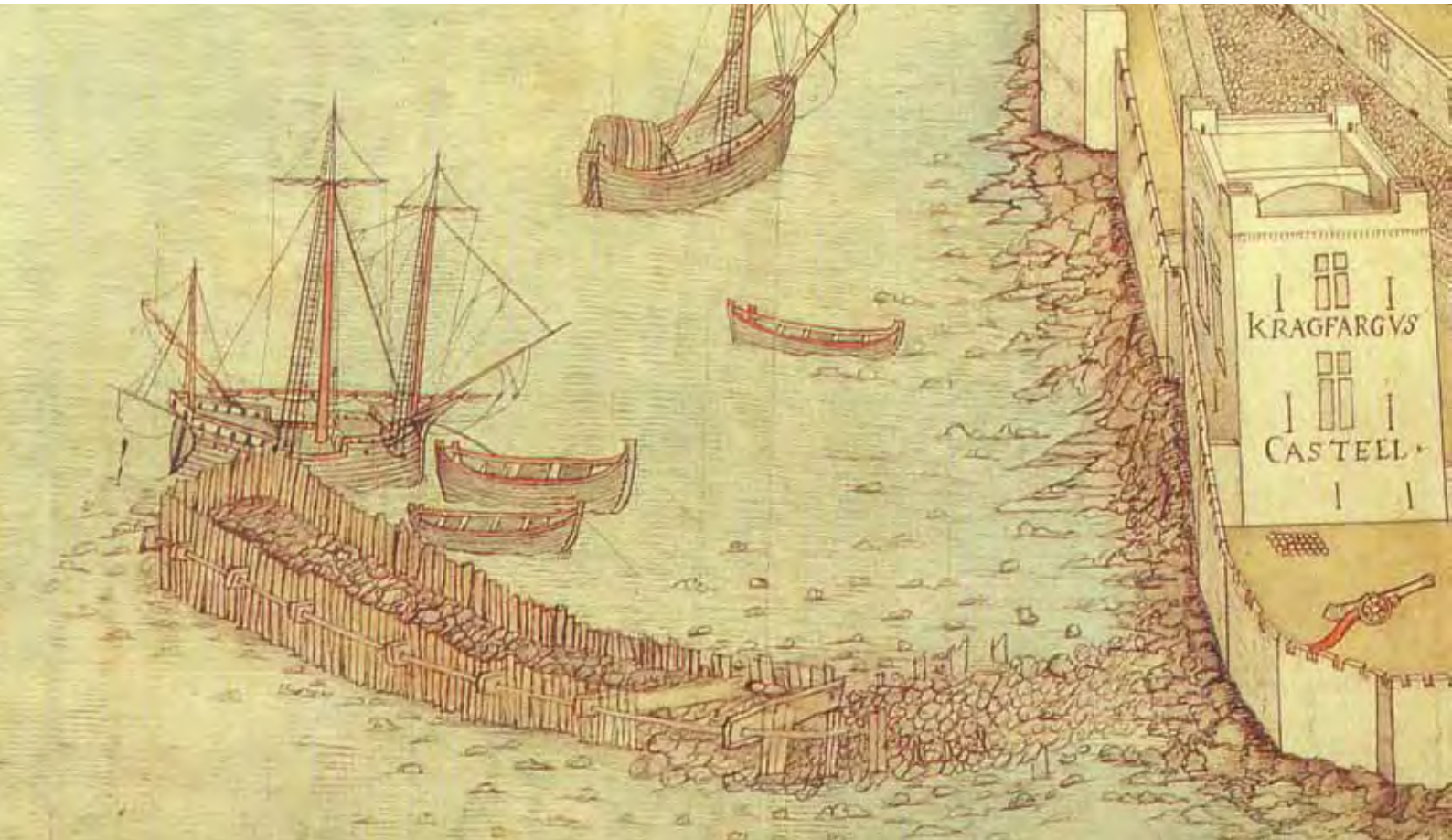


Sketch by Francis Place of the South pier, Bridlington, c.1700 (reproduced from Neave & Neave 2000)

YAT encourages the development and expansion its skills base. Field Officer Mark Johnson has recently completed an MA in the archaeology of buildings, and this article outlines some of the main findings of his dissertation.

We're not talking of Victorian pleasure piers here, but of 'coastal harbour piers', that is of harbour piers that extend from the land out into the sea. In this region we may think of the harbour piers at Scarborough or Bridlington. In both these cases, and in the cases of all coastal harbour piers at historic towns elsewhere in the country, the extant piers are all built of stone or steel and concrete. Remarkable as it may seem, the original piers at many of these sites were constructed primarily of timber and were often several hundred metres long. Stone-built piers, at least on the eastern and southern coasts of England, appear rarely have existed before the 16th century. On first consideration it may appear strange that timber could form the principal component of a structure exposed to the wave actions in gales and tidal surges and the twice daily processes of wetting and drying. Yet we do know that such structures, albeit frequently repaired and rebuilt, were constructed throughout much of the medieval and earlier post-medieval periods. Although no examples survive as standing structures today, a handful of limited archaeological remains are presently known, and there are a number of early depictions together with a surprising amount of documentary evidence. These all unambiguously testify to the existence of this type of structure. As surprising as their former existence is the extreme lack of investigation into timber piers, matched only by the even sparser publication of information relating directly to them.

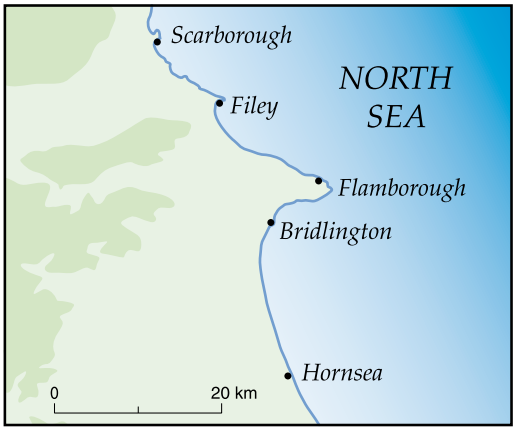
Timber-built pier at Carrickfergus c. 1560, showing principal structural components. (Reproduced from Harvey 1993)



Within our region, examples of these piers are known to have existed at Scarborough, Filey, Flamborough, Bridlington and Hornsea. Two of these, Filey and Flamborough, have scanty material remains consisting of little more than spreads of boulders, and are associated with Key/Quay place-names. Any remains at Hornsea now lie around 1km out to sea, whilst evidence at Scarborough and Bridlington has been removed or masked by later harbour works – or just as likely, removed by dredging. Here we shall look briefly at just two of the principal aspects of timber-built coastal piers, some of the technology of their construction, and, within the Yorkshire region, the social and economic context of their origin, development and demise.

The technological evidence is derived from pictorial and documentary sources and material remains. The most important of the early depictions, dating to around 1560, is of the pier adjacent to the English castle at Carrickfergus, Co. Antrim, Northern Ireland. Lying within the shelter of a small headland, this pier consists of two vertical, and parallel, walls of timber, probably planks, which turn through 90 degrees at the seaward end. Extending laterally from one wall to the other is a series of regularly spaced tie-beams, the ends of which project beyond the outer faces of the wooden walls and have mortises cut within them. Rails, or locking bars, running within the mortises, extend from tie-beam to tie-beam down the sides of the pier, whilst the interior of the timber shell is in-filled with a ballast of stone. Structurally, the tie-beams and rails serve to prevent outward slippage of the walls, whilst the stones prevent inward slippage and stabilise the structure against the natural elements. A sketch of the timber south pier at Bridlington, probably dating to the latest years of the 17th century, provides remarkably similar structural details.

Again relating to Bridlington are a series of Exchequer documents dating to the time of the Reformation. Some of these are accounting devices that provide such detail as the names and trades of each person engaged in the reconstruction of the piers, how and when they were employed and their rates



of pay. Other of the Exchequer documents are effectively surveys of defects within the piers. Collectively, these important sources of evidence tell us that all the skilled work was done by carpenters and sawyers (timber workers), with labourers and local tenants of the manor performing labour services, engaged in driving timber piles and infilling the timber shell of the pier with stone ballast, most of which came from the dissolved, and largely demolished, Priory of Bridlington). We are also told that the timber framework of the pier was constructed in '*roomes or bayes*', each of a standard width and separated from adjacent bays by '*cross barres*' or tie-beams. In essence, these early piers were comprised of a series of connected, identical and replicated units, this basic building unit, or block, being the bay. Bay units, of course, also formed the basic building block of contemporary timber framed buildings. A petition from Scarborough in the 1560s provides some comparison of piers and buildings with the pier there described as: '*all the owte sides made of Tymber framed like two house sides filled within with stones and stondithe upright as brode at the top as at the bothome*'. A further connection between piers and buildings is provided by Exchequer documents of the early 1540s relating to works carried out at the pier of Flamborough and on buildings within the village; two of the carpenters listed as working at the pier are also found working on buildings. This, together with other evidence, suggests that there were no specialist timber pier builders at this time. Rather, the technology of piers and buildings were related, and a competent carpenter was quite capable of working on either form.

Above: Bridlington, early 19th century: dilapidated pier showing lateral divisions.
(courtesy East Riding Museums Service)

Right: Bridlington, early 19th century: note structural details of timberwork.
(courtesy Bayle Museum, Bridlington)

Pictorial and cartographic evidence of the 16th and 17th centuries indicates that there was variation around the basic method of construction outlined above, whilst similar sources of evidence for the 18th and earlier 19th century provide highly detailed information regarding a later form of timber-built pier. Remarkably, a system of timber piers survived at Bridlington into the first half of the 19th century, long after they had gone out of use elsewhere, and two views of the later piers are reproduced above. These, and other, views clearly show the manner of construction right down to the level of the form of timber jointing. The bay unit can be seen to have continued as the basic element, with the angle-driven piles connected by two horizontal rails, and with upper and lower tie-beams at the point of bay division. A series of stout, close spaced timber studs, connected to the rails, extended from top to bottom, and the external cladding of horizontal planks was fixed to these. The structure was capped off with a decking of timber. The illustration (above, inset) shows, that in places at least, each bay division was laterally separated from its neighbour by a wall of planking, presumably to restrict the movement of the internal ballast.

The origins of the timber-built piers of the Yorkshire coast, together with subsequent changes in their control and ownership, shed interesting light on patterns of socio-economic change within broader society. Two of the sites, Hornsea and Bridlington, originated within the estates of large monastic institutions, St Mary's Abbey, York and Bridlington Priory, respectively. Both institutions became enormously wealthy and held extensive possessions. Foundation within an estate also applies to Flamborough, where the manor and harbour formed part of the extensive holdings of the Constable family whose secular estates were concentrated in the East Riding. Scarborough did not have direct access to large estates but it was an important borough, housing a significant mercantile community as well as being the site of a major royal castle. Although the pier at Scarborough belonged to the borough, the crown frequently displayed favour towards the town in its keeping of the port in good repair. This largesse was expressed in the form of trees from the royal forest of Pickering, in the regular granting of rights to quayage (tolls) at the harbour to the burgesses from the mid 13th century onwards and in a charter which attempted to prevent development of rival ports between Scarborough and the Humber.

These pier sites are therefore characterised by an origin within large economic units possessing, or in the case of Scarborough

having indirect access via the crown, to extensive resources. There may to be two principal reasons for this. Firstly, these ports can be seen as major conduits in the economic activity of their parent estates/borough; they provided regulated locations for estate/borough exports and imports, and bases for tenant/borough fishermen. Secondly, the estates provided access to the two necessary resources for building a timber pier 'in-house'; timber and tenant labour. The exception to this picture is the pier of Filey, which appears to have originated within a small manorial unit. However, its tiny archaeological remains indicate a pier only a small fraction the size of those at Scarborough and Bridlington and its 'scaled-down' proportions would appear to be a reflection of the equally scaled-down economic unit in which it was fostered and operated.

The Reformation heralded the greatest impact on the control and development of the Yorkshire piers. The monastic estates of St Mary's and Bridlington were broken up and their piers at Hornsea and Bridlington passed to the crown. The pier at Flamborough was likewise seized when Sir Robert Constable rebelled against the crown in the Pilgrimage of Grace. Now in royal ownership, Henry VIII, who had an interest in matters nautical, invested enormous sums of money and huge resources of timber (courtesy of the dissolved monastic estates) on the reconstruction of these piers. Remaining in the control of the crown, Elizabeth I, or rather her advisors, hit upon the idea of leasing these harbours and the manors to which they were attached to local groups of yeoman, a class increasingly coming to the fore in the wake of the upheavals, and opportunities wrought by the Reformation. A variety of State Papers make it clear that the crown's motive behind this 'new economic policy' was one of cost-cutting; timber piers required continuous maintenance/repair. These leases, however, had a sting in their tail; the lessees were required to maintain these large piers solely with the resources of single manorial units. Whereas previously the piers had been supported by the resources of much larger estates, in these new more constrained circumstances it became increasingly difficult to do so. With little or no external support the piers of Hornsea and Flamborough declined and finally went out of use, Hornsea in the late 16th century and Flamborough around the middle of the 17th century – about the same time as the small pier at Filey also became redundant.

The important town of Scarborough managed to maintain its pier, but at Bridlington the failure of the latest lease resulted in the pier and manor reverting, briefly, back to the crown. James I gifted these possessions to a favourite. Seemingly finding this package an unprofitable one, the manor and pier were shortly thereafter sold, the buyers being the collective of tenants of the manor itself. In retrospect this community buy-out of 1630 was a revolutionary change. The community drew up what can be regarded as a democratic constitution, with the town and its piers being governed and regulated by elected Lords Feoffees, and the majority of tenants effectively becoming freeholders. Interestingly, the community decided to retain the former manorial system of labour services, specifically for maintaining the pier; perhaps they felt that only by this means could they ensure the survival of their harbour – and for many their livelihoods. Despite the efforts of the community the direct and indirect effects of the Civil War and the ravages of the sea saw the harbour continuing to decline. That the piers at Bridlington survived at all, and even began to prosper, was owed directly to state intervention in the later years of the 17th century. Among other functions, the piers at Bridlington, and at Scarborough, served as harbours of refuge, safe havens to which the hundreds of colliers and other ships plying the eastern coast of England could resort in foul weather or when in danger from *'Dunkirkers'* and other freebooters. Effectively, these harbours came to be viewed as being in the wider 'national interest', not merely items of 'local' infrastructure. Accordingly, successive Acts of Parliament imposed duties on colliers and the income was injected into port infrastructure along the coast. This, and later forms of subsidy maintained much of the pattern of harbour distribution we see today.

Mark Johnson

PLAGUE ✻ POVERTY ✻ PRAYER

A new exhibition, *Plague, Poverty and Prayer*, funded by the Wellcome Trust and designed by York Archaeological Trust, was launched at Barley Hall in February 2009. The exhibition, which explores everyday life for the citizens of York from the Norman invasion to Tudor times, draws heavily on archaeological evidence from the period. With interactive displays, new research, and recently excavated skeletal material, visitors can find out about illnesses and diseases from the period; who may have treated them and some of the remedies used; and the importance of folk medicine, prayer, astrology, spells and mysticism to those living in Britain at the time. This exhibition covers four main subject areas (Medical Care, Cures, Living Conditions, and Illness and Disease) and will run until the end of 2009.

Plague, Poverty and Prayer is housed on the second floor of Barley Hall, utilising the Gallery spaces, and the Lesser and Great Chamber, taking full advantage of this historic medieval townhouse. Archaeological material from York is used to illustrate the historical debate about the origins and the development of health care provision in Britain over 500 years ago. Evidence from both St Leonard's Hospital in York, one of

the largest hospitals in medieval Europe, and St Nicholas's Hospital, York's only leper hospital, is presented. Other hospital sites in Britain, including Soutra in the Scottish Borders, the Great Hospital at Norwich, and St Bartholomew's Hospital in London, also feature.

A second gallery looks at cures and medicines during the period, using environmental archaeological evidence and other primary sources, such as manuscripts, including the Killingholme Medicinal and the Barber-Surgeon Book from York. This information is explored using graphics panels, replica objects, and interactive displays, including home-cure remedies based on recipes published in the 15th century.

The exhibition also examines living conditions in medieval York and the effects these had on issues such as life expectancy, standards of health, mortality rates in children, and types of disability. A female skeleton from the lost church of St Stephen, excavated by York Archaeological Trust at Dixon's Yard, is displayed and interpreted, alongside recent research material on types and prevalence of disease and illness evident in the period. Subjects covered include tuberculosis, anaemia, dental disease, leprosy, degenerative joint disease, osteoporosis, syphilis and plague.

The exhibition includes recent research from specialist academics such as Dr Charlotte Roberts from the University of Durham, Dr Allan Hall and Harry Kenwood from the University of York and Dr Gundula Müldner from the University of Reading, alongside new research and excavated material from York Archaeological Trust.

Plague, Poverty and Prayer is the second exhibition to be installed at Barley Hall recently, and follows the success of *Fashion Repeats*, an exhibition which used modern fashion to explore the techniques and styles of Anglo-Saxon textile production and clothing. In 2010 The Trust will install a further exhibition, funded by the Heritage Lottery Fund and entitled *Stonegate Voices,* which will use new oral history material gathered from people who lived and worked in the Stonegate area of York. The exhibition will be supported by a new book containing this material, and a series of podcasts which will be available to download from the Barley Hall website from autumn this year (www.barleyhall.org). These exhibitions aim to attract a new and varied audience including school visitors, who can also undertake themed workshops (e.g. *Tudor Medicine* and *Meet the Barber Surgeon* in the *Plague, Poverty and Prayer* exhibition), as well as general groups, individuals and families, who will discover much to fascinate and intrigue them at Barley Hall.

York Archaeological Trust is grateful to the Wellcome Trust for funding this exhibition

wellcome trust

USING MY HEAD, SAVING THE BRAIN

How a university lecture came in useful.

My job as Finds Officer with York Archaeological Trust includes cleaning and cataloguing all the objects we find in our excavations. During the summer of 2008 the YAT excavation team was working for the University of York to investigate a site near Heslington where the University's Campus 2 extension will stand. The excavators uncovered an extensive Iron Age farming landscape of fields, trackways and buildings that date back to at least 300BC. The archaeological features produced a large quantity of prehistoric finds such as pottery and worked flints, all of which were brought to YAT headquarters for processing by the curatorial team. Amongst the finds was an intact human skull including the mandible (lower jaw) and the first two vertebrae. Apart from a finger bone and a few other unidentifiable splinters, there was no sign of the rest of the body. The skull was found face down in one of the many pits on the site. The excavator lifted the bones in some of the surrounding damp soil and used padded bags to pack this block carefully into a tub for transport.

Once the skull arrived in the Finds Laboratory, I carefully removed it from the tub and rested it on a ring of foam. The bone appeared dark in colour, having been stained by the soil. There was a lot of mud on the face area and also covering the sides. With one hand supporting the skull on its foam ring I used a soft paintbrush dipped in clean water to wash the bone gently. As the mud came off, it was possible to remove the mandible and vertebra from the soil block. At this point I was able to alter the position of the skull on the foam support, in order to clean the mud away from the face. As I did so I felt something inside the skull move. I assumed this to be a lump of mud that had become detached from the inside of the skull as it dried out, as the Finds Lab is relatively warm in comparison with conditions on site. I peered though the hole at the base of the skull to investigate and, to my surprise, saw a quantity of bright yellow spongy material. It was unlike anything I had ever seen before. Its location made me think back to a university lecture about excavations in the mid-nineties at Hull Magistrates Court, where human brain tissue had been preserved inside skulls. Could it be possible that this too was a brain? It was a very exciting possibility. We needed an expert opinion.

Excavation at Heslington East; the location of the skull is arrowed.

The lecture in question had been given at the University of Bradford by Dr Sonia O'Connor, the conservator who had been involved with investigating the Hull brains. I took the skull over to Bradford where Dr O'Connor took an X-Radiograph, and used an endoscope to get a better look inside the skull. Based on the findings, she was happy to say that we had discovered preserved brain tissue! A further CT scan at York Hospital produced a clear image of the contents of the skull. Neurologist Phillip Duffy is confident that the structures visible on the scan are of brain origin. So the skull contains the oldest surviving human brain in Britain. It is a remarkable discovery.

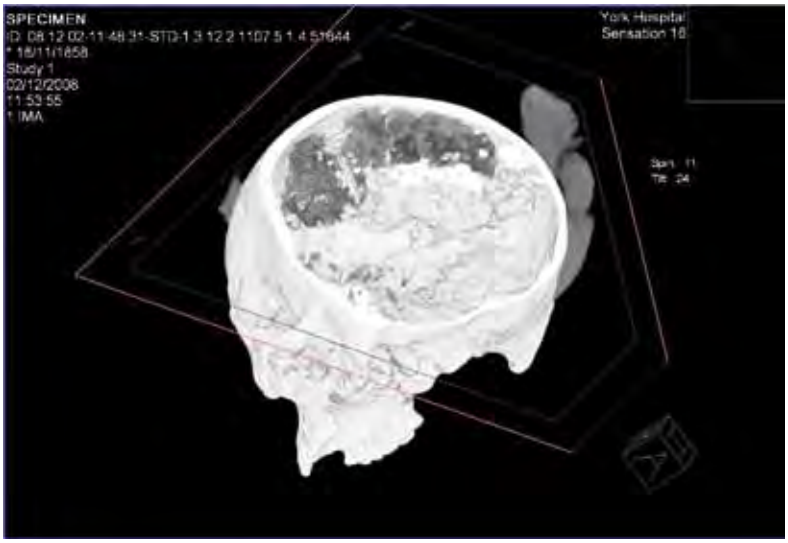
Cleaning was halted to avoid damaging the evidence, and so the brain is still within the partly washed skull. It is being kept in a refrigerator where the cold, damp conditions mimic the burial environment and help to restrict further degradation. Now the really interesting part of the project begins. YAT, advised by Dr O'Connor, is planning a programme of research to investigate what led to the preservation of the brain. It is hoped that this will also tell us about burial practices; whether the skull was buried very quickly after death, for example. We may also learn something about the individual this brain belonged too, even though there is no way of bringing it back to life to read their thoughts! A deeper understanding of this rare survival may lead archaeologists to recognise and recover more human brain material in the future.

I will certainly look carefully inside any skulls I wash from now on!

Rachel Cubitt

Above: The skull *in situ* in pit fill

Below, left: Rachel investigates the interior of the skull with an endoscope.
(Photo: Dr Sonia O'Connor)



Below, right: results of a CT scan at York Hospital showing dark material inside the skull.
(Photo: David King, York Hospital)

Britain's oldest BRAIN

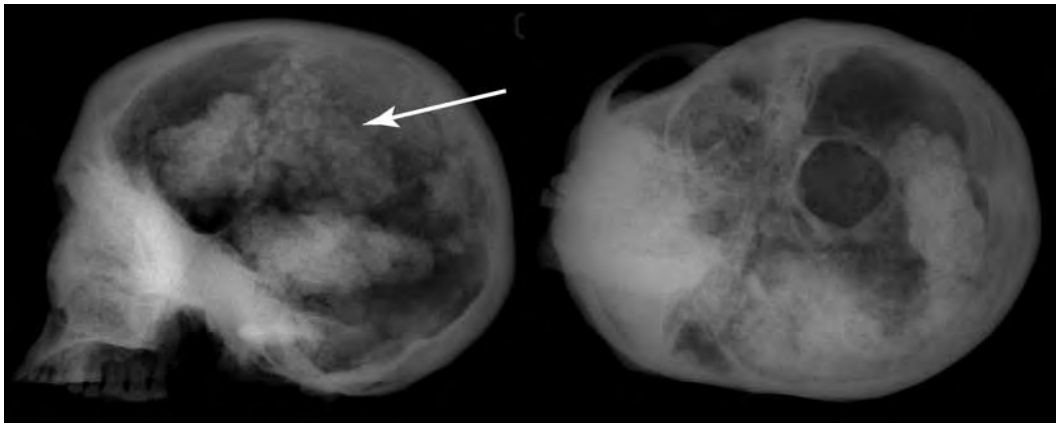
As widely reported in the media, York Archaeological Trust's excavations on the Heslington East Campus development at the University of York recovered a human skull. The skull, found with its mandible and atlas isolated within a pit which is believed to be of Iron Age (or, conceivably, slightly earlier) date, could represent a decapitation although two finger bones were also recovered. The skull is thus at least two thousand years old. In the article above, Rachel Cubitt, Finds Officer at YAT, describes how her presence of mind, and the recollection of a university lecture, alerted her to the possibility that the skull contained the remains of its brains; and how this was confirmed firstly by visual inspection by Dr Sonia O'Connor of the University of Bradford. A sample of the material in the skull was removed and examination of this, under low magnification, revealed that it has a texture, resilience and convoluted structure similar to the better preserved examples retrieved from burials in similarly wet deposits at the Hull Magistrates Courts site, Kingston-upon-Hull, over ten years ago, and shown to be remains of brain. Radiography revealed at least three endocranial masses with apparently differing gross morphology. One of these masses (marked with an arrow in photo opposite) appears to show the neural folds of a shrunken lobe of the cerebrum. Dr O'Connor concluded that these were the remains of the brain and that it had been preserved in a similar manner to those from the Hull Magistrates Courts site.

Below:Fragment of material from skull interior.
(Photo: Dr Sonia O'Connor)

Because finds of brains in otherwise skeletonised bodies are frequently met with scepticism, it was felt necessary to acquire further proof of the identification of the material in the skull before the find was publicly announced. The skull was taken to York Hospital where it was examined using computer tomography (CT) and magnetic resonance (MR) imaging by David King, Consultant Radiologist and Philip Duffey, Consultant Neurologist. They concluded that the resultant images revealed sufficient detail of the external and internal morphology to confirm that this was indeed the shrunken and distorted remains of what had once been the brain.

Such finds are rarely reported, and this may be the earliest known example of preserved brain material from Europe, and one of the earliest in the world. Whatever its date, it is a valuable example of an exceptional form of archaeological preservation. The study and understanding of this find is of international significance.

With support from the University of York, YAT asked Dr O'Connor to act as principal investigator designate and, in that capacity, to bring together a comprehensive research design for this study.



Left: Lateral and basal radiographs of the skull and its contents (There will have been some movement of the contents between views).
(Photo: Dr Sonia O'Connor)

The remains of brains have been found in deliberately mummified bodies and others incidentally preserved in a range of burial environments. Examples include the embalmed mummies and desiccated sand burials of Ancient Egypt; the deeply frozen 5000-year-old Tyrolean Ice Man; the naturally freeze-dried, Peruvian mummies of the high Andes; the tanned bog bodies from across Northern and Western Europe; bodies sealed in lead-coffins and the crypt burials at Spitalfields Church, London and the Dominican Church in Vác near Budapest, Hungary.

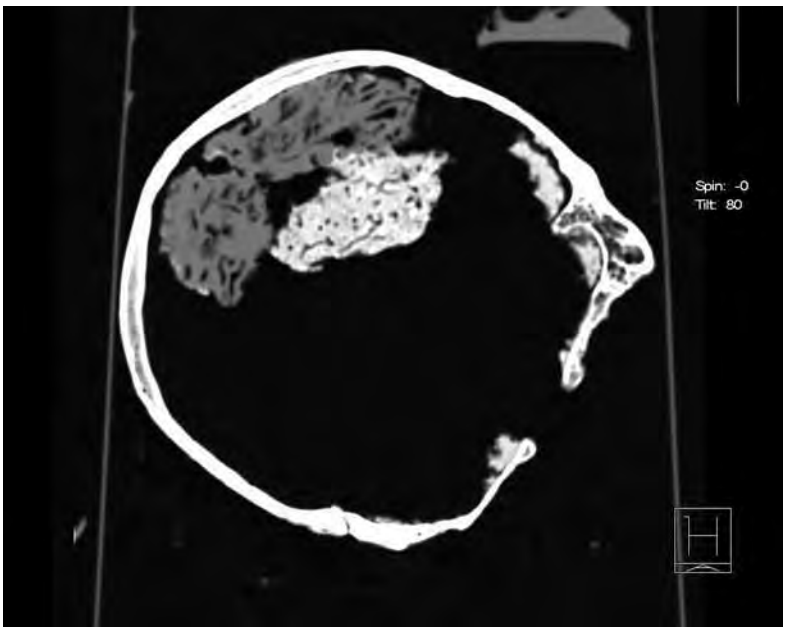
When brain tissue persists in these bodies, other internal organs, such as lungs, heart and the digestive tract, are also preserved, unless they have been deliberately removed. Similarly, external soft tissues, including muscle, skin and hair, also survive to a greater or lesser extent. In burial environments where no recognisable soft tissues survive, over the bones or within the body cavity, it would seem unrealistic to expect brain tissue to be preserved within the skull. However, an increasing number of finds of brain-like structures from wet, or waterlogged, sites have come to light in recent years.

From observations of brain tissue in recently deceased humans, it is known that the brain is very quick to putrefy to liquid. Thus, survival of recognisable brain morphology, e.g. neural folds, would seem to indicate that only a very brief time (hours rather than days) has elapsed between death and burial in an environment that encouraged the development of a persistent alteration product.

The proposed project is designed to improve our understanding of why brains survive and what that could indicate about funerary practices or the individuals to whom they belonged. Furthermore, this should allow us to predict more accurately the burial conditions in which they might be found, improving the rate of recovery on future excavations. It is possible that these survivals are much more common than we realise and therefore that an important class of evidence is being neglected.

In summary, a series of analyses and investigations will be undertaken, including, amongst others:

Below: CT scan showing a cross-section of the skull and structures within it.
(Photo: David King, York Hospital)



- radiocarbon dating of the skull's jaw
- CT imaging of the brain remains in situ to allow for positioning of probes for sampling the core of the brain remains, prior to the opening of the skull, for procedures requiring uncontaminated samples
- Micro CT and higher energy MR imaging of the different masses to explore the morphology and surviving histology non-destructively
- Study of the internal and external deposits on the skull to identify any surviving evidence of soft tissue remains by light microscopy and SEM
- extension of this study to the sediment samples from the burial context
- Cleaning and recording of the skull and conventional photography, 3D photography and laser scanning
- Recording of the cranium, mandible and any vertebrae; analysis of age, sex, metrics and pathology and evidence for decapitation
- Trepanning of the skull to allow brain remains to be extracted; removal of the brain masses, photographic recording, cleaning and 3D laser scanning
- SEM of samples of the different masses
- Histology of samples of the different brain masses
- Imaging mass spectrometry (IMS) will relate brain-specific lipids and proteins with morphological features.
- DNA samples from a tooth and the centre of a brain mass will be taken to compare the state of preservation in both materials and determine if the same human genotype can be distinguished in both. This should also confirm the sex of the individual
- FT Raman spectroscopy to gain an overview of the persistent material the brain has formed and of the state of preservation of the bone. Histological examination of the cranial bone, FTIR analysis of the C/P ratio and the Infra-red splitting factor to establish the diagenetic pathway
- Carbon and Nitrogen analysis. Ratio of Carbon:Nitrogen will provide a crude indicator of the presence of proteins or lipids and other carbohydrates and isotopes, and will potentially provide dietary information
- Lipid analysis to explore the survival of tissue fats and their degree of preservation. Brain is a very lipid-rich tissue
- Identifying the presence of polymerized lipids derived from C16 and C18 precursors in lipid rich tissues during decay; the structure of the brain may in part be the consequence of this early kerogen formation
- Protein etc. analysis; amino acid composition analysis will be used to establish the percentage of nitrogen attributable to protein, followed by shotgun proteomics to characterise the surviving protein chemistry.
- Detection of neurofilament proteins using quantitative (ELISA) and qualitative (immunoblot) neuroimmunological techniques. Determination of stoichiometry of the neurofilament isoforms and comparison of results with a more recent control brain (19th century) and a control with known post-mortem time interval to decipher a possible signature that time of death and age may have left on this unique protein.
- Survey of forensic literature to collate information on the survival of brain tissue in diverse circumstances.

If all this sounds like complex science; well, it is! To undertake it we have gathered a team of specialists, from the universities of York and of Bradford, and from other institutions. We hope to bring you news of the project's results in a forthcoming *Yorkshire Archaeology Today.*

This article is based heavily on the work of Dr Sonia O'Connor; she is not responsible for any misrepresentations made in this synthesis.

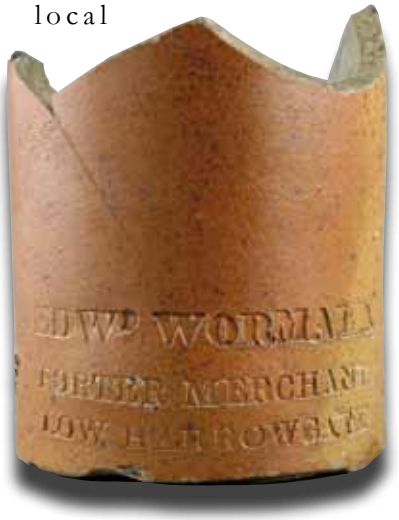
York Archaeological Trust thanks the University of York for its continuing interest in and underpinning support for this project, and the remainder of our work on its Campus 2 site.

The Archaeology of Shopping

Within the marketing world there is an assumption that the concept of branding originated in the twentieth century, developing in response to the need for companies to differentiate their products from their competitors in a mass-produced market. Indeed, twenty-first century society is positively saturated within brand culture; walk down the high street of any city in the UK and witness the overwhelming homogeneity created by the spread of the chain store. We make decisions about brands daily in our everyday essential spending habits, from our choice of supermarket groceries to luxury gifts. We are subject to constant brand strategy campaigns in all areas of our lives, even our leisure, with corporate sponsorship of sporting events and art or museum exhibitions in which businesses hope to share in the reputation and prestige associated with their partners, as well as advertise their presence.

This bottle excavated from Hungate once contained Emmatt's Aerated Water from Harrogate.

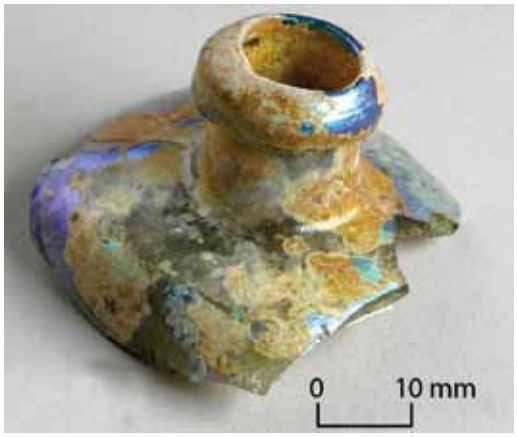
However, branding is not solely a phenomenon of the last hundred years. Historians of consumer studies frequently cite Josiah Wedgwood, the ceramics entrepreneur, as a key figure in the utilisation of brand strategy; his firm was founded in 1759. YAT's finds confirm that branding began somewhat earlier than the marketing gurus would have us believe; the current excavations at Hungate have recovered a number of branded artefacts, predominantly patent medicines and drinks bottles, including examples of brands that were in existence in the seventeenth century. One such is 'Daffy's Elixir', a toothache remedy sold from around 1670. The finds reflect a variety of national, international and local products, including 'Emmatt's Aerated Water' from Harrogate and beer from Tadcaster Tower Brewery.



Stoneware porter bottle from Edward Wormald of Low Harrowgate

For historians and archaeologists, the study of branded items provides an exciting opportunity to establish a new perspective on the shopping habits of York's residents from over a three hundred-year period. Over the next three years I aim to explore further YAT's collections, as well as other assemblages of material culture in York's museums, and historical documentary evidence such as advertising, to formulate a comprehensive understanding of the rise and development of branding throughout the period c.1600–c.1900.

This period is a particularly stimulating one as it charts the transformation of the way in which consumption took place. Personal, producer-to-consumer transactions in the early modern period gave way gradually to



Fragment of 'Daffy's Elixir' bottle, early 19th century, excavated from Hungate.

those in which the customer's relationship was with the brand itself, rather than the producer. By the eighteenth century, when mass production was becoming more prevalent, and personalised transactions less frequent, companies sought to differentiate their products from other firms and offer the same assurances of quality and trust that they once would have been able to offer through face-to-face contact. Advertisements for proprietary medicines demonstrate that there were significant amounts of money to be made from copying popular brands: as historian John Styles has outlined, one creator of a popular eighteenth-century proprietary medicine, Robert Turlington, changed the shape of his Balsam of Life bottle four times in a decade in his attempts to foil the counterfeiters. Contemporary advertising described at length the shape and colour of the bottle, as well as listing approved suppliers. Branding was therefore defined by the actual physical shape of the product as a form of differentiation, much as today the iconic Coca-Cola bottle is an inseparable part of the brand. The opportunity to work with artefacts from YAT's collections and combine them with historical documents is therefore a fascinating one.

In addition to building a profile of the consumption practices of York's neighbourhoods, I hope to examine the interaction and relationship between London-based brands and that of the provinces; in this regard, York is an excellent case study, renowned as the birthplace of two major local confectionery companies, Rowntree and Terry's, that became national brands.

Jenny Basford

Jenny Basford is a Ph.D student under the collaborative supervision of the Centre for Medieval Studies at the University of York and York Archaeological Trust.

18th July – 2nd August 2009

FESTIVAL of BRITISH ARCHAEOLOGY 2009

York Archaeological Trust will be running a number of special events to coincide with the nationwide Festival of British Archaeology promoted by the Council for British Archaeology. Check the JORVIK or CBA websites (www. jorvik-viking-centre.com or http://festival.britarch.ac.uk/) for full details.

Free Hungate tours

20th July - 2nd August (excluding 26th July). Pre-booking required (01904 615505).

Free Admission to Young Archaeologists!

18th July - 2nd August. Free admission to YAT attractions (JORVIK, DIG and Barley Hall) for the duration of the Festival of British Archaeology for anyone presenting a current Young Archaeologists' Club membership card.

Behind the Scenes at Conservation, York Archaeological Trust

10am, 29th July & 5th August. Free. Places are limited: pre-booking required (01904 615505). Find out what happens to artefacts after archaeologists have unearthed them with this behind-the-scenes tour of YAT's Conservation Department. Meet at YAT front gate at 10am (47 Aldwark, YO1 7BX).

Hands on Finds

21st / 23rd / 28th / 30th July, DIG, St Saviour's Church, St Saviourgate. Your chance to handle finds excavated by YAT not normally on display. Suitable for ages 9 and over. Normal admission charges for DIG apply. Places are limited at these sessions pre-booking required (01904 615505).

Kids go Free at Barley Hall!

18th July - 2nd August, Barley Hall, Coffee Yard. Maximum of three free children per paying adult.

Battlefields Archaeology - Uncovering Marston Moor

11am, 24th July. Meet at the War Memorial, Marston Moor (walk lasts until 1pm approx.). Free. Places are limited: pre-booking required (01904 615505). Visit the site of the Battle of Marston Moor. Your costumed guide will take you to places and tell stories of a battle that shaped our history forever. Wear stout footwear and outdoor clothing. As the walk is over uneven ground, it may be unsuitable for wheelchair users.

Hungate Open Day

10am - 3pm, 1st August 2009. Site tours and finds display. Free admission.

JOIN THE FRIENDS OF YORK ARCHAEOLOGICAL TRUST

- Receive YORKSHIRE ARCHAEOLOGY TODAY twice a year
- Receive the Annual Report of YORK ARCHAEOLOGICAL TRUST
- Free, unlimited entry to JORVIK, Coppergate
- Free, unlimited entry to DIG, St Saviourgate
- 10% discount in the DIG shop
- 10% discount on the training dig
- 30% discount on all the Trust's academic publications when purchased direct (one of each publication per person)
- Access to the Trust's highly acclaimed lunchtime lectures
- A special programme of visits, day schools, lectures, site tours and social events.

By joining you will be contributing directly to the work of York Archaeological Trust. The Friends donate every penny of profit directly to the Trust to further its important and exciting work.

Membership rates

Adult	£19.00 pa
Joint Adult *(2 adults at same address)*	£27.00 pa
Family *(2 adults and all children at same address)*	£31.00 pa
Over 60s	£17.00 pa
Joint over 60s	£23.00 pa
Student in full-time education	£17.00 pa
Overseas member (sterling)	£30.00 pa
Life membership (single)	£200.00
Life membership (couple)	£250.00

To join The Friends, send a cheque payable to FOYAT to:
The Friends, York Archaeological Trust, 47 Aldwark, York YO1 7BX

DIG HUNGATE

Specialist Weekend Courses

An Introduction to Fieldwork

22nd - 24th May 2009
14th - 16th August
23rd - 25th October

This course will give beginners and those with some basic knowledge the chance to find out and take part in fieldwork based at the unique Hungate site. Delegates will get the chance to excavate the site and explore archaeological techniques with the experts from York Archaeological Trust, as well as see behind the scenes.

Cost per person: £120.00. (£110 for all those who have already taken part in the Training Dig at Hungate)

Email: trainingdig@yorkat.co.uk or telephone 07908 210026 to enquire or book a place.

St Wilfrid

1300th Anniversary Conference
York, 10 – 11 September 2009

A group of historians, art historians and archaeologists will discuss the life and legacy of Wilfrid, Bishop of York and Abbot of Ripon and Hexham.

The conference will take place in St William's College, beside York Minster and will include a visit to Ripon and Hexham on 12th September.

Full details are available on the YAT website: www.yorkarchaeology.co.uk

Prices:
Public Lecture (September 9).....£5
Conference (September 10-11).....£50
Excursion (September 12).....£20

Booking through the York Minster box office at https://www.boxoffice.yorkminster.org/public/

CELEBRATING 25 YEARS OF JORVIK!

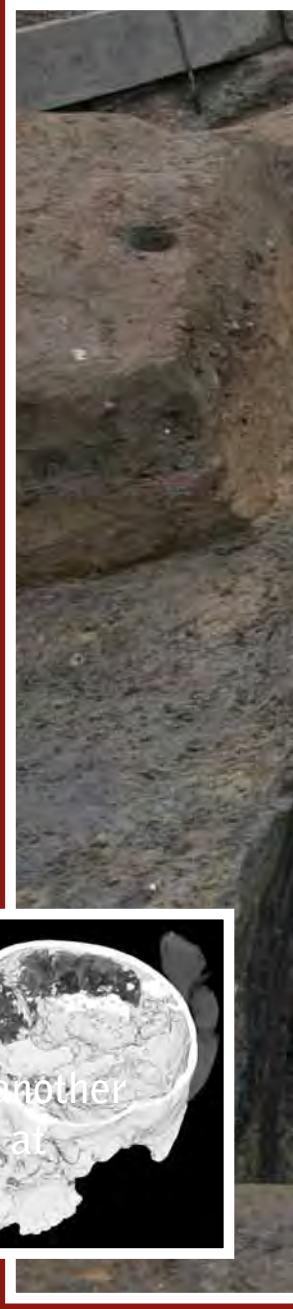
JORVIK Viking Centre is 25 years old! Since opening in 1984, over 15 million visitors have enjoyed the JORVIK experience. To celebrate the history and success of this ground-breaking visitor experience, which was created on the site of one of the most famous and astounding discoveries of modern archaeology, a year of events has been organised as a thank you to all of its supporters over the years.

JORVIK VIKING CENTRE
CELEBRATING 25 YEARS

Visit our website www.jorvik-viking-centre.com or see local press for details of events

No.16

In this issue...



Thirty years on from Coppergate, another 'Viking-Age' timber house is found at Hungate.

YORK ARCHAEOLOGICAL TRUST

www.yorkarchaeology.co.uk