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Issue 6

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Cover picture: The spectacular gritstone ramparts of Carl Werk. Photo by Suave Aerial Photographers

Welcome!

In another packed issue of *Northern Archaeology Today* Anna Badcock of ArcHeritage visits the mysterious site of Carl Wark in the Peak District; Steve Malone and Matt Hurford of Trent & Peak Archaeology look at the investigation of an eighteenth-century Hall by a community archaeology excavation project at Markeaton Park near Derby; and Dr David Neave reports on Glebe Farm, a cruck farmhouse on the Yorkshire Wolds at Octon which York Archaeological Trust recently helped conserve.

Nicky Rogers examines the significance of finds of papal bullae from medieval burials in York, while Ruth Whyte of the Dickson Laboratory in Glasgow reports on some interesting burials from York's Knavesmire with possible links to the Wars of the Roses.

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Christine Kyriacou, York Archaeological Trust,
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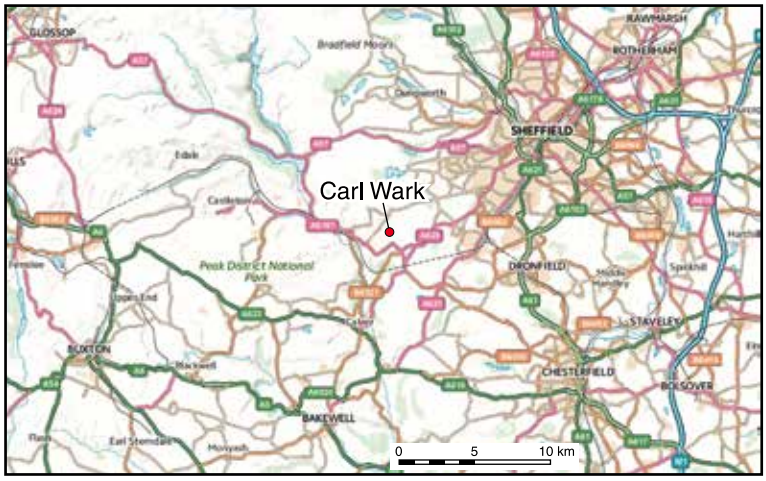
The Enigma of Carl Wark

Aerial view by Suave Aerial Photographers

ArcHeritage were commissioned by the National Trust (with funding from Natural England) to undertake a Conservation Management Plan for Carl Wark hillfort. The site is a Scheduled Ancient Monument located on Hathersage Moor in the Burbage Valley, within the Peak District National Park. The site falls within a series of moorlands collectively known as Sheffield Moors, which are owned by Sheffield City Council; some of these moors have recently come under the management of the National Trust and the Conservation Management Plan will guide and inform the new management of this landscape.

Carl Wark is an enigmatic site, being a natural gritstone promontory accentuated by stone walling on the south and east sides and a massive turf-built rampart with drystone facing on the easier western approach. The rampart survives in an excellent state of preservation for much of its length. The site is generally considered to be a slight univallate hillfort, likely to date to the 1st millennium BC, but its unusual form and an absence of secure dating evidence means that this has always been open to interpretation; its style and construction methods are unique in the north of England, and it does not easily fit with the other Peak District and Yorkshire hillforts.

The unusual style of the monument has led to much debate about its age, length of use and purpose. The only recorded archaeological excavation at Carl Wark took place in 1950 under the direction of Mr Frank Gerald Simpson and included a section cut through the western rampart. Simpson did not publish his results, but Piggott published a note on the excavation in 1951, which included a section drawing of the rampart. A number of photographs were taken at the time, and are held in the Sheffield Local Studies Library. The excavations produced no clear evidence for the date of the site but now the general consensus, based on morphological analogies, has been that the monument is a late Bronze Age to early Iron Age promontory fort. Many hillforts with a single wall enclosing areas at least partly surrounded by natural scarps were constructed during this period, and the in-turned entrance is a form found in demonstrably Iron Age forts. If this date is valid, the fort would have been contemporary



Location of Carl Wark

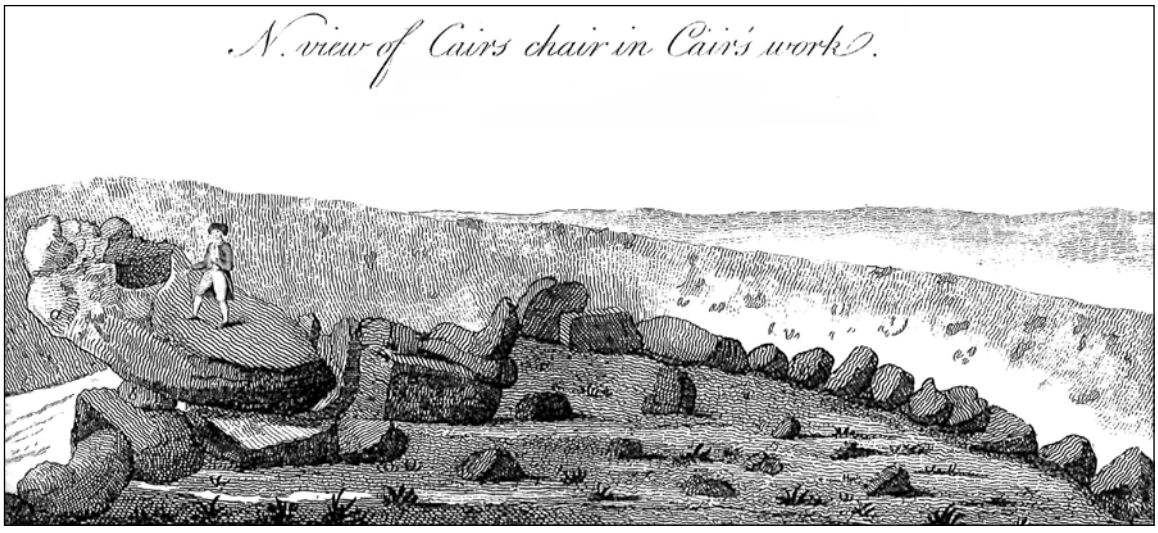
with the nearby field systems (also Scheduled Monuments) at Winyards Nick and Toad's Mouth, which could have been occupied at any point (or continuously) from the late Neolithic to the later Iron Age.

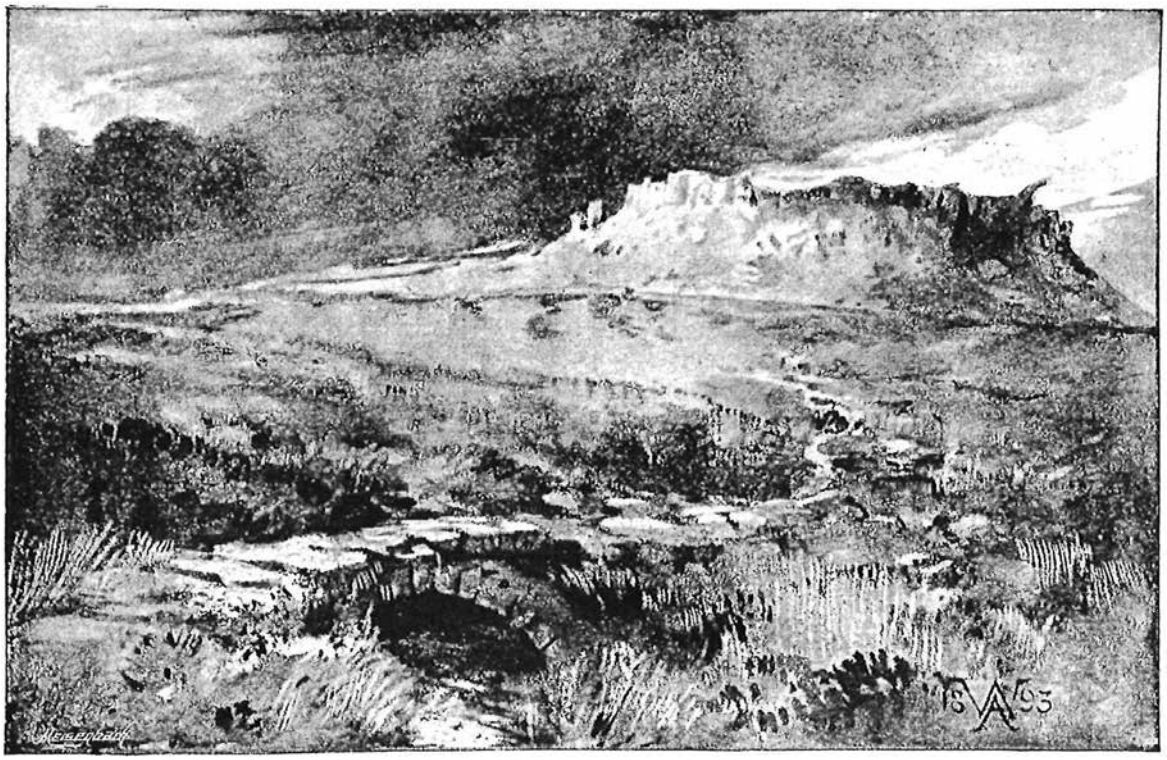
Theories for a Neolithic or early medieval origin for the monument have also been postulated and it is likely that the site's dramatic appearance and setting would have made it a significant location throughout the history of human activity in the valley. The topographical setting of Carl Wark is significant and archaeological examination has suggested that the site was carefully chosen, perhaps for many reasons including visibility to and from the monument, the control of movement around the site, and the relationship to other human activity in its immediate surrounds and the wider landscape as a whole.

As well as discussing the site's origins, the Conservation Management Plan drew out other aspects of significance of the site and its landscape. The valley continued to be an important focus for activity through the medieval period, and into modern times. Along with the rest of the Burbage valley the site contains significant evidence for post-medieval millstone production and numerous partly-worked millstones are present throughout the boulder fields on the flanks of the hillfort. A medieval packhorse route also crosses the valley and passes to the north of the monument.

Another important part of the site's history is its role as a WWII military training ground. A previous survey of the valley by Bill Bevan noted the presence of mortar and bullet scars and his research showed that the British 2nd Battalion Rifle Brigade, US troops and Canadian Paratroopers all used this landscape for military training. It is perhaps no surprise that Carl Wark, being a prominent landscape feature with natural defensive characteristics, would be used in training for uphill ground assault and longer-range mortar target practice. The gritstone boulders, rock escarpments and defensible landscape features provided excellent training conditions. The locations of bullet and mortar scars in and around Carl Wark demonstrate that practice manoeuvres were targeted upon the key access points to the monument, and that fire was returned from the eastern end of the hillfort.

1783 engraving by Hayman Rooke





1893 painting by S Addy

This characterful and dramatic upland gritstone landscape, dominated by crags and edges, has attracted people since prehistoric times and continues to inspire walkers, fell-runners, geologists, climbers, artists, nature lovers and outdoor enthusiasts to this day.

From the late 19th century onwards the Sheffield Moors have played an integral role in the campaign for public access to the countryside. The famous mass trespasses conducted by ramblers from Sheffield and Manchester in the 1930s were just a small part of the determined, and long-term application of pressure at a national level to regain access to some of the land which had once been commonly accessible before enclosure. Perhaps because the Sheffield Moors, in which Carl Wark lies, are owned by Sheffield City Council there is a palpable sense of public ownership of this landscape. The Peak District National Park was the first to be created in the country in 1951 and today 16 million people live within one hour's travel of the Park.

The history of rock climbing in Britain is of international significance, and the gritstones of the Dark Peak have played a major role in the development of the traditions, techniques and world-renown of individuals who have excelled in the sport of climbing; the crags of the Dark Peak may be one of the most densely climbed areas in the world. There are 48 named climbs and boulder problems on the cliffs of Carl Wark and some of these reference the monument itself (including 'J-Warking', Carl's Butress Left Hand', 'Carl's Butress', and 'Carl's Right Wall').

The Conservation Plan documented the wide range of past and current uses of the site along with their potential to impact on the ecological and archaeological resource. A series of management policies were proposed, as well as recommendations for further work to enhance the understanding of the site and opportunities to engage the public in the conservation of the monument.

We were greatly aided in our survey by stunning aerial images taken by Suave Aerial Photographers as part of this project, as well as consultation with many organisations and individuals to whom we are very grateful.

Anna Badcock

Bullae for You!

Papal Seals from York

Excavation in progress at the site of All Saints' Church, Peasholme Green

Longstanding readers of our magazine may recall an article some 11 years ago about the recovery and identification of a rare papal bulla produced by the 2002 excavations at the site of St. Leonard's Hospital (*Yorkshire Archaeology Today* **5**, July 2003). At the time, this brought the total of papal bullae in our collections to three, the other two having been recovered from excavations carried out on the remains of the church of All Saints, Peasholme Green in 1987 (*Interim* **12/1**, Spring 1987). Regular readers may also know that we returned to the site of All Saints church in 2012 (*Northern Archaeology Today* **1**, Spring 2012) in order to investigate more of the church buildings and associated graveyard; and believe it or not a third bulla from the site has been recovered, identified during the recent processing of more than 500 skeletons. So what is a papal bulla, and what makes these discoveries so exciting?

Bulla from St Leonard's Hospital excavation

A bulla is a lead seal, which would have been attached to an official papal document sent out from Rome; lead seals were restricted to use on papal documents only, the seal acting as a means of authentication of the document. It is believed that lead was used for these seals, because the heat often experienced in Italy, where the pope resided in the Vatican, would have melted ordinary wax seals. As with other types of seal, the bulla would have been attached to the document via a silk ribbon; holes are often visible at the top and bottom of the bullae, through which the ribbon would pass vertically. Bullae were issued by popes from the sixth century onwards, but the characteristic design employed for centuries and up to modern times was defined at the beginning of the 12th century by Pope Pascal II (1099–1118). On the front are the faces of Saints Peter (on the right)

Papal bulla of Urban VI from All Saints (SF309; 84014). Scale 2:1

and Paul, separated by a cross; Peter is always represented with a crimped beard and curly hair, while Paul has short or no hair and a long beard. The faces are both encircled by a beaded border and above them are their abbreviated names: SPA(UL) and SPE(TER). On the reverse face the name and number of the issuing pope would be recorded followed by the letters PP meaning Pastor Pastorum – Shepherd of the Shepherds.

The bulla from St Leonard's Hospital was found to have been issued by Pope Celestine III, who became pope in 1191 at the age of 85, dying seven years later in 1198. It was recovered from a clay floor or occupation deposit in the late 11th–early 13th century timber buildings which were contemporary with the original undercroft of the hospital. Doubts have been raised, however, as to the authenticity of this particular bulla; inconsistencies in the shapes of the letters spelling out the pope's name, for example, have led one expert to suggest that this could be a forgery. It is also unclear what type of document this bulla would have been attached to – it may have related to land, property, or rents belonging to St. Leonard's, or possibly the document belonged to an inmate of the hospital? We may never know.

By contrast we may be able to get a better idea of the documents to which the Peasholme Green bullae belonged. All three bullae were located in relation to burials, two having been found on skeletons and the third in an area of charnel or disarticulated human remains; the two found in 1986 were located inside the church, and the third – found two years ago – only 5m away from the south side of the church. The most recently identified bulla had been located within the torso of a skeleton, and had been issued by Urban VI (1378–1389). Unfortunately the numbers associated with the papal names on the other two bullae are illegible, but we know they were issued by Urban and by Clement; the most likely candidates appear to be Urban IV (1261–64), V (1362–70) or VI (1378–89), and Clement IV (1265–68), V (1305–14), VI (1342–52) or VII (1523–34). Further analysis of all the excavations associated with

All Saints Church and its graveyard is currently underway, and it may be that this will provide some more dating evidence, allowing us to determine more precise dates for these bullae; we may also learn more about the individuals buried with them.

A study of medieval monastic cemeteries published in 2005 noted that although all bullae recovered archaeologically in Britain ranged in date from the 12th – 15th centuries, of almost 30 bullae known to have been found in burials none had been identified as any earlier than the papacy of John XXII (1316–34) and none appeared to date later than 1431. Analysis indicated that bullae were found with both genders and often in burials within the church. The study also noted that, at the time, the seven bullae known to have come from burials associated with parish churches were all issued between 1342–1378, a period when the plague pandemic we know as 'The Black Death' was rampant in England. This total of seven bullae included one of the Peasholme Green bullae; today's total of three from the same cemetery in York now brings that total to at least nine and doubtless more have also been recovered elsewhere in the country during the last 10 years. The identification of one of the York bullae as being issued by Urban VI also extends the possible period of issue to 1342 – 1389.

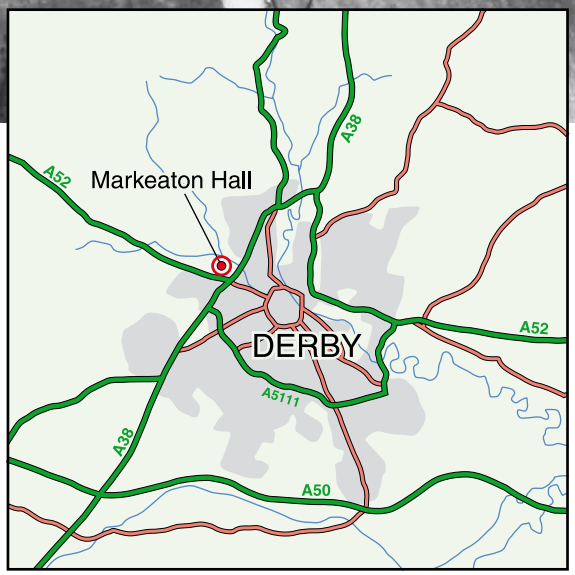
It has been suggested that bullae found in graves were most likely to have been attached to indulgences; these papal documents, which offered a pardon for a lifetime's sins, were often corruptly bought from the Church and cost substantial sums, the money ostensibly going towards pious works. In the 14th century accusations of forgeries of bullae by Pardoners who sold indulgences were rife, and these

Chaucer's Pardoner

are reflected in Chaucer's Pardoner in the *Canterbury Tales*, who is depicted as a man who preaches solely to get money and who readily admits his 'relics' are fake 'pigges bones'. This may be the origin of the possibly fake bulla found at St. Leonards. At this stage we don't know if the Peasholme Green bullae might be forgeries, nor whether they were originally attached to their documents. It may be that it was the seal itself, as much as the document, that had meaning to those buried with them, perhaps being seen as offering a means to ease their trip through Purgatory. Whatever the case, as one person was buried with their bulla on their chest and another was clutching their bulla tightly in the hand, the importance of the objects to these individuals is undeniable.

Nicky Rogers

Markeaton Park Community Excavation



Markeaton Park lies on the outskirts of Derby, alongside the Ashbourne Road. It is owned by Derby City Council and is mostly used as a recreation ground by the city residents. The 18th-century Markeaton Hall once stood within the grounds of the park but was demolished in the 1960s. As part of the Heritage Lottery Funded Markeaton Park Restoration Project, Derby City Council plans to incorporate the remains of the demolished hall into their new garden layout and the plan has provided the impetus for a new community archaeology project.

Trent & Peak Archaeology have been involved in the project since 2012, working with volunteers, community groups and schools to evaluate the surviving building fabric and working to expose and record the entire footprint of the demolished hall. The former outbuildings located within the courtyard to the north of the hall were also investigated.

The Manor of Markeaton is recorded in the Domesday Book; at that time it was held by Hugh, Earl of Chester and Jocelyn of Tuschet. The seat of the manor is presumed to have been somewhere within the curtilage of the later hall and outbuildings. The Touchet family held the manor until 1516 when John Touchet disposed of the family estates, selling

Top: Aerial view of Markeaton Hall taken in 1958 with the stable block of c.1772 in the bottom left of the photograph.

The likely sixteenth-century building with its stone-flagged floor and cobbled yard overlaid by the later building of c. 1772 located within the courtyard.

Markeaton to John Mundy, a Sheriff and later Lord Mayor of London. He built a large new hall comprising a stone basement and ground floor, above which there were two timbered upper floors. To the north of the hall there was a stone-built service wing and a wide range of outbuildings orientated north to south before the house, elements of which survive within the fabric of the current outbuildings. Around 1750 Wrightson Mundy, a descendant of John Mundy, began the construction of a new house on the site of the former hall and by 1755 this building was completed.

The new hall faced east and west, like its predecessor, and was two storeys high with an arcaded basement. The east front consisted of five bays under a pediment, all between a pair of central canted bays. The west facade displayed nine bays, the central five breaking slightly forward under a pediment with two first floor entrances. The new hall was constructed of red brick with stone quoins and rusticated lintels. The house was topped by a cornice, parapet and urns at the angles and on the pediments. By 1772 an orangery and stable block had been constructed to the north replacing earlier outbuildings and a three storey north-eastern extension was completed by 1795, which was later replaced by two glass domed structures. The estate was left to Derby Borough Council in 1929 and used by the Ministry of Defence during the Second World War. Subsequently the house fell into disrepair and was demolished in 1964.

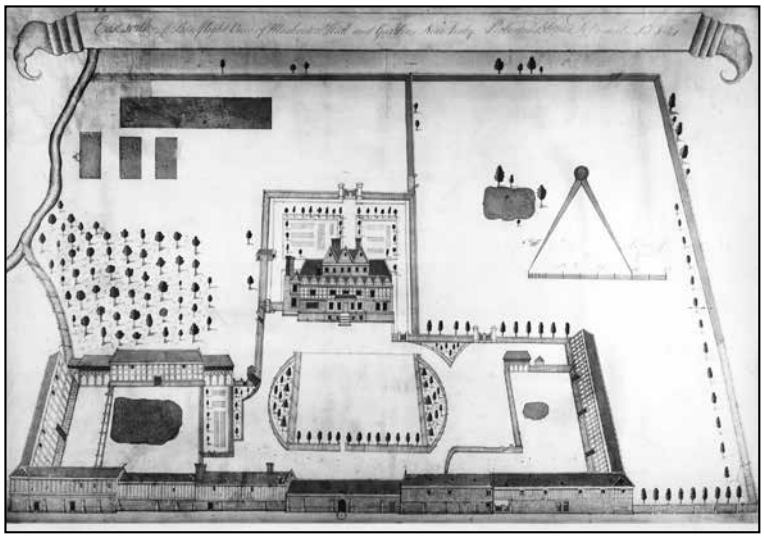
The initial archaeological investigation of the site was undertaken by Trent & Peak Archaeology staff in May 2012, located in the courtyard to the north of the former hall, to establish the state of preservation of any underlying archaeology. This phase of work revealed a building of potential sixteenth century date, probably associated with the development undertaken by John Mundy, beneath a later eighteenth century building. To the south of these buildings the stone foundations of the west to east orientated stable block range of c.1772 were also exposed.

The following community excavation took place over six weeks during July and August 2014. During the first two weeks local primary schools were given the opportunity to assist in excavating the site. They also washed and drew the finds and sieved the excavated soil. Numerous secondary school pupils on work experience participated on the project, notably making a valuable contribution to the planning of the site. Throughout August and during the weekends there was a combination of booked slots and drop-in sessions for the general public. The overall aim was that anybody visiting the park could experience all the activities associated with a professional archaeological excavation. For those that were interested, but were unable to get involved in the excavation, a series of activities and displays were provided. There was much positive feedback from the schools and a large number of repeat visitors clearly showing that the dig was an enjoyable experience.

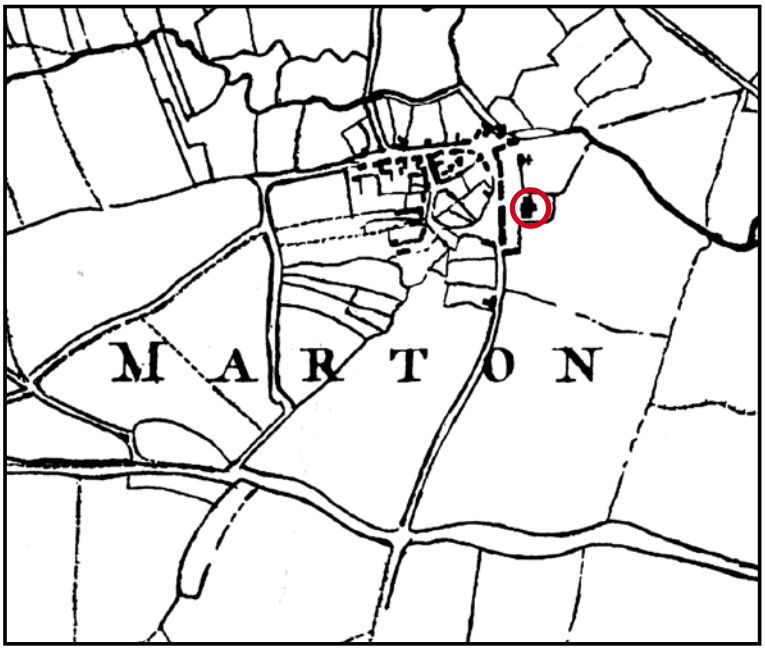
As the excavation progressed it became evident that the degree of destruction during the 1960s demolition was more considerable than had been previously suspected. One of the volunteers, who turned out to be the driver of the wrecking ball used during the demolition, recalled that bulldozers had been used on site causing significant damage. Nevertheless the excavation revealed the partial remains of the exterior and interior wall foundations of the eighteenth-century house and fragmentary remains of brick floor surfaces in the southern half of the site, along with numerous other archaeological features, some of which pre-dated the house of Wrightson Mundy.

Brick floor surfaces discovered in the southern half of the site were not replicated in the northern part, despite the wall foundations being equally well preserved, suggesting that timber flooring may have been laid in the northern rooms. During the eighteenth century

Pupils from Ashgate Primary School cleaning sixteenth-century masonry and later brick-lined drains



'Eastsoutheast Birdflight View of Markeaton Hall and Gardens', Robert Blanton, 1753 (courtesy of Derby City Council)



Detail taken from A Plan of Mackworth and Marton [Markeaton], 1760: Markeaton Hall is circled in red. (Courtesy of Derby City Council)

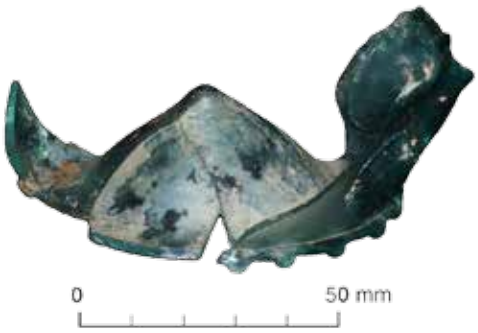
brick was used exclusively in the flooring of kitchens and cellars and timber floors restricted to higher status rooms. It was not uncommon for the ground floor rooms of country houses to be used as private rooms with the first floor rooms being formal reception rooms.

Structural alterations were evident in the form of timber and brick partitions and the insertion of drains and flues beneath the brick floors, which in a number of cases cut through the earlier foundations. A central north to south orientated drain was of particular interest for the re-used worked masonry used as capping. The drain was a later addition and operated until late in the life of the house, judging from the nineteenth-century pottery found within it. A system of slate-bottomed, brick-lined channels at the north-eastern corner of the house may have been inserted as flues for the kitchen range, with the hot air perhaps channelled to the orangery and conservatory at this corner of the house.

The map evidence suggests that the eighteenth-century hall was built on the same alignment and in the same place as it predecessor and the expectation was that very little of the sixteenth-century hall survived this process. Two large pads of masonry in the eastern part of the excavation area may represent the base of earlier chimney stacks, although the masonry apparent in the northernmost example might suggest exterior walling. A west to east orientated stone wall at the eastern end of the site, cut by a later drain and flue, may also be of sixteenth-century date.

Little in the way of artefactual evidence survived from earlier periods with the notable exception of large fragmentary remains of a Krautstrunk glass beaker dating to the fifteenth or early sixteenth century. It was found in a square stone-built structure, possibly a hearth, in association with Midland Purple pottery. These beakers were decorated with applied drops of glass drawn into points, or prunts. It is an early form of forest glass with a green or brownish colour, produced quite widely in Germany and the Netherlands in this period. The beaker represents a rare discovery, with few having being found outside London and only one previous example from the East Midlands, recovered from Nottingham.

Above: Aerial view of the site during the closing days of the excavation



Left: Krautstrunk Glass Beaker

With the Markeaton Park excavation Trent & Peak demonstrated what can be achieved with the enthusiasm and dedication of the local community. The remains of the eighteenth-century house, and just possibly its predecessor, have been exposed, investigated and recorded. Trent & Peak are now working with conservation architects to develop a scheme for the consolidation and display of the remaining fabric of the hall. By incorporating the remains of the hall into the new layout of the gardens the house will once again be the focus of Markeaton Park.

Steve Malone and Matt Hurford

FRAMING RESEARCH IN OCTON

Cruck Farm House, Glebe Farm, Octon, East Riding of Yorkshire

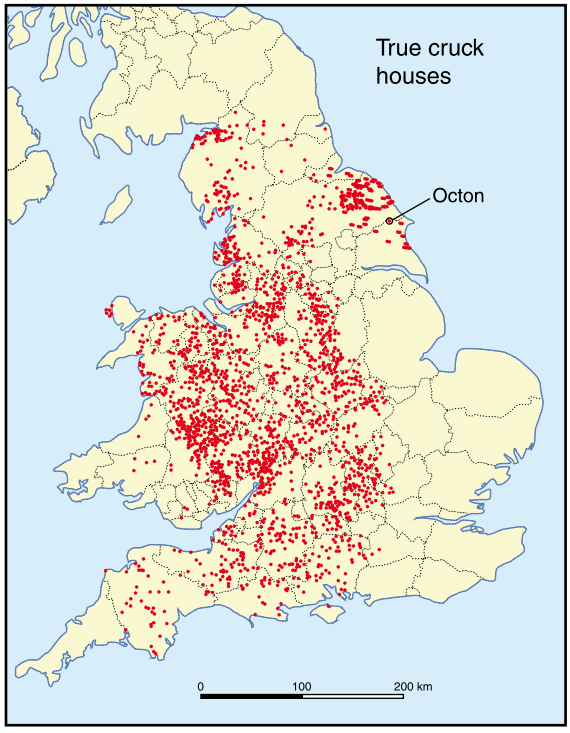
Upper section of northern pair of crucks after conservation

York Archaeological Trust recently helped fund the conservation of a 17th-century cruck-framed farmhouse on the Yorkshire Wolds. As a result the Trust is licenced to use the building, and an adjacent field containing earthworks of a shrunken settlement, as a base for educational work for the next eight years.

The former farmhouse is situated at Glebe Farm in the small hamlet of Octon in the parish of Thwing, some 10 miles west of Bridlington, 15 miles south of Scarborough and 32 miles north-east of York. As the only known surviving example on the Yorkshire Wolds of a type of construction once common in the area, the building is of great significance.

Cruck buildings

True crucks, as at Octon, consist of pairs of inclined timbers, curved or straight in form, that reach from ground level, or nearly so, to an apex. The crucks support the roof, making the walls of secondary importance. Considered a primitive form of construction,



Distribution of cruck houses in England and Wales. After Nat Alcock and Dan Miles, The Medieval Peasant House in Midland England *(Oxbow Books), 2013.*

The Old Farmhouse, Glebe Farm, Octon, from the west after conservation

cruck buildings in England have been dated, by dendrochronology, from the mid 13th century to the late 17th century. The earliest are found in southern and midland counties, not appearing in the north until after 1400.

Cruck buildings are noticeably absent from the lowland counties of eastern England with the exception of the East Riding of Yorkshire. Fewer than a dozen buildings with any vestige of crucks remain in the area of the historic East Riding, of which only four have complete cruck trusses. In contrast, to the north of the River Derwent, in the former North Riding, around 180 cruck buildings are known, from the Vale of Pickering, North York Moors and northern Vale of York. Reconstructed examples can be seen at the Hutton-le-Hole Museum.

Cruck buildings on the Wolds

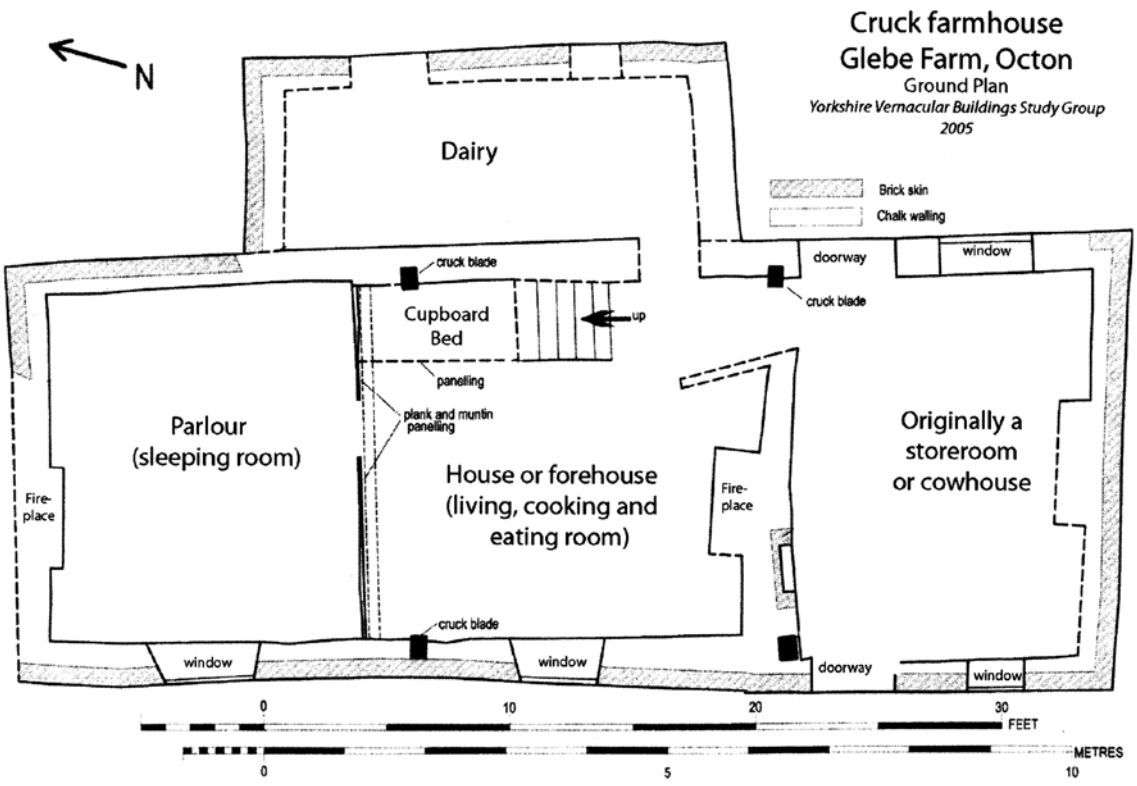
Evidence that cruck buildings were once more common on the Wolds comes largely from documentary sources. A survey of 1600 of the village of Settrington, just off the north-western edge of the Wolds, south-east of Malton, records 55 houses built of 'forks', a term used locally for crucks. Nearer to Octon, the village of Fimber had seven cruck houses in the early 19th century, as recalled by the archaeologist J.R. Mortimer who was born in one of them.

> *'Originally the roofs of all these houses were supported on pairs of leaning beams of oak, called forks, and the walls consisted of 'wattle-and-daub'. This latter, however, during my boyhood, had for the most part been replaced with walls consisting of chalk and road scrapings mixed with small chalk gravel, called 'mortar-earth'.*

The evidence from Fimber formed the basis for the re-interpretation of the method of construction of medieval houses excavated at Wharram Percy deserted village, which are now considered to have been cruck built.

Old Farmhouse, Octon

The Old Farmhouse at Octon is typical of a pre-enclosure Wolds farmhouse of the 17th and early 18th centuries as recorded in probate inventories. Of one and a half storeys, it consists of three rooms on each floor with an outshot, a later addition, on the east side. In the centre on the ground floor is the living/eating room,



Plan of ground floor of the Old Farmhouse, Octon by Yorkshire Vernacular Buildings Study Group, 2005.

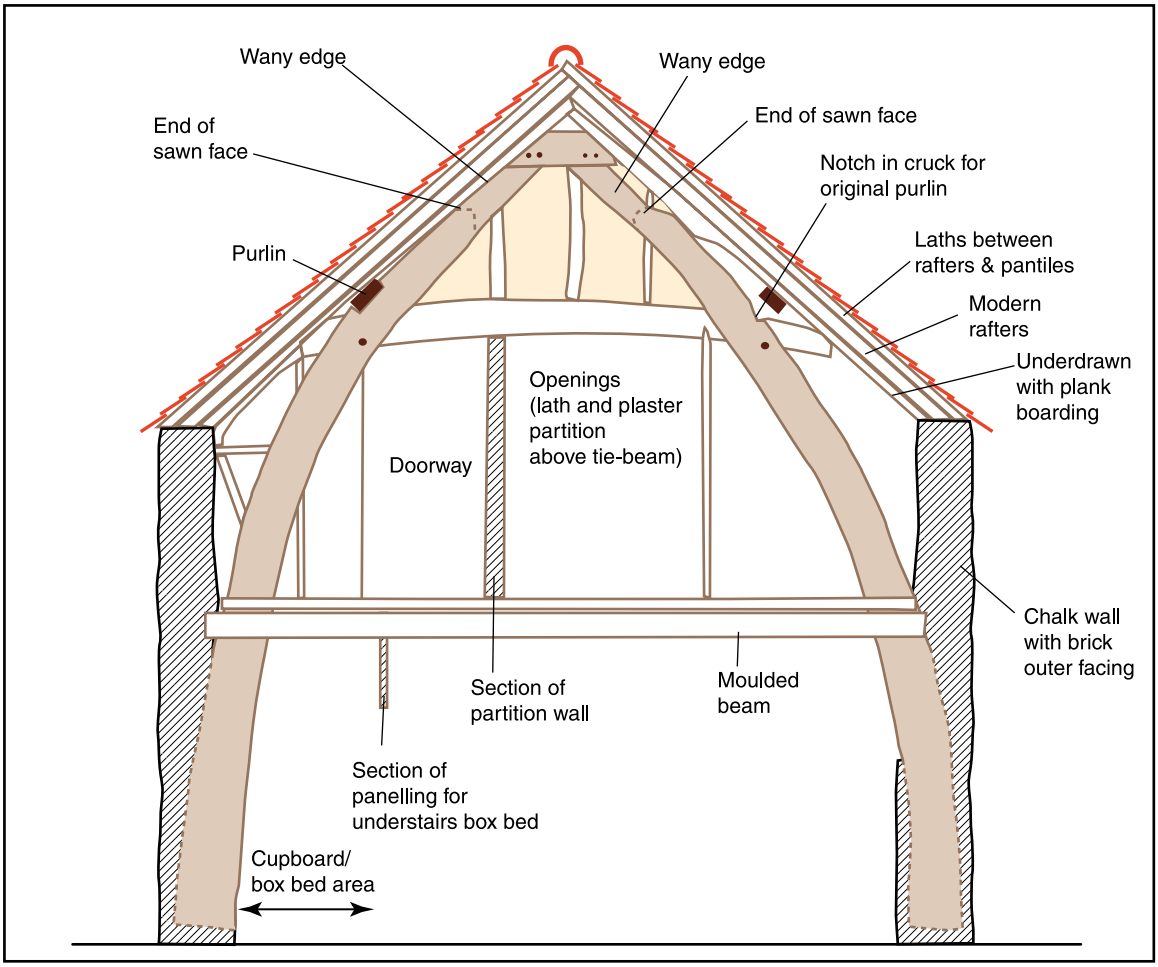
'House' or living room with plank and muntin panelling on the left and frame of cupboard bed on the right, with base of cruck

Right: Interior of cupboard bed showing ventilation slits

usually known as the 'house', 'forehouse' or 'hall house', and here is the fireplace. To the north is a parlour, the main sleeping room, and to the south a third room, originally a store or possibly a cow house, later used as a kitchen. A simple staircase leads to three chambers above which would have been used for storage and sleeping.

The plan form is derived from the conventional longhouse plan with a through passage, directly behind the chimneystack, linking the front and back doors which are located directly opposite each other. At Octon there is no partition wall dividing the passage from the south room, but one may have been removed. There are two surviving pairs of oak crucks forming the north and south sides of the central bay or room, and almost certainly there would have been pairs of crucks at either end of the building which may also have extended further south. The walls are of chalk, with later brick facing, and the roof is pantiled although it would originally have been thatched.

Since the building was replaced by a new farmhouse in 1939 it has been used as a farm store which has ensured that no alterations or



Northern pair of crucks, Octon. After D. Cook and L. Moor, Yorkshire Vernacular Buildings Study Group, 2005.

modernisation has taken place, and many of its internal fittings have remained. The wall between the main living room and the parlour consists of simple plank and muntin panelling possibly dating from when the house was built. Another rare survival are the remains of a panelled box-, or cupboard, bed under the staircase. The main clue to its use being the two remaining curved slits which provided ventilation for the occupant when the cupboard doors were closed, or a curtain drawn across. Such box beds survive elsewhere in the north of England, but this is the sole known example in the East Riding. On the first floor can be seen wattle and daub infilling as well as the upper part of a timber and wattle and daub fire hood.

Dating the building

A detailed measured survey of the farmhouse was carried out by the Yorkshire Vernacular Building Study Group in 2004–5 and the group subsequently paid for a tree-ring analysis of the crucks by Ian Tyers of Dendrochonological Consultancy Limited. This showed that both pairs of crucks were made up from oak trees felled in the winter of 1670 with construction taking place shortly afterwards. The two curved timbers or blades of the north truss are clearly two halved sections from one tree. Similarly the west blade and collar of the south truss came from a single tree, as probably did the east blade of the south truss and the collar of the north truss. The fact that the house carpenter made full use of the material available is confirmation of the known shortage of suitable timber available on the Wolds at this time.

The farm

The farm attached to the farmhouse in the late 17th century comprised three small enclosed fields nearby and some 10 oxgangs, around 120 acres, spread in long detached strips throughout the township, with grazing rights on common pasture and land lying fallow or

Octon from the air in 1990 showing shrunken village earthworks. (Ed. Dennison/Humber Archaeology Partnership)
Glebe Farm is centre left, with possible manor house site to the right, and house sites and chapel earthwork in field to top of page

after harvest. The chief stock were sheep and the main crop barley. Nothing is known of the farm buildings at this date as the present farmstead, with a barn, stabling and cow sheds arranged around a foldyard adjoining the farmhouse to the east, is of the late 18th and early 19th century. The present farmstead arrangement was almost certainly created after 1770 when the open and common fields of Octon were enclosed by Act of Parliament. The vicar of Folkton, the then owner, was awarded 99 acres in two blocks immediately to the east and west of the farmstead, making a small compact farm still located in the village. This is a contrast to the more typical post-enclosure farm that was isolated in the newly created landscape of large rectangular hedged fields, long straight roads and shelter belts.

Archaeological context

Octon, located close to Rudston and the Great Wold Valley, lies in a rich historic landscape with an abundance of archaeological features from the Mesolithic to Early Modern periods. To the north-east in Thwing parish is Willy Howe, a very large Neolithic round barrow, and just a couple of fields to the north of Glebe Farm is Paddock Hill, where Terry Manby excavated a Neolithic henge monument which was remodelled in the Bronze Age as a fort. Nearby are Iron Age square barrows and at Thwing a high-status late Roman building, possibly a villa, has been found.

In the Anglo-Saxon period, when Octon, meaning 'Occa's Farm', was probably established, Paddock Hill became a major

Reconstruction of Bronze Age ring fort at Paddock Hill, by Frank Gardiner

centre of activity. The fort was reconstructed and substantial buildings, including a large rectangular hall, were erected along with the placing of an inhumation cemetery and what may have been a chapel to the east.

To the north-west of Paddock Hill are the earthworks of Octon Grange, which was established as a sheep farm in the mid-12th century by the wealthy Cistercian abbey of Meaux, near Beverley. Also medieval are the earthworks of the shrunken settlement of Octon, immediately to the north and west of Glebe Farm. To the north is a large rectangular earthwork, subdivided into two which may be the site of a manor house, whilst to the west are house sites and the more prominent earthwork of the chapel of St Michael, last recorded in the mid-16th century. Even more striking are the earthworks of the deserted village of Swaythorpe whose boundary adjoins Octon to the south.

Educational activities – Octon Historic Landscape Project

York Archaeological Trust has plans for many activities for the Octon Historic Landscape project, including open days and a full programme of one or two day Summer Schools and educational visits beginning in April 2015. Work with a group of Years 5 and 6 pupils from nearby Wold Newton Foundation School in summer 2014 helped to identify the potential of the local landscape for tackling themes addressed in the National Curriculum for History at both primary and secondary level. The tremendous richness of the prehistoric landscape of this part of the Wolds, together with good road access and plenty of public footpaths for exploring the local countryside, means that Octon and its surroundings are well placed to investigate the impact of prehistoric settlers, a topic given new emphasis in primary History in 2014.

The pupils from Wold Newton looked at the development of Octon village into the medieval period, had a go at mapping the features of the shrunken village (including its church) and reconstructed local building types in miniature with a range of craft materials. Medieval life features in secondary History at Key Stage 3, so the chance to explore and reimagine a

medieval space like Octon, which demonstrates continuity and change in an English village, provides a useful bridging exercise from primary to secondary education.

Work by the children went on display for the first Octon Medieval Fayre, which took place on Sunday 13th July, and featured a range of activities on a medieval theme, including falconry, archery, object handling, tours of the farmhouse and lots of opportunities to learn more about local history. Plans are already afoot for this event in 2015, when YAT will work with a range of partners to consolidate this event as an annual fixture in the local events calendar.

Conservation of the Old Farmhouse

The conservation of the cruck farmhouse in 2012–13 was carried out by Scothern Construction Ltd of Malton under the direction of the architect Peter Pace. The work included the repairs to chalk walling, roof timbers and staircase, the renewal of the pantile roof and floorboards, where necessary, and the replacement of the sawn laths lining the roof. Although the building has been rewired and fitted with new lighting no attempt has been made to modernise it in anyway. An adjacent building has been adapted as a disabled WC. The three men involved in the restoration, Ray Dickson, Phil Greening and Paul Turton received Craftsmanship Awards for the quality of work at Octon from the York Guild of Building in 2013.

The conservation was chiefly financed by Natural England through a Higher Level Stewardship Scheme with matching funds from York Archaeological Trust and the generosity of around 100 individuals and organisations.

Acknowledgements

Thanks to the Yorkshire Vernacular Buildings Study Group for permission to draw on their report on the Octon farmhouse, which kick-started the conservation project, and particularly to David Cook for use of material from his article in *Yorkshire Buildings*, 35 (2007). Particular thanks are due to the owners of the cruck farmhouse, Robin and Judy Burdass, for their enthusiastic support for its conservation and use as an educational centre. The support of Sue Ogilvy and Margaret Nieke of Natural England, of David Bull of LEADER, and of John Walker and my fellow YAT trustees was vital in saving the building. The staff of YAT, notably Jon Kenny and Peter Connelly were closely involved in the early stages and I am particularly grateful to Sarah Maltby, Chris Tuckley and the rest of the Attractions Team for the way they have so positively incorporated the Old Farmhouse into their heavy workload.

David Neave, YAT Trustee

• *As well as public access on open days, visits to the Old Farmhouse by groups can be arranged.*

About the author

Dr David Neave, who has been a YAT Trustee since 2011, is a social, landscape and building historian. For over 45 years David has researched, written and lectured on eastern Yorkshire. He is the author of many books and articles, often jointly with his wife Dr Susan Neave, including the revision of Pevsner's Buildings of England volume on *Yorkshire: York and the East Riding* and the *Pevsner Architectural Guide to Hull*.

One of the first intake at the University of Lancaster in 1964, David later acquired a MPhil and a Diploma in Conservation Studies from the University of York and a PhD from the University of Hull. He is a Fellow of the Society of Antiquaries and a member of numerous committees and trusts concerned with regional history and building conservation, including the Fabric Advisory Committee of York Minster.

For his work promoting the heritage of the East Riding and the preservation of its historic buildings David was awarded an honorary doctorate by the University of York in 2008. David is a Life Fellow of the University of Hull where he was Senior Lecturer in Regional and Local History.

Multiple inhumations under excavation

Skeletal Remains from Medieval Knavesmire, York

Ruth Whyte, York Archaeological Trust Dickson Laboratory for Bio-Archaeology

A set of discrete mass graves from the Knavesmire, York, has revealed a group of twelve individuals from one of history's most intriguing periods. Yet what of the individuals themselves? What can their remains tell us about their lives?

Recent excavations at the Knavesmire have uncovered a total of twelve individuals. The manner in which these were buried was of immediate interest. All but one individual were recovered from four small, shallow mass graves. The positioning of the burials, coupled with the lack of coffins and burial goods, led to the initial conclusion that the individuals were likely to be of medieval origin. The inhumations were aligned north–south, as opposed to the traditional Christian east–west orientation. An 'un-Christian' burial of this kind is suggestive of 'unusual' burial circumstances; such as those of criminals. With interest piqued, it was hoped that osteological analysis of the individuals would reveal further details about the group.

Demography; Age, Sex and Stature

One of the primary areas of interest for the assemblage was the demography; the distribution of age and sex. Although the collection was relatively few in number, the spread of both age and sex was noteworthy. Ten of the twelve individuals were adult. Their ages clustered almost exclusively between 35–45 years old with only one younger exception aged approximately 25–35 years old. The remaining two individuals were sub-adult, aged approximately 5–12 and 17–19 years old respectively. The fact that the majority of the collection was adult is by no means unusual, yet the small range in age is interesting, as is the lack of any infant or elderly adult remains. These details become more meaningful when combined with further demographic data.

Analysis of sex was not performed for the two sub-adult inhumations. This is common practice, since sexually dimorphic skeletal traits do not reliably appear until mid to late

Two inhumations in one of the graves

puberty. Of the ten adult individuals, nine were well enough preserved to be suitable for sexing analysis. All of these nine were recorded as being male.

The stature, or height, of an individual is estimated by measuring the long-bones of the limbs. These measurements are input into a formula which gives an estimated stature, with an error range of 3–4cm, depending on the bone measured. It is not estimated for sub-adults, since they have not reached their full height. Stature could be estimated for seven of the ten adults. Six of these individuals demonstrated estimated stature ranges of between 165–171cm (c.5'4" to 5'8"). The remaining individual was slightly taller, at 182.08–182.31cm (c. 5'11"). This range of heights is certainly not unusual for a group of men from the medieval period; however, it is towards the taller end of average.

When we combine the demographic data, a distinct picture of the collection begins to emerge. A group of young to middle-aged men of good stature, buried in an 'un-Christian' grouping of inhumations with a child and a teenager. Yet this is only a small part of the wealth of information that the remains provided. Analysis of the pathology present in the collection shed further light on this unusual group of individuals.

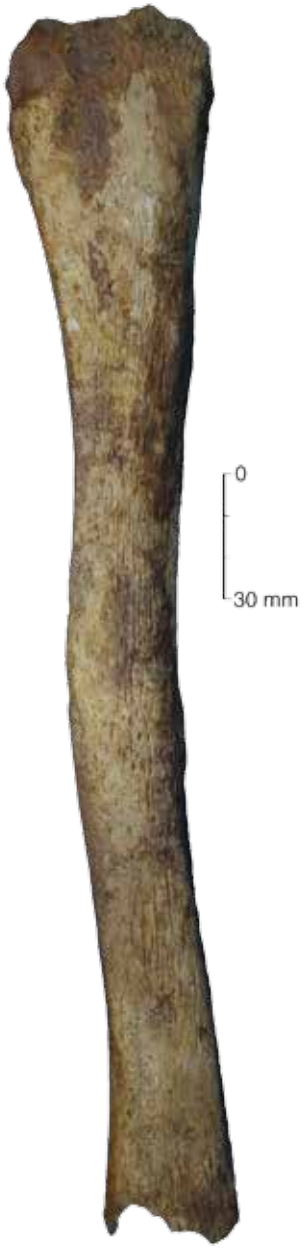
Skeletal Pathology

The pathological conditions displayed in the collection followed distinct themes. Degenerative joint disease (hereafter DJD) was by far the most prevalent condition. Found in joints across the body, but most commonly the spinal column, DJD is a very common condition in adults. It is characterised in the skeleton by the formation of bony 'spurs' (osteophytes) on joint margins. Uneven wear of articulating joint surfaces is also symptomatic of the condition. Sufferers of DJD may experience low levels of discomfort and generalised stiffness and pain. It is a generalised joint condition and has been found to affect a significant proportion of adults aged 30–45, increasing to almost all adults in mature age. With this in mind, it is unsurprising that seven of the ten adults in the collection suffered from the condition. It is, however, interesting to note that the onset of DJD at a younger adult age is associated with increased movement and repeated heavy strain on the joints.

The second most common pathological condition in the assemblage was trauma, specifically fractures. Skeleton 1 (SK1) demonstrated a healed break in the right clavicle. Similarly, SK3 sustained a badly healed break to the right humerus, in addition to healed breaks in six ribs. The most notable case of fracture was in the left arm of SK5. In addition to two healed compression fractures in the spinal column from an earlier date, SK5 displayed a prominent unhealed break in the left ulna. The surface texture of the bone immediately surrounding the break indicated that the fracture was in the 'cellular'

or first phase of healing. This indicates that the individual died within two weeks of sustaining the injury. Fractures are observed throughout antiquity and are by no means uncommon, yet this frequency of fractures in a relatively small number of individuals is unusual. The cause of the fractures remains a mystery; however, this level of prevalence suggests a group of people involved in frequent heavy, physically taxing and possibly dangerous work.

Left: Badly-healed break to the right humerus, Skeleton 1: Right:unhealed break in the left ulna, Skeleton 5



Tibia showing Periosteal New Bone Formation (PNBF) from Skeleton 3

A single case of generalised infectious disease was noted in SK3, where Periosteal New Bone Formation (hereafter PNBF) was present in both tibiae. PNBF is an inflammation of the periosteum, or outer bone surface, caused by an accumulation of bacteria. The condition is characterised in archaeology by striations along the shaft of the long bones of limbs; most commonly in the leg. Pathological causes are numerous, ranging from tuberculosis, leukaemia, and even influenza and varicose veins. The exact cause is impossible to trace in

the archaeological record; however, PNBF is recorded as a generalised disease indicator. It is a fairly common condition, and the presence of this case is not unusual in a group of this size. No further examples of infectious disease were recorded; this is not unusual given that very few infectious conditions affect the skeletal system.

Dental Pathology

Dental pathologies are often the most prevalent conditions in any population and the assemblage from the Knavesmire was no exception. Dental caries (cavities) are caused by acid produced by a build-up of oral bacteria. They are increasingly common in modern populations due to a high consumption of sugars. Caries were recorded in two individuals from the Knavesmire. This may seem low by today's standards, but generally indicates that their diets were low in sugars and starchy carbohydrates.

An example of dental calculus

Dental calculus, the mineralised formation of dental plaque, is another very common dental condition. This was recorded in six of the seven individuals for whom teeth were recovered. The prevalence is certainly not surprising in a collection from this period given that the individuals lived prior to the advent of modern oral hygiene.

Periodontal disease, referred to more generally as gum disease, is again a common dental condition throughout antiquity. Build-up of dental plaque leads to the development of periodontal 'pockets'. This causes inflammation of the surrounding tissue and in severe cases it can lead to the loss of the periodontal ligament and remodelling of the surrounding bone, eventually leading to tooth loss. In archaeology the condition is characterised by lipping of the gum margin, and exposure of the tooth roots. In the Knavesmire collection periodontal disease was recorded in four individuals. Yet none of these displayed significant tooth loss, indicating that the disease was not at a critically advanced stage.

Possibly one of the most interesting dental conditions recorded was Dental Enamel Hypoplasia, which is characterised by misshaping of the enamel surface, most commonly in horizontal grooves. The condition occurs at the time of development of the permanent teeth, and thus provides a snapshot of the individual's life in childhood that then visually persists through adulthood. It is commonly seen as an indicator of stress at the time of dental development, and as a reactive condition has been associated with trauma, disease and dietary deficiency. Four individuals in the collection displayed Enamel Hypoplasia. This level of prevalence is not abnormal for the medieval period. The condition has been associated with low socio-economic status; however, these links are not necessarily direct, given the range of causes. What the presence of the condition does indicate is the individuals had a level of physical 'stress' in their formative childhood years that they overcame to survive into adolescence and adulthood.

As with the demographic data, when we view the pathological data as a whole, we begin to gain a clearer image of trends in the collection. Generalised joint disease and fractures were common, as were dental conditions such as calculus and enamel hypoplasia. Certain conditions are also conspicuous in their absence; no cases of metabolic or neoplastic (tumourous) conditions were recorded.

Dating the remains

These trends are certainly interesting, yet could be misleading if taken out of context. Given that the total number of individuals in the collection is small care must be taken in interpretation. In both demography and pathology the assemblage cannot be assumed to be representative of a wider population. Just because trauma was frequent in these twelve individuals does not mean it was so more generally at this time. Similarly, just because the group does not contain infant remains does not mean infant death was low in York at this time. Yet instead, the collection can be viewed as an isolated group of its own. When all of the information gained from the osteological analysis is combined, a distinct picture forms. The remains represent a group of adult men, almost exclusively aged between 35–45 years old, along with a younger child and a teenager. The men were of good heights for the medieval period. The majority of the adult men demonstrated degenerative joint disease, associated with heavy wear on the body. Three of the adult men demonstrated a range of healed and unhealed fractures; again indicative of heavy 'wear and tear' on the body. Yet there was little evidence of infection, and no indication of malnutrition. When we combine this with the nature of their burials, multiple 'mass' graves in an 'un-Christian' alignment, the collection begins to spark the imagination.

With this in mind, a more exact date for the inhumations becomes a pressing point; the difference between early or late medieval being substantial. The decision was made to submit two samples for radiocarbon dating, with the hope of being able to put the osteological data in better historic context. The samples were taken from the two largest 'mass' graves, on the understanding that all individuals within each of them would have been buried at the same time. Thus, we would gain dates for the majority of the individuals from two samples.

The sample from the first grave provided a date of 483 ±30 BP (before 1950 AD); translating to a date of 1467 AD ±30 years. The sample from the second grave provided a date of 434 ±30 BP (before 1950 AD), translating to a date of 1516 AD ±30 years. These dates provide fascinating insight into the collection when combined with the results of the osteological analysis. The date of the first mass grave places it directly at the end of the Plantagenet era, at the time of the Wars of the Roses (1455–1487). The remains recovered from this grave represent three males aged between 25–40 years old. Two of the individuals from this grave were SK3 and SK5; the individuals with the highest instances of fracture, and in the case of SK5, the unhealed break to his left arm. With this in mind, it is not unreasonable to theorise that these individuals may have been soldiers involved in the Wars of the Roses. It must, however, be noted that this is only one of many plausible theories. They may have equally been criminals completely unrelated to the political climate of the period.

The date of 1516 AD ±30 years for the second mass grave is equally intriguing. The date range places the grave slightly later than the first. Dating to the immediate aftermath of the Wars of the Roses, and into the beginning of the Tudor period and the reign of Henry VIII, the historical context for these individuals is slightly different. The remains represent four adult men and the juvenile individuals. There are distinct similarities between this group of individuals and those from the first mass grave; particular the way in which they were buried. Yet there are also distinct differences. These individuals display lower levels of trauma and more degenerative joint disease. Exact theories as to the lives of these individuals are not as clear-cut as the first grave, yet they are buried in similar circumstances and remain just as intriguing.

The individuals excavated from the Knavesmire make up a small but extremely interesting collection, rich in osteological data. Although small, the group provides a unique snapshot of life in York in a period of great political unrest and change, not just for the local area but also for the country as a whole.

NEW PUBLICATION

Butchers, Bakers and Candlestick Makers:

The Shambles and Colliergate

This autumn sees the publication of the eighth book in YAT's popular oral history series.

'*Butchers, Bakers and Candlestick Makers: The Shambles and Colliergate*' is again by Van Wilson. Van examines the area, including King's Square, using recollections of local people, historical research and archive images, many never before published. Included in the book are indeed butchers and bakers, as well as weavers, leather-workers and booksellers, churches, pubs and cafés, Barnitts ironmonger and the famous Bleasdale's Manufacturing Chemist. The foreword has been written by David Clapham, current Master of the Butchers' Gild, which features in the book.

'Butchers, Bakers and Candlestick Makers:
The Shambles and Colliergate', by Van Wilson (2014)
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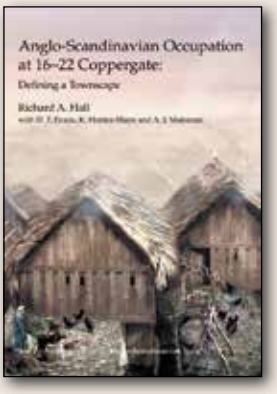

Anglo-Scandinavian Occupation at 16–22 Coppergate: Defining a Townscape

by Richard A. Hall
with D.T. Evans, K. Hunter-Mann and A.J. Mainman

The long-awaited final report on the excavations of the Viking-Age tenements on Coppergate ('The Viking Dig'). Excavations at 16–22 Coppergate uncovered a large swathe of York's late Anglian and Anglo-Scandinavian townscape on a spur of land between the Rivers Ouse and Foss. The report charts the establishment and subsequent development of four urban properties, demarcated by fence lines, which were still recognisable into modern times.

A total of seventeen structures, some of them still standing almost 2m high, were excavated on these properties, arranged gable-end to the newly established street of Coppergate or on land immediately behind. Excavation of the backyards of the plots, which extended behind the buildings down towards the River Foss, revealed them to have been used for cess-pits, rubbish pits, and small-scale animal husbandry and horticulture, accessed from the structures along wattle or plank pathways. The survival of wood allowed for a very large number of dendrochronological dates to be established and these, augmented by other scientific dates and a sequence of coin dates, provide a detailed chronological framework for the site.

A subsequent watching brief and small-scale excavation on an adjacent site revealed evidence for further properties and structures of the same character. These findings, combined with the detailed evidence from the main excavation, facilitated an unparalleled examination of a large tract of York's townscape which includes early churches and the west bank of the River Foss, and charts the rebirth of urban life in York in the pre-Conquest period.

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