Archaeology in Northumberland Northumberland

Volume 21

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Foreword



As the Northumberland County Councillor with responsibility for Planning (including Northumberland Conservation), Housing and Regeneration, it falls to me to provide the foreword for the 21st Volume (the 2012 issue) of Archaeology in Northumberland.

I am both surprised and delighted by the number and variety of heritage and archaeological activities that have reported their work in this volume and by the continued growth which it demonstrates in the community interest across the county, from Hexham in the south-west to Berwick in the north-east in heritage matters. As you will read in our next edition, the trend seems set to continue into the future with three large programmes of work receiving funding – one for 2013 and two for 2013 and 3-4 years onwards specifically to support heritage works.

Heritage-led regeneration has demonstrated its value for money over the last 3 years in Northumberland, with relatively small investments by the County Council bringing in considerable quantities of outside funding which in turn has driven private investors to develop and redevelop areas that have for many years suffered from a decline in their environment.

Past issues of Archaeology in Northumberland have charted the fortunes of, and reported on developments at Blyth Battery, where £100k of council money in 2009 has levered in nearly £1million of HLF funding for various projects at the battery itself and all along the South Beach area, which 5 years on is almost unrecognisable not only for its physical environment but also for the massive increase in visitors/users it now gets.

This year it is the turn of Berwick (page 20-21) to report on its heritageled regeneration schemes, supported to a value of more than £3million by HLF, English Heritage and what was One North East. This project has continued to expand and attract more funding in the last year with English Heritage matching a further £100k provided by Northumberland County Council through our public development company Arch. This additional investment has guaranteed that the schemes will continue for a 4th year in Berwick particularly in the areas of Castle Gate and Bridge Street where significant improvements have been made over the last 3 years.

Whilst I read about the developments and projects of 2011 and 2012 in this volume I look forward also to hearing about the results of the significant heritage investments that HLF have made in the County during recent months in future volumes of Archaeology in Northumberland.

Allan Hepple

Welcome

Welcome to the 21st edition of Archaeology in Northumberland, which we are aware has been a long time coming. In our world of straightened financial times this is not so much due to a lack of budget as a lack of capacity to prioritise the design and editing of content.

That said we are still overwhelmed by the range and extent of heritage based projects and work which report their annual progress through these pages. From the continued flow of interesting and often technically unusual work being carried out on the historic churches of Northumberland (Glanton page 13, Hartburn page 22 and Warkworth page 48) through repair works on Hadrian's (or rather Clayton's) wall - pages 4-5 to the recording of WW2 graffiti at the site of the former St Mary's Hospital in Stannington (page 3) the range and type of reports and articles we have been offered for this issue continues to amaze us.

There are also longer reports for several of the county's longer running community fieldwork projects including the work of Coquetdale Community Archaeology on the carding mill at Barrowburn (pages 44 and 45) the work of Altogether Archaeology at Dukesfield Smeltmill near Hexham (pages 30-33). We also have reports from several of the larger open cast coal sites in the south-east and south-west of Northumberland. where extensive Iron Age and Saxon/ Medieval landscapes have been uncovered over the last 8 years. These include Hoodsclose (page 53) and Delhi, Shotton and Pegswood (page 10-12).

As ever we are vastly indebted to the Friends of Archaeology whose

continued support (and patient understanding) make the delivery of Archaeology in Northumberland possible. For the first time this year we will be running a print run of fewer than 1000 copies of the journal, enough so we can provide every FAN with one printed copy and have a very few left over for the limited sales market that persists for this publication particularly through Tourist Information Centres.

It is also our intention then to place the whole edition (and previous editions) on line for viewing using an on screen reader. We hope this will start with Volume 21 during the Autumn and then progress backwards through earlier issues through the winter.

> Christopher Burgess & Sara Rushton

Hexham Abbey House

Between November 2011 and January 2012 a series of structural investigations were carried out within the Abbey House at Hexham, prior to proposed alterations. The building is in origin part of the conventual buildings of the medieval Augustinian Priory of Hexham (now almost universally referred to as Hexham Abbey), consisting of the west range of the cloister and a further enclosure sometimes termed the Prior's Court. which was formerly completely enclosed by buildings. The range on the north is thought to have been the Prior's House; behind it is a further L-plan block, the Carnaby Building, built in the angle between the Prior's House and the northern part of the west range, and enclosing a further small open court.

Hexham Abbey House

Most of the investigative work was carried out in the Carnaby Building, which is largely of early-16th century date. Its name derives from Sir Reginald Carnaby, who was granted the buildings in 1538 and placed his arms (along with date 1539) on its north front; whether he built the range or appropriated a recently-constructed wing of the Prior's House remains an interesting question.

Quite a number of interesting finds were made: adjacent to a doorway in the south wall of the north range of the building an intact mural garderobe was opened up, whilst above the doorway, in the angle of a small internal courtyard, were remains of a pendant corbelled-out circular turret, cut away at first floor level but partially-preserved in the roof space. At first it was thought that this must have housed a newel stair, but there was no evidence of this. What look to be the original floor frames of the building survive, but what is less clear is how it was divided internally - one cross wall in the west range looks to be secondary, and the various studded partitions on the upper floor seem unlikely to be pre-19th century. The roof structure too is largely original, proof that this part of the complex survived two major fires in the 1790s and 1818.

Peter Ryder





This lead object was found on the middle slopes of the northern side of Flodden Hill below the earthworks that form the most prominent surviving feature of the Scottish Camp.

Discovered with a metal detector the object is formed of 5mm thick folded lead and is believed to be a powder measure. Such measures would have been an essential part of a gunner's kit, whether working with one of the 20 or more large cannon James IV's army travelled with or with an early long gun or *arquebus* (the predecessor of a musket).

This small artefact would have been used to measure out the priming/ ignition charge for the weapon, ensuring that just enough fine priming gun powder was poured into the priming hole.

Once lit by a smouldering match, this primer charge would then ignite the main or propellant charge, firing the weapon. If too little primer was used the gun might not fire, if too much primer was used the gun might explode causing injuries, or more likely fatalities, amongst the crew manning it.

The size of this measure suggests it might have been for a smaller artillery piece (James' inventory included 3 inch guns, though it is unclear whether these travelled to Flodden) or an arquebus. Louis XII of France had sent James IV a consignment of arquebus before the battle, though sources are contradictory as to whether they were with the Scottish army on the 9th September 1513.

World War Two Graffiti

Recording Winster

A caricature image of Sir Winston Churchill was discovered inscribed in charcoal or soft lead on a white-painted brick wall under the stage of the main (concert) hall of St Mary's Hospital, Stannington (previously reported on in A in N Vol 18, p8-10).

The Churchill caricature (Fig 1) is drawn using charcoal or pencil on the white-painted inside brick wall of the under-stage space of the concert hall (Fig 2). The main part of the image, comprising the Churchill portrait and attached cigar, measures 0.59m high x 1.04m long, with the head itself 0.415m wide by 0.43m long. Above and below the portrait itself, effectively framing it, are some cloud motifs. To the bottom right of the image is the inscription, 'TAZ ENSA 1943'.

It is thought that the image was drawn under the concert hall stage (Fig 3) in 1943 during the period that the hospital was commandeered by the Ministry of Defence for use as a hospital to treat injured personnel from around the world. In 1938 the stage actresses Lilian Braithwaite and Sybil Thorndike formed a concert section of ENSA (Entertainments National Service Association) at the hospital, and performances were played to members of all three services in the concert hall. The identity of 'TAZ' in the inscription is

unknown, but could be the nick-name of a stage worker.

A photographic recording of the image was undertaken by Richard Carlton of The Archaeological Practice Ltd. in March 2011 and the Architects Spencer & Dower prepared a method statement for its removal and conservation, prior to refurbishment and redevelopment of the buildings by Bellway Homes in accordance with a brief prepared by Northumberland Conservation.

> Richard Carlton Archaeological Practice





egun in AD 122, Hadrian's Wall D formed the northern frontier of the Roman Empire, and today is one of the most heavily visited and popular tourist attractions in the United Kingdom. It is a World Heritage Site (designated by UNESCO in 1987) and also a Scheduled Monument. However, what most visitors may not realise is to what extent the Wall has been demolished, and indeed rebuilt, over the centuries. Large sections of the Wall were used for road-building in the 18th century by General Wade, who effectively dismantled them and flattened out the stone for hardcore to allow his troops easier access across the country to crush the Jacobite rebellion. Stone from the Wall has also been used for centuries as building stone for walls and buildings.

From 1834, John Clayton (Fig 3 by Edward Sawyer), who was a keen antiquarian, began buying property around Steel Rigg to preserve the Wall, at a time when it was little understood about the Wall or its origins. Clayton managed the farms he had acquired and succeeded in improving both the land and the livestock. His successful management produced a cash flow which could be invested in future restoration work, which he carried out on parts of the Wall. Workmen were employed to restore sections of the Wall, generally up to a height of seven courses; approximately 2.5km of the wall were rebuilt. His dedication to Hadrian's Wall proved invaluable to its later preservation.



He was born 10 June 1792. His father Nathanial Clayton purchased the Chesters Estate in 1796, through which Hadrian's Wall runs, and which contained the site of Chesters fort. From an early age John took a passionate interest not only in the fort of Chesters and its immediate surroundings, but in Roman remains in the nearby countryside. He carried out some of the first archaeological excavations on the Wall. His first published work, in 1843, was his excavation of the commanding officer's bath-house at Chesters.

Following his death in 1890, his nephew Nathanial commissioned and had built a permanent museum at Chesters which was completed in 1896 to house the Clayton Collection. His estate passed to relatives and eventually the National Trust began the process of acquiring the land on which the Wall stands.

Clayton's Wall has structural weaknesses: in places, lengths of the Wall were restored without mortar and without being tied into the core. As a result, visitors walking along the top of the Wall had been compressing and eroding the turf capping. This caused water ingress, which in turn provided pressure to the facing stones, causing some areas of the facing wall to collapse pulling stones (external 'Clayton' remains and core of likely Roman date) from the structure. The structure was also no longer stockproof, which by allowing animals to cross the Wall was causing further loss of historic fabric (Fig 1).

In 2003, the Hadrian's Wall Path National Trail was opened, which encouraged visitors off the unstable structure, and National Trust signs and the removal of steps up onto the Wall top also helped. Nevertheless, many visitors still climb up onto the Clayton Wall.



Hadrian's Wal

In 2011, the owners of a section of Clayton's Wall between Caw Gap and West Bog applied for a Higher Level Stewardship Agreement for their land, funded by Natural England, and the Wall was identified as being appropriate for conservation under this scheme. The Higher Level Stewardship scheme section covered approx 432 metres of the north face. The National Trust, in conjunction with English Heritage, Natural England and the Northumberland National Park Authority, submitted a brief for the recording and consolidation of the Wall under archaeological supervision, and a consortium team



l, Melkridge... ton's Wall?

led by Countryside Consultants were appointed. Wardell Armstrong Archaeology Ltd undertook detailed archaeological surveys of the Wall prior to consolidation. A network of temporary survey stations were established along the north face of the wall, just beyond the limits of the Scheduled area, using a surveyquality GPS system (Fig 4). The Wall face, and areas of stone tumble, was also surveyed, to provide a plan record of which areas had been consolidated. Subsequently, the Wall was divided into numbered sections, and SAV targets were applied to the Wall in sequence.



The Wall was then subject to detailed measured survey using a Reflectorless

Total Station. 3D observations were made, recording the outlines of the Wall, and the location and number of the targets. The survey data was then downloaded in order to produce elevation drawings in AutoCAD. The elevations were photographed using a medium format camera, with a backup of photography with a high resolution digital camera, to provide a permanent pictorial record prior to the consolidation works being undertaken. The images were then 'rectified' - i.e. made flat - and tied into the surveyed elevation drawings. The elevations produced were used for subsequent watching brief as frames of reference.

Following conservation assessment by Countryside Consultants, which identified areas of future weakness and structural instability, Heritage Consolidation Ltd undertook the consolidation works (Fig 2). This comprised mostly rebuilding sections of collapsed walling, alongside minimal building interventions to ensure the stability of the remaining fabric, and the establishment of a natural soft capping of moorland grasses on the wall-tops, which was retained as a benign protection to the masonry below. The masonry repairs and pointing were undertaken using hydraulic lime mortar.

Wardell Armstrong Archaeology Ltd maintained a watching brief throughout any works which required the clearance of fallen stone, or the dismantling of sections of very unstable wall. A total of 26 sections of wall were consolidated, and all sections comprised sub-angular sandstone blocks forming a drystone wall, encasing a loose rubble core, all clearly of 19th century date. The Roman masonry relating to Hadrian's



Wall was only identified as a basal course to this modern wall, which in contrast was mortared with a clay mortar (Fig 5). The basal course was not, however, characteristic of a Roman foundation course, the conclusion being that the original wall-base lies at some depth below the identified masonry, and is preserved beneath modern topsoil build-up. There was no requirement to excavate the Roman Wall, preservation in situ being the watchword. The identified sections of the Wall were therefore fully recorded and tied into the survey network, prior to being obscured again beneath the rebuilt wall sections (Fig 5).

In honour of John Clayton, and 180 years later, the Wall has once again been rebuilt. Hopefully it will last just as long, if not longer.

Matthew Town Wardell Armstrong Archaeology Ltd

WAA Ltd cordially thanks the landowners, Nick and Andrew Oliver, for all their assistance during the works. The works could also not have been undertaken without the dedicated enthusiasm and skill of the WAA staff involved (particularly Dave Jackson, Tony Liddell, Helen Noakes and Fiona Wooler), often working in very difficult conditions, and this article draws heavily on their results for which I am grateful.



Coquet Island lies about 2km Ceast of the mouth of the River Coquet and is crowned by a group of buildings including a lighthouse. The buildings were mostly erected by Trinity House in about 1840, but incorporate substantial remains of a medieval Benedictine cell of Tynemouth Priory.

As part of the 'Trowels to the Rescue' initiative (see A in N 19, p48) North of England Civic Trust have recieved grant aid from Northumberland County Council and English Heritage to make repairs to Coquet Island's medieval tower and cell with the aim of removing these structures from the

Coquet Island Surveying the

Buildings at Risk register. Prior to these works a recording programme was undertaken in 2011.

The island has a long and varied history. There was an early Celtic monastery here, where Cuthbert met Elfled, Abbess of Whitby in 684; later the island was home to a series of hermits. As on Farne, this succession of hermits was followed by the establishment of a more formal monastic cell; in the 1415 list of fortified buildings the tower of 'Coket-eland' was held by Tynemouth Priory. After the Dissolution the island became the haunt of counterfeiters, then during the Civil War it was held for a while by the Scots, but by the early 18th century it was uninhabited. By 1825 the ruined tower had already become a lighthouse, prior to a major remodelling by Trinity House

d Lighthouse Monastic Cell

in about 1840. The medieval tower was remodelled and heightened as a new lighthouse, and a substantial new building added, by architect James Walker. The first appointed keeper was William Darling, brother of Grace. The island is now an RSPB Bird reserve and, as the lighthouse is no longer manned, part of the Trinity House building is a temporary home to bird wardens during the summer months.

The monastic remains have never been studied in detail, although a brief account was published by W H Knowles in the Northumberland County History. In 2011 all external walls of the medieval buildings were photographed and drawn at 1:50 scale, prior to the commencement of conservation works.

Today the medieval parts of the building can be conveniently differentiated from the Victorian by the fact that the latter are now whitewashed, whilst the former are of exposed stone. The tower/ lighthouse seems to have stood separate, to the southwest of a linear range of buildings. This range is two-storeyed except for the Chapel at its east which, though now largely replaced by the 19th century Buoy Keeper's Cottage retains a projecting turret and the lower part of the east gable wall survive.

The two-storeyed range, probably housed the monks' domestic quarters and has three barrelvaulted chambers on the ground floor; the eastern chamber has a projecting turret on the south, its newel stair now sealed off. The upper floor was completely rebuilt in about 1840, except for a short section which remains in ruins at the east end. Here, the south wall of the range disappears behind the wall of the later Buoy Keeper's Cottage, but as it does so a series of large alternating blocks are partially exposed, almost certainly

representing the jamb of a doorway into the medieval chapel. On the opposite side of the range is a strange projecting turret, which appears to be solid at ground level; its first floor, corbelled out on squinch arches from the north front of the range, contained a small separate room with a door that must have opened onto a gallery windows in the tower all seem contemporary with the 1841 works but there are remains of a number of earlier opening.

The medieval remains are hard to date. The chapel is unlikely to be earlier than the 13th or 14th century and the turret was a later addition to secure retreat if danger threatened. This echoes the arrangements of some fortified houses elsewhere in Northumberland, eg Halton and Chipchase Castles, where the tower stood a few metres from the hall and other buildings and could be defended as an independent unit if need be.



at the west end of the chapel. This is an interesting parallel to St Cuthbert's Chapel on Farne, which had a tower at its west end giving access to a similar gallery from which, perhaps, pilgrims were permitted to look down into the chapel.

The tower rises to a height of some 10m with walls about 1.6m thick, built of coursed squared blocks of sandstone; there has been extensive 19th-century refacing which is now heavily weathered. The present the original chapel building, and then the main monastic range with its three basement chambers was added later still, possibly in the 15th century. The tower may be of the same date.

One question which remains unclear is how was the tower originally accessed? The separation of the tower and main range suggests that there may have been some form of bridge between the two parts, perhaps removable, which would allow the tower to become a There may well, of course, have been other buildings, of which no evidence survives above ground; the old maps that survive suggest nothing else substantial survived into the early 19th century. The present outbuildings and enclosure walls all look Victorian, including the magazine and buoy house to the south and are of considerable interest in their own right.

Peter Ryder





Flodden **Finds**



his damaged, but nevertheless well preserved 1/2 Groat (worth 2 pence) was minted in silver during the reign of Henry VII. Even as late as 1513, 6 years after the death of Henry VII a lot of the coinage in circulation in Henry VIII's England and James IV's Scotland would have been minted during Henry VII's reign.

This coin, though English, could have been in circulation on both sides of the border in 1513. The likelihood is however it reached the battlefield in the pocket of an English soldier.

Discovered less than 100 metres from the Flodden Monument in Branxton, it was probably one of thousands of such coins that Thomas Howard. the Earl of Surrey and General commanding the English forces, collected from the Treasury in York during his advance to meet the Scottish Invaders.

Unlike the Scottish Army, the English Army of the day was nominally 'professional' in that it was paid for its service. The Scots meanwhile were mustered on a feudal basis with every man owing King James IV 40 days of service per year, without pay. When called they would serve until released or until their 40 days were up.

By the time of the battle on the 9th of September 1513, the Scots had served for 31 days and the Earl of Surrey was begining to worry that his York purse would run out before he could discharge his army, this he successfully achieved within 5 days of his victory.

СВ

New Publication

Limekilns and Lobsterpots

LIMEKILNS

and

Katrina Porteous

With its long, sandy bay, imposing limekilns and little harbour (said to be the only one on the East Coast to face west), Beadnell is a village which inspires strong feelings in visitors and residents alike. It is also a place of industry, and of stories.

Based on many years of research, Limekilns and Lobsterpots leads us on a walk around old Beadnell. It reveals some secrets - why the village is laid out as it is: how its landmarks got their names; how many limekilns and harbours it once had: and where its coalmines used to be. Telling of herring lasses. old fishermen

who sailed in open cobles, farm labourers and female 'bondagers' who tended the fields; of smugglers, shipwrecks, monks, saints, a princess - and even a monkey - Limekilns and Lobsterpots provides an excellent popular introduction to Beadnell. It finds in its buildings and landscape visible clues to the past; and, in over a hundred photographs, gets close to the human heart of this much-loved, and still-surprising, village. The text of Limekilns and Lobsterpots is based on one of a series of 'Local Heritage Walks' led by Katrina Porteous and former National Trust

Archaeologist Harry Beamish for Northumberland Coast AONB Partnership between 2006 and 2010. Katrina has known Beadnell all her life; her family connections with the village date from the 1930s. A Cambridge history graduate and poet,

she has spent a considerable part of the last 25 years researching the history LOBSTERPOTS of the village and recording the memories of its fishing community. Her popular articles on the subject are well known to readers of Archaeology in Northumberland (see vols. 17 and 18). In 2010, together with co-author Dr Adrian Osler, A Walk Around Old Beadnell she published Bednelfvsch and Iseland Fish. a

> scholarly appraisal of medieval fishing in north Northumberland, in The Mariner's Mirror (vol. 96). Limekilns and Lobsterpots is her first book based on her own local research since The Bonny Fisher Lad in 2003.

Limekilns and Lobsterpots – a Walk Around Old Beadnell

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Archaeology in Northumberland

Recent sites in South-East Northumberland **Pit alignments and settlements**

rchaeological work undertaken Arecently at surface mine sites and housing developments in South-East Northumberland and Tyne and Wear have made a substantial contribution to the understanding of the archaeology of the region in the prehistoric, Anglo-Saxon and medieval periods. The archaeological works on the surface mining sites have been generously funded by Banks Mining who adopts a development with care approach which includes a commitment to investigate and record areas of potential archaeological importance.

These discoveries have radically altered the understanding of the archaeology not only of the immediate area but of the North East region more generally. They have shown both a density of settlement activity previously unsuspected and the rich and varied archaeological potential that survives despite the advent of modern deep ploughing techniques.

Prehistoric

Pit Alignments

The most striking feature to have come to light relating to the prehistoric period is a regular system of landscape division. This takes the form of long lines of pits snaking across the landscape. The original form of these pit alignments or 'pit defined boundaries' is unclear: it is possible that the 'pits' actually represent segmented ditches originally accompanied by, or interspersed with banks. Scientific dating derived from their earliest fills cluster in the early centuries of the first millennium BC but it seems likely that they remained open features partitioning the landscape into and through the Iron Age period.

To date four pit alignments have been identified at Fox Covert and Blagdon Park 1 (Delhi Opencast Site) and two at Shotton Surface Mining Sites. Three pit alignments located at Shotton and Blagdon Park run approximately perpendicular to the south bank of the river Blyth. One explanation of the pit alignments is that they may have demarcated parcels of landscape resources, including pasture land, woodland and access to rivers, which were the preserves of particular communities or groups of settlements.

Settlements

Three large Iron Age rectilinear enclosed settlements (Blagdon Park 2 and East and West Brunton) and a number of smaller unenclosed prehistoric settlements (Blagdon Park 1 - Delhi Opencast Site), two close to Shotton Village (Shotton Village and Shotton North-East) and a site at Pegswood (PCA Archaeology) have been located during the mining and housing developments. Palisade enclosures and unenclosed settlements represent the earliest settlement types, some of which may have their origins in the Bronze Age with the latter predominating by the mid-Iron Age period. By the late Iron Age (about 200BC) large earthwork enclosed settlements with banks and ditches constructed on a monumental scale began to dominate the landscape. These substantial banks and ditches can only have been constructed with communal effort, their striking visual effect being designed to reinforce the wealth, power and status of the occupants.

The accumulating evidence from excavation and the study of aerial photographs suggests that the density of settlement revealed at East and West Brunton and in the Blagdon Park area is typical and that on the most level and fertile part of the coastal plain, for at least 25km north of the Tyne, the late-Iron Age landscape was covered with these high status enclosures at 1km intervals, interspersed with smaller scale unenclosed settlements in a stratified society with complex links. Many more enclosures, settlements and pit alignments defining territorial areas await discovery.

Anglo-Saxon

An Anglo-Saxon settlement has been discovered at Shotton Surface Mining Site comprising of six rectangular post-built halls, two sunken-feature buildings, and a system of enclosures, fences and trackways. The site is one of a small number of Anglo-Saxon settlements to have been excavated on a scale and under conditions which allows for a detailed analysis of its layout and development over time. The development sequence is clear with an unenclosed settlement representing a de novo settlement established in the early Anglo-Saxon period, probably during the sixth

century AD. By the late seventh century the settlement had shifted slightly and become formalised with individual farmstead units defined within separate enclosures. Artefactual evidence recovered consists of Anglo-Saxon pottery, loom weights and metalworking residues.

The excavation has provided a significant boost to the study of Anglo-Saxon settlement in the North East of England. In the early medieval period Northumbria was at the forefront of political, cultural and intellectual developments. At its greatest extent in the seventh century the Kingdom of Bernicia, with its capital at Bamburgh, extended from Edinburgh to the Humber. Despite the importance of the early medieval period in the region little is known about settlement archaeology outside a restricted region in north Northumberland (Bamburgh, Yeavering and Thirlings) and the ecclesiastical sites to the south at Hexham, Jarrow, Monkwearmouth and Hartlepool. The Shotton site represents an isolated known instance of an extensive secular settlement plan in a 100 mile gap between the cluster of known settlements in north Northumberland and West Heslerton in North Yorkshire, although fragmentarily known settlements at sites such as Catterick indicate that more await discovery.

Medieval

Remains of an extensive shrunken medieval village have been excavated to the east of the present village of Shotton, 300m north-east of the newly discovered Anglo-Saxon settlement. A wide central open space or green on the same axis as the surviving village was flanked to the north and south by well defined plots aligned north-south. The area represented at least in part an industrial zone at the eastern limit of the village which was abandoned when the settlement contracted in size. Documentary evidence bears witness to this reduction - a grant duty of 1325 recording the village as comprising thirty tenements but by the end of the 16th century only ten remained, three of which were in decay. Two pottery kilns have been excavated, with the majority of the pottery belonging to the 12th-14th century period. This site represents a rare opportunity to excavate a

significant area of a medieval village in its entirety, so often, previous work being limited to keyhole investigation between standing remains. As such the excavation has made a significant contribution to the understanding of the development of rural Northumberland in the medieval period.

Over the County boundary at Fox Covert Surface Mine, 1.2km north-west of the present village of Dinnington, an extensive medieval complex was found. It consisted of a network of enclosures occupying contained a finely dressed stonelined well and a sunken yard and its water management system. The complex represented a monastic grange or specialist farm belonging to Newminster Abbey which acquired the vill of Horton within which the complex lay in 1157.

The complex was probably a satellite farm linked to Horton Grange providing a specialist product in the form of hemp production and cloth preparation. The complex was in use between 1250 and 1350 but had a sudden ending with evidence of burning and destruction of buildings. of undisturbed coal forming galleries aligned at right angles. An intact wagon has recently been recovered from one of the pillar-and-stall mines at Brenkley.

A report synthesising the results from the prehistoric sites described above is in preparation by TWM Archaeology for publication later in 2012. Reports on the Anglo-Saxon and medieval sites described above are also in preparation by TWM Archaeology. A report on the Iron Age site at Pegswood Mine also funded by Banks Mining has been published



a low spur on a terrace overlooking Prestwick Carr, which in the medieval period would have been a marsh and peat digging area. The enclosures were defined by a network of ditches and accessed by a road leading toward the Carr, flanked by ditches. One of the enclosures, which contained the remains of two structures, also

Historic Mine Workings at Mining Sites

At Delhi (Blagdon Park), Shotton and Brenkley Surface Mines evidence of historic mining of 18th to 19th century date is coming to light. This mining has been undertaken using the pillar-and-stall method with trenches 2m to 2.5m wide and up to 2m in height being cut leaving pillars (Pegswood Moor, Morpeth Pre-Construct Archaeology Monograph 11 2009 Dorset Press).

> Jon McKelvey TWM Archaeology

Glanton: Alndale Hall Prefabricated-Chapel

pre-fabricated building was recorded in 2012, in accordance with a brief provided by Northumberland Conservation, by Peter Ryder and The Archaeological Practice. Initially the site appeared to be of little significance but was actually a structure of some historic interest. It had been a meeting house for the Brethren, a Christian nonconformist group founded in the early 19th century, whose congregation started in Glanton during the 1880s, although the Alndale Hall was not built until 1904.

The prefabricated building arrived at Glanton Station on 6th February 1904 and was erected by local craftsmen and members of the congregation, the first service being held on Whit weekend that year. The Sunday School block is said to have been added in the later 1920s.

Although the group was founded as a reaction to the prevalent sectarianism within Protestant nonconformity, their subsequent history was characterised by a series of splits and schisms. One of these splits, in 1904, began with the Glanton meeting accepting members who had fallen out with the Alnwick congregation without the

approval of London- and Edinburghbased congregations, who saw themselves as authorities, and who declared the Northumberland meetings to be 'leprous houses' and ordered their closure. The resultant controversy split the Brethren movement worldwide, with the result that many congregations, notably in the United States, reacted against this ruling and still class themselves as 'Glanton Brethren'.

The Hall, on the southern edge of the village and on the east side of the road to Whittingham, had a concealed timber frame, set on a stone base; both walls and roof were clad in corrugated metal sheeting externally and concealed by pitch pine boarding internally. The main hall was set north-south and measured 12m by 7.43m internally; adjoining it on the east side is a rather lower hall (the Sunday School); and in the re-entrant angle between the two halls is a kitchen with two separate external toilets attached to its south and east sides.

As one would expect from a meeting house associated with a radically nonconformist group, the building is devoid of ecclesiastical features.

except perhaps for the configuration of two halls with a folding screen between, an arrangement familiar in meeting houses of the Society of Friends (Quakers). Unlike the Quakers, the singing of hymns was an important part of Brethren worship, possibly unaccompanied first, but later backed by a harmonium given by a Miss Nancy Binnie and in the mid-20th century by an electric organ; both instruments were still in the building at the time of survey, the former wound in tendrils of ivy entering from a broken window, but still in good voice.

Prefabricated meeting halls such as this, put up by a variety of religious groups, were once common in towns and villages throughout the country, but relatively few remain today. Those used by the Brethren were often simply termed 'Gospel Halls'. The Glanton example is unremarkable in itself, but of considerable historical interest given the part it, or rather the congregation who once met and worshipped within it, has played in the development of what is now an international movement.

Peter Ryder



Rothbury Bridge Making Repairs

n archaeological watching brief was Aundertaken by TWM Archaeology on behalf of the Highways Department of Northumberland County Council on the basis of a brief prepared by Northumberland Conservation, during works to strengthen Rothbury Bridge.

Rothbury Bridge spans the river Coquet which passes through the centre of the town. The bridge has three masonry rib arch packhorse bridge spans which were constructed during the 15th century, with a further fourth arch at the south side constructed in the late 16th or 17th century. The four-span structure was then widened in 1759 by increasing the size of the piers to the east side with the addition of arch extensions to each of the spans.

Structural remains of a number of phases of the bridge were identified during the works. Elements of the eastern wall of one phase of the medieval bridge, obscured since the 18th century widening of the bridge, were exposed beneath the eastern side of the present structure. A detailed record of the fabric of this wall, including its arches, cutwaters and abutment walls, was made before the remains were reburied.

The photo (right) shows the medieval eastern wall of the bridge adjacent to the left side of the trench with the curved barrel arch extension in the foreground belonging to the 18th century widening of the bridge. The figure (below) shows how archaeologists have been able to make a detailed recording of the eastern elevation of the medieval bridge. The impressive masonry rib arch spans of the original medieval bridge were also exposed providing a further valuable insight into the construction of the bridge. The strengthening works were undertaken with considerable care by the Highways Department to ensure the historic remains of the bridge were preserved in situ.



NW

Jon McKelvey TWM Archaeology



SE

Figure 1: East facing elevation of the medieval bridge

10m

1:200 @ A4

Cockle Park Tower Renovate and Record Description of the watching brief and major structural problems and falls of the aims of the watching brief

n archaeological watching brief and building recording was conducted between 2007 and early 2012 during consolidation works and related groundworks at Cockle Park Tower (NZ 202912), a late medieval tower house/ hunting lodge 4 km north of Morpeth (Fig 1). Probably built in the second half of the 15th century as a grand hunting lodge, the earliest reference to the tower itself is in 1517 when the 4th Lord Ogle granted his brother William the tower and lands of 'Cokyll' Park. From the later 16th century onwards the tower became part of the Bothal Estate, whose owners became the Dukes of Portland. By 1827 Cockle Park had become the Duke's experimental farm, and in 1902 the County Council took over, but it remained an experimental farm, later passing to the University of Newcastle. The tower, set within a cluster of later farmbuildings, remains part of an experimental farm owned by the University of Newcastle, and was most recently used as a student's hospital, but this use ceased abruptly in the mid-1970s with

major structural problems and falls of masonry prompting a rapid evacuation, since when it has stood empty and in deteriorating condition.

The present archaeological recording was carried out as part of an initial scheme of repair funded by English Heritage to address the tower's status on the Buildings at Risk Register; executive architects were Devereux Architects, with Kevin Doonan Architects as the conservation/ contract architects. In 2006 a Structural Inventory for the tower was prepared by Peter Ryder, Historic Buildings Consultant (PFR 2007 also A in N vol 17, p. 24); this was revised in 2007 and further revisions following the most recent set of observations form part of a report prepared for the University of Newcastle and lodged with the county HER in 2012. In addition a photographic record of the exterior of

the tower was made in 2007 (TAP 2007).

The aims of the watching brief were to determine whether archaeological features or deposits were present on the site, and to make an appropriate record of any such finds by photographic and other means. Accordingly, all works carried out between November 2007 and January 2012 on the structure of the standing building and groundworks outside the tower were monitored.

Cockle Park Towe

Watching Brief on groundworks

Initial plans to carry out more extensive groundworks outside the building and in the farmbuildings complex were postponed when the scope of the building works was revised from a programme of refurbishment to structural consolidation. Testpits around the tower revealed its substantial footings, but the removal of a stair from the west side provided no significant findings and extensive landscaping around the east, west and south sides were too shallow to reveal buried structures, the remains of which might be expected to survive on the south side, in particular.

1

Watching Brief on the built structure

The tower is a structure of two parts; the northern half remains very much in its late medieval form, with a vaulted basement, stone newel stair and many original features; the southern half was thoroughly remodelled in the 17th and again in the 18th centuries. It was in this section that most of

the 2011 recording was carried out. some walls being stripped and the internal jambs of a number of the eastward-facing windows being taken down and rebuilt; this part has three floors, with two principal rooms on each (the southern secondfloor room had been sub-divided, but one of its partitions has now been removed) in addition to a lobby which opens onto the wooden newel stair accommodated in a projection on the west side of the building. (Fig 2).

The principal observations made during the watching brief relate to work carried out in Ground Floor



The fireplace on the east side of this first-floor room, is of plain 18th or early 19th century character, but the removal of some plaster adjacent to its north jamb exposed alternating blocks of smooth ashlar that may relate to a 17th century (?) predecessor, and also its with fireplace E5 that has a rather pretty horseshoe-shaped fire surround in cast iron, probably of 19th century date.

Room S6

This has a fireplace, within a simple architrave surround of 18th century character; the removal of plaster showed



5 m

in Ground Floor rooms G6 & G7, First Floor rooms F6 & F7, Second Floor rooms S6-9 and the Roof Structure (see Illustrations for Key).

c1790

19th century and modern

Room G7 is a large southern room on the ground floor, the full width of the building. The internal jambs of the 18th century window in the east wall were rebuilt, briefly exposing the plastered jambs of its broader 17th-century predecessor. A small fireplace E24 on the west, set between a pair of small cupboards, probably dates to the 18th century phase. older lintel, which bore a faint trace of a moulded mantelpiece being fixed against it.

Room F7

The rebuilding of the internal jambs of a window, on the east, again revealed old plastered jambs, set almost square to the wall, of the 17th century opening (presumably a three-light mullioned window) that preceded it. The massive timber lintel, standing a little proud of the wall face, appears to relate to this window as well. On the west side of the room is a projecting brick chimney breast that this was set within an older and slightly larger opening, with alternating ashlar jambs and a heavy lintel that, as in the room below, has a 'ghost' of a wooden moulded mantelpiece.

Room S7/8

The west wall of the room presented a series of extremely interesting features. There is a small and plain fireplace (E33) with directly above it, a small window (E20) formed within the central light of a 17th-century three-light mullioned window. This is spanned by a roughly three-centred arch in brickwork, its springing at the south end being cut into an earlier column of alternating blocks which must have formed the internal south jamb of the 17th century window. Where the lintel of this should have



been there was an overhanging (and dangerous) area of large blocks (now rebuilt). The northern springing of the brick arch was notched into the north end of the lintel of an earlier fireplace (E37), now cut across by the west jamb of the doorway into the room; this looks of 17th century date, and has a Tudor-



arched head (cut in two blocks) and a chamfered surround, with neat triangular stops 0.49 m above the floor. Built into the wall close to its south end and 1 m above the floor is a very interesting re-used stone (E38) that looks to have been part of the head of a traceried window.

Room S9

The window on the east, shows the internal jambs of its 17th century predecessor, infilled in brick; as elsewhere, the present Georgian window has its recess carried down to the floor, whereas the earlier one had a sill 0.8 m above it.

The Roof Structure

The roof of the main body of the Tower

is of six bays, with trusses of relatively uniform form, each being of simple principal rafter form with a diagonally-set ridge notched into the over-riding end of the eastern principal, and two collars; the upper collars are morticed into the

principals, and the lower, of softwood, halved (and nailed) into their northern faces. The tie-beams rest on a wall-plate, which only survives in part; at some stage the ends of the rafters have rotted and been truncated and a new plate a little above the level of the original, on or just inside the line of the internal wall face - thus making room for a wall-walk. On the east side, to the south of truss 3 this is of heavy plank-like section, c 250 mm wide and 60 mm deep; sections at least have been re-used from some earlier context. There is a simple splayed scarf in this plank-like plate on the back of truss 1, and the section to the south of this has shipping marks cut into its external edge. North of truss 3 two parallel lighter timbers form the plate, again reusing older material at the north end. On the west there is again a heavier planklike plate in the southern section of the roof.

There originally appear to have been two levels of trenched purlins, but during later repairs these have been moved and added to, especially on the west side of the roof, where between trusses 2 and 3 there is a very broad plank-like section of purlin. The building has had a long history of structural movement and repair, evidenced by a variety of secondary bolts and plates; one relatively recent counter measure has been the insertion of pairs of upright struts rising from the tie-beams to the soffits of the principals, set just below the lower collars. On truss 5 there has been so much movement that the old lower purlin now rides c 0.20 m clear of the principal, and a new purlin has been inserted beneath set on a packing piece.

A dendrochronological analysis carried out during the course of the project suggested that most of the timbers in the roof were felled in 1602, confirming the roof structure as of 17th century character. Old carpenters' numbering



survives on many of the trusses, but does not provide a coherent sequence.

Richard Carlton and Peter Ryder The Archaeological Practice

Figures

- The tower from the SE after restoration
 Phased floor plans (Ground, 1st &
- 2nd) 3. 17th Century fireplace surround found in room S5
- 4. An old floor of broad boards
- 5. Internal Elevation of the West Wall
- Roof area looking towards the stairway entrance
 View through the roof structure showing the roof trusses





Archaeology in Northumberland / 17

During the course of 2011, some 212 objects found in Northumberland were recorded on the Portable Antiquities Scheme database. Most of these objects were found by metal detectorists

in a number of parishes throughout the county, and the quality and date-range of these objects is as impressive as ever. New discoveries continue to add to our knowledge of the archaeology and history of Northumberland, and

Portable Antiquities in Nor **Finds Reported** chequer boards and flowers of this mount. The hundles

all the artefacts discussed below can be viewed on the Portable Antiquities database website.

A number of interesting objects have been reported this year, and it is hard to choose only a few that adequately represent the range of discoveries reported. One noteworthy object is the calf and foot of a classical statuette (Figure 1), found in the Tyne Valley (NCL-BD0923). This is all that remains of a Roman statuette, probably of a god or hero. When complete, this statuette may have sat within a small, personal shrine.

Another stunning example of a Roman object is the millefiori mount in Figure 4, found in the Alnwick area (NCL-A38DF3). The mount shows the exquisite skills of ancient craftsmen. The millefiori technique uses bundled rods of coloured glass arranged to make a pattern, for example the small



chequer boards and flowers of this mount. The bundles are then finely sliced, so that each small enamelpicture can be placed on a larger object, usually held in place in a small cell. The intricacy of detail and quality of preservation makes this a rather stunning object, which originally would probably have been found on the harness of a Roman

cavalryman.

Also from the Alnwick area, though a different part, are two discoveries of silver pendants dating to the 17th century (NCL-912218 and DUR-3B7822). Both pendants are oval, made of two sheets

1





of silver cut soldered on to lengths of a rectangular sheet of silver that acts as the siding of the pendant (Figure 3). Both faces have been inscribed on each pendant in a very similar way, if not exactly matching. One face bears IHS, an abbreviation for Jesus, while the other face is inscribed with MA or MRA for Maria. The construction of the pendant suggests that it might be a reliquary pendant or Agnus Dei worn by a Catholic.

thumberland in 2011

From the weight of the objects, it is clear that something is still being held internally. A similar pendant from the Spanish shipwreck known to have sunk in 1681, the Boticaria, had simple cast depictions of the Madonna and child made from clay set internally. What is particularly interesting about these pendants is that they are a rare survival of Catholic faith in Northumberland during the 17th century, at a time when faith and politics were very hotly debated! The relatively close proximity of findspots between the two pendants may also suggest a previously unattested meeting place or chapel.

Perhaps the latest discovery of 2011 (though technically reported in 2012) is an Elizabethan hoard from Holy Island (NCL-B02245). In 2003, a complete Bartmann jug of the Frechen industry (Rhineland) was found during some building work. The jug was full of soil, and the

finder set the jug aside to look at later. Later came during the Christmas break of 2011. Realising he never cleaned the soil out of the jug, the finder set to the task,



is more amazing, however, is that a second hoard was found on the same property in the 1960s. This hoard also had a latest coin of Elizabeth I from 1562, but it was composed entirely of silver coins of England and Scotland. At present, it is unclear what the relationship between the two hoards is, but they may represent two separate and distinct burials of coins for savings. While neither hoard can be considered a huge fortune, the mixed gold and silver hoard does amount to a significant amount of money for that time. The international composition of the hoard is also a reminder of how much money travelled, and how cosmopolitan coastal north Northumberland could be in the 16th century.

If you or someone you know has found an artefact that you would like to have identified or recorded, please contact your local Finds Liaison Officer:

website - http://findsdatabase.org.uk e-mail - robert.collins@ncl.ac.uk telephone - 0191 222 5076

> Rob Collins Finds Liaison Officer North East

and to his surprise found ten gold and seven silver coins in the bottom of the jug (Figure 2). The coin hoard is interesting, composed as it is of a number of English, French, Papal, and Burgundian issues. The latest coin is a sixpence of Elizabeth I dating to 1562 and, based on the degree of wear of the various coins, it seems the hoard was deposited shortly after 1562. What

1 CM



Repairs, renewal are evident in Berwick Conservation Area as the two Area Partnership Schemes and Townscape Heritage Initiative (THI) reach the half way mark of a four year investment programme.

The English Heritage and Heritage Lottery funded schemes were given a boost at the start of Year 2 through an exhibition of children's work, designs and research by local people as part of a formal launch in Dewar's Lane Granary (itself a newly restored listed building) shortly after it opened in April 2011.

Since then the grant applications for repairs and regeneration of historic commercial buildings in the three discrete scheme areas have been steadily coming forward. Projects totalling £678K have been commissioned since May 2010.

The Bridge Street Area Partnership Scheme attracted a lot of interest and enquiries from traders, tenants and building owners at the very outset (being closest to the flagship Granary project) and four building repair projects have been successfully completed during 2011-2012 (see photographs of Bridge Street completed schemes – 'before and after' Figures 1, 2 and 7,8) with a further large building project commencing in May 2012.

The THI has two major repair projects underway (started January 2011) to substantial commercial properties in Marygate that are currently vacant. Work is also being done with the owners – established family firms whose trade is no longer supported in these historic buildings, to facilitate sustainable options for bringing prime commercial floor space back into use.

Historic Area Impr Berwick up

The Castlegate Scheme, being slightly removed from the centre, was slower to get off the ground but is an important gateway into the town and in need of investment. One shop front scheme was completed in November 2011 (see photograph of the Wedding Parlour, before and after, Figures 9 and 10) and a further seven applications approved during Year 2 for priority buildings. Work will commence in the summer months on these projects.

The grants support external repairs to historic fabric and reinstatement of architectural features using high quality natural materials and traditional repair methods, as well as bring vacant floor space back into economic use. The higher priority for funding is aimed at buildings in the poorest condition and most 'heritage need' for intervention and investment.

A unique characteristic of the Berwick Conservation Area is its roofscape – an important feature that is visible from many vantage points, including the Town Walls. The array of roof forms, pitch, materials and features that include distinctive chimneys, stone water tables, parapets, lead work and architectural features like scrolled kneelers and decorative eaves presents unique repair problems and challenges (see photographs of 39 Marygate roof 'before' repair, Figures 3, 4 and 5).

The Berwick repair projects therefore, involve a 'top down' approach to encompass the whole building; starting with the roof. The detail of this work, although 'like for like' in material and execution, is not always appreciated at ground level or from distant view points. The skill of the







Berwick-upon-Tweed: HAIS

Berwick-upon-Tweed: HAIS

ovement Schemes DON Tweed

craftsman and contractor is therefore recorded as part of the grant schemes (see photograph of lead work repair to 39 Marygate. Figure 11). These vital repairs provide a unique insight into the construction methods, skill and techniques employed by the original builders and designers and need to be recorded and properly understood.

All the grant aided projects 'from the roof down' have been executed to a good conservation standard and represent subtle but noticeable improvements to historic building fabric and overall townscape. The completed repair projects have proved to be good advocates for the scheme with a sustained programme of traditional building trades that include roofing, chimneys, lead work, stone repairs, lime pointing, window and joinery repairs, new shop frontages and associated signage and metal work.

The traditional skills are being promoted through a 'Heritage Skills Training Day' being held in Berwick in July 2013 with partner support from English Heritage and the North of England Civic Trust. The opportunity for other local contractors, wider community and schools to learn about conservation repairs is an added advantage of the HLF and EH funded partnership schemes that are part of its lasting legacy.

The schemes have also helped vacant historic buildings and locally owned independent businesses improve their shop frontages through the use of the adopted Character Appraisal, Shop Front Design Guide and Public Realm Strategy. These documents also ensure a consistent approach to building repairs, materials, methods and quality of design.

The schemes unfortunately do not encompass the whole of the Conservation Area but concentrate on three principal commercial streets to create a critical mass of improvements to built fabric and support for smaller businesses and independent traders.

The combination of heritageled regeneration, concentrated enhancement and sustained local commerce is a potent mix that can only contribute to the vibrancy, uniqueness and overall character of the Berwick Conservation Area. Long may it continue until the schemes conclude in 2014!

Figures

1 and 2. Before and after, stone repair on the Tyne and Tweed building, Bridge Street

3 and 4. Roof and Guttering on 23 Marygate before repair

5 and 6. Roof and Guttering on 23 Marygate during repair

7 and 8. Before and after on building frontage repairs, Cafe Curio, Bridge Street

9 and 10. Before and after, shop frontage repairs. The Wedding Parlour, Castle Street

11. Guttering repairs complete at 23 Marygate.

AR

Annette Reeves is the Project Conservation Officer for the Berwick Historic Area Improvement Scheme and can be reached on 01670 633659 or email : annette.reeves@ northumberland.gov.uk.

















An archaeological evaluation Was conducted at St Andrew's Church, Hartburn, (NZ 09028 86009), in 2011 to investigate its archaeological potential prior to the installation of services for a new heating system, creation of a new servery and WC. Subsequently, in 2012, the excavation of a service trench in the churchyard was monitored, along with the removal of the old boiler house and various works inside the church.

The Church of St Andrew, a Listed Grade 1 building, has a pre-Conquest core with a tower and chancel that was rebuilt in c.1200. The aisle was added and chancel extended in the early 13th century, and minor aterations were also made during late medieval period. It was restored in 1843 and 1890, with other repairs and alterations in 1890-91 and 1912, when parts of the floor were lowered and a stone coffin removed from the north aisle. When the vestry was repaired to cure dry rot in 1966, a line of skeletons, dated between AD 966 and 1166, was found buried just beneath the floor within the walls of the church tower but at a level 9 inches above the current nave floor.

Groundworks outside the church The first phase of works carried out in

New heating reveals of Hartburn: St And

2011 comprised five trenches on the line of proposed services on the north and west sides of the church (Figure 2). These revealed few notable archaeological remains, except for in Trench 3. Here the remains of a wall aligned with, but underlying, the north-western buttress of the church nave was found, along with 20 medieval pottery sherds. These remains may indicate the presence of a medieval rectory attached to the north side of the nave. In Trench 4, west of the tower, a well ordered linear pathway comprised of flat riverine boulders was uncovered at a shallow depth, and in Trench 5 there was a single course of stones laid on edge which most likely represent the edging stones of a pathway shown on the 1st edition Ordnance Survey plan (Figure 1).





church's secrets drew's Church Groundworks in the Church Interior mortar and gravel silt-clay.

The second phase of groundworks carried out in 2012 involved eight trenches excavated in the floor of the church prior to the installation of underfloor heating (Figure 2).

In Areas 1, 3 and 4 were characterised by substantial quantities of disarticulated human remains, including 7 skulls and 25 long bones. These were mixed with crushed lime

A single course of sandstone blocks was revealed in Area 5, and interpreted as the possible foundation of an earlier column, while in Area 6 there were the rubble foundations for the existing column.











In Area 7 a sarcophagus containing human remains was uncovered and subsequently resealed (Figure 3).

Monitoring of external service trench

A third phase of work monitored a service trench to the west of the church (Figure 2). Several sections of walling were encountered and recorded from parts of this trench, but none were associated with dateable finds.

Most interesting were the remains of an enigmatic but complex structure, due west of the central part of the church tower just east of the course of the 19th century and earlier churchyard wall. Here, in an extension to the trench the remains of a wall or platform was discovered sitting on two levels of foundation plinths and bordered on its west side by pathway edging also exposed in evaluation (Trench 5).

The character of this feature is similar to stone work of both Roman or early medieval periods, but no datable artifactual evidence was found to corroborate the date.

The possibility that this feature might be a structure allowing access from the Vicarage gardens to the churchyard seems unlikely as it appears to be set too far back from the former western wall of the churchyard. Also no pathway is show on early maps in this position. The remains of other walls and apparent cobbled surfaces were also recorded in the trench.

Monitoring and survey of the built fabric

Work on the standing fabric principally involved the north-west corner of the nave. Here the internal and external faces of the north aisle and the north wall of the nave have been recorded in detail.

The demolition of the existing boilerhouse revealed a number of interesting features at the junction of the north-eastern buttress of the tower and the west wall of the aisle, indicating three clear structural phases:

(1) An early chamfered plinth represents the north-west angle of an aisleless nave of the 12th century.
(2) The tower, of c.1200; possibly the west end of the nave was reconstructed at the same time, a few centimetres inside the original line.
(3) The addition of the aisle. Both arcades are of mid-13th century date, but the west end of the north aisle shows no sign of the original steep roof-line seen in its southern counterpart, and may have been rebuilt at some later medieval date, perhaps in the 15th century.

> Richard Carlton The Archaeological Practice

Figures

1. St. Andrew's Church shown on the 1st edition Ordnance Survey plan of Hartburn

2. Plan of archaeological work carried out at St. Andrew's Church, Hartburn.

3. Sarcophagus in the north-east corner of the church interior with cover slabs removed

4.Service trenching works on the north side of the church

5. Footpath revealed in Trench 4

6. Trench 5 viewed from the east

7. Wall running across the service trench west of the cemetery entrance

8. Covered sarcophagus in the northeast corner of the church interior



Northumberland's Shipwrecks Secret Treasures

For many people, the mention of a shipwreck conjures up dreamy images of lost treasures of gold and precious jewels. In reality, while the vast majority of wrecks contain no such rewards, they are often overflowing with treasures of a different sort – a spectacular array of colourful marine life!

What attracts creatures of the sea to these mysterious ruins? This question is hotly debated by marine experts. Some believe that a wreck changes the sea floor conditions; drawing marine life to an area they would not usually make their home. The wreck itself can increase the available surface area for plants and animals to colonise. Shipwrecks can also diffuse strong underwater currents, creating calm havens where juvenile fish can rest and soft bodied animals such as coral and sponges can thrive. The numerous cracks, crevices and nooks of a wreck also provide safe sanctuaries for small animals to hide from predators.

The shallow waters off

Northumberland provide some of the richest marine habitats in Europe. The natural rocky reefs, together with a graveyard of shipwrecks, support a true abundance of life. The wrecks of Northumberland are home to a spectacular mosaic of encrusting soft coral, sea mats, sponges, anemones, crabs, lobsters, urchins, sea squirts and fish. This in turn attracts larger animals, such as seals, conger, wolf fish, Pollack, wrasse and huge cod, who feed on this distinctive assemblage of creatures.

The Somali was a 450ft, steamer bound for Hong Kong, carrying gas masks, batteries and 1000 lead soldiers when she was bombed off Blyth in March 1941. She now lies upright about 1.5 miles from the shore in Beadnell Bay. A diverse collection sea life, including lobsters, crabs, soft coral known as Dead Man's Fingers, anemones, urchins and starfish can be found nestled between the remains of winches, ammunition and guns.

The Abessinia was a 453ft German steamship that drove onto Knifestone, a perilous outcrop of rock near Outer Farnes, in 1921. Her boilers stand proud of the seabed and there is a scattering of other remains on the sea floor. The debris, however, may belong to the many other ships that have been wrecked on these treacherous rocks. The wreck is encased in a carpet of encrusting animals and plants. This living surface provides a feast for larger predators, including the grey seal which breeds on the Farne Islands in internationally significant numbers.

The clear waters and natural beauty of these ruins attracts divers from far afield. Opportunities to dive around the Farne Islands can be found in Seahouses where boats can be chartered and local skippers have an excellent knowledge of underwater sites and conditions.

> Claire Hedley Berwickshire & North Northumberland Coast European Marine Site Implementation Officer

olmes Linn Lead Mine, now a scheduled monument, was one component of WB Lead's strategic Blackett Level project. It lies in East Allendale, two miles south of Allendale Town at NY 8420 5240. Because of serious and continuing decay of its important structural remains, the site has been identified as appropriate for conservation under a Higher Level Stewardship (HLS) Agreement between the tenant, Mr J Wilkinson, the owners, Allendale Estate, Natural England and English Heritage. A management report has been prepared for the project including an archaeological assessment by the writers. Work to safeguard the site will begin in 2013.

The Blackett Level

The Blackett Level was conceived by WB Lead's mine agent at Allenheads, William Crawhall, probably in the early 1840s. However, it is more usually identified with his energetic and driven successor, Thomas Sopwith, who developed Crawhall's concept and brought it to fruition.

The intentions of the Level were twofold. Firstly, it would dewater the company's valuable but wet workings at Allenheads by driving a level deep into the mines from nearly seven miles down the valley at Allendale Town. Secondly, it would allow exploration for and, it was hoped, the subsequent exploitation of, leadbearing veins and flats along this route.

Rather than just working the level from Allendale Town, four intermediate shafts were sunk at Studdon Dene, Holmes Linn, Sipton and Breckon Hill from which separate – eventually interconnecting, levels could be driven.

The scheme was grandiose both in concept and execution and drew heavily on the company's resources. If successful, rewards would be great but, as with all lead mining, it was a risk. This did not prevent Sopwith wholeheartedly nailing his colours to the mast. On October 4th 1855, he personally cut the first sod for the shaft at Holmes Linn, his wife broke the ground at another unspecified shaft – probably Breckon Hill – on the same day and his daughter broke the

Holmes Lini Conserving

ground for the shaft at Sipton. The level from Allendale Town was started four years later, in 1859.

Notable for the accuracy of its driving (two miles from the Allendale portal - in the vicinity of Holmes Linn - the entrance could still be seen as a pinhole of light) the Blackett Level was also a showcase for the stateof-the-art hydraulic technology of WG Armstrong, friend and business colleague of Sopwith. Three of the shaft sites were supplied with nearstandard sets of hydraulic winding and pumping machinery. The structure which held the waterwheel at Holmes Linn is very similar to that still holding an Armstrong wheel at Killhope. This is not surprising; the Killhope wheel was recycled from the Blackett Level in the 1870s, almost certainly from Breckon Hill.

A Four and a Half Mile Long White Elephant

Despite the great hopes, the project was a failure: the level never reached Allenheads; no particularly profitable lead-ore deposits were encountered





n: Allendale **a Lead Mine**





along the route, apart from veins in the vicinity of Sipton Shaft; and the market for home-produced lead wilted as richer ore fields were opened up abroad in the 1880s. The Northumberland County History gave its verdict in 1896:

No expense has been spared in the carrying out of this gigantic task ... at the present time, only four and a half miles have been excavated. The tardiness of the work has been entirely due to the great decline in the lead industry in the district during the last few years. It is a matter of regret that so much enterprise should have been thrown away (Hinds 1896, 12).

Holmes Linn Mine

Holmes Linn was chosen as the site of the second shaft from the portal at Allendale Town. The whole complex lay on the southern bank of the East Allen. Walter White, on his tour of the borders of Northumberland visited in 1859:

Anon, a wooden edifice somewhat resembling an Italian campanile, appears down by the riverside at Holmes' Linn, marking one of the places where busy works are going on, for the driving of the Blackett Level in search of lead veins. The campanile or tower, contains the accumulator of the high-pressure hydraulic engine which is to do all the pumping and 'winding' done in other places by steam (White 1859, 303).

The now quiet and picturesque site can be accessed by footpath. The main survivals include the waterwheel building and attached accumulator base (1 and 2), a mine shop (3) and adjacent hydraulic-engine house (4). The square mine-shaft building (5) is fenced-off on the upper edge of the steep and wooded riverbank. A little way down this slope is an arched adit portal which drained the shaft (6). Along the riverside are reduced and vegetation covered remains of another waterwheel pit (7) and associated structures.

Holmes Linn was one part of the single most significant lead-mining project ever undertaken in the North Pennines. It cannot be understood in isolation and it is to be hoped that the insight provided by this conservation scheme will spur on what would be very rewarding investigation at the other shaft sites.

References

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Richardson, B W (1891). Thomas Sopwith, M.A., C.E., F.R.S. With Excerpts from His Diary of Fifty-Seven Years

Figures

 Holmes Linn today
 The fragile shell of the waterwheel building at Holmes Linn, with its Hermit crab-like resident, a hay 'wuffler' from the 1970s
 A photograph of Holmes Linn, possibly from the 1870s. Whites 'campanile' (the accumulator tower attached to the waterwheel building) can be seen at the

left

Alan Williams and Ian Forbes Alan Williams Archaeology



Kirkhaugh Bronze Age Northumberland's ear

About 4,300 years ago the small gold object from Kirkhaugh [Fig 1] would have adorned the hair of a Bell Beaker warrior. It was one of a pair of tress locks that the man wore by his temples, on either side of his face.

The 34 mm long ornament is the most famous find from an excavation of a stone cairn undertaken over 70 years ago by Herbert Maryon. The other finds from the grave are less well-known but they help provide the context of the gold ornament. They include the fragmentary remains of a beaker, the style of pot (which, if turned upside down, looks like a bell) that gives its name to both the Bell Beaker archaeological culture and the period that lies at the end of the Stone Age and the beginning of the Bronze Age.

While the clay of Kirkhaugh beaker was still soft, a twisted cord was pressed into it. The cord impressions covered the whole surface of the beaker. This type of ornamentation, the so-called 'All Over Cord' decoration, was used on some of the earliest styles of beaker found in Britain and mainly dates between the 24-22nd centuries BC. Too little of the Kirkhaugh beaker survives to



be sure of its exact shape but the style of decoration makes it clear that the grave is one of the earliest Bell Beaker ones currently known in Northumberland, if not the earliest. Unfortunately the skeleton did not survive at Kirkhaugh but the other objects that were placed in the grave make it clear that the burial was of a man. Most of the other finds were of stone. They included two flint cores; two flint flakes that were probably used as scrapers; a flint strike-a-light that will have been used with the fragment of iron pyrites found in the grave as part of a fire-making set; a flint barbed and tanged arrowhead, and two flint flakes that were probably blanks for arrowheads.

In Britain barbed and tanged arrowheads and fire-making sets are only found with male burials and, although only a small number of finds are known, this also seems to have been the case with gold ornaments.

There were two other stone objects in the grave. Herbert Maryon thought that one was a whetstone or stone

2

Cairn iest gold object

axe, and the other a stone 'rubber.' Research undertaken across Europe in recent decades has shown that the stones are actually stone tools for metalworking. A recent re-examination of the finds in the Great North Museum in Newcastle confirmed that one stone is a 'cushion stone' (so-called because in the 1960s the stones were thought to resemble sofa-cushions!) which served as a small anvil. The other stone, which cannot now be located. was probably a hammer stone.

Right across central and western Europe the pairing of a cushion stone and a hammer stone is the most frequent combination of stone tools for metalworking found in the graves of Bell Beaker metalworkers. These burials are almost always of men, who were often buried with weaponry and gold ornaments. They often belong to an early stage of the local Bell Beaker period. This is also the case for both the Kirkhaugh burial and the only other Bell Beaker metalworker's grave yet found in Britain, the very well-furnished burial of the Amesbury Archer which was found not far from Stonehenge (Fitzpatrick 2011).

Further work will focus on the location of the grave [Fig 2]. The Kirkhaugh cairn stands half way up the east side of the valley of the South Tyne,

not far from the head of the river. It is also on the northern edge of what in the 18th and 19th centuries became one of the most important lead ore fields in Britain; the Alston ore field. This location raises the intriguing possibility that the man buried at Kirkhaugh was not only a metalworker but that he was also involved in working or prospecting for metals. Although lead was not used in the Bell Beaker period, copper veins are recorded as having been found in the Alston ore field. Elsewhere lead and copper are often found together. The earliest metal mines in Britain and Ireland date to the Bell Beaker period and at one of them, Cwmystwyth in Wales, copper and lead were found together. The prehistoric miners separated the two ores and took the copper but left the lead behind.

It has been known for some time that the gold tress ring from Kirkhaugh is the oldest gold object yet found in Northumberland, but we can now say that it was found in the grave of an early metalworker who had the status of a warrior. And maybe that man was also an early miner or prospector.

> Andrew Fitzpatrick Heritage Consultant

Flodden Finds



Flodden Finds

his rather strange looking lead sunflower was discovered by metal detector on the slopes immediately below the 'King's Chair' at the western edge of the Flodden Hill Ridge.

As the names suggests, the King's Chair is where we understand James IV to have had his personal camp when his army was fortifying Flodden Hill and Flodden Edge in 1513. The 'Chair' is the highest point on the ridge giving the best all around views but also appropriate for James as the Scottish Monarch.

A number of high-status artefacts have been found in the fields immediately surrounding the King's Chair as might be expected with senior nobles pitching their tents as close to King James as would be possible.

This lead object is a Bridle Boss from a horse harness and would have been both decorative and also may have helped to hold the harness together. It would have been located around the horse's cheek, below and forward of the ear and would have been one of a matching pair (one on either side).

Though today it looks rather dull, in the 16th Century it would have been resplendent with an enamel glaze, fragments of which can be seen surviving in the deeper incised lines as tiny flashes of red.

A programme of archaeological geophysical survey and evaluation excavation was carried out at the site of Dukesfield Smeltmill, on the Allendale Estate, some 8km south of Hexham, (centred on NGR NY 942 580), where background documentary work had provided contextual information for the archaeological and historical development of an industrial site active from at least the mid-17th century to around 1840, during which time it was occupied by a lead smelting works.

Historical Background

There is documentary evidence of coppice management and lead smelting in 'bail-hills' at Dukesfield in the 1550s, when a lease of Dukesfield in 1551 gave permission to "have, hold, possess and peaceably enjoy three several and convenient places for bails to be set and made for making of charcoal and smelting of lead within their said lands and tenements at Dukesfield Hall aforesaid, as nigh the woods there as reasonably may be had to the least hurt of the tenants..." The Dukesfield estate, comprising several farms on the east bank of Devil's Water and the mill site, was bought in 1668 by William Blackett, and it is suspected that the smelting of lead was in operation at Dukesfield prior to Blackett's purchase of the site. During the 18th century Dukesfield was the most important of the WB Lead Company's mills, with annual smelting fluctuating (according to the price of lead) between 500 and 1,000 tons per year from the 1720s to the late 1760s, increasing to reach around 3,000 tons by 1790, thereafter stabilising at around 3,500 tons throughout the period of the Napoleonic Wars. It is likely that the surviving arches and the graded track running southwards to Dukesfield Hall date from this period of expansion in the second half of the 18th century.

An estate map, surveyed in May 1802, shows the extent of the mill site during its heyday when it was processing some 3,000 tons of lead ore annually. The arches structure is labelled on the plan as "chimnies", with its southern arch spanning the Hall Burn, and the trackway from Dukesfield – which gave access to the lead road towards Blaydon - curving

Dukesfield Smelters Excavating Duke

through the northern arch. The course of the mill race can be followed westwards away from the site, and a culverted spillway drops beneath the track to Dukesfield Hall, emptying into the Hall Burn. The modern trackway to Red Lead Mill runs next to the site of a building serviced by a launder which presumably fed an overshot wheel to drive bellows; the 'chimnies' were probably flues drawing fumes away from ore hearths in this building. The long building to its east may have been the ore bingsteads as it lies closest to the trackway into the site from the west,

while north of the track, another long building is possibly the peat store, given that the nearby bend in the river is named 'Peathouse Pool'. The large building next to it, also fed by a mill launder, probably housed the reducing furnaces and refinery added to the mill complex in the 1760s. A round structure, also water-fed, lay to the west, and was perhaps used for breaking/washing slags for resmelting at the slag hearths. The mill was described in 1821 as containing 2 roasting furnaces, 5 ore hearths, 2 slag hearths, 2 refining furnaces and 1 reducing furnace.



and Carriers Project **Esfield Smeltmill**

Fieldwork in October 2012 The fieldwork was intended to inform the Dukesfield Smelters and Carriers Project, being carried out by the Friends of the North Pennines which aims, through agreement with the landowner, local farmers and grant-making bodies, to restore the Dukesfield arches, reveal the industrial history of the site, and encourage the exploration of the area by residents and visitors. Led by local historian Greg Finch, the project had secured a Stage 1 pass from the Heritage Lottery Fund (HLF) for the project, with a Stage 2 application

scheduled for submission to HLF in December 2012.

Fieldwork was directed by Richard Carlton of the Archaeological Practice Ltd and carried out under the auspices of Altogether Archaeology, the North Pennines AONB Partnership's community archaeology project, led by the North Pennines AONB Historic Environment Officer, Paul Frodsham. Other professional participants included Alan Biggins of Timescape Surveys, industrial archaeologist Alan Williams and buildings historian Peter Ryder;



Kath Swallow, who provided valuable local knowledge and backfilled several of the trenches.

Results of Fieldwork

The results of geophysical survey, undertaken in difficult conditions in advance of the excavations, did not provide compelling evidence for buried archaeological remains, but this alone does not represent evidence for the absence of such remains. The subsequent excavations were considerably more revealing, providing evidence for a wide range of structural elements some of which lend themselves to secure interpretation, while other remains present further questions the solutions to which can only be approached by combination of additional fieldwork, materials analysis and documentary evidence

Trench 1 encountered a rubble deposit of stone and brick fragments probably deriving from the collapsed north end of the current arches, which presumably formed part of the support carrying a flue (or flues) from the smelt mill to the chimneys. A wall found under a considerable depth of deposit and continuing to at least 1.2 metres below ground level suggests the remains of a substantial building which is considered likely to belong to an earlier phase of industrial activity on the site, perhaps arranged parallel to the original course of the Hall Burn. However, the relationship between the excavated remains and current arches can only be tested by further excavation.

The stonework remains exposed in Trench 2 were those of the top of the culvert roof as it runs under the trackway to Dukesfield Hall, and its eastern entrance which allows the outflow of the leat into the Hall Burn. It appears from its form of construction and disruption to the culvert top that the present outflow opening is not original, but has been replaced at some stage, perhaps when the lower course of the Hall Burn was formalised by the construction of a wall connecting to the arches.

Trench 3 excavated part of the course of the mill leat where cuts in the bank on the north side suggested the possible locations of the sluice gates which regulated the flow of water











taken off the Devil's Water and directed down the launders to the mill buildings. A wide variety of features were revealed, including elements of the leat channel and culvert entrance. Most surprisingly, and perhaps uniquely, it was found that the greater part of the exposed leat channel and part of its sides were formed from fused hearthstones, presumably discarded from the smelt mill, suggesting that they represented a relining of the leat. The presence of launders controlled by sluicegates was suggested in two locations by worked stones and features within the channel bed, although no visible opening for a subsidiary channel or launder was detected. A ramp-like feature on the south side of the leat opposite clear remains of a sluice is suggested

as the remains of a supplementary water channel, perhaps taken off the Hall Burn or fed from drainage to the south-west.

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Trench 4 revealed the remains of a substantial built structure in a position consistent with its use as a refinery, built as an addition to the smelt works in or about 1765. However, slag found in secondary contexts has been initially identified by specialists as originating from ironworking, specifically from a water-powered bloomery, and/or a finery forge, leading to the working hypothesis that there was a waterpowered bloomery on the later smeltmill

site, possibly converted into a finery forge to process the iron from a blast furnace downstream in the environs of Furnace Wood. This may support the theory, also suggested by the wall found in Trench 1, that the original water supply for a putative bloomery/ finery works was the Hall Burn and that the leat from the Devil's Water





was constructed when the smeltmill was established or extended and needed an improved water supply.

Trench 5 revealed a stack of four separate chimneys within a single walled enclosure south-east of the arches. The chimneys were used to disperse fumes from the smeltmills, to which they were connected by flues

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extending horizontally over the surviving stone arches. The method by which the horizontal flues connected to the chimneys are discussed, but it remains uncertain why the horizontal flue was created at Dukesfield when it seems too short to have been worth the expense. It is emphasised that questions regarding the purpose and modus operandi of the chimneys and horizontal flues can only be approached through further examination of the structural evidence, supported by documentary and comparative evidence.

The arrangement of buildings and basic organisation of activities

Cobbles

Flags

on the site in its later 18th century and early 19th century phase is now reasonably clear, as represented by the accompanying analysis of the 1802 estate plan. Less clear, however, is the layout of the site prior to the 1760s, or whether the industrialisation of the site occurred in more than one phase from possible

Sluice

'Ramp'

Iron spike

beginnings in the mid-16th or, more likely, second half of the 17th centuries. Areas of doubt surround the nature of 16th and 17th century industrial activities on the site, specifically whether lead smelting or, as suggested by slags recovered from the excavations, ironworking was originally practiced, and whether the Hall Burn was initially used as the main water source for the site, in which case mill buildings might be expected to have been arranged parallel to it. A specific question concerns the relationship between the wall remains found in Trench 1 with the surviving arches structure, with the former suggested to represent an earlier phase of activity on the site. Other areas of uncertainty include the modus operandi of the chimneys and their relation with the putative flues carried by the surviving arches, and the methods by which water was taken off the main, hearthstone-lined leat, by means of launders, which could not be properly investigated as part of the evaluation strategy. These three sites certainly merit further exploration in order to elucidate the phasing and operational history of the site, and reveal structures for consolidation and/or display. The area north of the main east-west access track through the site, although shown on early plans to contain buildings of industrial importance, remains largely inaccessible due to tree cover which,

even if removed, is likely to have impacted negatively upon the archaeological potential of that area.

Figures

- 1. View of Dukesfield Arches from the north-west at the outset of excavations.
- 2. The culvert outflow opening revealed in Trench 2.
- 3. Recording structural remains revealed in Trench 4.
- 4. Interior view of the culvert5. One of the chimney bases
- during excavation. 6. An 1802 estate plan of the site with interpretive text by Greg Finch.

7. View of Trench 3 showing hearthstone lining of the leat, 'ramp' entering from the south side and remains of sluice-gate apparatus.

> Richard Carlton The Archaeological Practice

Haggerston Dovecote Hidden depths...

aggerston Dovecote is a scheduled monument and Grade II listed building, probably built in the 17th or 18th century. Originally believed to have been a windmill, it was later converted to a dovecote and was first annotated as such on Fryer's 1820 map of Northumberland. The building broadly conforms to a type of small vaulted tower mill, being built on what may be a low artificial mound and constructed in three tiers, with a subterranean basement which is presumed to be vaulted.

The interior shell of the building is brick lined and accommodates 418 nest boxes in 17 courses. Most notable is a surviving in situ potence: a central mast which supported the upper floor of the dovecote and rotated to afford access to the higher nest boxes. There are only five dovecotes in the UK with a surviving potence so this feature alone makes this dovecote rather special.

In 2010 the building was given planning approval to be incorporated into a modern dwelling. CFA was commissioned to monitor clearance and foundation investigation works and to undertake a detailed metric survey of the structure to a brief provided by Northumberland Conservation Team prior to development works starting.

A watching brief was maintained during internal clearance works to remove rubble, soil and other debris. An aggregate base for the potence incorporating a wheel groove and bearing was revealed, as was a flagstone floor.

Two hand-dug inspection pits were excavated outside the dovecote to find out the depth, character and condition of the foundations, which were shown to be about 1.9m below the existing ground surface. This work also revealed a blocked doorway for a basement, including parts of retaining walls for the cut of an approach ramp leading to the basement. Upper courses of stone were removed from the blocked basement doorway to reveal that the whole basement appears to be infilled with mortared stone, which appears to support the floor above. The basement is likely to have been vaulted.

The metric survey work was undertaken by Oakes Surveys in conjunction with CFA, using a combination of 3D laser scanning technology and photographic rectification to produce detailed plans and elevations which included a 2D 'rolled-out' elevation of the interior accounting for the irregular curvature of the building. The main obstacle facing the survey team was the narrowness of the interior and due to the presence of the potence and supportive structures it was difficult to gain access to the full height of the interior shell. However, through a combination of mast photography and pointcloud data it was possible to build up a picture of the entire internal surface from the newly excavated floor all the way to the brickwork at the higher levels and indeed the substantially deteriorated stone work at roof level.

> All work was undertaken under Scheduled Monument Consent from English Heritage, and was funded by Marshall Leisure Ltd.

> > Melanie Johnson, Stuart Mitchell , and Leeanne Whitelaw CFA Archaeology Ltd
Tow House, Burncliffe A cruck-framed barn

The hamlet of Tow House lies on a road about 1.5 km west of Bardon Mill, on a bluff overlooking the confluence of the Henshaw Burn with the South Tyne. The last house on the south-west side of this road is the early 20th-century Burncliffe but set close to this is a much older barn parallel to the road, with four pairs of

TRUSS 1 SOUTH FACE

crucks and a heather-thatched roof. Historic building recording, in advance of repair supported by grants from English Heritage and Northumberland County Council, was carried out in April 2011.

Little is known of the history of the barn. The older Ordnance Survey maps show it as forming the southeast end of a longer linear range of buildings, the remainder of which were replaced by a terrace of houses in the earlier 20th century.

3 metres

The importance of this building was first recognised during the National Resurvey of Buildings of Historical and Architectural Importance in 1985 when it was afforded statutory protection as a Grade II* listed building. At that time the thatch was in poor condition and covered by corrugated iron sheeting. The building was repaired and re-thatched in 1990 but, as often with recent attempts at heather thatching, the thatch has not lasted well and is again in bad condition.

The cruck trusses use very waney timber and have some features, such as the use of diagonally-driven pairs of pegs that link them to local vernacular traditions of quite late (18th century?) date. Heatherthatched buildings are now extremely rare and although this one must take second place to the more complete High Meadow Barn 4km to the east, it forms part of a small complex of important buildings, including the Tow House bastle and a recently-restored defensible single-storeyed house (which also once had crucks) across the road to the north.

Peter Ryder



Ameasured survey record was carried out on farmbuildings at Damdykes Farm, south Cramlington, in accordance with a brief prepared by Northumberland Conservation and in advance of the proposed redevelopment of the farmbuildings complex.

A STATE

Damdykes

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The report was enhanced by earlier records made on visits to the farm made by one of the authors (PFR) over a 25 year period since the mid-1980s, when the complex was proposed and accepted for listing.

The site of the farm is 2.5 km south-south-west of

a gin gang or horse mill.

The report concludes that the main block of the farmhouse, of early to mid-18th century date, although much changed, appears to be the oldest building on site. The present farmbuildings were added in the early part of the 19th century, although the footings of some could be earlier. A datestone in the south range, probably best read as '1855', probably gives the date for the rebuilding of the older farmbuildings. A general remodelling, including rebuilding of the main north range barn (and probably construction of the gin gang), appears to have occurred in 1863, as also indicated by a date stone. There has been no change to the form of the stone-built farm buildings since the 1896 Ordnance Survey map, although







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rm id decay

parts of the buildings may have been altered or rebuilt.

The most recent series of visits to the site were carried out in Autumn 2005, when the farmhouse was occupied and the buildings were in relatively good condition, and in October 2010 when the buildings presented a very different appearance. Local information indicates that over the last two or three years, prior to the purchase of Damdykes by the present owners, the site was not secure enough to prevent access by from unwanted intruders.

This unrestricted access to this complex of listed farm buildings led to very serious damage occuring; much of the dressed stone was removed and roof slates and lead flashing taken off, thereby accelerating structural decay.

Damdykes farm demonstrates how rapidly decay can occur to historic structures when no effective measures are put in place to protect them.The case also demonstrates how a heritage designation of statutory protection is no guarantee of material survival when regular maintainence and security is not in place.

Figures

- 1. OS maps 1860s 1890s & 1920s 2. South frontage of the house prior to
 - abandonment
 - 3. House viewed from SE prior to abandonment
 - 4. House viewed from SE in 2010 following 2 years of neglect
 - 5. Gingang viewed from the north prior to vandalism
 - 6. Gingang roof following illegal removal of supporting piers

Richard Carlton Peter Ryder The Archaeological Pratice Ltd Cramlington: Damdykes Farm





arehaugh Hillfort, a Scheduled Ancient Monument (Number 20953), is located at NGR NY 9695 9980 in Upper Coquetdale in the parish of Harbottle. The site lies at about 170 metres OD towards the east end of a ridge which descends eastwards towards Harehaugh farm and overlooks the confluence of the River Coquet and the Grasslees Burn. The earthworks of the monument comprise up to four defensive ditches and ramparts and are regarded as constituting a classic example of a hillfort, perhaps initially univallate, subsequently enlarged and strengthened with additional ramparts, dating to the Iron Age.

In 1993 the Northumberland National Park Authority (NNPA) recognised that the ramparts of the hillfort were suffering from extensive degradation from rabbits and sheep scraping, leading to their collapse and the partial infilling of ditches. A draft Management Plan for the site was produced which assessed the current condition of the site and set out proposals for its future management, including survey and limited excavation work in order to assess the degree of damage being caused by erosion, particularly by rabbits. Fieldwork carried out in 1994 included a survey of the earthworks. trial excavation, and photographic recording of all erosion scars visible in the ramparts. The survey was carried out by the Newcastle office of the Royal Commission on the Historical Monuments of England (RCHME) who produced a 1:1000 scale plan and description of the site which has formed the basis of the site plans incorporated in subsequent documents (including this one). A total of 95 erosion scars were then photographically recorded by the Department of Archaeology, University of Newcastle, and a plan produced showing the location of each erosion scar. Subsequently, a conservation-led, archaeological fieldwork project was carried out in late 2001 through

Harehaugh Iron Ag Analysing Erc







ge Fort: Holystone



to Summer 2002, which included evaluation excavation (Carlton 2011) and a re-survey of the erosion scars recorded in 1994. Problems with the data led to a further survey of erosion scars in 2004.

In 2011 the NNPA archaeologist requested a further update of the results of previous episodes of survey in order to chart any changes. Initially an attempt was made to do this by re-examining the data-set from the 2004 survey, but this was found to be unsatisfactory because it proved impossible to trace around half of the scars previously recorded, and the validity of restricting the study to the analysis of scars only was called into question by the presence of considerable areas afflicted by damage other than scarring, particularly slumping caused by rabbit burrowing. In an attempt to chart the overall nature and extent of erosion damage presently apparent it was decided to re-survey the site using an EDM. This was carried out in the Spring and early Summer of 2011.

Conclusions

The programme of monitoring and recording carried out over a 17 year period at Harehaugh Hillfort has produced results which, for various reasons, can not be used to their full comparative potential. The methodology devised for measuring the rate of erosion has been shown inadequate, not only for relying too heavily on the area of scars as a measure of total damage and failing to consider the volume of material removed, but for focussing almost entirely on scar faces without considering other visible indicators of damage, such as rabbit scraping and rampart slumping.

Using descriptions made in 1994-2004 and 2011 of scars which can be compared, however, it can be shown that a combination of factors are responsible for the damage currently





being caused to the monument, primary amongst which are rabbit and mole burrowing, bracken roots, livestock and motor vehicles. Secondary factors include water and wind action which remove loosened material downslope.

Although it is not possible statistically to compare the rate of present erosion with that observed in previous phases of monitoring, it appears to be the case that it is at least as active as previously. Certainly, the number of scar faces recorded in 2001 was comparable with the 95 recorded in 2011 and additional sites of erosion were also recorded which do not include scar faces. Most of the traceable scar faces recorded in 1994, 2001 and 2004 have continued to erode.

A simple, three-phase model is proposed to explain the bulk of erosive damage to the site – in Phase 1, rabbit burrowing or trampling of stock opens points of weakness, exploited by sheep to create scrapes in Phase 2, which in turn collapse by slumping, often aided by renewed rabbit activity in Phase 3. Excavation in 2002 (Carlton 2011) revealed that the ramparts are generally composed of very coarse sandstone rubble which remain stable for as long as the turf cover remains intact, but following exposure by rabbit

and livestock action the sandstone in the core degrades into fine grey minerogenic sand which then quickly erodes due to gravity, wind and rain. Any stones exposed by this process, whether in the rampart core or facing stones, also become unstable and subject to slippage.

However it was observed that the netting of the sites of infilled excavation trenches back-filled in Summer 2002 has been entirely successful in excluding rabbits; in early 2012 the mesh remained fully intact and the areas it covers stand out within rampart sides otherwise peppered with rabbit holes and scar faces.

The threats to Harehaugh Hillfort from rabbits, sheep and bracken have resulted in it being placed on the Heritage at Risk Register, maintained by English Heritage. As a result, funding has been secured from English Heritage and Natural England to undertake bracken control and repair works to the hillfort. The results of the survey work undertaken by The Archaeological Practice have helped inform these proposed repairs and it is anticipated the work will be completed in 2015.

Richard Carlton The Archaeological Practice

Reference

Carlton R J, 2011, Archaeological excavations at Harehaugh Hillfort in 2002, Archaeologia Aeliana 5 Ser XL (85-116).

Figures

1. Harehaugh Hillfort on the 1st edition Ordnance Survey plan.

2. Discrete scar in the north-west ramparts; evidence for sheep rubbing and several current rabbit holes

3. Part of the inner western ramparts subject to rabbit damage and wind abrasion

4. One of the 2002 trench locations in the western ramparts covered with netting showing how this has protected it from rabbit burrowing

5. Plan of sites subject to erosion (green infills) surveyed in 2011, with areas of the interior subject to mole activity highlighted orange. Base survey by RCHME 1994 used by permission of **English Heritage**



Beaufront Castle: Tynedale Kitchen Gardens

Beaufront Castle, one of the great country houses of Tynedale, stands on the north side of the valley between Hexham and Corbridge. Incorporating a little of an earlier mansion of the Errington family, the greater part of the present house was constructed in 1836-1841, John Dobson being the architect. In the late 18th century John Errington claimed to have expended £20,000 on improvements to his estate, including the construction of gardens and hothouses - this figure being cited in his successful argument against the construction of a canal through his land in 1808. However, the present Kitchen Garden, subject to an archaeological survey in 2011, seems to have been constructed at the time of Dobson's remodelling of the house; the Sandhoe Tithe Award Map of 1840 shows its site as unbroken woodland, whereas the first edition Ordnance Survey map of around 1860 shows the northern part of the garden laid out in almost its present form.

The Kitchen Garden occupies a sloping crescent-shaped site about 120m long and 40m across at its widest, bounded on the east by a minor road and on the west by what is clearly an earlier property boundary. It contains a variety of structures, here described from north-west (the highest point) to south-east. At the north-west corner is a roofless cart shed fronted by the brick piers of what was an open four-bay arcade. Then comes the Apple Store (now a grade Il listed building), guite a complex structure of a variety of builds with Tudor-style mullioned windows;

it has a brick front and attached garden walls at each end; behind the eastern length of wall a flight of steps descends to an underground furnace room beneath the terrace that runs in front of the Apple Store, which would have supplied hot air to some of the greenhouses on the south, and perhaps also to flues within the tall garden wall.

Lower down the garden is the second listed building, the so-called 'Potting Shed', which is a more substantial and sophisticated structure than its name might imply, having apparently been constructed as a boiler room and store. Sunk into the ground, its end and low rear walls are of sandstone ashlar; the tall brick-faced front wall forms the rear wall of a large greenhouse. The main structure has pilaster buttresses at its angles and mullioned windows (like those of the Apple Store) in its end walls; entry is via a short length of underground passage at the west end, approached by a descending ramp. Internally, the building has a range of seven recesses extending the full length of its north wall, each one some 1.45m deep; the central one is round-arched, flanked by pairs of wider segmentalarched ones, and the end ones again are round-arched; all the arches are turned in brick. The main building is of about 1840 but the greenhouse, although part of the original design, in its present form seems to be a replacement of early to mid-20th century date.

There have been a number of other greenhouses both above and below the 'Potting Shed', but only their ruinous bases remain, some with evidence of flues and pipes providing them with hot air and water. Map evidence shows that the garden was extended to the south between about 1890 and 1920, and by about 1950 the site was in decline, some greenhouses being roofless.

The site is significant in retaining many of the elements of a classic kitchen garden which served a major country house. It was built as a significant economic unit, up-todate with advancing technology and tailored to serve the needs of a large household. Despite alteration and some degree of dilapidation the two principal structures remain attractive and interesting early Victorian buildings and along with the subterranean furnace house are of some technological interest. However, as one might expect, the various greenhouses which have been such a significant feature of the site were by their very nature less-permanent structures, and most would have been rebuilt at least once during the century or so that the garden was in use. All but one are now reduced to lower courses; the surviving one looks of early-to-mid 20th century date and is not in itself of any great interest, although replicating in form an original part of the building. Of the others, the base of one greenhouse is of Victorian ashlar and, with the two flights of steps at its entrance, may be worthy of retention. The other subsidiary structures, largely of 20th century date, are not of special interest.

Peter Ryder





Corsenside, Hex St Cuthbert's

n January 2012, Corsenside church was the subject of an archaeological assessment carried out on behalf of the Diocese of Newcastle. The church lies about 400m east of the Roman Dere Street (now the A68) about 2.5km north of West Woodburn; a solitary site (apart from one farm) high on the west side of the valley of the River Rede. The dedication - traditionally referring to this being one of the resting places of the body of St Cuthbert in the late ninth century - and the place name, which may indicate an early cross (or alternatively the personal name 'Crossa'), may both indicate an early date. There are firmer historical references to a church here in 1120, and in 1311 when the Bishop of Durham granted it to the nuns of Holystone.

Corsenside Church has attracted little attention from architectural historians, usually being dismissed as having been rebuilt apart from its chancel arch. It is in fact a building of very considerable interest, with a complex medieval and post-medieval building history that takes some untangling.

The simple chancel arch is clearly Norman, and probably of early 12th century date, along with the east wall of the nave and the plinth on the south side of the chancel. The masonry of the nave seems quite different, and represents at least two (and probably more) different structural phases. Its lower walls contain some larger and elongate

^{cham} **Church**

roughly-shaped blocks, guite different to those in the chancel and difficult to date precisely. They might be roughly paralleled by pre-Conquest and late medieval (16th/17th century) work, but presence of fabric of this type in what is clearly a thickening of the 12th century south wall of the nave indicates the latter. There is clear evidence on the internal faces of its west and north walls for the nave having been vaulted which, rather surprisingly, does not seem to have been noted in published accounts. This must have been a defensible, or at least a fire-proofing move, related to the troubled later medieval and early post-medieval period.

Quite a number of Northumberland churches have defensible features, and two in the adjacent parishes of Bellingham and Elsdon have vaults: at Bellingham, over the nave and south transept, and at Elsdon, over the aisles. Further north, Kirknewton has vaults over chancel and south transept. The vaults at Elsdon may be part of a late 16th century reconstruction, and at Bellingham of early 17th century date.

At Corsenside the doublestepped south-east angle of the nave seems likely to indicate an external thickening of the wall, presumably made to take the weight of an inserted vault. The western bay of the nave (which has a higher ceiling) has a very strange feature in that its internal wall faces rise about 1.2m above the external; high up on the

demolished and the chancel arch walled up.

The vault at Corsenside only seems to have existed for a century or so; perhaps its weight caused structural problems. The present south door



north side is a blocked opening, which might have come above the vault. This would suggest that

the nave was converted into a thick-walled defensible retreat, possibly around about 1600, and probably intended to be used as a communal refuge at a time when raiding and reiving were frequent, with a chamber at least above its west end. What happened to the chancel at this time is uncertain; it would seem quite likely that it was is dated 1735 and from its height it would seem to have been inserted when or after the vault was removed; the bellcote could well be of the same date. There may well have been a complete reconstruction of the church in the early 18th century, including the rebuilding of the chancel on its old plinths and the insertion of new windows in the nave. Hodgson's 1827 account (History of Northumberland Vol 2, p.170) that, 'the windows are at present all square-headed, and had stone mullions, and glass in lead, till about 17 years since, when they were sashed' seems to point to the windows being altered again in about 1810. Further works took place in the later 19th century; the south porch, the present nave roof and the east window of the chancel may all be of this period.

Peter Ryder

igh in Upper Coquetdale, 6 miles upstream from Alwinton, lie the farms of Barrowburn and Windyhaugh. Although few people live there now, remains of buildings and stock enclosures show that in the past the area was more densely populated. During the 13th century, the monks of Newminster established large land holdings in the area; records show they built a fulling mill on the river between 1226 and 1244.

Following clues from these records, and the observations of David Dippie Dixon about 100 years ago, in 2010 we found masonry blocks and timbers at two points in the river where the mill was supposed to be. Carbon 14 dating confirmed that the timber was medieval and we started a major investigation at two locations in 2011. At the downstream site we exposed the remains of a masonry wheel pit (Figs 1, 2 and 3). Although it is clear that some stones are missing perhaps robbed – enough of the pit remains for us to characterise the wheel fairly accurately. It was some

50cm wide, while abrasions on the pit walls show its diameter was about 3.4 metres (Fig 2). A curved concave block at the pit entry shows it housed a low breast-shot wheel. The water impacted it about halfway up its lower quadrant before flowing under it; the wheel fitted the sides of the pit closely and it was turned by both the weight of the water held on the blades and the final flow beneath.

Immediately below the tailrace we discovered a timber structure on the riverbed that was probably the remains of a planked area with low wooden walls. With the fulling process involving pounding cloth in agents such as burnt bracken and urine to remove grease and tighten up the fabric, this may have been where the cloth was rinsed in clean water before being stretched out to dry on tentering frames.

Just upstream from the pit were two large timbers that may be all that's left of a control gate across the mouth

Coquetdale Comm

of the pit and a leat that fed water to it from upstream – probably from the point where we made our second major find (Fig 5).

On the riverbed about 60 metres upstream we unearthed a massive wooden 'floor', consisting of three large timber baulks lying across the stream with wooden planks joining them and the remains of posts both at the ends and in the middle of the baulks (Fig 4). The structure weighs over 1000kg and it's still in situ; we identified where the bank had been cut back to accommodate one of the baulks, and some adjacent small stakes may have been used to support the bank during construction. The wood is a mixture of oak and ash, and dates to the same period as the wheel pit. Several theories have been advanced, but it seems most likely that the structure is the floor of









Durn Mill Opposite to be a support

a sluice system that fed water into a leat for the mill. A rebate on one of the timber posts hints at the presence of a gate, and the flat floor would have helped cut off water flow cleanly and prevented scouring. Calculations show that even with moderate river levels, the structure could have captured enough water to power the mill.

Back downstream, in 2012 we opened a trench above the site of the mill building next to the wheel shaft. We uncovered a short length of poorquality wall leading away from the river, as well as a paved and cobbled area some distance from the river and parallel with it. We don't yet know if this was a road or a yard for the mill, but it is almost certainly medieval; we found two coins on it – a Henry III half penny and a well-preserved Edward I penny, minted in Durham and dated to around 1280.

Opposite the wheel there appeared to be an area cut out of the bank and supported with boulders. Here we found a masonry block which probably came from the wheel pit - either dislodged by flooding or dropped when being removed. At the very end of the season - deep down on the line of the wheel shaft - we uncovered an area of charcoal and some highly corroded pieces of metal. We don't yet know what these are, and we're examining the charcoal to see if we can get a meaningful C14 date from it, but it's an area we'll be returning to in 2013. The apparent absence of a building can be explained in several ways. It may have been dismantled and robbed when the mill was abandoned, or it may have been a lightweight structure - perhaps an open wooden shelter - that has completely disappeared. Equally, there may have been no building at all. Unlike grinding corn, there's nothing in the fulling process that needs to be kept dry – and if it rained, well, the miller got wet.



The presence of the mill provides an insight into the economy of the medieval valley. Enough people lived there to support a full cloth production industry, ranging from clipping through spinning, weaving and fulling; and although the monks obviously made a big investment in building the mill in such a remote location, perhaps to get away from the guilds in Morpeth, their investment was probably not successful. The 14th century was a challenging time; not only did Anglo-Scottish border unrest erupt in 1296, but disastrous harvests from 1315 caused famine, sheep scab eroded flocks and the Black Death arrived in 1349. This probably made outlying estates like Kidland unattractive, causing the monks to abandon both the mill and their operations in the area. A survey at the time of Newminster's dissolution in 1538 describes the estate as 'lying waste.....with no manner of edifices or buildings'.

So the site was never redeveloped, and this must be why we found so much medieval material. Very few such mills have been excavated in England, and we know of none where a masonry wheel pit like this one has survived in such good condition. Finally, the configuration of the wheel is interesting. In this country, breastshot wheels are first documented in the 16th century – so finding one that dates from the 13th century is very unusual. The Barrowburn mill was probably not unique, but nothing like it has survived (Fig 6).

There's no space to thank everyone who helped with the project, but about 50 people were directly involved – and over 150 people visited the site during the work. And several organisations provided us with funding, notably the Heritage Lottery Fund and English Heritage.

David Jones Coquetdale Community Archaeology





n order to formulate a strategy for community-based archaeological and minor infrastructural works in the castle and village of Wark-on-Tweed, Flodden 1513 Ltd commissioned The Archaeological Practice Ltd to assess the current state of knowledge regarding the castle, its accessibility for visitors and to suggest how it could be improved as a resource for the local and wider community. The work undertaken involved community consultation in Wark and neighbouring communities which aimed to raise public awareness and encourage direct involvement in the Flodden 500 project, as well as presenting options for improved access to and interpretation of the castle site.

The castle occupies part of an elongated glacial mound or 'kaim', a mini-escarpment rising severely from the south and descending more gently northwards towards the river, which extends to the east and west for some 300m from the motte. The greater part of the castle and modern village are located on the north side of the kaim, where the land dips gently away before rising slightly to form the low river cliffs that lie up to 15m high and form the southern bank of the Tweed. The landscape of Wark-on-Tweed is dominated by the earthwork castle mound, raised on the centre of the kaim, with the Middle and Outer Wards positioned to the north side, on gently undulating ground between the kaim and the river cliff. Much of the inner bailey is now overgrown, while the Outer Ward contains modern buildings and open spaces. Visitors approaching by car from the west may catch glimpses of stonework within the grassed-over west elevation of the castle mound, but the view is impeded and confused by the presence of the kaim, which, although perhaps modified in places, is substantially a natural feature.

History

While earlier settlement is considered likely, and prehistoric

finds in the vicinity are abundant, settlement at Wark is first attested by documentary evidence of a motte and bailey earthwork castle in 1136 which was apparently destroyed in 1138. It was first taken into royal hands by Henry II and rebuilt in 1158-61, but its key location on the Border means that for the next 400 years it remained of international importance and was regularly taken in and out of Royal hands. Whilst in private ownership, both Henry III and Edward I made temporary use of the castle on several occasions in the 1250s and 1290s/1300s. when actively involved in Scottish politics and warfare, before the castle and barony were again taken fully back into royal hands in 1317. The turbulent history of the site in the 14th and 15th century includes repeated references to the defences being slighted and its walls beaten down, but the castle does not seem to have been subject to any major remodelling after the work of Henry II. Following the Battle of Flodden, the Keep was rebuilt to house artillery and in the middle of the century the motte was transformed by the construction of an outer 'Ring' into a raised and revetted level platform for artillery. Piecemeal repairs were continued until the end of the 16th century, but by 1633 what remained of the artillery had been removed, and six years later the castle was described as 'ruinated'.

The castle survives in the form of a grass and shrub-covered motte, with fragments of walling visible, particularly on its west side. Other fragments of walling are visible along the riverside, but the position of features can be traced on the ground by comparing early and modern plans. There is considerable potential for carrying out research on the castle through

Wark-on-Twee Access and



documentary research and through geophysical survey and limited, targeted excavation within the extended grounds of the castle itself, as well as on the kaim to the west.

The village of Wark developed within the outer ward of the castle and was certainly present there by the time of the first available detailed plan of the site, produced around 1560. Most of the village is sited on, or north of, the kaim, but over the last two centuries there has been some additional development to the south, along the Cornhill-Carham road which may also have developed later as a through route by-passing the village core. By the end of the 19th century there were 35 freehold properties in the village, a similar number to the present day and probably a fair estimate of the total at the end of the 16th century. The greater part of of the village is confined to the Outer Ward east of the castle mound.

Wark-on-Tweed

d: Wark Castle **Community**



Suggested Fieldwork and Access Improvements

In order to gain a measure of understanding regarding the present use of the site and how its access and appreciation might be improved, a number of steps were taken leading up to the delivery of questionnaires locally and within neighboring communities. Several meetings were held with the principal landowners and other prominent individuals in the local community, including the Carham Parish Council . This revealed that the castle receives few visitors and is relatively poorly appreciated by local residents, many of whom feel excluded from it by current access provision and lack of information. Following this exercise, a questionnaire was devised to garner information on the attitudes and desires of the local population to current access

and information,and a limited number of broad proposals made for their improvement. Responses were

positive, indicating that most residents had suggestions to make around access, including the incorporation of the site in the Flodden Eco-Museum, provision of signing and a designated walkway to the top of the castle mound, but some concerns were made with respect to the use of the current car park for public parking.

Following the pubic appraisal, a wide range of options were devised and implementation strategies suggested for improving access to the castle and for its audience development, which it is suggested should be carried out in two phases:

Phase 1: to implement audience development and access improvement measures, archaeological and related cultural heritage research work could be carried out with the cooperation and involvement of the local community. This would encourage a sense of involvement and pride in the castle, as well as evaluate the impact of physical works required for access improvement, and to provide background information for interpretive strategies. Archaeological fieldwork should include geophysical survey, fieldwalking, archaeological excavation and archaeological test-pitting.

Further additional studies might include oral history research and the 'ingathering' of documentary material relating to the castle and village, including historic photographs and documents. This would require specialist training in palaeography and other skills, or could be carried out professionally as an adjunct of the wider cultural heritage works. The documentary sources relating to Wark, many of them held at the Public Records Office, are abundant and have been extensively, though not exhaustively, analysed. Successive spells of royal tenure or at any rate intensive concern for and involvement in the upkeep of the site have resulted in a much more copious body of documentation than would be the case for an equivalent baronial castle particularly with regard to the 16th century.

Phase 2: improvements to the physical accessibility of the castle and village of Wark for a range of target audiences is suggested by means of improvements to three footpaths and the addition of other footpaths to St Giles' medieval Chapel site at the west end of the Kaim and to the top of the castle mound. In addition, it is suggested that footpath guide markers should be provided at appropriate positions on all footpaths, and that a plan of the site is provided on a panel at the site hub - where improvements to the car park will be required - to show routeways, viewpoints, features of historic interest and suggested tours of the site.

Improving intellectual access to the site could be achieved by providing information about the castle on information panels, while off-site and remote provision of material allowing access to information on the castle should be carried out using a website, or elements for inclusion on an existing web-site such as Flodden Eco Museum. It is suggested that the bulk of any infrastructural works should be carried out following the communitybased archaeological and other cultural heritage works recommended above. However, certain measures, such as urgent footpath restoration works and surveys of the condition of the castle, including vegetation and rabbit surveys, should be carried out alongside the Phase I works.

> Richard Carlton The Archaeological Practice Ltd



2011-2012 Assessing the past

The following list contains details of archaeological assessments, evaluations and other work carried out in Northumberland in 2011-12. They mostly result from requests made by the County Archaeologist for further research to be carried out ahead of planning applications being determined. Copies of these reports are available for consultation in the Archaeology Section at County Hall.

Acklington

Desk-Based Assessment: East House Farm, Guyzance, Morpeth. AAG Archaeology for Castle House Heritage Consulting Limited (event 14959)

Allendale

A Management Plan for the Consolidation and Conservation of High Huntrods Field Barn, Sinderhope. Countryside Consultants for Mr J Wilkinson (event 14816)

Holmes Linn Lead Mine, Allendale: archaeological assessment. Alan Williams Archaeology and Ian Forbes for Mr J Wilkinson (event 14958)

Alnmouth

Allotment Gardens, Alnmouth: archaeological desk-based assessment. Archaeological Services Durham University on behalf of The Northumberland Estates (event 14910)

Alnwick

Proposed new greenhouse, Alnwick Castle: preliminary report. The Northumberland Estates (event 14725)

Windy Edge, north of Alnmouth Road: desk-based assessment. Archaeological Services Durham University for The Northumberland Estates (event 14718)

Alwinton

Barrowburn: The Rediscovery of a Medieval Fulling Mill. Coquetdale Community Archaeology (event 14870)

Ancroft

Haggerston Dovecote: archaeological watching brief (2010). CFA Archaeology for Edwin Thompson on behalf of Marshall Leisure Ltd (event 14755)

Architectural & Historical Recording at Dowie House Bothy, Cheswick. Sale & Partners (event 14920)

Ashington

Ashwood Business Park, Ashington: environmental statement – cultural statement. Golder Associates (UK) Ltd for AkzoNobel (events 14853 and 14854)

Ashwood Business Park near Ashington: geophysical survey and evaluation.

Archaeological Services WYAS for Golder Associates (UK) on behalf of AkzoNobel (event 14855 and 14856)

Wansbeck General Hospital, Ashington: historic environment deskbased assessment report. Northern Archaeological Associates for Mott MacDonald Ltd (event 14898)

Bardon Mill

Archaeological Evaluation on land adjacent to Housesteads Roman Fort and Visitor Centre. Archaeological Research Services for Northumberland National Park and The National Trust (event 14867)

Housesteads Roman Fort, Hexham, Northumberland: Cultural Heritage Desk-Based Assessment. Archaeological Research Services for Northumberland National Park Authority and The National Trust (event 14873)

Archaeological watching brief during repairs to "Clayton Wall" (North face) immediately west of MC37 (Housesteads). The National Trust (event 14895)

Beadnell

Archaeological building recording of Annstead Farm, Chathill. Archaeological Research Services for Mr and Mrs Mellor (event 14717)

Land south-east of The Old School House, Beadnell: archaeological monitoring. Archaeological Services Durham University for Isos Housing Ltd (events 14924 and 14925)

Belford with Middleton

Detchant Smithy, Detchant: historic building recording. Bamburgh Research Project for Bedmax Ltd (event 14710)

Cragmill Quarry Extension and Railway Siding: Environmental Impact Assessment. AOC Archaeology Group for Cemex UK Ltd (event 14944)

Berwick-upon-Tweed

Elmbank Caravan Park, Cow Road, Spittal, Berwick on Tweed: archaeological watching brief report. Oxford Archaeology (North) for Rural and Urban Planning Consultants (event 14900)

Old Coal Yard, Tweedmouth: archaeological test pitting. Archaeological Services Durham University for Reliant Building Contractors Ltd (event 14933)

Railway Street, Berwick-upon-Tweed: archaeological watching brief. TWM Archaeology for Northumbrian Water Limited (event 14949)

Bewick

Land to the west of New Bewick: archaeological trial trench evaluation. Bamburgh Research project for George F White (event 14792) *Birtley*

Green Rigg Wind Farm: Grid Connection Route Options Archaeological Appraisal (2011). P Cardwell for Wind Prospect Developments Ltd (event 14939)

Branxton

An Archaeological Watching Brief at Tarbits, Branxton, Cornhill-on-Tweed. Archaeological Research Services for Mr T Rutter (event 14952)

Brinkburn and Hesleyhurst

Pike House Farm, Rothbury: archaeological building recording. Archaeological Services Durham University for The Northumberland Estates (event 14934)

Broomhaugh and Riding

An Archaeological Excavation across the A695 at Farnley Gate, near Riding Mill. Pre-Construct Archaeology for Northern Electric Distribution Limited (event 14879)

Blyth

Newsham Burn Flood Alleviation Scheme: watching brief. The Archaeological Practice for The Environment Agency (event 14720)

South West Newsham: geophysical survey. GSB Prospection for Northern Archaeological Associates on behalf of Nathaniel Lichfield and Partners (event 14770)

South Newsham, Blyth: archaeological evaluation. TWM Archaeology for The Trustees of MW Ridley's 1995 Settlement (event 14930)

Carham

Mindrum Farm: building analysis and recording. Robin Kent Ltd for T Fairfax Esq (event no 14742)

4ZY Stella West-Eccles OHL: archaeology report – towers 4ZY224 and 4ZY227. Ian Farmer Associates for Balfour Beatty Utility Systems Ltd on behalf of the Eastern Electricity Alliance (event 14825 and 14826)

East Moneylaws Farm, Cornhill-on-Tweed: archaeological desk based assessment. The Archaeological Practice Ltd for Maden Eco (event 14940)

Visual Impact Assessment in relation to areas of historical heritage for 2 Endurance E-3120, 50KW wind turbines at East Moneylaws Farm, Cornhill-on-Tweed TD12 4QD. Maden Eco (event 14941)

Cartington

The Iron Bridge Project Archaeological Report 2011, Cragside Estate, Rothbury. Bernicia Archaeology on behalf of The National Trust (Yorkshire and NE Region) (event 14804) Archaeological Building Recording of Cragend Farm, Rothbury. Archaeological Research Services for S Renwick (event 14918)

Chatton

Weetwood Hall: archaeological evaluation. The Archaeological Practice for Mr Coulson (event 14787)

Broomhouse Farm, Chatton: archaeological desk-based assessment and building recording. Archaeological Services Durham University on behalf of The Northumberland Estates (events 14864 and 14865)

Chollerton

Little Swinburne, Colwell: report of archaeological monitoring and recording. Bamburgh Research Project for Northern Structures Limited (event 14913)

Corbridge

Trinity Court: archaeological evaluation. The Archaeological Practice for Isos Developments (event 14709)

Corbridge Roman Town: watching brief. TWM Archaeology for English Heritage (event 14715)

Trinity Court, Corbridge: archaeological watching brief. The Archaeological Practice for Isos Developments (event 14790)

Mains Connection at Shawwell Farm, Corbridge: archaeological watching brief. TWM Archaeology for Northumbrian Water (event 14820)

Hill Street, Corbridge: archaeological watching brief. The Archaeological Practice for Northumberland County Council (event 14876)

Cramlington

Arcot Hall: updated archaeological deskbased assessment, geophysical survey and archaeological evalution. TWM Archaeology for Arcot Consortium (event 14714, 14811 and 14812)

Environmental Statement: proposed specialist emergency care hospital, land to the east of the A189, East Cramlington – heritage. SLR Consulting for Northumbria Healthcare NHS Foundation Trust (event 14796)

Northumbria Healthcare: geophysical report. RSK Group plc for Northumbria Healthcare NHS Foundation Trust (event 14814)

Cramlington Hospital Site: archaeological evaluation. TWM Archaeology for Northumbria Healthcare NHS Foundation Trust (event 14931)

The former Cragside County First School, Cramlington: geophysical survey. Archaeological Services Durham University for Taylor Wimpey North East (event 14953) Greensfield, south of Weavers Way: desk-based assessment. Archaeological Services Durham University for The Northumberland Estates (event 14719)

Proposed Biomass CHP Plant & Sawmill, Lionheart Enterprise Park, Phase 4, Alnwick: geophysical survey. Archaeological Services Durham University for The Northumberland Estates (event 14921)

Weavers Way, Greensfield, Alnwick: geophysical survey. Archaeological Services Durham University for The Northumberland Estates (event 14923)

Doddington

4ZY Stella West-Eccles OHL: archaeology report – tower 4ZY251. Ian Farmer Associates for Balfour Beatty Utility Systems Ltd on behalf of the Eastern Electricity Alliance (event 14830)

Edlingham

Edlingham Village: archaeological watching brief. TWM Archaeology for Mr Lee (event 14809)

Edlingham Castle: archaeological watching brief. TWM Archaeology for English Heritage (event 14569)

Ellingham

Wandylaw Wind Farm Supplemental Field Survey. CFA Archaeology Ltd for Natural Power (event 14945)

Ellington and Linton

Ferneybeds proposed opencast site, Widdrington Station: archaeological geophysical survey and evaluation. TWM Archaeology for Banks Developments (event 14912 and14915)

Elsdon

The Haining: archaeological recording and monitoring (2010). Archaeological Services Durham University for CSM Architects LLP (event 14757)

Liberty Hill Farm, Raylees: archaeological monitoring. Archaeological Services Durham University (event 14909)

Ewart

4ZY Stella West – Eccles OHL: archaeology report – towers 4ZY253, 4ZY255, 4ZY256, 4ZY257 and 4ZY262. Ian Farmer Associates for Balfour Beatty Utility Systems Ltd on behalf of the Eastern Electricity Alliance (event 14831 14832, 14834 and 14836)

Ford

4ZY Stella West – Eccles OHL: archaeology report – towers 4ZY247, 4ZY248 and 4ZY 249. Ian Farmer Associates for Balfour Beatty Utility Systems Ltd on behalf of the Eastern Electricity Alliance (event 14827, 14828 and 14829)

Mesolithic Settlement, Lithic Distribution and Community Archaeology: an archaeological assessment. Unpublished MA dissertation, University of Newcastle upon Tyne (event 14889) Mardon Farm, Cornhill-on-Tweed: Archaeological Watching Brief. CFA Archaeology Ltd for E Thompson. (event 14922)

Glanton

Alndale Hall, Glanton: historic building recording. The Archaeological Practice for Mr and Mrs Dunn (event 14740)

Rose and Primrose Cottages, Front Street, Glanton: archaeological deskbased assessment and building recording. Archaeological Services Durham University on behalf of R & C Sharp (May 2009) (event 14868 and 14869)

Greenhead

High Old Shield: Fieldwalking (5 August 2010). Marchers Archaeology (event 14903)

Haltwhistle

Holy Cross Church: archaeological monitoring. Archaeological Services. Durham University for Holy Cross PCC (event 14711)

Archaeological watching brief at Nursery Gardens, Haltwhistle. Archaeological Research Services for Galliford Try (event 14801)

Haltwhistle War Memorial Hospital – Heritage Statement (2011). Howarth Litchfield Partnership for Fairhurst Consulting Structural and Civil Engineers (event 14938)

Hauxley

North Beach, Low Hauxley: report of archaeological monitoring (2010). Bamburgh Research Project for Dickman Limited (event 14929)

Haydon

Historic building record for High Stublic Farm, Langley, Allendale. Nicholson Nairn Architects (event 14881)

Heddon-on-the-Wall

Archaeological watching brief at 29 Military Road, Heddon-on-the-Wall. Archaeological Research Services for Blueprint Architects (event 14753)

Archaeological watching brief at Frenchman's Row, Throckley. Archaeological Research Services for Northumberland County Council (event 14810)

4ZY Stella West – Eccles OHL: archaeology report – towers 4ZY454 and 4ZY455. Ian Farmer Associates for Balfour Beatty Utility Systems Ltd on behalf of the Eastern Electricity Alliance (event 14823, 14822 and 14821)

YG Blyth – Stella West OHL: archaeology report – towers YG75A, YG75B, YG75B, YG76, YG77, YG79 and YG81. Ian Farmer Associates for Balfour Beatty Utility Systems Ltd on behalf of the Eastern Electricity Alliance (event 14847, 14848, 14849, 14850, 14851 and 14852) 17 Military Road, Heddon-on-the-Wall: archaeological watching brief. TWM Archaeology for Northumbrian Water Ltd (event 14859)

Roman Wall Forge, Heddon-on-the-Wall: watching brief report. NP Archaeology (event 14860)

Close House: The Garden Wall and Attached Structures: a historic building assessment. PF Ryder (event 14863)

Rudchester Manor House and Barn, Rudchester: historic building report. AOC Archaeology Group for Lancaster Associates Architects (event 14904)

Archaeological watching brief at Heddonon-the-Wall. Archaeological Research Services Ltd for Northern Gas Networks (event 14955)

Hedley-on-the-Hill

Archaeological watching brief at Hollings Hill Quarry (2011). Archaeological Research Services for Tarmac North Ltd (event 14952)

Henshaw

Archaeological watching brief during repairs to "Clayton Wall" at the western end of Peel Crags. The National Trust (event 14896)

Hepscott

YG Blyth – Stella West OHL: archaeology report – towers YG24, YG25. Ian Farmer Associates for the Balfour Beatty Utility Systems Ltd on behalf of the Eastern Electricity Alliance (event 14842)

Hexham

Hexham Racecourse, High Yarridge, Hexham: archaeological assessment. The Archaeological Practice for Hexham Steeplechase Company Ltd (event 14721)

Hexham Abbey House. Archaeological Investigations. PF Ryder (event 14862)

Hexham Priory: Archaeological Assessment. The Archaeological Practice Ltd for the Priory and Parish Church of St Andrew (event 14964)

Hexhamshire and District

Report on Watching Brief 2011, Subsurface Investigations at The Paise, Hexhamshire Low Quarter. AAG Archaeology for Newton Architects (event 14963)

Holy Island

Manor House Hotel, Lindisfarne: archaeological monitoring and recording. Bamburgh Research Project for Mr J Barlow (event 14800)

Archaeological Watching Brief at Marygate and St. Cuthbert's Square, Holy Island. Archaeological Research Services for BT Openreach (event 14819)

Village Hall, Lindisfarne: Report of Archaeological Monitoring and Test Pit Excavation. Bamburgh Research Project for Ainsworth Spark Associates (event 14919)

Horsley

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Wylam

Archaeological Watching Brief at Wylam Hall, Wylam. Archaeological Research Services Ltd for Mr D Furniss (event 14962)

Warkworth: St Laurence's Church Recording the Roof

During an extensive programme of repair and conservation in Spring/Summer 2009 limited access became possible to the roof structure of the south aisle of St Laurence's Church which had suffered damage due to the continued structural movement that has plagued the building.

Seen from below the ten-bay frame appears to be of the characteristic low-pitched type in which roof boarding is laid directly on the backs of the slightly-cambered tie-beam, and additionally supported by a central 'ridge' with a purlin on each side (c.f. Hexham Moot Hall). These timbers, and the wallplates on either side, are all moulded with a simple concave outer member and a wave moulding. Each of the panels framed by these moulded timbers is spanned by six plain square-section north-south joists.

During the 2009 works scaffolding allowed close access to this structure, and the removal of boards showed that the visible timbers were, in fact, technically a ceiling, with a low-pitched pent roof above, carried by rafters sloping up to a roof-plate c 0.60 m above the northern wall-plate: a puzzling series of posts, recessed into the wall, rose to support this roof-plate. The creation of two temporary access hatches (by the removal of joists) allowed limited access to this upper structure over the central and eastern sections of the roof; the section over the western three bays remained inaccessible, although a continuing series of posts could be glimpsed.

The upper timbers in the arcade wall are here numbered and described from east to west, i.e. right to left as viewed, a reversal of the normal procedure excused by the fact that the western part of the wall could not be closely inspected, and the overall number of posts in it remains uncertain.

The posts which carry the roof-plate vary considerably in their dimensions, from c 100 to c 300 mm across. The easternmost posts (1-3) all have their tops notched to carry the plate, and P3 has an apparent cut to take a rafter at a slightly-lower level than the present ones (which here simply rest on top of the plate). The first four posts are outof-phase with the tie-beams of the present ceilings, but thereafter there are posts (P5, 7, 8 and 10) rising directly from the backs of the tie-beams, as well as two smaller intermediate ones (P6 and 9) between. Further west there appear to be a pair of closely-spaced posts in the vicinity of tiebeam 9, and one or two more between these and a post at the west end of the wall, but none of these could be closely inspected.

The roof-plate is made up of a number of timbers, some clearly re-used. The easternmost has the look of a former wallplate, having a series of pegged mortices at the top of its outer face. It ends in a scarf joint, close to the east side of post 3, that is both edge- and face-halved; there follows a second similar timber to a simple edgehalved scarf just beyond post 4, with a length of plain timber ending just beyond the small post 6 in a simple off-set butt joint with a fourth length of plate set at a higher level, over which more widely-spaced rafters are lapped; there is a simple edge-halved and splayed scarp above the small post 9 with a second similar length of plate.

The discrepancy between the close-spaced rafters (more or less in phase with the joists of the ceiling panels below) and the more widely-spaced ones seems to coincide with a change in the character of the roof. The eastern section has a series of softwood jowelled struts, clearly secondary, set on from joists rather than tie-beams, and carrying a purlin that has been supplanted by a second one resting on its back. There appear to be five of these inserted struts; in the western half of the roof there are simpler straight struts more randomly spaced, between ceiling frame and rafters.

Other elements that are clearly relatively recent are the combinations of wall-posts, stub tie and bracket that offer additional support to the outer ends of tie-beams 1, 5, 6, 7, 8 and 9, secured to the tie-beams by cast-iron straps. These odd features at the roof/wall junction are clearly a measure to counter the structural movements caused by the settling and tilting of the north wall which have had the effect of pulling the rest of the church over, except the newer south aisle, which stayed put, hence pulling its roof from the south nave wall - which have here pulled the outer wall-plate away from the wall-face beneath.

Above the arcade the walling between the ceiling wall-plate and the roof-plate above is generally very roughly coursed and finished, and seems unlikely ever to have been intended as an external wall face. Set horizontally in the wall a little to the east of wall-post 8 is a large stone with chamfered upper angle; in the section of wall further west that can only be glimpsed from a distance there appears to be a large projecting horizontal block of wood close to tie-beam 9.

Discussion of the Roof Structure

It is not easy to ascertain exactly which elements of the ceiling/roof frame date to the initial construction of the aisle and which to subsequent periods, either of general remodelling or of periodic response to the continuing structural problems suffered by the building. The brief description accompanying the report on the dendrochronological dating (Arnold, Howard and Litton 2011) describes what it terms as lower and upper roofs as 'both part of the original structure', but this is questionable. The form of the lower frame might suggest that the original roof of the aisle was a low-pitched gabled one, but the wall face immediately above is so rough it can never have been intended to be an external wall. The wall at this level could of course have been rebuilt when the clerestory was added (in the later 15th or 16th century?), with the aisle roof receiving the rather ad-hoc superstructure that converted it into a pent one at the same time. However, the story may not be as simple as this. The internal faces of the copings of both end walls of the aisle show what appear to be cuts for an earlier aisle roof at a higher level than the present one, so the history of the roof cannot be regarded as having been satisfactorily resolved.

Some elements of the roof structure – the inserted struts and their purlins in the eastern section, and the brackets at the head of the aisle wall – are clearly of 1860 or more recent origin.

Opencast Coal Mining at Whittonstall Houses of Hoodsclose

A rectilinear prehistoric settlement enclosure has been located at the site of the proposed Hoodsclose Surface Mine, near Whittonstall. The work was funded by UK Coal and undertaken in close consultation with the Northumberland Conservation Team.

The prehistoric settlement was originally identified through aerial photography with more detail being provided by geophysical survey. Trenching confirmed the presence of an inner and outer ditched enclosure recorded in the geophysical survey. A palisaded enclosure was also encountered within the footprint of the ditched inner enclosure that had been cut by later roundhouses. The palisade was not aligned with the rectilinear ditched enclosure and probably preceded it following a pattern identified at a number of other sites in the region including Delhi Open Cast mine (Blagdon Park 2) and at East and West Brunton in Tyne and Wear, where earthwork enclosures represented the latest phase of a long-lived settlement occupied until at least the later Iron Age.

The inner enclosure measured a maximum of 85m east-west by 77m north-south with an internal area of 0.6ha, comparable in size to other sites of this period in the region. All but one of the roundhouses was located within the inner enclosure which has clearly been the focus of intensive occupation with evidence for at least 12 roundhouses within the limited area investigated by trenching. Some of these roundhouses are likely to relate to earlier unenclosed and palisaded phases of settlement. The discovery of the settlement is important in providing a further indication of the density of occupation in the later prehistoric period with the recurring pattern of the reuse of the same site for a succession of settlements over a period of time. Subject to dating it will also provide a further

instance of the location of one of the important class of earthwork enclosures that came to dominate the late Iron Age landscape. that would otherwise be lost in the coming years due to ongoing agricultural activities. UK Coal is working closely with the



The site has been damaged by ploughing and is in a poor state. A full excavation, once planning permission has been obtained for the Hoodsclose site, will provide important additional information Northumberland Conservation Team to ensure that a record of these important remains is made.

Whittonstall: Hoodsclose Opencas

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