



# Archaeology in Northumberland

volume 14: 2004

NORTHUMBERLAND  
COUNTY COUNCIL



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*Cover Photo: Blyth Power Station during demolition. Photo: Margaret Eagle-Clark  
This Page: Cup and ring marks at Lordenshaw.*



## Foreword

As the short years roll round, annual milestones become an anticipated pleasure. To introduce another welcome issue of *Archaeology in Northumberland* is one such occasion. Our magazine continues to interest and impress widely, thanks to the commitment of the compilers, Sara, Chris and Liz, and the revelations of the contributors, to all of whom, grateful thanks.

The reports this year cover a variety of periods but the most recent development may be the most interesting: the Keys to the Past website:

### [www.keystothepast.info](http://www.keystothepast.info)

which has been a very successful and worthwhile project. There is an article in this issue which will introduce the site to you (page 39).

May you find the magazine as informative and as absorbing as usual.

*Alan Cutter  
Executive Member for  
Environment  
Northumberland County Council*

# Welcome to the fourteenth edition of *Archaeology in Northumberland*

This year's newsletter contains a taste of archaeological work in the County between April 2003 and April 2004. The articles cover a range of activities including developer-led recording, thematic projects and Government sponsored recording projects such as the Portable Antiquities Scheme (page 36) now operating from the Museum of Antiquities in Newcastle. There is also a welcome return to articles submitted from the Northumberland National Park, who describe several of their longer-term research projects including the Village Atlas (page 9).

This year has seen the completion and launch of a number of long term projects run by the

Conservation Team, including the Keys to the Past website. New projects are now being considered within the team that will hopefully continue our work to make the information on the County's heritage more accessible to its citizens and visitors.

We hope that you find that this year's newsletter contains a wide range of articles to interest you, and that accurately reflect the diversity of prehistoric and historic remains with which Northumberland is blessed. We welcome any comments or enquiries you have about the articles and also any contributions you may wish to submit for consideration for future issues.

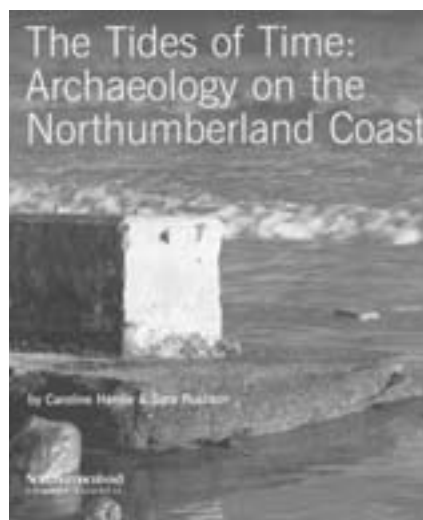
*Chris Burgess and Sara Rushton  
Conservation Team Managers*

## The Return of *The Tides of Time*

*Tides of Time* returns by popular demand with the publication of a second edition of this guide to the archaeology of the Northumberland coast. *Tides of Time* covers the history of the Northumberland coast AONB, from the prehistoric to the twentieth century. In addition to chapters dealing with major themes along the coast such as settlement, defence and economy, *Tides of Time* describes the sort of archaeological remains which can still be found and what to do if you make a

discovery whilst walking along the beach. There is also advice on which sites can be visited and maps and details of how to find them. With colourful reconstructions and many specially commissioned photographs, *Tides of Time* is a

visual treat and a must for anyone with an interest in the archaeology of Northumberland. It can be purchased from the Conservation Team for £9.99 plus £1.30 post and packing and will also be available through many good local bookshops.



SR



# The Medieval Bridge at Etal Castle



*Remains of the east pier of the medieval bridge visible in the River Till.*

Long hot summers and endless rain-free days are a double delight to the archaeologist out walking the landscape. Under these drier conditions upland peats shrink back from long-concealed stony features, cereal crops assume a height and colour in response to underlying moisture levels and river levels fall to a sluggish trickle – all offering rare opportunities to discover new sites and record additional details about known ones. So it was with the River Till at Etal last summer, where abnormally low river levels exposed the base of two bridge piers lying 7.5m apart some 300m south-west of the castle (NT 922 390). Through the kindness of Andrew Joicey, the opportunity to obtain a detailed record of the remains was too good to miss, and in partnership with Peter McKeague and Roger Miket the Conservation Team was able to produce the plan shown here.

The sandstone blocks which formed the base of these piers testified to a medieval bridge of some quality and substance. Finely dressed and with a rubble core, the hexagonal bases survived up to two courses high. At some angles, and particularly those near the cutwaters, iron bars remained within their bar-slots, tightly cramping the individual stones together. The site had been well chosen by the bridge-builders. Here, the river was some 27m wide between steep banks, with outcropping bedrock providing a firm foundation upon which to set the piers. Although nothing of the abutments was visible, the position of the buried eastern abutment was indicated by a pronounced projection of the riverbank. Many of the stones from the collapsed superstructure remain on the riverbed, and a number reveal architectural detail, which reinforce this impression of quality in the build. Yet while this would suggest a bridge with stone

arches, the absence of voussoirs amongst the fallen stonework was intriguing.

Historical references to the bridge were sadly few and brief. A survey of the Borders carried out in 1541 records that the bridge had recently collapsed, 'to the great trouble hurte and annoyaunces of thinhabitants therabouts, whiche had allwanis redy passage over when the said river is waxen greate and past riding upon horsebacke.' Its strategic location for the moving of 'ordnance and armys' into Scotland required speedy repair. Indeed, later writers have speculated that the Scottish ordnance captured by Surrey at the Battle of Flodden might have been carried to the safety of Etal Castle over this very bridge. This second bridge was described in 1760 as being of wood over stone piers. Around 1777 it was swept away by severe floods; this time it was not repaired, but replaced by a ferry crossing.



*Plan of remains of medieval bridge piers surveyed in 2003.*

What then might the combined record reveal as to the history and appearance of the bridge? We possess no notice of when the bridge was built, however it is not unreasonable to view it in the context of the stone phase of Etal Castle, which was completed around the mid 14th century. What has survived suggests that it was originally entirely of stone, and with three arches each with a span of 7.5m between two abutments and two piers. It is known that a road from the castle crossed the Till at this point and that one branch, at least, ran westwards. The width of the stone carriageway is suggested by the length of the sides of the piers – 1.3m, too narrow for a cart to cross. It is hardly credible that a narrow bridge would allow the passage of ordnance of any size, still less the Scottish guns captured at Flodden; the smallest ('culverins moyane')

were pulled by no less than 16 oxen, while the large cannon firing a 60lb shot required a team of 36 oxen.



Around the 1540s the fortunes of Etal Castle were in decline, as the village moved northwards to New Etal and the interest of the landowners in their manor here diminished. There was apparently little incentive to do more than repair the piers and provide the cheaper option of a wooden carriageway to span the river. Removing the collapsed debris, including the architecturally valuable voussoirs and parapets from the riverbed at this time, would be a logical operation, and one that would account for their absence today. It is testimony to the skills of the builders that this repair was to stand for a further two centuries.

*Roger Miket*

*Remains of the west pier of the medieval bridge visible in the River Till.*

*Photo: R. Miket*

## Breamish Valley Archaeology Project

2003 saw the final scheduled summer season of the National Park Authority's Breamish Valley Archaeology project, part of the Discovering our Hillfort Heritage initiative. This project has completed a ten-year programme of survey and excavation, based largely on Ingram Farm. The fieldwork has been done by the University of Durham and the Northumberland Archaeological Group (NAG). A small field season may be necessary in 2004 to check a few final details on the ground, but attention is now focused on completing outstanding post-excavation work and preparing the entire project for publication. Over its lifetime, this project provided the opportunity for nearly 400 people to participate in archaeological fieldwork in one of England's most magnificent archaeological landscapes. The research completed by the project is unquestionably of national importance and, when published, will do much to place Cheviot archaeology up with that of better known and better resourced areas such as Wessex and Dartmoor.

University excavations completed by the project include two early Bronze Age burial cairns on Turf Knowe, three Iron Age/Romano-British enclosures at Ingram South, Fawdon Dean and Little Haystacks, and agricultural terraces at Plantation Camp. The NAG work has been concentrated around the splendid hillfort on Wether Hill, and has included the excavation of the hillfort itself together with adjacent field systems, enclosures and burials, all of prehistoric date.

*Paul Frodsham  
Northumberland National Park*

## A memento of Hadrian's Wall



*Bronze pan from Hadrian's Wall found in Staffordshire in 2003.*

Although not found in Northumberland, an exciting find from Staffordshire has recently provided new information about Hadrian's Wall, as well as offering clues to the life of 'Wall' soldiers after they had left the Roman army.

The find, a beautifully decorated bronze pan, was discovered by metal detector users in the Staffordshire moorlands and, admirably, it was reported straight away to The Portable Antiquities Scheme (see page 36 for more information). The context of the find has also been assessed and it would appear likely to be an isolated chance find, rather than being a part of a larger Roman site.

The most exciting feature of the vessel is its engraved description, which runs around the top in an unbroken sequence. This lists four Hadrian's Wall forts, MAIS (Bowness), COGGABATA (Drumburgh), UXELODUNUM (Stanwix) and CAMMOGLANNA (Castlesteads). Prior to this discovery, only two other examples were known that give the names of Hadrian's Wall forts: the 'Rudge Cup' was discovered in 1725; and the 'Amiens patera' was found in Amiens in 1949. Between them, they name seven forts on the Wall, but until now, we did not know the Roman name for Drumburgh.

The pan also incorporates the words AELIUS DRACO and RIGOREVALI; the latter may represent the name of the place where the pan was made, while the former seems likely to be the name of the individual who had the pan made. Sally Worrall (Prehistoric and Roman Finds Advisor for the Portable Antiquities Scheme) said, 'Aelius Draco was perhaps a veteran of the garrison of Hadrian's Wall and on his retirement had this vessel made to recall his time in the army. His Greek name suggests that he or his family originated in the Greek-speaking part of the eastern Roman Empire. An individual's name on an object often records the maker, but in this case is more likely to refer to the person for whom the object was made'.

So, with all three vessels of this kind being interpreted as 'Hadrian's Wall souvenirs', the tantalising possibility is that more such items await discovery elsewhere in the empire, providing important information about the names of the forts and installations along the Wall, and also perhaps the pattern of dispersal of veteran soldiers from the Wall on their retirement.

For further information, contact the Portable Antiquities Scheme at [www.finds.org.uk](http://www.finds.org.uk).

*Information supplied by  
Mike Collins  
English Heritage*



# Blyth Power Station: The End

On 7th December 2003 the landscape of Blyth changed dramatically and irrevocably. For more than 30 years the four chimneys of Blyth Power Station had dominated the town. Gradually, over the last three years, the Power Station has been demolished; the chimneys, so symbolic of the industry, were one of the last things to go and now little remains of an industrial site which once covered 241 acres. Some people were sorry to see the loss of these familiar features in the landscape, others were glad to get rid of what they perceived as an eyesore. These reactions are entirely understandable; what people may find surprising is that some archaeologists also regretted their passing.

The Blyth 'A' and 'B' Power Station complex was built by the newly nationalised electricity industry between 1955 and 1966. It was one of a group of stations built during this period that advanced the industry from its technologically stalled development, resulting from World War II and its immediate aftermath, back to a leading edge that was on a par with developments abroad. Blyth represented Britain's first move from 30MW/60MW standard sets to much larger generating sets (120MW) in stations located in relation to the Supergrid rather than to load centres. As such, it is also an early example of the very large post-war stations built in rural settings, the sheer scale and prominence of which (with other major utility structures) was the subject of much contemporary architectural debate.

The station buildings illustrate changes of the time in form and style, with the older brick clad concrete frame of the 'A' station power hall contrasting with the aluminium and glass clad steel frame of the 'B' station. Three sizes of generator sets were commissioned for the station, each of them 'firsts' in Britain. The four 120MW sets of the 'A' station came into commission between 1958-1960 and were the

first of what became a standard size through the 1960s. At the 'B' station, built in two stages between 1960-1966, 275MW and 350MW sets were the first to be built of these sizes and proved to be intermediate stages on the way to what became the 500MW standard.

As long ago as 1995, the power station had been considered for scheduling by English Heritage. It had been identified as potentially nationally important because it was a good example of a late 20th century power station. It was also important as one of a short sequence of test bed stations, on which was built much of the success of Britain's post war electricity industry. However, the buildings, many of which were built of concrete, were in poor condition and there were serious logistical problems in trying to ensure their long-term preservation.

The massive complex of ageing structures would have required enormous amounts of money to maintain and no other viable purpose could be found (although Tate Modern at Bankside has shown that in exceptional circumstances these buildings can be made to work again). After careful consideration, English Heritage decided not to schedule the site, concluding that it would best be dealt with through the planning system – leaving the problem for the County Archaeologist to resolve. In the end it was decided that the most appropriate course of

action was to commission a comprehensive study of the station and detailed photographic recording of any features not recorded in existing archives prior to its demolition.

The work was carried out by Michael Trueman, an expert in industrial archaeology. Michael uncovered a vast archive of material relating to the construction and maintenance of the power station, ranging from the original construction drawings to maintenance manuals and photographs of the station in use. The problem of how to handle the sheer volume of information was overcome by creating a computer database linking the written summary of the main elements of the station to relevant archive photographs and diagrams. From this it was possible to generate a variety of datasheets on different aspects of the station's history.

The report and much of the information on the database is, of necessity, technical, but it is hoped that it will provide a 'way in' for researchers wishing to use the archive material to gain a greater understanding of the station. However, the datasheets provide a surprisingly accessible way into understanding the complex processes of a power station and may provide a useful source of information for schools and those with a more general interest. The information is currently available to be viewed by visiting the SMR but other ways of disseminating the information are being examined.

*SR from a report by  
Michael Trueman.*

*Blyth Power Station Chimneys.  
Photo: Margaret Eagle-Clark.*

# National Mapping Programme in Northumberland

As part of the Till-Tweed Geoarchaeological Project, a study to survey and map the landscapes around the rivers Till and Tweed from air photographs was completed at the end of 2003. Funded by the Aggregates Levy Sustainability Fund, through the University of Newcastle, the aerial mapping has been carried out by English Heritage's Aerial Survey (North) team in conjunction with West Yorkshire Archaeology Service. The mapping is an important component in the Till-Tweed study that has helped to inform the fieldwalking strategy and subsequent geomorphological mapping.

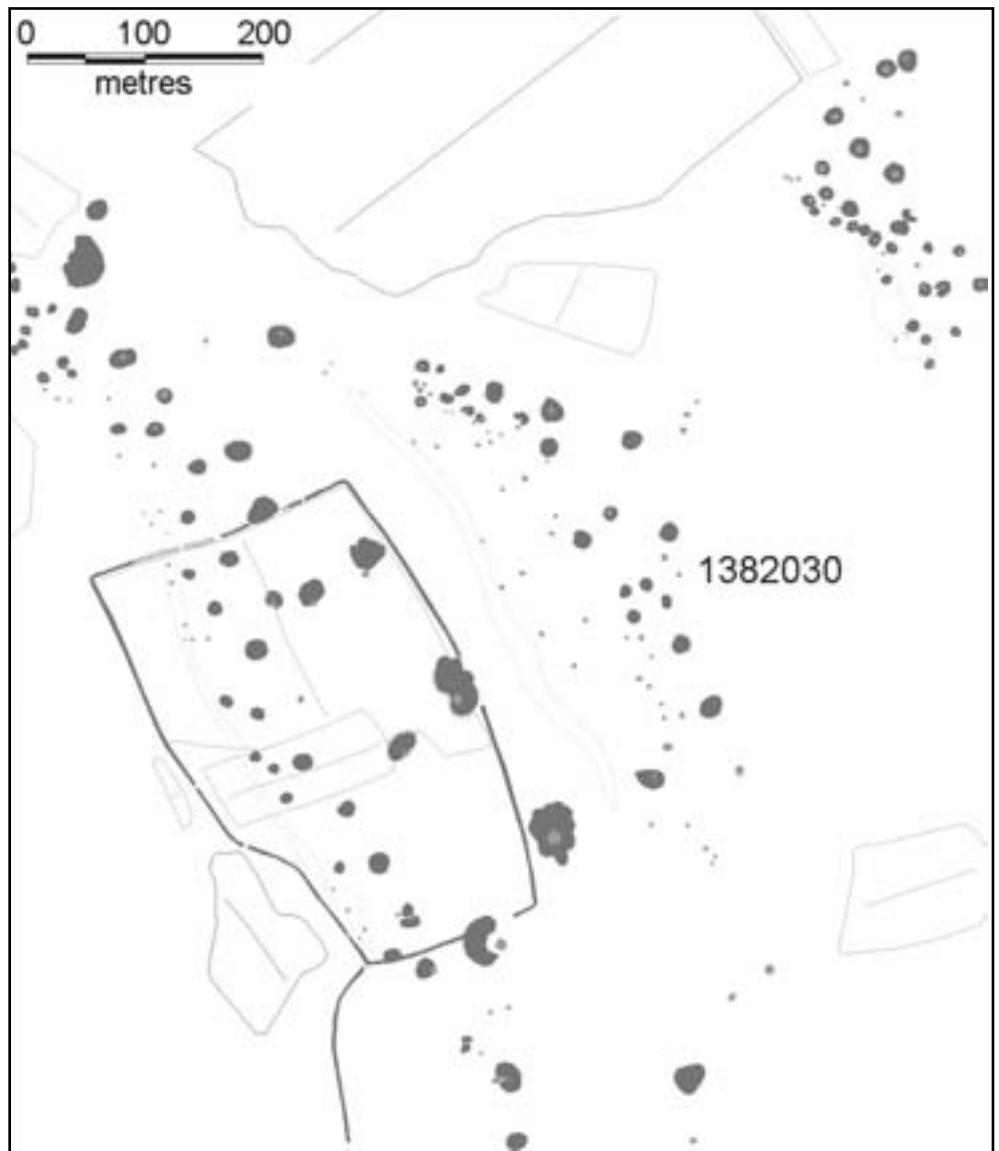
The National Mapping Programme aims to record archaeological sites of all periods through remains visible as earthworks, cropmarks, parchmarks and soilmarks on air photographs. This is one of the first projects by the National Mapping Programme Team in Northumberland and it has proved very successful in identifying new sites and enhancing the records of existing monuments. Over 250 new records have been created and over 200 have been enhanced.

Aerial photographs from the Museum of Antiquities in Newcastle were examined, along with photographs from the National Monuments Record and Cambridge University. Features were mainly seen as earthworks and cropmarks (including parchmarks), with soilmarks being the least represented.

An interesting difference was seen in the survival of archaeology along each river. Until comparatively recently, much of the archaeology along the River Till survived as upstanding features – and

monuments were photographed as such, but over a quarter are now thought to have been significantly reduced by modern farming on the lower slopes of the Breamish-Till valley. In contrast, sites along the

Norham and Groat Haugh too), medieval and later industrial remains on Bewick and Belford Moors, as well as post-medieval and modern military sites around Berwick-upon-Tweed.



*Chatton Moor coal workings. Extract from the Till-Tweed ALSF/NMP project. © English Heritage*

River Tweed appear largely as cropmarks and parchmarks on air photographs.

Some new sites that have been identified include an Iron Age palisade by the River Breamish, small clusters of early medieval sunken featured buildings at Branton and Low Hedgeley (and perhaps at

The Till-Tweed Project is run by Clive Waddington and Dave Passmore from the University of Newcastle. Results from the project will be published later in 2004 and the web site can be visited at <http://www.ncl.ac.uk/till-tweed/>

EW



# The National Park Historic Village Atlas Project

The Northumberland National Park Authority has secured funding from the HLF and the Sustainable Development Fund to produce a survey of the seventeen 'historic' villages located within the Park area. This will contribute a great deal to our knowledge of settlement and landscape evolution within the National Park.

The work is being undertaken by the Archaeological Practice based in Newcastle and it draws on a combination of sources, including archaeological data, air photographs, historic building records and documentary evidence, with the aim of providing a detailed history of the development of each village within its local landscape. While the emphasis is on the villages themselves, each village is being studied in its historic township and estate context. This includes a brief examination of field systems, pasture and woodland. There is also an oral history element to the project. The final results will be presented using a combination of illustrated text, and maps to show the development of each village through time. The results will include an assessment of the archaeological significance of different elements of each village and township.

## **The project has four major aims:**

Stimulation of individual and community interest in archaeological projects and research, such that it will serve as a springboard for future community led initiatives.

Production of an illustrated **historical summary** of each village, including maps showing the development of the villages and their townships (e.g. field systems etc.) over time.

Production of an '**archaeological sensitivity map**' for each village, showing areas of high, medium and

low archaeological sensitivity in and around each village.

Production of an **overall summary report** on the development of the Park's historic villages, and a general account of settlement patterns throughout the Park.

Lottery Fund's *Its Your Heritage Programme* and the Countryside Agency's *Vital Villages* scheme. The results of the project will enhance the Sites and Monuments Record for the Park and for the County, and they will also inform development control decisions.



*Elsdon village from the air. Photo: Tim Gates, Copyright Reserved.*

The project will promote collaboration between the National Park Authority and local communities and local community groups have been involved at all stages of the work to date.

Community groups should be able to use the results of the survey to develop a variety of projects funded from sources such as, the Heritage

## **Villages to be included in the Atlas:**

**A**keld, Alnham, Alwinton, Byrness, Elsdon, Falstone, Great Tosson, Greenhaugh, Harbottle, Hethpool, High Rochester, Holystone, Ingram, Kilham, Kirknewton, Tarset, West Newton.

*Rob Young  
Northumberland National Park*

# Excavations at St Leonard's Nunnery, Berwick

## Background

Archaeological excavation in fields to the west of Berwick-upon-Tweed during June and July 2003 has started to reveal the remains of the medieval nunnery of St Leonard. The fortunes of this establishment dramatically trace the halcyon days of the Anglo-Scottish borders through much of the 12th and 13th centuries and the fall to near chaos of the area in succeeding centuries.

St Leonard's Nunnery (NT 984 539) was founded by the powerful and pious David I of Scotland in the 1130s, probably as a Cistercian house - a rule which had only recently been introduced from the Continent. Located beyond the western fringe of Berwick, the wealthiest port and town in

succession, stemming from the accidental death of Alexander III in 1286, resulted in the invasion of Scottish territory by Edward I. Berwick was taken by the English Army and, if contemporary accounts are true, most of its inhabitants killed. Edward used the nunnery as his headquarters during the battle for the town, during which there was no reported harm to either the establishment or its occupants.

The battle of Bannockburn on 23rd June 1314 was a shattering blow to English aspirations for control of Scotland and by 1318, despite desperate attempts by Edward II to retain it, Berwick was once again in Scottish hands. It was the third Edward who regained English control over the town in 1333, but only after a protracted siege of

Despite subsequent attempts to revive the nunnery, there is little evidence to suggest that it was anything other than moribund. In 1385, it was recorded that it was so destroyed and fallen that scarcely any trace of the buildings remained. The isolation so loved by the Cistercians was no substitute for high walls in a time of war.

## Previous Work

Knowledge of the site of St Leonard's has never altogether been lost, but it was careful study by Tim Gates of a series of aerial photographs taken for the then proposed A1 bypass around Berwick in 1976 (a memorably long and dry summer), which located the site exactly. One of the photographs showed parch marks over a pasture field just to the south-west of West Hope Farm. When plotted out, they clearly represented a cruciform church and associated buildings.

Along with other important archaeological sites beyond the western edge of Berwick, the study of St Leonard's has been taken up by the Bondington Project. Over the last three years this Heritage Lottery funded scheme has looked at the ancient and more modern history of the western fringes of the town of Berwick; for example, Linda Bankier, the Borough Archivist, is helping to prepare an historical review of all the properties along Castle Terrace. Given the acknowledged lack of archaeological input into the understanding of medieval nunneries, a link was established between the project management and the local Border Archaeological Society who helped run a field walking day in 2002. This involved the collection, recording and identification of material scattered over the plough soil at the site. Over 100 artefacts were recovered, including many fragments of medieval pottery as well as part of a lead pilgrims' badge. Over the same year, geophysical prospection was carried out over the site by the Border Archaeological Society, which added to the picture provided by the aerial photographs.

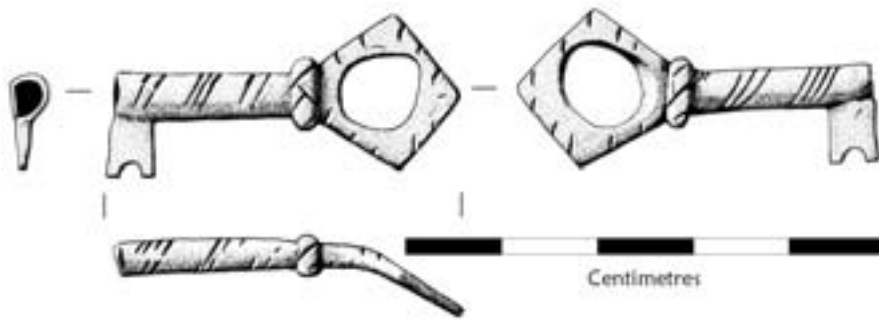


*Volunteers and visitors in 2003. Photo: Jim Walker FRPS*

Scotland, and in 600 acres of good farmland tended by numerous lay brothers, the nunnery prospered. For most of the 150 years following its foundation, the only conflicts it witnessed were the interminable wrangles between religious establishments (especially with the remarkably litigious Dryburgh Abbey) over the rights to various tithes and possessions. Then, in 1296, the chronic dispute over the Scottish

nearly five months. During this time the siege camp was placed on whatever remained of the settlement of Bondington, between the walls of Berwick and the nunnery. The culmination of the conflict was a battle between the Scottish and English armies on the slopes of Halidon Hill. English victory led to the immediate fall of the town but not before the partial destruction of St Leonard's.





*Casket Key. Drawing: Alan Williams*

### Excavation Results

In 2003, with the kind agreement of the Freemen of Berwick (the landowners) and Mr Hugh Veitch (the tenant), and in liaison with the County Archaeologist, it was decided to carry out limited excavations on the site to test what lay beneath a selection of the parch marks. The work involved the cutting of three trenches: two through the nave of the church and the third to the south-west, over what may have been the precinct boundary.

The work was a great success; the remains of the nave were confirmed in two trenches and a boundary wall was found in a third. Although the site has been damaged by years of ploughing and by the removal of stone for construction elsewhere, much still remains. Finds from the fieldwork have provided an insight into the end of the nunnery and the private lives of the nuns who lived here. For example, the discovery of two pieces of ornate stone moulding, found overlying the foundations of the transept wall of the church, had been hacked off from larger and more usable blocks by stone robbers. The mouldings possibly came from the door of the slype (passage) which would have allowed access between the cloister to the west of the south transept and the nuns' graveyard to the east (a broken but very delicately carved medieval grave slab still lies in a garden beyond). Another find was a tiny casket key, again found over the demolished wall. The key would possibly have allowed access by one of the nuns to a box containing the few mementoes of a former life.

Yet, perhaps the real significance of the site is its own short life – within a span of 200 years it was founded, had prospered, and died. The layout of an early Cistercian nunnery,

without significant later adaptations, lies beneath the plough soil.

The excavations also proved very popular within the town. They coincided with the Union of the Crown celebrations and during two open days around 800 people came to see not only the digging, but also to take in a fine display produced both by the project members and other of the town's historians, and to eat the delicious food prepared by members of the Castle Terrace Residents Association. All the essential elements (good-will, enthusiasm, determination and good academic purpose) seem to be in place for further work at the nunnery over the coming years.

*Brian Chappell  
(Chair, Bondington Project)  
Barrie Evans, (BAS)  
Alan Williams,  
(Advisor to the Bondington Project)*



*Stone moulding, possibly from the door of the passage between the cloister and nuns' graveyard, found in 2003. Drawing: Alan Williams.*

## A Facelift for Haltwhistle Tyne Bridge

Perhaps the most enjoyable way to enter Haltwhistle is from the south via the Tyne Bridge, a cast iron structure of 1875 designed by G G Page. Originally a road bridge and now pedestrian only, the bridge is the interface between town and country and the terminus of the proposed Pennine Bridleway extension. Unfortunately its recent condition and presentation was not up to its grade II listed status, a point not lost on the local community and the Haltwhistle Partnership. Drawing on funding from a variety of sources a scheme was prepared for structural repairs, a replacement deck and the first lick of paint in a long time.

The paint scheme for an historic structure can make or break its presentation. The former silver grey paint made the bridge uniformly dull. This was an opportunity to design a vibrant colour scheme which would articulate the structure and set the scene for a welcome to Haltwhistle. With reference to historic paint analysis and the not too dissimilar Westminster Bridge, the Conservation Team came up with three paint schemes from which the local community was invited to make its choice. Preferences were strongly correlated to the colour that the bridge was painted at the time of the voters' youth, with the winning green and cream suggesting more votes cast by the older members of the community. The completed scheme was unveiled in 2003 and is once again a fitting entrance to the 'centre of Britain'.

PR

## Experience Northumberland at Woodhorn

Exciting proposals for a £15 million project at Ashington's Woodhorn Colliery Museum (see *Archaeology in Northumberland 2002-2003*) have now been given full approval and a large grant from the National Heritage Lottery Fund. The site will accommodate an integrated service combining improved museum facilities with a new County Record Office. The museum closed on 22 February 2004 and the site will reopen in April 2006.

PR

## Discovering our Hillfort Heritage

This five-year National Park initiative, largely funded by the Heritage Lottery Fund and the European Union, is aimed at the integration of Conservation, Research, Public Access, Interpretation and Education. The project has undertaken conservation work in association with local landowners, and has produced a general leaflet for visitors about hillforts, including details of sites interpreted for the public. Several individual self-guide leaflets for specific hillforts have also been produced, as has a booklet of hillfort heritage walks in the College Valley entitled *A Beautiful Highland Place*. A book, based on the results of a five-year survey programme of Cheviot hillforts, undertaken by English Heritage (York Office) as part of the project, is due to be published in late 2004.

*Iain Hedley  
Northumberland National Park*

## Abbey House, Hexham



*Hexham Abbey House west range. Photo: Peter Ryder*

Hexham is well known for its medieval Abbey, Old Gaol and Moot Hall. Less well known, and more thoroughly disguised by later changes, is a fourth building which also has a very significant history: Abbey House is a rambling group of ranges to the south-west of the Abbey, now largely occupied by the County Council. A study of the building was commissioned in 2003 by Northumberland County Council (Operational Services) as part of a proposal to carry out alterations and refurbishment of the building.

The visible story of the Abbey House begins with the foundation of the Augustinian Priory in 1113 by Archbishop Thomas II of York, on the site of Wilfrid's Saxon monastery. The Priory had a cloister, on the south side of its church, and in the 13th century a range of buildings was built on the west side of that cloister, in which the prior had his house. Over the years the prior's house grew into an establishment almost the size of a monastery itself, with its own cloister-like courtyard. After the Dissolution in 1537 Henry VIII granted the monastic buildings to Sir Reginald Carnaby, bailiff and general administrator of Tyndale; his coat of arms and the date '1539' remain on a range of buildings he is thought to have added to the older prior's house. The Abbey House, as it became known, was very much the 'great house' of the town; it later passed to the Forster family, and then to the Fenwicks and Blacketts, all well-known names in county history.

Two serious fires in the 1790s and in 1818 marred the more recent history of the mansion. After the first set of repairs, by Colonel Beaumont, Miss Mary Russell Mitford visited in 1806 and commented that the old house had been 'a fine specimen of the Saxon-Gothic architecture; but he has built upon the same foundation, retained all the inconveniences of the ancient style, and lost all of its grandeur. It has on the outside the appearance of an inn'.

This is rather a harsh judgement, but one can see what she meant. The buildings one sees today are hardly of prepossessing appearance. Facing the old cloister, the west range has considerable medieval remains on its ground floor, but the upper floor, now the Magistrate's Court, has a range of plain Georgian windows with more recent plate glass. The ranges on north and south of the courtyard beyond (the Abbey Clinic and Tynedale Social Services Dept) are almost all of the late 18th and 19th centuries. Only the so-called 'Carnaby Building', facing the car park to the north, has some late medieval or Tudor windows but even this has seen considerable alteration; it was the Police Station for many years.

Abbey House is not an easy building for the architectural historian to disentangle and interpret. Fortunately it had already attracted the attention of antiquaries before the fires and rebuilding. A series of 18th-century drawings survive, mostly showing the view from the



north-west. The oldest, by the Buck brothers, is of about 1720, and shows a building that still looks thoroughly medieval. By 1778, the date at which the meticulous Samuel Hieronymous Grimm came along and made a superb watercolour drawing, there had been changes. Both of these drawings have been published many times, but not so a third and even more informative source, a rambling sketch plan - in pencil - of the whole group of buildings by a Mr Carter around 1780. His field notes are now bound into a huge and unwieldy volume housed in the British Library (additional Manuscripts 29.943) and one must make a trip to London to attempt to decipher his sketches and jotted notes, some near-illegible.

Armed with these sources, as full an inspection as possible was made of the buildings in early 2003. This has allowed us to take stock of what really does survive of the medieval monastic complex and post-medieval great house. The earliest part of the complex is in its east wall, facing the cloister. Re-faced externally, what is now its inner face is in fact the external face of the west wall of the original cloister of the 1113 priory, with a blocked doorway still visible; probably the original entrance to the cloister from the outside world, this is paralleled by a similar early Norman example in the ruins of the priory at Jarrow. Then comes the 13th-century vaulted undercrofts of the west range itself,

which together with the 14th-century monastic lavatorium in the south part of the east wall (where the canons would wash their hands before entering the refectory) are the most important medieval parts of the building. The northern section of undercroft is now 'The Monastic Workshop' and frequently in use by the Abbey for coffee mornings and jumble sales. The southern part is also accessible to selected members of the public, under slightly different circumstances, in that it has been utilised as holding cells beneath the magistrate's court. A mysterious chamber alongside, in the east wall, has its doorway and small window walled up; its interior (which may have housed a holding tank and plumbing arrangements relating to the adjacent lavatorium) does not appear to have been seen for around two hundred years.

Then comes the main range on the north side of the Prior's Court. This seems to have been almost entirely rebuilt after the fires, although there is still an arched gateway in the original position, and the oriel window above it, with the arms of Prior Leschman (1480-1491), was retained, firstly being re-set in the south wall of the range and then moved back to its original position on the north. However, the Carnaby Block on the north did survive, and by doing so protected one section of the medieval north wall of the main range. An exploration of the labyrinthine attics of the House - a sort of above-ground speleological

expedition - did reveal some exciting things here. Concealed within the roof space, the preserved slab of 15th-century walling has retained a short length of its original embattled parapet, and the Carnaby Block itself has preserved what seems to be its original roof structure - proof that the fires were not quite as all-consuming as had been feared. This roof is of truncated-principal form, a very distinct late medieval form characteristic of County Durham. It is hoped to take dendrochronological samples from this soon, which should show whether the '1539' date relates to Sir Reginald Carnaby's construction of the building, or possibly simply his commandeering of a wing built by one of the last priors.

These discoveries at roof level underline the fact that this is a complex group of buildings which are by no means fully understood; generation after generation of remodelling, repair and partial rebuilding, coupled with the recent institutional use, means that historic features have been overlaid on top of each other, from the early 12th-century beginnings to the 19th-century police cells at the west end of the north range. Much of the fabric is now concealed by stoothing and plaster, leaving a great deal for future archaeological discovery. The 2003 survey has at least allowed us to flag up the importance and potential of the whole building.

*Peter Ryder*



*Watercolour of Hexham Abbey House by Grimm in 1778.*

# The Industrial Secrets of the Cragside Estate



East side (rear) of Cragside Mansion House. Photo: Dave Reed.

Many new visitors to Cragside are surprised by the discovery that not only were the first domestic electric lights used at Cragside, but also that it was supplied by the first hydroelectric power supply in the world. Further investigation into why such innovations were achieved in such an isolated location arrives at the vision of a single man - Lord William George Armstrong (1810-1900).

In 1863, Armstrong, at the age of 52, commissioned the building of a modest lodge on a 20-acre barren hillside plot below Cragend Hill (NU 073022). By the end of the 19th century the present mansion house was complete. Meanwhile the estate had increased to well in excess of 1000 acres of rock gardens, tree plantations, lakes and many buildings including a large stable block, workshops, lodges and farms.

However, there is a further hidden element to the estate which, in reality, was a colossal hydraulic complex. This involved the connection of three lakes located at the top of the hillside to provide a head of water to drive a diversity of machinery in several of the buildings, and to supply water cascades within the west rock garden.

Towards the end of 2002 the National Trust initiated the first phase of extensive water services work. These works were to provide a new drinkable water supply to the estate and a new sewerage system.

The intention of the works was also to repair Armstrong's aqueduct system bringing water to the two remaining lakes above the house (Nelly's Moss North and South) and to eventually use this water to supply the now inoperative water cascades in the rock garden below the house.

These works have provided an opportunity to record all of the exposed remains of Armstrong's activities throughout the estate and, wherever possible, to preserve these remains *in situ*. The archaeological works are being funded by the National Trust and undertaken by David Reed of Bernicia Archaeology and were still in progress in early 2004.

As expected, excavation of the service trenches has encountered a vast network of original services of which no records survive. The majority of the services are cast-iron pipes whose complexity towards the mansion house is comparable to those within the high street of any town. These pipes carried not only drinking water, but also pressurised water from Nelly's Moss Lake to run hydraulic machines within the house; including a rotating spit, a lift and laundry equipment.

The trenching also included two ceramic pipes located to the east of the house. These pipes were utilised as flues heading towards two large chimneys located both above and suitably away from the mansion house kitchen. This would have a

dual effect, both increasing the draw of the fire and dispersing smoke away from the house. Also, above the house, two separate power cables were uncovered, recorded and sample lengths taken. The cables are the remains of the world's first hydroelectric supply and the first electricity supply extended from Debdon to both the house and the joiner's shop, this was then superseded by a supply from the Burnfoot power house.

Networks of stone-lined drains were also encountered, built to channel the massive quantities of water spilling down the hillside during heavy rain. These drains, beautifully constructed from sandstone, are comprised of a flagged base with uprights and lintels, sealed by clay. The majority are still fully functional today. Excavations have allowed the route of a superior sandstone drain, constructed from lime-mortared sandstone, to be plotted. This drain, known as the mine-water culvert, was built to avoid contamination of Tumbleton Lake and the course of the Debdon Burn through the estate grounds. It channels contaminated water from old coal workings near the source of the Debdon Burn rejoining the Debdon Burn at the Burnfoot power house.

Excavations in the mansion house courtyard revealed a stone-lined drain, or 'cundie', and the foundations of a substantial sandstone structure underlying the north-east range. The foundations were stratigraphically earlier than



two large cast-iron pipes that were part of Armstrong's hydraulic supply to the mansion house. This provides the first evidence of actual demolition of a structure from an earlier phase of the house for a later, more grandiose north-east range.

Other features identified from excavation include the foundations of a barn located to the north of the stable block, the base of a Victorian weighbridge and the foundations of a substantial wall on the south side of the formal garden, likely to be an early estate boundary wall.

What at first sight looks like a tumbling natural hillside below the

mansion house is, in reality, an extraordinary example of an early rock garden feature, comprised of placed boulders, cascading 'mountain-like' streams and pools all lined with concrete. Known as the west rock garden, it evolved with the house from the 1860s to 1880s. Unfortunately, it has been destabilised by a series of floods over the last 60 years and now requires the building of a substantial engineered retaining wall to reinstate the original course of the Debdon Burn and protect the remainder of the rock garden from potential slippage. Future work to reinstate the rock garden features is planned and the new retaining wall will be

masked. Finally, the remains of four existing artificial waterfalls were rebuilt in the style of Armstrong (or 'Armstrongesque'!) - an engineer trying to emulate a mountain stream.

Following almost two years of recording of excavations at Cragside, it is apparent that a comparable number of man hours were expended on underground works and apparent natural features, as those spent on the standing structures. As you would expect from Armstrong, the specification of all materials and workmanship on the underground structures match those that are seen above the ground. Why lay a four-inch pipe when a six-inch pipe may be utilised in the future?

The archaeological work at Cragside was implemented from the planning stage of the project by Harry Beamish, the National Trust Regional Archaeologist and has become an integral part of the project. Excellent communications and support from both the National Trust staff at Cragside Estate and the Civil Engineers (The Babtie Group) have enabled a greater insight into the 'hidden' element of the Cragside Estate.

*Dave Reed  
Bernicia Archaeology*



*Complex of Armstrong's cast-iron pipes. Photo: Dave Reed*

## Bothie or Pillbox?

This unusual historic building located on Hemscott Hill Links, to the east side of the road from Widdrington and Cresswell, is a pillbox of World War II vintage with commanding views of much of Druridge Bay. Complete with gable ends, chimney and gun loops this unusual defensive point was not actually constructed within an old building, but was built from scratch as pillbox. It was disguised to look like a small cottage, or bothie, so that it could not be identified either from the sea or from the air during reconnaissance prior to any German invasion. Fortunately the invasion never came and the camouflage was never tested but the building remains to remind us of more uncertain times.

For those wishing to visit the site, it is best to park one kilometre to the north in the National Trust car park for Druridge Links and walk to the site (at NZ281950). The road is a busy one and care should be taken at all times to avoid accidents.

CB



# The sanitary and the sepulchral - Langley Brick Works



The old cemetery at Haydon Bridge, tucked away up a narrow lane on the west side of the road that climbs northwards out of the village, is a tranquil place, still well-tended, with a variety of monuments from the late 19th and earlier 20th centuries. These include a number formed from white glazed ceramic; one in particular is slightly surprising, a gleaming Celtic-style cross with no other inscription save a stamp advertising “The Langley Barony Sanitary Ware Manufacturers”.

Despite this slightly-disturbing overlap between matters sepulchral and sanitary, these monuments are in effect memorials to an interesting piece of local industrial archaeology, and take us to a site at Langley, 4km to the south-west. The stamp gives the address of the company as “Langley-on-Tyne”. This is hardly strictly true, as Langley is in the valley of the Langley Burn, and Haydon Bridge the nearest point on the Tyne. It was once a hive of industry, thanks to local geological factors which provided it with both coal and clays suitable for brick and tile manufacture.

Langley’s Industrial Revolution began in about 1700 with the development of lead smelting mills, processing ore from the Allendale mines with the aid of coal from the Stublick coalfield. In the late 19th century the lead industry collapsed, but was superseded at Langley by a brick and tile works. This was built on the north bank of Langley Dam, an artificial lake, still a prominent landscape feature, created in about 1800 to turn the waterwheels of the lead mills. The Langley Barony Fireclay Company was in existence from 1886 until 1953. The closure of the adjacent railway line (Allendale Branch) in 1950 was obviously a blow; after the original company went into liquidation, its

successor, the Langley Brick Company, soldiered on for a few years, but the local clay was not ideal for their purposes and the site had been abandoned by about 1960. Old photographs show a complex of buildings with, at different times, one, two and then three tall chimney stacks. Much of their output was sanitary ware; in the late 1920s much of this was taken by rail to Gateshead Borough Council where a big conversion scheme for housing sanitation was in progress.

When a brief archaeological assessment of the site was carried out in the autumn of 2003, the principal surviving buildings were the Moulding Sheds, much altered during a recent phase of farm building use and now in poor condition. At first glance, their rubble stonework and simple detailing suggest a late 18th or early 19th century date, but map evidence shows that they can be no earlier than about 1900. Other buildings are in light-coloured engineering brick and must relate to the later phases of use of the site, up until the 1950s. All the kilns have gone; only one chimney now survives, standing only to half height. Constructed of yellow brick, its only decorative motif is a little cross in white glazed brick on each face. “Wasters” - old sinks turned upside down to form paving, and even retaining walls fashioned from stacked urinals - are evident all around. More puzzlingly, the bricks scattered around the derelict site bear a surprisingly wide range of maker’s names; it is difficult to see why a brick-producing site was importing bricks from so many rival manufacturers

Mr Jack Young, who lives close to the site, recently dug up in his garden a miniature glazed ceramic urinal, which must have been carried as an advertising aid by a company salesman. It would appear that such salesmen, glazed mini-urinal in hand, may have travelled

*Haydon Cemetery sanitary ware cross.  
Photo: Peter Ryder*



considerable distances, as it is recorded that their white glazed ware was exported to Argentina, Brazil and the Arab States. So, if seeking recourse to the comfort station whilst travelling in those parts, one should keep ones eyes peeled! The discovery of the distinctive trademark stamps 'Lansyde' or 'Baronyte' will both bring delight at the survival of another piece of Tynedale heritage, and a warm feeling of home-from-home...

*Peter Ryder*



*Stamp on churchyard cross, Haydon. Photo: Peter Ryder*

## Exciting finds from Bamburgh Castle

The archaeological investigation of Bamburgh Castle continued in the summer of 2003. Excavations within the West Ward of the castle produced an extensive range of artefacts from the Anglo-Saxon and medieval periods.

Medieval pottery imported from the Continent and the south of England has been found alongside locally-produced wares. Among the great quantity of animal and fish bone recovered, dorsal spines from a ray have been identified and parts of a walrus tusk with saw marks on it. This tusk would have been imported from the Arctic. Within the Anglo-Saxon levels, several pieces of Anglo-Saxon pottery have been found (an extremely rare find in Northumberland), including at least

one piece from East Anglia. In addition, this season we struck gold! A small piece of flat, crescent-shaped gold was found. The gold is a little over two centimetres long and probably dates to the seventh or eighth centuries AD. It has three pin-sized holes, for attaching it (as decoration) to a larger object – perhaps a leather belt or scabbard, or possibly even a book cover.

The range of artefacts found both during 2003 and in previous seasons reinforces the high status of Bamburgh both as a capital of Anglo-Saxon Northumbria and later royal castle. The finds have shown trade links ranging from the Arctic to continental Europe, while the discovery of Anglo-Saxon worked gold reminds us that this now quiet

corner of the county was once the centre of a kingdom, producing the often lavish, gold-decorated gifts made for and given to Anglo-Saxon kings.

We will be returning to excavate at the castle between 21st June and 29th August in 2004. Some of the finds so far excavated will be on display in Bamburgh Castle, and a book, written by one of the project's directors has recently been published. *Bamburgh Castle, The Archaeology of the Fortress of Bamburgh AD 500 to AD 1500*, by Graeme Young, can be bought through the project's website, which is [www.bamburghresearchproject.co.uk](http://www.bamburghresearchproject.co.uk)

*Phil Wood  
Bamburgh Research Project*



*Small piece of flat, crescent-shaped gold found at Bamburgh Castle.  
Photo: Bamburgh Research Project (scale in centimetres).*

# Going, Going, Guano!



*Composite view of Alnmouth's Guano Shed, north elevation.*

## Fertiliser Storage in Alnmouth

**W**as this nondescript building, located in dunes to the south of Alnmouth, once an important centre for the international trade in bird droppings? This has been the question asked ever since the so-called Alnmouth Guano Shed was listed as a building of national importance (Grade II) in 1988. Locally held to have been constructed as a storage facility for guano imported from Peru during the early 19th century, the shed's

economically viable deposits of guano began to be exhausted.

## Guano and Alnmouth

In Britain the primary ports for import of this fertiliser were Liverpool, Bristol and London but there are records of smaller quantities also arriving by boat at various local and regional ports, including Alnmouth. In the case of that port there are written accounts from the mid and late 19th century that refer to the import of various

The question of whether the Guano Shed was ever used to store these regular imports still remains to be answered. A recent study of map evidence for the site has shown that the building was not recorded by any surviving surveys until the 1850s, and though this would fit with an increasing guano trade, there is no written evidence whatsoever that proves that guano was ever stored there. Survey work



*Composite view of Alnmouth's Guano Shed, south elevation.*

heritage is actually far from certain. Recent assessment has shown that the building has undergone many changes in its 150-200 year life.

## The trade in Guano

The trade in guano between South America and Europe, for use as a nitrogen fertiliser, was particularly prevalent during the mid 19th century and was part of the early vogue for use of chemical fertilisers in British agriculture. Naturally, guano accumulates wherever there are colonies of sea birds, but for it to be a commercially viable export deposits have to be of considerable quantity and depth. This was certainly the case around the Chincha Islands off the Peruvian coast, where exploitation of guano began in the 1840s and continued for over 30 years until more than 12 million tons of the fertiliser had been exported, primarily to Europe. The trade only finally declined in the 1860s and 1870s as processed chemical sources of nitrates, such as potash, became available and the

fertilisers including kelp (seaweed) and guano. Unfortunately there are no specific records that point to the port being used as a place of delivery direct from South America. Records from the 1870s suggest that as many as 16 boats a year delivered guano to the River Aln but these, it seems, were secondary movements from other ports more renowned for their international trade, such as London.

has shown that the structure, though apparently a simple single storey range of local sandstone and brick, is in fact a complicated melange of repeated repairs and rebuilds that are difficult to date and interpret. Unfortunately, though the form of the remains is unusual, there are no other known examples of guano sheds elsewhere in Northumberland or Great Britain against which it can be compared.



*Concrete gun loop inserted between 1939 - 1940.*



For the future, it is hoped that a programme of environmental sampling and analysis might help to clear up the mystery of whether guano was ever stored in the shed. This scientific approach to the archaeology would aim to identify the remains of plants, insects and snails that might have been passed by the Peruvian sea birds with their guano and then imported with the fertiliser to the UK. If examples of such remains peculiar to South America and Peru can be identified on the site, it will clear up once and for all the debate about whether the shed was used for the storage of the bird-dropping fertiliser.

### The importance of re-use

What is certain is that, regardless of whether it was ever used for guano storage, this building has seen a multitude of modifications to allow many different uses. Perhaps the most prominent of these is the blocking of windows that occurred between 1939 and 1940. This change was accompanied by the insertion of 20 gun-loops (rifle slits) so that the building could be used as a pillbox, or nodal-point, as part of the defence network that was thrown up in response to the threat of German invasion in the early years of World War II. The size of the building and the number of gun loops inserted tends to suggest that the building's military career, though short, was an important one as it was likely to have acted as a command post or focal point for coastal defences in the Alnmouth area.

For those wishing to see the Alnmouth Guano Shed the site can be viewed from the road at the National Trust car park on Buston Links to the south of Alnmouth (NU 248096). The building itself is located on private land, and is in a dangerous state of collapse.

The Conservation Team would like to thank Alan Williams for the use of his excellent report on the Alnmouth Guano Shed (Alan Williams Archaeology, 2003. *The Guano Shed, High Buston*) which formed the basis of this summary and was commissioned by The Northumberland Estates.

CB

## A New Future for Hartford Hall



After many years of uncertainty the future of the Hartford Hall Estate, which overlooks the River Blyth near Bedlington, looks to have been secured.

Originally known as Hartford House, the Regency villa was built for William Burdon to the designs of Newcastle architect William Stokoe in 1807. In 1875, following an injection of 'new money', it received a comprehensive High Victorian makeover which included a lead covered dome and a pedimented projecting centre with porch and porte-cochere (outer open porch). The entrance gates were made for, and exhibited at, the Vienna Exhibition of 1873 and are one of the most ornate examples of High Victorian ironwork in the North of England. At least two ornate conservatories were constructed in the late 19th/early 20th centuries and the stable block was converted to an indoor riding school. The 1930s saw a brief occupancy by the Thompson family, owners of the Thompson Red Stamp grocery stores. In 1948 it became a pioneering Miners' Rehabilitation Centre intended for the treatment of injured miners. In 1953 a model mine was constructed in the grounds to test patients' fitness for a return to work. The estate remained within the Health Service until 1995 when it was purchased by the County Council with a view to establishing a country house hotel and centre of sporting excellence. These proposals were subsequently dropped in the

late 1990s and shortly after, the Hall and entrance gates, both listed grade II\*, were included in English Heritage's Buildings at Risk register.

Proposals put forward by developers provided an early test for a new English Heritage policy document, *Enabling Development and the Conservation of Historic Assets*. If it could be demonstrated that enabling development in the form of new house building would pay for the regeneration of the historic assets of the estate and not detract from its character or setting, then they could be deemed to be acceptable. Integrating new houses into the estate and converting the existing buildings into further residential units is far from easy and it is still too early to judge whether the challenge has been met successfully. Advance sales point to a commercial success and the provision of top end of the market housing is much needed within Wansbeck District where it will give a boost to the image of the area. Some of the tangible public benefits are already visible with the first stage of the landscape restoration, reinstatement of the railings to the top of the lead dome, and a new conservatory based on the original designs. The entrance gates will shortly undergo major repairs and on completion of the new development a permissive route will be created through the estate to bridge the gap in the River Blyth footpath.

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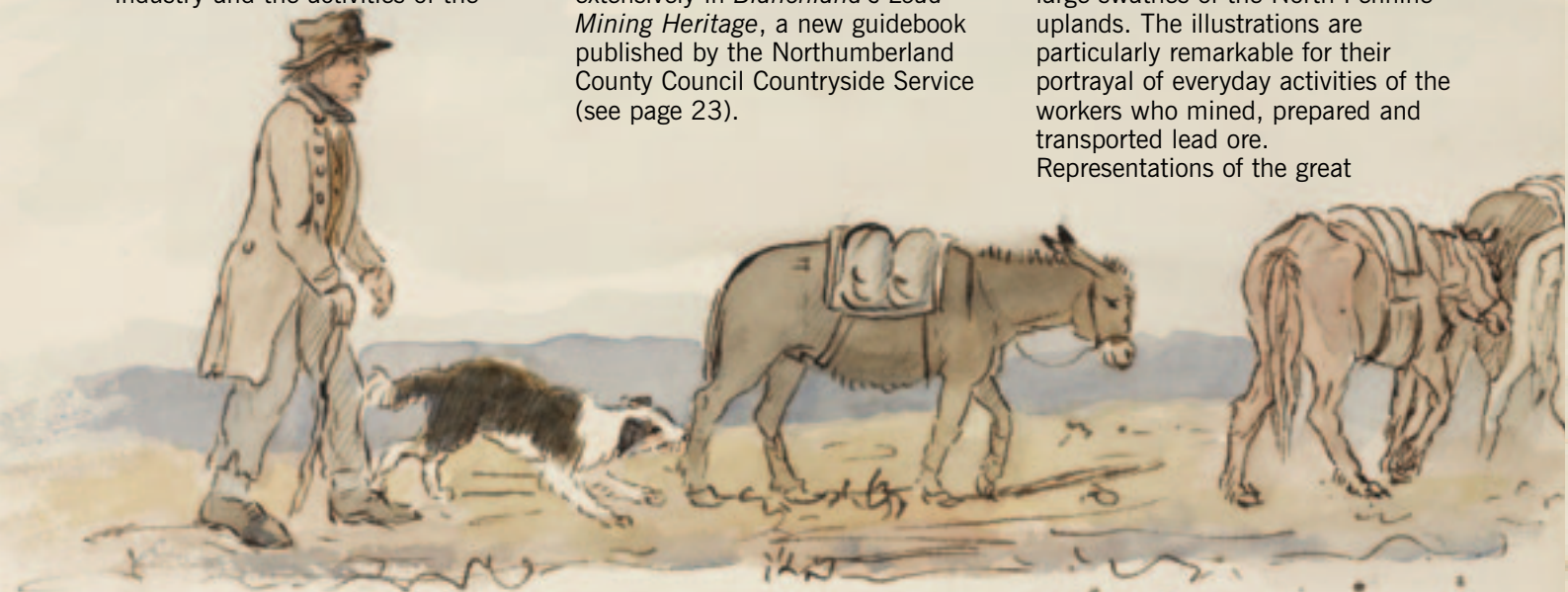
## Images from the Lead Mining Industry

*Miners preparing to set explosives underground. Picture: Science Museum/SSPL.*

During the early 19th century, when the lead mining industry was at a peak of activity in the North Pennines, a series of 66 watercolour paintings and pen and ink sketches were produced recording the processes of the industry and the activities of the

men and children working in underground and surface operations. These illustrations, which were acquired from a North Pennine source in 1979 by the Science Museum, Science and Picture Library, have been reproduced extensively in *Blanchland's Lead Mining Heritage*, a new guidebook published by the Northumberland County Council Countryside Service (see page 23).

Whilst there are photographic records of lead mining sites dating from the early 20th century, when the mines were in the final stages of their terminal decline, there are few known images of the industry when it was the dominant activity across large swathes of the North Pennine uplands. The illustrations are particularly remarkable for their portrayal of everyday activities of the workers who mined, prepared and transported lead ore. Representations of the great



*Galloways carrying lead ore being driven across a North Pennine moor. Picture: Science Museum/SSPL.*



engineering achievements of the mines or portraits of the lead mine owners or their chief agents, which might have been expected to be the subject of industrial illustrations of the period, form no part of this collection.

Amongst the illustrations are images of miners extracting the lead ore underground, miners using hammers to drive the holes for explosives, wielding their characteristic short picks to loosen rock, climbing long ladders in dark, vertical workings and smoking pipes in the deadly, dust laden air of the mine. Children and youths are shown working machinery on the dressing floors and seeking scant protection from North Pennine weather behind wooden hurdles.

The transport of lead ore and refined pig lead is a theme of several illustrations and new light is shed on how the packhorses or 'galloways' were used for carriage. Rather than being led in line it does seem that the galloways were driven as a flock across moor land routes, picking their own way across frequently treacherous peat bog. Of great interest also are illustrations of the miners away from their places of work. Reflecting perhaps the relative prosperity



*Miner climbing ladder in underground shaft.  
Picture: Science Museum/SSPL.*

of the lead industry at that time well dressed miners are depicted confidently bargaining for mining contracts or seemingly withholding their labour to gain improved conditions.

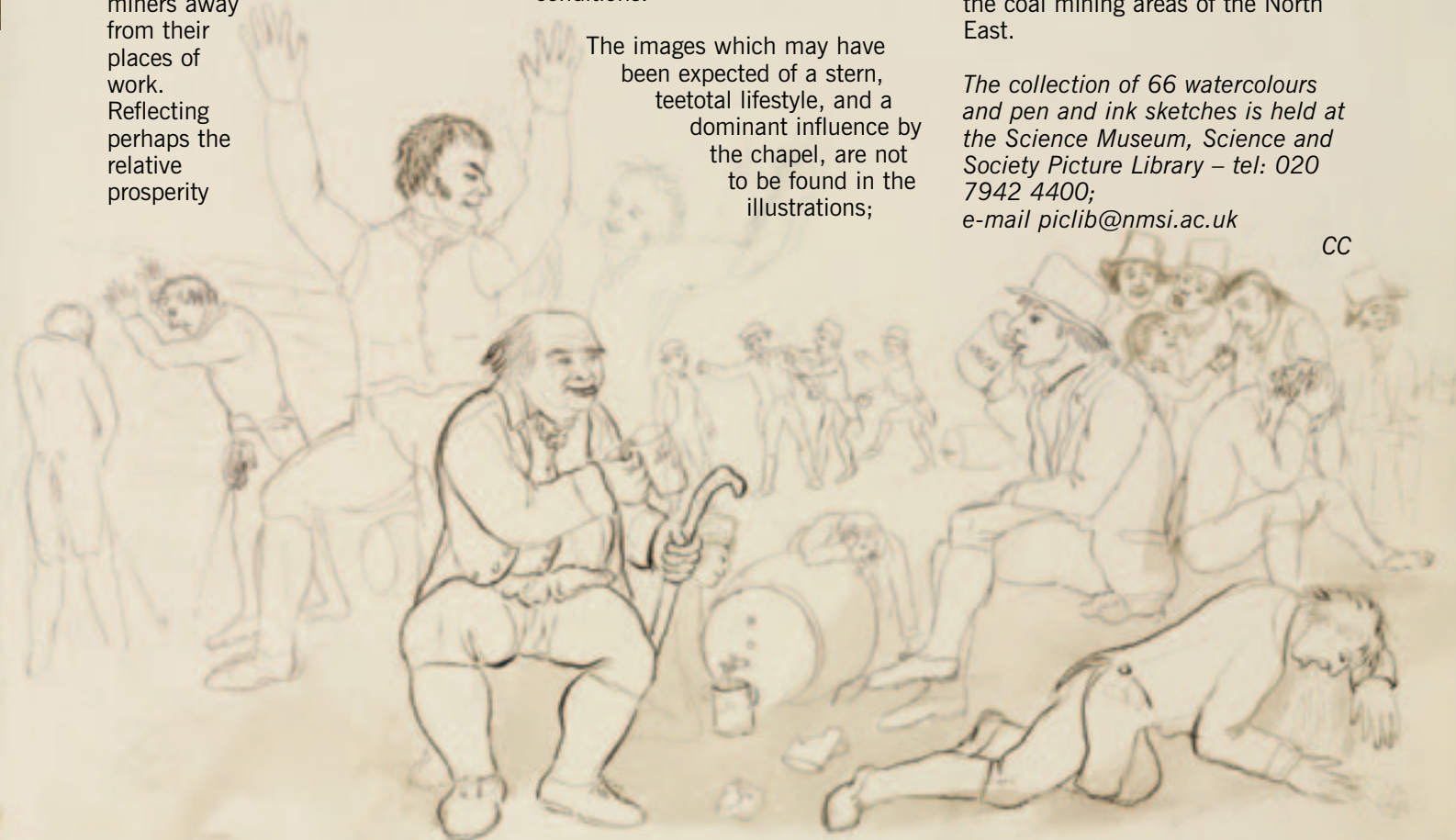
The images which may have been expected of a stern, teetotal lifestyle, and a dominant influence by the chapel, are not to be found in the illustrations;

instead, scenes of fighting and drunken celebration amongst the miners are recorded – sometimes in graphic detail!

Little is known of the origin of this unique collection of illustrations. They all appear to have been produced in the first two decades of the 19th century and are generally thought to depict mining scenes in the Alston and Allendales areas. The variety of styles suggests that they are the work of several artists and the detailed depiction of mining scenes suggest a close association between the artists and the lead mining industry. The fact that the subject matter of the illustrations is generally commonplace and the fact that they were not included in any known published work appears to indicate that they were not commissioned. We do know that the mining communities placed a high value on self-education and it appears a possibility that the illustrations may indeed have been produced by workers in the lead industry. In these remarkable studies of the work and lives in the North Pennine lead dales we may have the start of a tradition of miner artists which was later to gain expression in the coal mining areas of the North East.

*The collection of 66 watercolours and pen and ink sketches is held at the Science Museum, Science and Society Picture Library – tel: 020 7942 4400; e-mail piclib@nmsi.ac.uk*

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*Miners celebrating - November 1813. Picture: Science Museum/SSPL.*

*November 5<sup>th</sup> 1813*

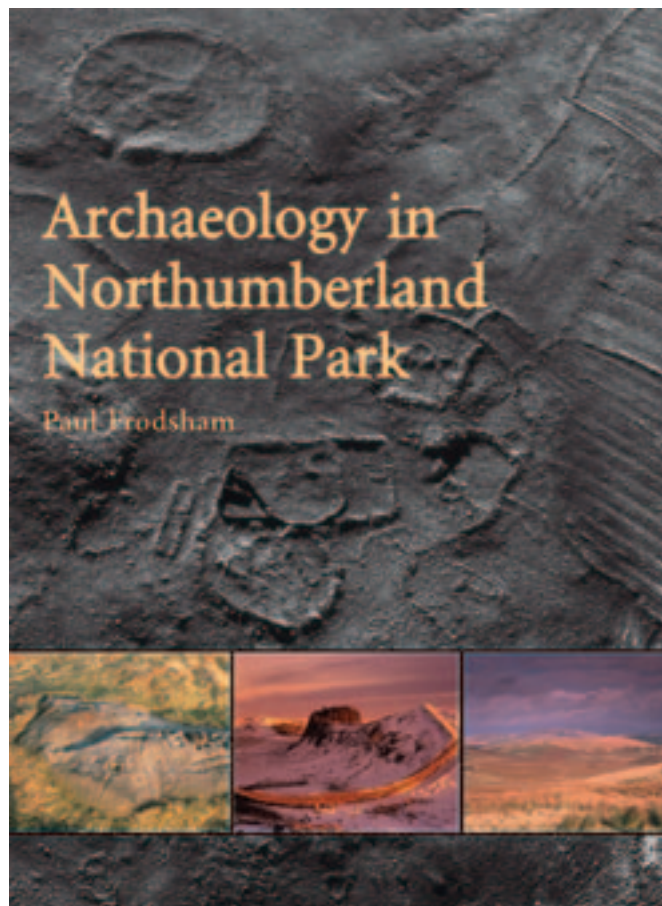
From prehistory to the industrial age, a recent batch of books covering the history and archaeology of the region will have something for everyone.

Clive Waddington's latest book, *The Joy of Flint: An Introduction to Stone Tools and Guide to the Museum of Antiquities' Collection*, provides the first comprehensive introduction to flint in the British Isles. Published by the Museum of Antiquities in Newcastle, the book also contains a gazetteer to their entire lithic collection. The introductory chapters and gazetteer provide something for the beginner, student and specialist alike and will be an invaluable reference work. It is finely illustrated with photographs and line drawings and is in full colour throughout.

## Books for all

Clive has also teamed up with Dave Passmore to write a further book, entitled *Ancient Northumberland*. The book forms part of an Aggregate Levy Sustainability Fund sponsored project. It combines archaeological and environmental evidence to produce an engaging book that documents human settlement in the region from the first hunter-gatherers through to the warrior societies of the Iron Age. The text is interspersed with sections that focus on such topics as 'henges', 'field walking' and 'flint knapping' as well as on important sites such as 'Howick'. This large format book makes liberal use of colour and black and white photographs, including many unpublished photographs of excavations and aerial photographs. It provides a much-needed up to date overview, which is a must for anyone with an interest in the region.

A different approach is taken in the forthcoming publication by Paul Frodsham. *Archaeology in Northumberland National Park*, to be published by the Council for British Archaeology in Spring 2004, includes an overview of the Park's archaeology written by Paul, together with fourteen project reports contributed by well-known archaeologists who have been active



## Books for all

in the area. These include survey and excavation reports at Ingram, West Hills Hillfort, Simonside, High Rochester Roman Fort, Hadrian's Wall, Harbottle Castle, Thirlwall Castle and Low Cleughs Bastle. It also includes a number of overviews, including palaeoenvironmental

research, towers and bastles, industrial archaeology and the archaeology of the Otterburn Training Area. The book is based on a conference held in Hexham in 2000 and is aimed at a general audience. Illustrated throughout with colour and black and white images, this book should prove of value to anyone interested in the archaeology of Northumberland National Park.

A very different period and landscape is

introduced in two fascinating new books focusing on the North Pennines. *Lead Mining Landscapes of the North Pennines* explores the origins and development of the distinctive lead mining landscapes of this area. A joint publication by

## Books for all



Earthworks at Yeavinger. Photo: P. Frodsham.



Northumberland and Durham County Councils and the British Geological Survey, the book explores the geology of the North Pennines and the extensive lead mining industry to which it gave rise. Supported by colour photographs and illustrations, the text interprets features in the contemporary landscape and explains how they relate to the operations of the lead industry and the lives of the lead mining community. A picture of a rural landscape transformed by a single, dominant industry emerges from the pages of the book.



## Books for all

A more detailed look at the effects of lead mining on a particular area can be found in ***Blanchland's Lead Mining Heritage: The history and***

## Books for all

***techniques of a lost industry.*** Visitors to the picturesque village of Blanchland today might be surprised to know that in the mid-19th century over 40 trades and professions were plied in the village, providing support to the local mining industry and mining communities.



*Derelict miner's cottage and smallholding, West Allen Valley.*

The book, published by Northumberland County Council Countryside Service, explores these past associations. It summarises the long history of mining from medieval times, when mines near Blanchland supplied silver to the Carlisle mint, to the misguided use of steam power in the 19th century and the final re-working of the mines for fluorspar in the 20th century. Amongst the many illustrations in the book are colour reproductions from a fascinating series of early 19th century watercolour paintings which record scenes from the North Pennine lead mining industry (see also the article on page 20). Both books make a significant introduction to this very important aspect of the region's history.

## Books for all

***The Joy of Flint*** can be purchased from the sales desk at the Museum of Antiquities or through the Society of Antiquities of Newcastle upon Tyne.

***Ancient Northumberland*** is published by English Heritage and will be available through them, the Milfield Country Store and all good bookshops. All proceeds from the sale of the book go to the upkeep of the Maelmin Heritage Trail at Milfield.

***Archaeology in Northumberland National Park*** will retail at £19.95 and will be available in local bookshops. It can also be ordered, post free, direct from the publishers: York Publishing Services Ltd, 64 Hallfield Road, Leyarthorpe, York, YO31 7ZQ (email: [orders@yps-publishing.co.uk](mailto:orders@yps-publishing.co.uk)).

***Lead Mining Landscapes of the North Pennines*** retails at £9.95 and is available from local bookshops or directly from the Conservation Team at £10.95 to include post and packing.

***Blanchland's Lead Mining Heritage*** can be purchased locally or directly from the Conservation Team for £4 to include post and packing.

# 2000 Years of Military History



*World War I practice trenches at Silloans. Photo: Tim Gates. Copyright Reserved.*

**D**id Winston Churchill know, as he enjoyed a grouse shoot on the moors of Northumberland in the early years of the 20th century, that he was about to continue a 2000-year long tradition of military training and warfare? In 1911, shortly after his visit, the then War Department, on his advice, established a camp at Redesdale and purchased a vast swathe of land between the Rivers Rede and Coquet on which the British Army could train and exercise. By doing this they were treading in the footsteps of the Roman Army whose fort at Rochester and temporary camps alongside Dere Street provided a forerunner of today's military presence.

The Otterburn Army Training Estate occupies around 23,085 hectares of land largely within the Northumberland National Park. This huge area contains a wide variety of well-preserved archaeological sites from the Neolithic Belshiel long cairn and a wealth of Roman military remains to the bastle houses of the 17th century. While many of these monuments have been recognised and valued for some time, recent work by English

Heritage and the Ministry of Defence has focused on the emerging value of the evidence and history of 20th century military occupation.

As part of a nationwide assessment process by English Heritage, several monuments at Otterburn have been identified as nationally important and given protection as Scheduled Monuments. These include a complex of World War I practice trenches at Silloans, a number of artillery observation posts or vedettes, and perhaps most curiously a number of bunkers, one of which at Featherwood Farm was reputedly built for the farmer and his family to shelter in when the artillery decided to practice! All of these date to the period 1915-1922.

Redesdale Camp itself has also now outlived its usefulness and is due to be demolished, taking with it a particularly well preserved wooden NAAFI building and the soggy memories of thousands of national service conscripts who largely remember the rain! However, before the Camp goes, the MOD have commissioned a full architectural record and accompanying historical record to be made for future scholars of military history.

All things change and now many of these military sites are redundant, as new weapons require different types of training. The MOD have a strong commitment to conservation and a management group guides the care of the archaeology, historic landscapes and buildings of The Range with substantial effort and resources put into research and conservation each year. It is hoped in the near future to excavate a short section of the trench system at Silloans for public display and to offer additional access to the archaeological heritage of The Range as firing commitments allow.

If you would like more information on the archaeological work of the MOD or to find out about public access arrangements (which are strictly controlled for health and safety reasons) please feel free to contact Niall Hammond at the following address: Niall Hammond, Defence Estates Archaeologist, Environmental Support Team, Gough Road, Catterick Garrison, North Yorkshire, DL9 3EJ, e-mail: [niall.hammond@de.mod.uk](mailto:niall.hammond@de.mod.uk)

*Niall Hammond  
Defence Estates*





# Field Survey at Dunstanburgh

*Guided tour of the castle and surrounding area in November 2003.*

In November 2003, English Heritage embarked on a research project in partnership with the National Trust in an attempt to better the understanding of Dunstanburgh Castle. Built in 1313, by Thomas, Second Earl of Lancaster, the castle was once one of the grandest fortifications in northern England.

The investigation also extended to a World War II radar installation a mile further south along the coast towards Craster, to assist with the management of the large numbers of visitors to the castle by creating (in the long term) an alternative focus of interest. The survey was undertaken entirely using a differential GPS satellite mapping system, which offers accuracy in the region of 1cm, but the keys to the success of the investigation were, as ever, the low-tech skills of observation and analysis.

Though still current amongst local residents, the story that the castle once had its own harbour and was almost entirely surrounded by water at high tide has been played down by academics in recent years. However, detailed study of the intertidal zone south of the castle discovered the indisputable remains of a massive stone-built quay, with patches of its original cobbling surviving intact, and evidence that much of the fine sandstone for the construction of the castle may have been imported by sea. Though it seems highly improbable that noble medieval visitors would often have approached Dunstanburgh by boat, it seems more than coincidental that the axis of Earl Thomas' fashionable keep-cum-gatehouse is aligned on the end of the quay.

The new field survey also revealed the nugget of truth within the traditional story that the castle was surrounded by water. The marshy area alleged to be the site of the medieval harbour appears to have been the southernmost of a series of three large artificial lakes, or meres, fed by an elaborate system of feeder ponds and leats. The meres doubtless provided an outer line of defence and an easily accessible source of fish and wildfowl. They also seem to have been designed in part to show off the castle's dramatic setting and elaborate architecture. A reference to the digging of a 'great ditch' in 1313 – an earthwork which can be identified on the ground and which is integral to the working of the meres – indicates that this ornamental setting was part of Earl Thomas' original grand design. Surrounded in this way, the eminence on which the castle stands would have acted as an outer bailey, possibly the intended site of a permanent settlement, since there is anecdotal evidence for the survival of the foundations of medieval buildings below the ridge and furrow cultivation. An artificial embankment, perhaps originally topped by a timber palisade, was identified where the natural gradient is slight on the west, thus blocking the natural causeways that would have dammed the meres at north and south. The main approach seems to have been from the west via a causeway between two of the meres, and there is some evidence for a major stone-built gatehouse overlooking the head of the causeway. This offers a potential target for future geophysical survey. Work has also begun on environmental sampling of the marshy ground and initial results suggest an exceptional level of

preservation, the deposits apparently stretching back to the Mesolithic.

Tantalising evidence for the existence of an Iron Age hillfort underlying the castle – whose presence has repeatedly been suggested and discussed but never proven – was recognised on the final day of fieldwork. A bank outside the southern curtain wall, which effectively defines a moat in front of the wall, has long been assumed to be simply part of the medieval defences on this, the weakest side of the perimeter. However, it now appears possible that ridge and furrow cultivation responsible for partially levelling the bank may pre-date the building of the curtain wall, from which it can perhaps be inferred that the bank was constructed some considerable time before 1313. An Iron Age rampart seems a reasonable interpretation of such an earthwork.

The investigation also recorded numerous World War II coastal defences, and the site of a 'Chain Home Low' (and subsequently 'Extra-Low') radar station closer to Craster, which was converted to a prisoner of war camp in the latter years of the war. The recording of oral testimonies was an important part of the research into the working on the installation; if you remember anything about this site when it was in use, please contact Harry Beamish, National Trust Regional Archaeologist, on 01670 774691.

Preparation of the full report is in its initial stages, but you can follow how the investigation progressed day by day on the Web: [www.english-heritage.org.uk/diary](http://www.english-heritage.org.uk/diary)

*Alastair Oswald  
English Heritage*



# A Medieval Settlement at West Hartford, Cramlington

## Introduction

A programme of archaeological investigation undertaken by Northern Archaeological Associates has identified the remains of a deserted medieval settlement on the site of West Hartford Business Park, north of Cramlington (NZ 258795). The settlement appears to be the site of the lost village of Hartford referred to in 13th century documentary sources. It lies close to the site of West Hartford Hall farm which was demolished and replaced in the late 19th century by a model farm on a new site to the south-west.

The excavation took place between February and May 2003 and measured approximately 180m east to west by 90m north to south. The area was divided into two irregular blocks by a deep colliery drain.

The excavation lay immediately south of the earthwork remains of the former hall and an evaluation of part of this latter area was undertaken at the same time.

Previous topographic and geophysical surveys of the earthwork remains of the Hall site had identified the buildings, yards and enclosures depicted on 19th century Ordnance Survey maps. These surveys also identified a range of earlier (possibly medieval) buildings to the north and a ditch enclosing the site of the Hall and its garden to the south. Geophysical survey in the field to the south of the Hall revealed relatively little, but a single evaluation trench identified a number of shallow medieval features and walls suggesting that medieval archaeology extended for some distance south of the earthwork remains.

## Historical background

The Hartford place-name is thought to derive from 'Herford', the name given to a nearby ford across the River Blyth,

which is marked today by Hartford Bridge. In the medieval period Hartford began as a single district but soon after it was divided into East and West Hartford. Sometime before 1189 a part of the manor of Hartford was granted to Tynemouth Priory and this became the vill of West Hartford, which appeared in the Lay Subsidy of 1296. It seems likely that this holding was largely or entirely a pastoral farm as only one person was assessed for tax. A second part was held by the Hartford family and in the early 14th century a portion of this was bought by the priory. During the post-medieval period documentary evidence exists for the succession of ownership of the West Hartford estate and the coal royalties. West



Hartford Hall was one of three farms on the West Hartford estate and appeared on the First Edition Ordnance Survey map surviving as a working farm until 1859, when the Ridley family of Blagdon Hall bought the estate. At that time, the present West Hartford Farm was constructed 1km to the south-west, and the Hall demolished. These changes are recorded on the Second Edition Ordnance Survey map of 1898.

## Excavation Results

The excavation identified at least three main phases of development dating between the 12th and 15th centuries AD. The earliest phase comprised a

series of small sub-rectangular enclosures. The second phase, which partly overlay the earlier remains, consisted of a number of stone structures, including a dovecote and a barn, within a series of very large rectangular enclosures. These enclosures subsequently contracted and the boundaries were in some cases re-defined in stone. The remains of ridge and furrow cultivation appeared to respect the enclosures, but it subsequently expanded and partly overlay the southern end of the earlier enclosures.

The archaeological remains mainly consisted of ditches, gullies, stone foundations and pits/postholes, although many of the features had been quite heavily truncated as a result of later ploughing. Many of the

linear features were orientated approximately north to south and/or east to west.

Identifiable post-medieval features were confined to the northern edge of the site and the area adjacent to the drainage channel.

The earliest remains comprised a series of narrow linking gullies within the northern part of the site.

The gullies appeared to form a number of small rectangular enclosures with some internal divisions. There was very little associated artefactual or structural evidence to suggest whether these enclosures were domestic or agricultural. One possible wooden structure was identified to the south-east of the enclosures, near to the stream channel. Erosion had removed one side, but it appeared to have a shallow enclosure ditch or possible drip channel around it (A).

A system of three large sub-rectangular ditched enclosures replaced the earlier gullies, which in some cases were deliberately backfilled. The enclosures were aligned north-south and measured about 25m wide internally and the

longest measured over 65m in length (B). The ditches which defined them measured up to 2.7m wide and these enclosed a number of minor ditches and gullies. The enclosures on the western side of the site appeared to have been remodelled later in this phase and extended southwards by about 35m. The western side was bounded by ridge and furrow.

One building with a stone foundation was identified towards the northern end of the longest enclosure (C). The

shaped section of walling inside the western ditch of the same enclosure may have represented part of a second stone barn (D). To the west, the remains of a circular stone building foundation were found (E). The building measured 5m in diameter with walls 1m thick. The interior floor surface comprised stone paving slabs around a shallow circular pit. These were the remains of a medieval dovecote (see photo), and the birds kept there would have provided fresh meat and eggs throughout the year.

century date. This fragment suggests the presence of a high status building elsewhere on the site and may derive from West Hartford Hall itself.

The evaluation on the site of West Hartford Hall comprised seven trial trenches within the area of earthworks, although the Hall itself lay outside of the existing ownership and was not investigated. The trenches principally encountered structural remains associated with the later post-medieval farm and these remains confirmed both the cartographic evidence and the geophysical survey evidence for the arrangement of the site. Medieval remains were also encountered including walls, drains, ditches and an extensive area of cobbling, which was present in all but one of the trenches.

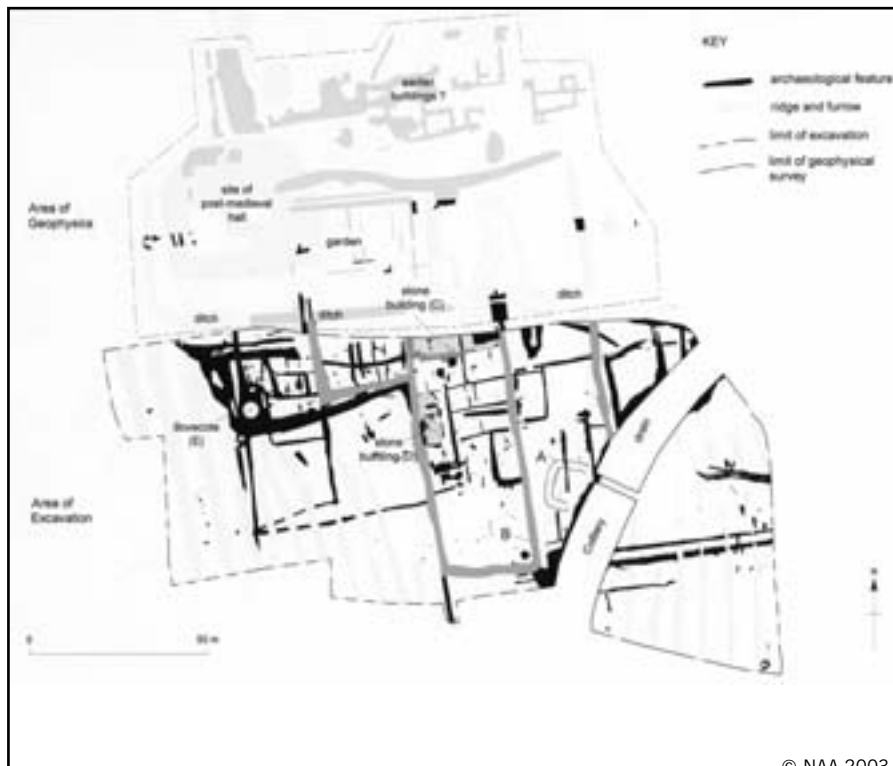
### Conclusion

In northern England, villages were the most distinctive aspect of rural life and their archaeological remains are one of the most important sources of understanding about rural life for the 500 year period following the Norman Conquest. Within Blyth Valley Borough, there are documentary records of 12 deserted medieval villages. None, however, have recorded extant remains and as with the medieval village of Hartford most are only known through documentary sources and therefore have no certain location.

The substantial and extensive remains identified at West Hartford represent an important discovery both in terms of their scale and density and also because of the fact that they confirm the location of a site known only from documentary evidence. The site has the potential to contribute significantly towards our understanding of rural medieval settlement on the coastal lowlands of Northumberland. It is hoped that the excavation report will be published in a future volume of *Archaeologia Aeliana*.

The excavations were undertaken by Northern Archaeological Associates for Bullen Consultants on behalf of ONE North East.

*Richard Fraser*  
*Northern Archaeological Associates*



*Above: Combined plan of geophysical interpretation and survey of archaeological features. Drawing: NAA.  
Left: The excavated remains of the dovecote. Photo: NAA.*

structure measured 25m long by at least 5m wide, however, the north wall of the building lay outside the excavated area. The building had a probable doorway in its south-east corner, and the remainder of the southern wall appeared to have been pierced by a number of further openings. It was not clear whether the foundations had supported stone or timber walls. The interior of the building contained a hearth with a possible flue, and some areas of flagstones and cobbled flooring. From the construction and interior details of the building, it seemed that this was not a dwelling, but more probably a workshop. An L-

Towards the end of the medieval period the site appears to have declined, as the area of the enclosure contracted and was partly overlain by ridge and furrow. The workshop at the north of the site was demolished, probably in the 15th century, and the other probable barn went out of use, possibly around the same time. The ditches of the large central enclosure had almost completely silted up and they were replaced by stone walls. One of the walls, which ran for over 35m, contained reused stones from an earlier building, including one block of finely carved stone with a dogtooth moulding, of possible 12th

# The Secrets of Berwick Railway Station

An archaeological evaluation was undertaken by Pre-Construct Archaeology Limited at Berwick Railway Station car park in April 2003. The work was commissioned by Operational Services, Northumberland County Council, ahead of proposed works to improve the bus and rail interchange in the town. The car park lies partially within the scheduled monument of Berwick Castle. Old maps of the area appear to show a curtain wall linking the north-eastern tower of the castle, Gunner's Tower, to St Mary's Gate on the medieval town wall. This would fall within the area occupied by the car park, as does a large ravine, now backfilled, known as Gillies Brae, which separated the castle from the town.

Earlier work, including a desk based study, limited trenching and a radar survey had located what was probably the castle curtain wall, running on a SW-NE alignment across the station car park. A further twelve trenches revealed evidence from the medieval and post-medieval periods. These remains fall within two main phases. The first comprises important remains of medieval date, including structural elements related to the wall linking the castle to the medieval town wall. The second comprises mid 19th century ground levelling and consolidation for the construction of the railway station, along with associated yards.

The remains of a massive mortared sandstone wall, about 5.7m wide, were identified in two trenches (3 and 12). This structure is believed to be the remains of the curtain wall linking the castle to the town walls. Similar masonry encountered during the preliminary evaluation in 2002 is almost certainly part of the same structure. These findings, along with those of the radar survey, suggest that this wall survives across much of the car park and that, where it crosses Gillies Brae, it may survive to a considerable height.

The presence of Gillies Brae is perhaps one reason for the siting of

the castle; the ravine would have afforded the castle considerable natural protection. A sense of the scale of Gillies Brae is evident from antiquarian perspective illustrations. This is supported by borehole evidence which suggests that archaeological deposits could survive in the area of the infilled ravine to a depth of about 8m.

Further probable medieval remains were encountered in a trench at the north-eastern corner of the car park (Trench 11). Four phases of building activity were encountered here. This could represent four different, sequential buildings in the area; although it is equally possible that the remains represent two distinct buildings, one with three phases of alteration. No dating evidence was recovered in association with the structures, their general form and the lack of substantial buildings present in this area on antiquarian illustrations, paintings and maps, strongly suggest a medieval date.

A trench located on the pavement of Railway Street (Trench 9), in an area likely to have been at the top edge of Gillies Brae, revealed a sandstone

wall, aligned north-south, surviving to a height of 0.21m. The wall is probably too insubstantial to have performed a defensive function and it may have been part of a building close to the edge of Gillies Brae. A deposit contemporary with the wall's construction produced pottery of 14th/15th century date and, therefore, it is likely that this structure is of medieval date.

A further three trenches (2, 7 and 9) were placed to locate the route and any possible remains of the medieval town defensive wall, which may have run approximately along the route of Railway Street. However, no remains were encountered that can be interpreted as being associated with this wall.

At the top of the pedestrian ramp at the northern end of Railway Street, another trench (10) located a cobbled surface. No dating evidence was retrieved but it is likely that the cobbles formed an earlier version of the existing access slope down to the car park, and probably date to the mid 19th century development of the site as Berwick station. In the car park itself, many of the



Plan of trenches at Berwick Railway Station car park. Drawing: PCA



trenches contained evidence of considerable made-ground deposits. In Trench 1, this made-ground is thought to have been related specifically to the construction of the railway station. Elsewhere, the made-ground consisted of distinctive material, possibly quarried relatively nearby. This interpretation is consistent with the known history of the site and specifically with the mid 19th century infilling of Gillies Brae, ahead of the construction of the railway.



*The substantial mortared wall seen in trenches 3 and 12. Photo: PCA*

Structural remains, probably associated with the 19th century goods and coal yards to the east of the station, were recorded across the car park area. These included the probable foundations of a goods shed marked on the 1st Edition Ordnance Survey map, along with the foundations of smaller brick-built structures and a number of yard surfaces. Some of the remains likely to have been related to the former goods yard had been heavily disturbed, presumably during consolidation groundworks ahead of construction of the car park.

The information gathered by the evaluation will be used to ensure that the proposed developments will not damage the medieval remains surviving in this area.

*Robin Taylor-Wilson  
Pre-Construct Archaeology*



## Tanks not a Threat to Hadrian's Wall

The Ministry of Defence (MoD) has recently completed a wide ranging study on the effect that military traffic using the B6318 Military Road is having on the underlying remains of Hadrian's Wall.

In 1995 the MoD received planning permission to use Albemarle Barracks as a driver training facility. Vehicles operating out of the barracks included heavy lorries and tracked vehicles such as tanks. The County Archaeologist and English Heritage were both concerned that the use of these vehicles, particularly the tanks, might damage the remains of Hadrian's Wall, which is known to lie beneath the B6318 for much of its length in Northumberland. The MoD were therefore required, through a planning condition, to carry out a series of studies to determine if damage was being done, and if so, identify possible mitigation measures.

Very little work has been done to assess the impact of this sort of activity on archaeological remains and none in situations which were directly analogous to this one. As a result, the study was a mixture of tried and tested methods (desk top assessment and trial trenching) and more unusual techniques. The trial trenching was designed to examine two sections of Hadrian's Wall – one on a disused section of the B6318 to the east of Heddon, and one on a live section between Harlow Hill and the junction of the road to Albemarle Barracks. The intention was to examine the remains surviving beneath the disused section of road, which had been decommissioned 30 years ago, and compare it with the condition of remains under a section of the road subject to modern traffic movements.

Remains of Hadrian's Wall were found in good condition beneath the section of disused road (see *Archaeology in Northumberland 2000-2001*). Unfortunately, the trench across the live section of the B6318 failed to find any trace of it, although the remains of an earlier metalled surface, possibly the remains of the 18th century Military Road, were encountered. Despite this, it was possible to draw some conclusions from this work; the underlying cobbled surface on the live section was in good condition, indicating that modern traffic was not damaging underlying remains. An engineering test, known as a Falling Weight Deflectometer test, confirmed that the condition of the road on the used and unused sections was very similar, showing that the impact of traffic on the sub-base of the road, and by extension any underlying archaeological remains, has had no effect above and beyond that already in existence when the un-trafficked portion was decommissioned 30 years ago. Further tests, in the form of vibration testing, were also carried out on the live section of road near Harlow Hill. Heavily loaded army lorries and two different types of track mounted vehicles were run up and down the road at varying speeds and the levels of vibration caused at both the road surface and sub-base levels were monitored. This testing showed that the levels of vibration caused would not damage underlying structures. The report therefore concluded that military use of the B6318 is not damaging Hadrian's Wall and there is no archaeological reason for the MoD to alter their patterns of use.

*SR from a report for the Ministry of Defence by Gifford and Partners*

# Silver Mining in the North Pennines

**D**id the North Pennines at one time produce silver in quantities which were unrivalled in Europe and which had a profound impact on the national economy?

This possibility continues to be a matter of active debate.

Documentary evidence appears to support arguments that rich veins of silver-bearing ore were being mined on a large scale in the North Pennine uplands during the medieval period. However, geological evidence suggests more modest levels of activity and site surveys remain

inconclusive. There seems little doubt that silver was being extracted from North Pennine ores on a significant scale during the medieval period but are we to conclude that rich new mineral discoveries triggered a now forgotten bonanza of mining activity?

The long and productive history of lead mining in the North Pennines is well known and documented. Throughout many centuries of mining activity a constant by-product of the processing and smelting of lead ores was silver. Whilst the comparatively high value silver and

the improved malleability of de-silvered lead made the extraction process worthwhile, records from the 18th and 19th centuries indicate a generally modest silver content in the majority of North Pennine lead ores. During the period 1729 to 1870, the two then dominant lead mining companies, London Lead and Beaumont-Blackett, together recorded the extraction of 5,450,000 ounces of silver from 1,542,184 tons of lead concentrate (about 3.5 ounces per ton). Published research (most recently by Peter Cloughton, University of Exeter) proposes a wholly different scenario in medieval times with mining activity resulting in silver extraction of up to 421 ounces per ton from local ores.

During the 12th century the North Pennine ore field was under the jurisdiction of two major lords, the English Crown and the bishop of Durham. Records of income received from the lease of these mines indicate that the mines were surprisingly productive during this period. Robert of Torigni notes that in 1133 miners paid the Crown £500 per annum for the rights to extract minerals in that area of the North Pennines for which it had jurisdiction. During the 1140s the profit taken by the bishop of Durham amounted to 360 pounds of silver. The significant profits which were being obtained from the mines, high rental costs for mining rights, the expansion in silver coinage, and the massive disparity in the price for refined lead and silver at this time suggests large scale silver production. This disparity, taken with the fact that the price of lead did not collapse during this period, is thought to indicate that the main profits were being made from the sale of high value silver rather than large quantities of relatively low value lead.

It is estimated by Cloughton that the mines produced a total of around 2,255,000 ounces of silver between 1130 and 1200 worth a price of



*Engine House at Shildon near Blanchland  
- an important mine for silver in the medieval period.*

nearly £188,000. It is considered that the minting of this silver may have contributed to a doubling of English silver currency between 1158 and 1180. A graphic picture of the mining activity which supported this expansion of silver production is given by Blanchard,

*For a brief moment in 1133 a nation's interest suddenly centred on a lonely fell land in a remote border county as news percolated throughout the realm of a fabulous silver find. Nor were the expectant rumours unfounded, for a small band of miners, working on the slopes of a mountain from which welled the waters of the Tyne, Wear and Derwent had struck a lode which was to sustain production unrivalled in contemporary Europe. The whole area, upon the slopes of the silver mountain where the three Counties met, was soon littered with prospectors and production opened up over wide tracts of land.*

A second and still more intense rush of mining activity is claimed to have resulted from mineral discoveries in the Northumberland North Pennines area with over 250,000 ounces of silver being produced per annum during the years 1165 and 1166.

What is the evidence today for the existence of these silver reserves in the North Pennines? Whilst surveys by the British Geological Survey gives some support for enrichment of lead ores near the surface, no significant body of ore has been identified which shows the claimed levels of silver content. It is considered moreover that an upper limit for silver in solid solution in lead ore is about 32 ounces per ton and as yet no discrete silver minerals have been identified in the North Pennines area. Although the knowledge of how to separate silver from lead ore dates back at least to Roman times, the relatively primitive smelting technology in use in medieval times would have been extremely challenged to achieve such high levels of production. There seems limited physical evidence today for these hugely productive medieval lead/silver mines although it is the case that the mines which were most closely linked to this bonanza continued to be worked for lead into the 19th century. It does appear possible that the

focus on the production of silver as explanation for the wealth of the North Pennine mines in medieval times may have resulted in the demand for lead being underestimated. This was a time when large quantities of lead were in demand for roofing and other purposes – between 1179 and 1184, 526 cart loads of lead from mines on Crown land in Yorkshire were provided for roofing works at Waltham Abbey, Windsor Castle and Clairvaux Abbey in France. There is also the tantalising possibility of the production of silver being augmented by the reprocessing of recovered silver. It is recorded that in the late 12th century the bishop of Durham paid £2000 to the King in order that church silver should remain in Durham monastery rather than directly financing the third crusade.

The conundrum associated with the medieval production of silver from the North Pennine mines has yet to be fully explained. However, it seems certain that this was a time when mining expanded rapidly within the ore field and highly probable this area was then the most productive source of mined silver in England. Did a true mining boom occur with miners rushing to the North Pennine fells to seek their fortune from near-surface veins of fabulously silver-rich ore? An exaggeration possibly but at the very least a notable addition to the folklore of our lost metal mining industries.

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## Railings Return to Ravensdowne

One of the more striking projects to be funded by the Berwick Heritage Economic Regeneration Scheme (HERS) is the reinstatement of the railings to the front of a grade II\* listed house in Ravensdowne. Since the removal of the original railings, to help with the war effort in World War II, the front curtilages of Ravensdowne's fine early 19th century houses have appeared stark and incomplete. Owners, Mick and Brita Manning decided to take up the offer of a HERS grant and set a good example by reinstating the railings and gate to their house.

In the absence of any old photographs showing the original railings in place, extensive research was undertaken into typical railing detail of the period and this was reconciled with the remains of iron stumps in the boundary wall and on the front of the house to produce an authentic design. The impressive results have been much admired and it is hoped that this lead will be followed on neighbouring properties to strengthen their architectural and historic character.

Berwick HERS is a three-year project to encourage the repair of historic buildings and environmental improvements within the Berwick Conservation Area, with grant aid from Northumberland County Council, Berwick-upon-Tweed Borough Council and English Heritage. Its £300,000 budget was quickly over subscribed and is estimated to have generated over £1m worth of improvements.

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## Recent Listings



*Hepscott Old Smithy.*

From time to time new entries, often referred to as 'spot listings', are added to the list of buildings of special architectural or historic interest. There are currently almost 6000 listed buildings in Northumberland. Listing is undertaken by the government Department for Culture, Media and Sport (DCMS) acting on advice from English Heritage. Members of the public can make a request to DCMS for a building to be listed though for an application to be successful it will normally need to be supported by evidence to demonstrate that it is of national importance. Recent new entries include:

### **The Smithy, Hepscott, Morpeth**

A planning application involving the demolition of Hepscott's 300 year old blacksmith's shop spurred local residents into investigating its history. It was quickly established to be one of the few remaining unaltered smithies in the County, dating back to at least 1711. Research by Dorothy Cowans confirmed a line of family inheritance of the blacksmiths in Hepscott from 1695. The interior of the smithy retains a brick arched forge with large bellows at the side of the hearth.

### **The Cenotaph, Carlisle Park, Morpeth**

A War Memorial constructed in 1922 to the designs of C Franklin Murphy and unveiled by Lord Joicey.

### **Palace Green Pavilion, Berwick-upon-Tweed**

This building probably started life in the early 18th century as a pavilion serving a former bowling green and was used as reading rooms in the early 19th century. Latterly it has been used as a scout hut and for community purposes. Berwick-upon-Tweed Preservation Trust is investigating ways in which its future can be secured.

There is also a register of parks and gardens of special historic interest which is published by English Heritage. Although entries do not have the statutory status enjoyed by listed buildings, planning applications which affect these sites have to be referred to The Garden History Society and English Heritage.

### **The Hexham Parks**

has recently become the county's 16th entry on the register. It consists of a group of three adjoining public parks comprising the Sele, the Abbey Grounds and Hexham House Grounds.

Photographs and descriptions of many listed buildings can be viewed at:

[www.imagesofengland.org.uk](http://www.imagesofengland.org.uk)

PR

## Assessing the Past

The following list contains details of archaeological assessments, evaluations and related work carried out in Northumberland during the past year. 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.

### **ALNWICK**

- Alnmouth:** The Guano Shed, High Buston. Archaeological assessment, Alan Williams Archaeology for The Northumberland Estates (June 2003)
- Alnwick:** The Alnwick Garden Allerburn Car Park: archaeological assessment, Archaeological Services University of Durham for The Alnwick Garden Trust Company (May 2003)
- Craster:** Former Nursery, Whin Hill, Craster. Archaeological evaluation, Archaeological Services University of Durham for Cheviot Associates (January 2004)
- Denwick:** Land at Cawledge, Alnwick, Archaeological Services University of Durham for The Northumberland Estates (December 2003)
- Longhoughton:** Land at Carey Place. Archaeological evaluation, Archaeological Services University of Durham for The Northumberland Estates (September 2003)
- Rothbury:** Rothbury Golf Club. Archaeological scoping survey, Tyne and Wear Museums for e3 Partnership (April 2003)
- Warkworth:** The Butts, Warkworth. Archaeological monitoring, Archaeological Services University of Durham for Scott Wilson (November 2003)

### **BERWICK-UPON-TWEED**

- Akeld:** Lanton Archaeological Evaluation Phase 1, Archaeological Research Services for Wardell-Armstrong (December 2003)
- Berwick:** Tintagel House, Love Lane. Archaeological watching brief during cutting of foundation pits for balcony, Alan Williams Archaeology for Tintagel House Partnership (April 2003)
  - Berwick-upon-Tweed Railway Station. Archaeological watching brief, Tyne and Wear Museums for Transco (May 2003)
  - An Archaeological Evaluation at Berwick Railway Station Car Park, Pre-Construct Archaeology for Northumberland County Council (July 2003)
  - Spades Mire, Berwick. Results of an archaeological watching brief,

Headland Archaeology Ltd for Berwick-upon-Tweed Borough Council (December 2003)

**Chatton:** Mains Hill Archaeological Evaluation Phase 1, Archaeological Research Services for Wardell-Armstrong (November 2003)

**Earle:** A Horned Cairn at Scald Hill, Interim Report 2003, Border Archaeological Society (September 2003)

**Holy Island:** St Cuthbert's Square archaeological evaluation, Archaeological Services University of Durham for Thomas Stewart (April 2003)

**Roddam:** Wooperton Quarry: Phase 2, First strip. Assessment report, Headland Archaeology for RMC Aggregates (Northern) Ltd (October 2003)

#### **BLYTH VALLEY**

**Blyth:** Thomas Knight Care Home, Blyth. Photographic Record, tth Architects (April 2003)

#### **CASTLE MORPETH**

**Cresswell:** Cresswell Environmental Impact Assessment, Nathaniel Lichfield & Partners for Northumbrian Leisure (August 2003)

- Cresswell, Northumberland. Archaeological assessment, Tyne and Wear Museums for Anthony Walker and Partners (December 2003)
- Cresswell Hall Historic Landscape Report, Anthony Walker and Partners for Northumbrian Leisure (December 2003)

**East Chevington:** Park View Estate, Hadston. Archaeological Desktop Assessment, Northern Archaeological Associates for W A Fairhurst and Partners (August 2003)

**Heddon-on-the-Wall:** North Lodge, Heddon. Archaeological watching brief, Tyne and Wear Museums for Northumbrian Water Ltd (August 2003)

- Heddon-on-the-Wall Petrol Station. Archaeological watching brief, Alan Williams Archaeology for M and L Richardson (September 2003)
- Throckley, Newcastle upon Tyne. Archaeological excavation and watching brief, Tyne and Wear Museums for Northumbrian Water (December 2003)

**Meldon:** Newton Underwood. Archaeological survey and landscape investigation, Richard Hewitt, MLitt research project, University of Newcastle (2002)

**Morpeth:** A1-A192 Link Road, South-East Northumberland. Archaeological evaluation, The Archaeological Practice Ltd for Northumberland County Council (September 2003)

- Pegswood Borrow Pit, South-East Northumberland. Archaeological evaluation, The Archaeological Practice Ltd for Northumberland County Council (September 2003)

- An Archaeological Watching Brief at 42 North Place, Morpeth, Pre-Construct Archaeology for County Life Homes Ltd (July 2003)

**Ponteland:** Peel House, Ponteland. Archaeological evaluation, Tyne and Wear Museums for Bellway Homes (December 2003)

**Stamfordham:** Albemarle Barracks Final Report, Gifford and Partners for Ministry of Defence (June 2003)

- Heugh. Archaeological watching brief, Tyne and Wear Museums for Northumbrian Water (August 2003)

**Stannington:** Stannington Interchange. Archaeological mitigation recording by topographic survey and photography, The Archaeological Practice Ltd for Northumberland County Council (June 2003)

- Stannington Station STW. Baseline archaeological assessment, Tyne and Wear Museums for Northumbrian Water (August 2003)

**Widdrington Station and Stobswood:** North Stobswood. Archaeological and cultural heritage assessment, Tyne and Wear Museums for UK Coal Mining Ltd (February 2003)

#### **TYNEDALE**

**Allendale:** Wester Old Town. The former house and barns. An historical and structural assessment, P Ryder (December 2002)

- Allenheads Chapel photographic record, Mrs Apsey (October 2003)

**Coanwood:** Lambley, Northumberland. Archaeological watching brief, Tyne and Wear Museums for NEDL (December 2003)

- Lambley Crossroads. Archaeological watching brief, Tyne and Wear Museums for NEDL (January 2004)

**Corbridge:** Tree-Ring Analysis of Timbers from Dilston Castle, Dilston Hall, Corbridge, Centre for Archaeology, English Heritage Report 88/2003 (2003)

- Princes Street, Corbridge. Archaeological watching brief, Tyne and Wear Museums for Enterprise plc (July 2003)
- Corbridge, Northumberland. Watching brief, Tyne and Wear Museums for Northumbrian Water Ltd (September 2003)
- Corbridge, Northumberland. Archaeological watching brief, Tyne and Wear Museums for Integrated Utility Services (December 2003)

**Falstone:** Smalesmouth Hill. Archaeological watching brief during topsoil strip for new agricultural building and archaeological evaluation of proposed farmhouse, Alan Williams Archaeology for Mr and Mrs Hodgson

**Greenhead:** Report on an Archaeological Watching Brief at Blenkinsopp Castle, Haltwhistle, North Pennines Heritage Trust for W S Atkins Ltd (August 2003)

**Hexham:** Hexham Abbey.

Archaeological watching brief during installation of floodlights, Alan Williams Archaeology for Hexham Town Council (Winter/Spring 2003)

- Tynedale Magistrates Courts, Hexham. Recording and monitoring work, Archaeological Services University of Durham for Gateshead Council (June 2003)
- Hexham Railway Station West Sidings, archaeological recording, Alan Williams Archaeology for Northumberland County Council (July 2003).
- Hexham Flood Alleviation Scheme. Cultural Heritage Desk-Based Assessment, Babbie Brown & Root for Environment Agency (October 2003) DRAFT
- The Hebborn Memorial Chapel, Back Street, Hexham. Archaeological Recording/Analysis, P Ryder (April 2002)
- Land at Burn Lane, Hexham. Archaeological excavation and monitoring, Northern Archaeological Associates for W Kayley (Preston) Ltd (September 2003)
- **Horsley:** An archaeological watching brief (phase 1) at South East Farm, Horsley, Pre-Construct Archaeology for Anvil Construction Ltd (February 2003)

**Humshaugh:** A Magnetic and Resistance Geophysical Survey at Chesters Roman Fort, Chollerford, TimeScape Research Surveys for English Heritage (September 2003)

- Walwick, Northumberland. Archaeological watching brief, Tyne and Wear Museums for Chesters Estate (November 2003)

**Prudhoe:** Broomhouse Farm, Broomhouse Lane. A photographic record, Jane Derbyshire & David Kendall Ltd (March 2002)

**Warden:** Wall Mile 28, Tower Tye. Archaeological watching brief, Tyne and Wear Museums for Chesters Estate (September 2003)

**Wark:** Mote Hill Farm. An archaeological assessment of the site and buildings, Peter Ryder for Border Craft Homes (Revised January 2003)

- Mote Hill Farm, archaeological evaluation, Alan Williams Archaeology for Border Craft Homes (Spring 2003)

#### **WANSBECK**

An Archaeological Geophysical Survey on Land to the North of East Sleekburn, Wansbeck, GeoQuest Associates for Northumberland County Council (January 2004)

- **Bedlington:** 72-74 Front Street East, Bedlington: archaeological evaluation, Headland Archaeology for Perry Stone Mews Bedlington Development Company (April 2003)
- 34-38 Front Street East: archaeological watching brief, Alan Williams Archaeology (April 2003)

# Glimpses of Medieval Bedlington



*The Market Square in Bedlington, July 1970.*

Modern-day Bedlington betrays very little evidence that it is located on the site of a settlement dating back to Anglo-Saxon times. Our knowledge of its early development is mainly limited to documentary sources, with references to Bishop Cuthbert of Durham purchasing the estate of Bedlington in the ninth century. The presence of 10th century carved stones in the Church of St Cuthbert also indicate that this 12th century building occupies the site of an earlier church.

The church is the only surviving medieval building in Bedlington. Yet the documentary sources indicate that there was once a hall for the bishop, a court, a leper hospital and possibly a mill, dam and fishery. Old maps show us that the shape and size of the settlement changed very little up until the 18th century. The settlement appears to have run along the modern-day Front Street with houses on either side, each with a long garden, or burgage plot, to the rear and strip-fields beyond. While this street pattern and the property boundaries continued after the 18th century, and can still be seen in places today, the area began to change and develop rapidly with the advent of the nearby coal and iron industries. The town began to grow into a larger settlement as ironworking developed into a significant industry on the banks of the River Blyth in the 18th and 19th centuries. As the town developed the

pattern of medieval settlement became lost in the later streets and houses. Today, the continued development of Bedlington is providing us with the opportunity to view and record parts of the earlier settlement through archaeological investigations as part of the planning process.

In 2003, two developments on Front Street East were the subject of archaeological investigation. Headland Archaeology carried out an evaluation on land to the rear of numbers 72-84 Front Street East and Alan Williams Archaeology carried out a watching brief during the excavation of foundation trenches to the rear of numbers 34-38. Both pieces of work encountered archaeological remains of medieval or later date running parallel to the line of the medieval road. Pottery and finds from the fills of these features has helped to date these remains. While much of the area to the rear of 72-84 Front Street East had been disturbed by 19th century activity, one trench produced evidence of two shallow intersecting gullies of medieval date and two larger ditches of a later date. A single later medieval ditch was recorded to the rear of 34-38 Front Street East that appears to run on the same alignment as Front Street across much of the site, before turning and continuing to the north. These features are likely to represent drainage ditches or property

boundaries and comparable ditches will have been dug and re-dug along similar lines for centuries. Part of a dry-stone wall and a pit were also recorded to the rear of 34-38 Front Street, but an absence of finds from these features make them hard to date.

Although only a few archaeological features were found on these two sites, a wealth of information can be extracted from the finds, debris and environmental remains that were found in these ditches and gullies. Once this has been extracted and analysed, this data can provide us with a greater understanding of the life and diet of the people living in Bedlington and the activities that went on in these areas. The samples taken from the medieval gullies to the rear of 72-84 Front Street East contained slag, coal and cinders. This appears to indicate that industrial activity, possibly the smelting of iron, was going on in Bedlington even in the medieval period. The samples taken from the ditch to the rear of 34-38 Front Street East contained coal, cinder and charcoal and suggest domestic fuel waste. These modern developments have given us a rare opportunity to investigate Bedlington's past. It will be interesting to see what information will come to light in future developments.

*KD*



# Excavations of a Horned Cairn at Scald Hill

## Background

Recently an elongated cairn was discovered by members of the Border Archaeological Society lying on the south-eastern flank of Scald Hill and just below the 350m contour (NT 93762 21485). They began excavations in 2000 and work has continued up to 2003.

## Excavation

The most recent work on the cairn took place in September 2003 and concentrated on cleaning the previously excavated areas, re-cutting the sections and producing a contour survey of the site as well as plans and sections of the cairn. Excavation also attempted to establish the physical limits of the cairn, as well as examining the character of features previously observed. Central to the current season's work was the necessity to establish beyond doubt whether the cairn was a natural or a man-made feature.

The cairn measures a little under 12m in length with its long axis orientated ESE (282°), it has a maximum width of 6.8m. It emerges from the hill-slope to form a prominent nose of stone. The stonework assumes a depth of over a metre near the eastern end, the cairn can only be described as 'rising' above the ground level insofar as the ground itself falls away to the east and south. The cairn had suffered considerable damage at its south-eastern extremity; this may have been engendered by a former ancient watercourse on this side of the cairn. Despite this damage, sufficient remained to indicate the general curve of the cairn in this sector which mirrored its counterpart to the north.

The cairn sits on the granite bedrock, from which it is separated by a densely compacted orange subsoil with lenses of denser grey clayey soil. The base of the cairn is a

platform some 200-300mm in depth comprising loosely packed stonework (averaging 150mm) set within a looser orange sandy soil.

A stone setting lies virtually central to the eastern terminal, just within the cairn on its long-axis. It comprises a substantial rectangular granite boulder with its flat face uppermost, framed within a setting of pitched stones.

Both the cobble platform and this setting are overlain in places by a lens of darker orange soil, upon which sits the stonework and soil forming the body of the cairn. Although the edges of the cairn, are well defined by the densely packed stonework, they nowhere assume the character of a kerb. The southern perimeter of the cairn is, however, distinguished from that of the northern counterpart by the presence of large boulders. Within the area so defined, stones lie

heaped in some profusion, together with large pockets of grey soil that enclose and support them. There are indications of an inner line at a height of around 300-400mm above the basal platform, which gives a stepped appearance to the cairn. The final element noted in the cairn's structure was an overlying, densely-packed matrix of smaller stones which gave a 'crust-like' appearance to the cairn upon removal of the overlying turf.

It is clear that the cairn was man-made, but the skin of smaller stones which forms the final structural layer would appear to indicate a greater degree of elaboration than might be anticipated with a mere clearance cairn.

Though its situation, form, orientation and apparently 'horned' eastern terminal might invite comparison with certain forms of mortuary structure of Neolithic date, any meaningful understanding of the cairn in this respect will depend upon a further examination. A final season of excavation will take place in 2004.

*Malcolm Aylett &  
Roger Miket*



*2003 Excavations from the south.  
Photo: Roger Miket*

*Acknowledgements  
The Borders Archaeological Society is grateful to Lilburn Estates (Mr D. Davidson & I. Hall), and Mr W. Brown for allowing us access to the site, to the Archaeological Services of Northumberland County Council and Northumberland National Park for their greatly welcome support; and we are especially grateful to the following members of BAS who laboured so hard to make the site a thing of beauty as well as information!;- Philip Deakin, Manuella Walker, David Brummitt, Colin Townsend-Rose, Denbeigh Kirkpatrick, Barrie Evans, Wallace Rea, Tommy Lees, Jim Nesbit, Tom Broad & Mike Hoadley*

# The Portable Antiquities Scheme Arrives in the North East

Every year thousands of archaeological objects are discovered by members of the public. Most are found by metal detector users, but finds are also made by people out walking, gardening or going about their daily work. These chance finds have the potential to tell us a great deal about the lives of people in the past and yet often only a small proportion are recorded for public benefit.

In 1997 the Portable Antiquities Scheme, with its team of Finds Liaison Officers, was established to record archaeological objects found by members of the public, thus preserving an important resource. Although originally a pilot covering only a third of England and Wales, the scheme has recorded more than 75,000 objects, discovered dozens of new archaeological sites and dealt with more than 500 Treasure Cases.

In 2003, with Heritage Lottery funding, the scheme was expanded nationally. In August of that year, the North East got its own Finds Liaison Officer. Based at the Museum of Antiquities in Newcastle and Cultural Services at Durham County Council, archaeologist Philippa

Walton provides members of the public with finds identification and recording, advice on conservation and storage of finds, as well as guidance on the Treasure Act.

The past six months have been a busy time for Philippa, giving lectures outlining the aims of the scheme to several clubs and societies, including four in Northumberland. She has also recorded more than 400 finds from across the North East and even further afield - someone has even brought in Roman pottery they had found near the River Thames whilst on holiday in London.

Although fewer archaeological finds have been reported from Northumberland than from other areas of the North East, over 35 important finds have been identified. They include flint arrowheads, Bronze Age axes, Roman coins and brooches, as well as medieval buckles and buttons. Some of the most interesting objects from Northumberland include:

A gladiator-shaped clasp-knife handle made from copper alloy. It was brought in for identification and recording in December 2003 by divers Bob Middlemass and Rolph Mitchinson, who had found it

in the river near Corbridge. Similar to an ivory example from South Shields Roman Fort dated to the late second or third centuries, the handle depicts a type of gladiator known as a "secutor" or "pursuer". We know he is a "secutor" because of his large decorated rectangular shield and crested helmet with small eyeholes. Originally, he was also holding a small dagger up against the shield, but this has now been lost.

An 18th century silver coin of Carlos III of Spain, found near Morpeth. It was brought in for identification and recording by metal detectorist Gordon Thompson in January 2004.

The coin had been pierced so that it could be worn as part of a necklace. There must be an interesting story behind how it ended up in Morpeth!

A late 15th or early 16th century copper alloy jetton, found on the beach near Berwick-upon-Tweed by a metal detectorist from the Border Reivers Metal Detecting Club.

The jetton shows the arms of Burgundy on one side and a draped woman holding a watering can on the other. Jettons were used to assist in arithmetical calculations, particularly in accountancy, at times when illiteracy was widespread and cumbersome Roman numerals were used to record values and sums of money. They would normally be used with a checkerboard or cloth, in a process similar to using an abacus.

If you have anything you would like identified and recorded, or would like Philippa to come and talk to your club or society about the Portable Antiquities Scheme, you can contact her at The Museum of Antiquities, University of Newcastle, NE1 7RU, 0191 222 5076 or at the Archaeology Section, Durham County Council, DH1 5TY, 0191 383 4212. Her e-mail address is: P.j.walton@ncl.ac.uk



Late 15th or early 16th century jetton.

Gladiator-shaped clasp-knife handle found near Corbridge



This is a selection of walks from Northumberland County Council's 2004 Countryside Events programme. The full programme offers a wide variety of events and activities and can be downloaded from the County website ([www.northumberland.gov.uk/discover](http://www.northumberland.gov.uk/discover)). No booking is required unless specifically stated. For general enquiries phone 01670 534080 (answer phone service at times); more detailed queries may have to be referred to event leader. Northumberland National Park Authority publishes its own events programme ([www.nnpa.org.uk](http://www.nnpa.org.uk)).

#### TIPS AND GUIDANCE

Our events are graded to enable you to choose those which are most suited to your abilities:

**Medium:** Suitable for most people of average fitness. Walks of between 3-6 miles.

**Long:** Suitable for walkers who can manage distance but wish to avoid many climbs.

- Unless specifically listed, young people under 14 years of age must be accompanied by an adult
- Unless stated otherwise dogs (other than guide dogs) should not accompany you on walks or events
- Ensure you have appropriate clothing and footwear
- Let the leader know in confidence if you have any medical condition which may affect you during that event
- You are advised not to leave valuables in your car during an event.

#### Sun 30 May TRAVEL THROUGH TIME 10,000 YEARS TO 1900 AD

10:30/5½hrs **Grade:** Long  
What is there to be discovered and see in our upland landscapes? Bring packed lunch, boots and waterproofs. BOOKINGS ONLY (Tel: 01661 881234).

**Cost:** adults £4.00, children £2.00  
**Start:** Bolam Lake Country Park : Boathouse Wood car park (Grid Ref NZ 084820).

#### Tues 1 June ALLENHEADS: A LEAD MINING LANDSCAPE

13:00/3hrs **Grade:** Medium  
A walk around and about Allenheads exploring the history of one of the richest mines in the North Pennines

and the lives of the lead mining community.

**Cost:** adults £3.00, children £1.50.

**Start:** Allenheads Heritage Centre (Grid ref: NY 860453).

#### Thurs 3 June BLANCHLAND, BOOM AND BUST

13:00/2hrs **Grade:** Medium  
A short walk in the countryside around Blanchland exploring the fortunes of the lead mining industry and its workers.

**Cost:** adults £3.00, children £1.50.

**Start:** Blanchland car park (to the north of the village) (Grid ref: NY 964505).

#### Thurs 10 June IN THE STEPS OF SAINT AND SINNERS

13:00/3hrs **Grade:** Medium  
Explore Holy Island - home of Celtic saints and Benedictine monks, a 16th century castle, Victorian industry and a National Nature

## Discover Northumberland

Reserve. Dogs on lead welcome. Trainer-type shoes suitable. Safe crossing time 12:10 - 20:35.

**Cost:** adults £3.00, children £1.50.

**Start:** Holy Island Greenwell Lane Coach Park (Grid Ref. NU 126420). Park in Chare Ends Car Park, walk 6 mins. to meet in coach park in village centre. Toilets here.

#### Sun 20 June FLODDEN BATTLEFIELD WALK

10:00/2hrs **Grade:** Medium  
We will pass the positions of the English and Scottish armies, and have panoramic views from the Lammermuir hills to Berwick-upon-Tweed, before returning by the public road to Branxton village where light refreshments will be available.

**Cost:** FREE

**Start:** Flodden Monument car park. Signposted 7 miles north of Wooler off the A697 (Grid Ref. NT 888372).

#### Sat 26 June A LAKE, A TOWER AND A MONASTERY

14:00/3hrs **Grade:** Medium  
Join countryside staff and Buddhist monks for a walk of history and spirituality. Finishes with a visit to Harnham Monastery. Unfortunately not suitable for children.

**Cost:** FREE (donations accepted).

**Start:** Bolam Lake Country Park : Boathouse Wood car park (Grid Ref NZ 084820).

#### Sun 11 July OUT & ABOUT AROUND BOLAM

10:00/5hrs **Grade:** Long  
A walk that links two beautiful and historic churches, wear stout footwear, bring waterproofs & packed lunch. BOOKINGS ONLY (Tel 01661 881234).

**Cost:** adults £3.00, children £1.50.

**Start:** Bolam Lake Country Park : Boathouse Wood car park (Grid Ref NZ 084820).

#### Sun 11 July IN THE STEPS OF SAINT AND SINNERS

14:00/3hrs **Grade:** Medium  
Explore Holy Island - home of Celtic saints and Benedictine monks, a 16th century castle, Victorian industry and a National Nature Reserve. Dogs on lead welcome.

Trainer-type shoes suitable. Safe crossing time 13:10 - 22:00.

**Cost:** adults £3.00, children £1.50.

**Start:** Holy Island Greenwell Lane Coach Park (Grid Ref. NU 126420). Park in Chare Ends Car Park, walk 6 mins. to meet in coach park in village centre. Toilets here.

#### Sun 5 Sept FLODDEN BATTLEFIELD WALK

10:00/2hrs **Grade:** Medium  
We will pass the positions of the English and Scottish armies, and have panoramic views from the Lammermuir hills to Berwick-upon-Tweed, before returning by the public road to Branxton village where light refreshments will be available.

**Cost:** FREE

**Start:** Flodden Monument car park. Signposted 7 miles north of Wooler off the A697 (Grid Ref. NT 888372).

#### Sun 19 Sept BEAUTIFUL OLD BEWICK & QUIET BLAWEARIE

10.30/5½hrs **Grade:** Long  
See a rebuilt burial mound, a fairyland garden and visit two hill forts with John Davies. Bring boots, waterproofs and packed lunch. BOOKINGS ONLY (Tel: 01661 881234).

**Cost:** adults £4.00, children £2.00.

**Start:** Bolam Lake Country Park : Boathouse Wood car park (Grid Ref NZ 084820).



# New discoveries at Chesters Roman Fort

In 2003, English Heritage commissioned a survey of Chesters to establish the degree of erosion along the riverbank and the effects upon sub-surface archaeological features. The survey, defined by four transects, extended some 530m and about 60m from the top of the riverbank. A magnetic and complementary resistance survey were conducted, each emphasising different features. The complexity of the site is evident when the anomaly plans of both surveys are viewed together.

Chesters (*Cilurnum* or *Celuno*) is strategically positioned beside the River North Tyne (NY 911701) and was garrisoned by 500-strong cavalry regiments (*ala quingenaria*). Today, the visible remains include

the headquarters (*principia*), commanding officer's house (*praetorium*), five of six gates, three barrack blocks and several towers. The *principia* had a later strongroom added. An external bathhouse was located east of the *porta quintana*.

The fort has long been the focus of archaeological investigation – from John Clayton who excavated extensive areas here in the 19th century to limited excavations in the later 20th century. Aerial and topographical surveys have also contributed to our knowledge of the fort, revealing an extensive civilian settlement (*vicus*) and a road system to the south-west. As new technology has developed, archaeologists have used geophysical techniques to 'see

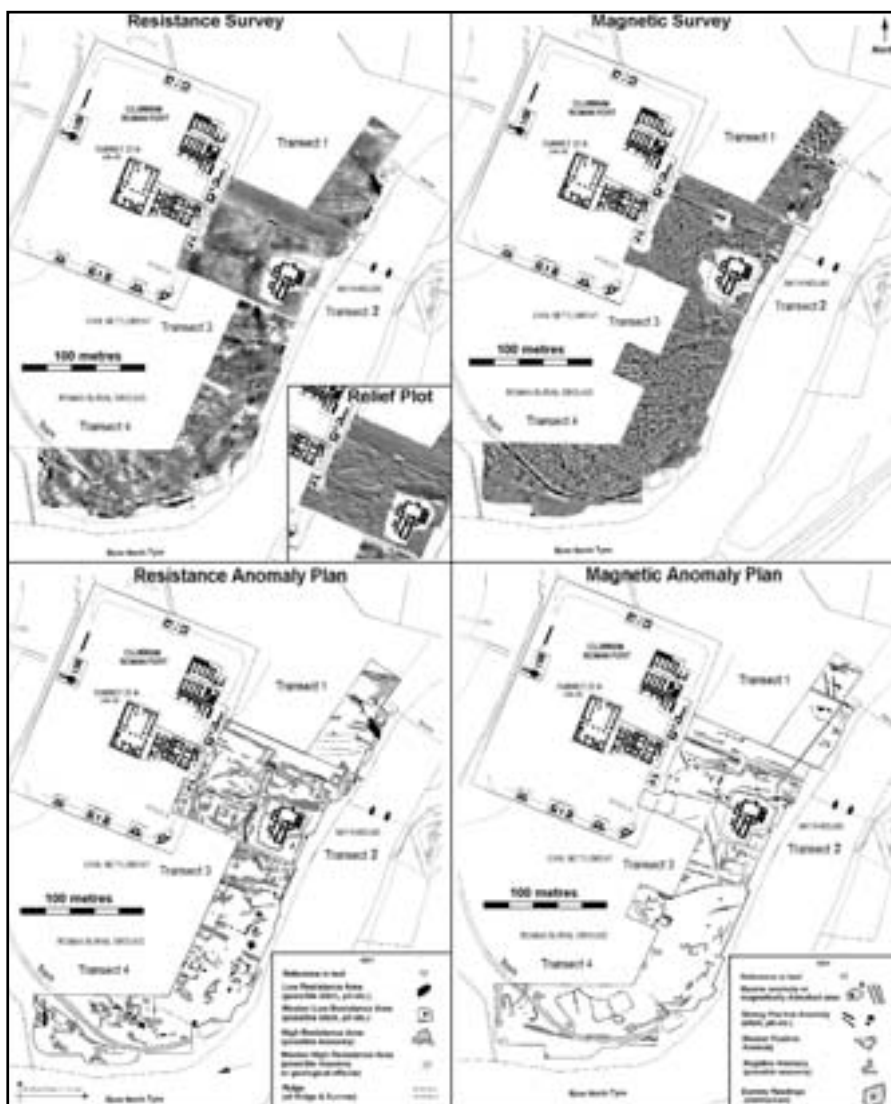
beneath the ground'. For example, resistance survey of the fort interior established the location of two granaries and barracks similar to those already exposed to the east.

The present survey traced the line of a road from the bridge across the River North Tyne to the lesser east gate as well as revealing several large buildings east of the fort, one of which was possibly of courtyard style. A square building, some 10m square, was located on the Wall itself between the bridge and the fort. This feature is unique and its form suggests monumental proportions.

Another newly discovered feature of the fort is a possible *gyrus*, an enclosed ring used for training horses, centred on the lesser east gate. Construction would have slighted the road and buildings towards the bridge and the remains are probably little more than spreads of stone as opposed to coursed masonry. The identification of a *gyrus* (see resistivity inset) is not unexpected and would have necessitated the re-routing of the road from the bridge, probably to the main east gate. A *gyrus* at The Lunt in Coventry, also prominently sited, was 32m in diameter; the possible structure at Chesters is considerably larger at about 50m.

The line of the Vallum was quite indistinct in this survey, which could reflect its cleaning or re-cutting and may indicate it had been left open for some time. Traces of the *vicus* were recorded to the south of the fort as well as evidence of possible field systems showing that people were farming here prior to or during construction of the fort. As well as the more recognisable elements, a number of indistinct features approach the riverbank that may also have Roman origins. The results of the survey show that the archaeological deposits, directly east of the fort, are being affected by erosion of the riverbank.

J Alan Biggins and  
David J A Taylor  
TimeScale Research Surveys



## New exhibition for Ingram National Park Centre

The Northumberland National Park Authority has commissioned a new archaeological exhibition for its Ingram National Park Centre. Based on the results of the Breamish Valley Archaeology project, the exhibition will feature many of the most important artefacts recovered during excavations on the adjacent Ingram Farm. These include a Bronze Age beaker from Wether Hill and a stunning collection of Food Vessels from cairns excavated at Turf Knowe. Beginning with the end of the last Ice Age and ending with the present day, it will focus in particular on the emerging picture of life in the Valley during the Bronze and Iron Ages. The new exhibition is due to open in spring 2004, and will be linked to trails to various ancient sites in the local landscape. The exhibition will feature a splendid cup and ring marked boulder found nearby in Powburn Quarry (see below), and generously donated to the visitor centre by RMC Aggregates.

Iain Hedley  
Northumberland National Park



## Thirlwall Castle

The brooding ruins of Thirlwall Castle, recently the focus of a £400,000 National Park project (funded by the HLF and European Union), are now fully open to the public. The Castle is located in the south-west corner of the National Park, and was constructed in the 14th century using stone robbed from Hadrian's Wall. An interesting leaflet giving much information about the castle, together with details of how to visit it, is available

[www.keystothepast.info](http://www.keystothepast.info)

## Unlocking the Archaeological Secrets of Northumberland and Durham

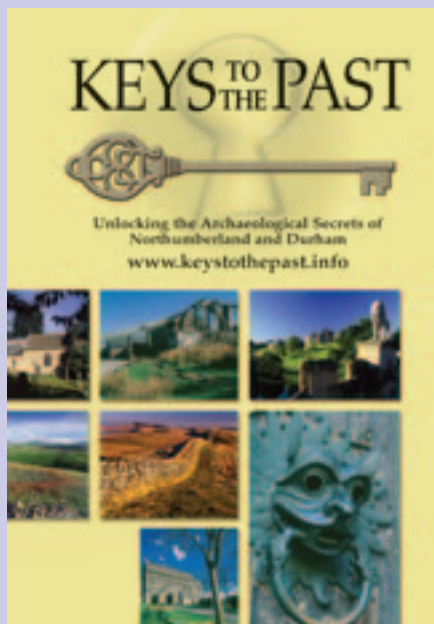
History is now at everyone's fingertips thanks to an exciting new gateway to heritage information in Northumberland and Durham. The *Keys to the Past* website was officially launched by Northumberland and Durham County Councils on 8th October 2003. Jointly funded by the Heritage Lottery Fund and Northumberland and Durham County Councils, *Keys to the Past* sets a new benchmark for the presentation of heritage data on the web, providing exciting and colourful access to the record of the two counties' archaeological and cultural heritage.

Over 24,000 entries from the Sites and Monuments Records of the two counties have been rewritten and made accessible through the *Keys to the Past* website, providing a complete record of the known archaeology of the area; from the smallest prehistoric flint to the largest medieval castle. The site can be searched for information by time period, type or location. The use of Geographical Information Systems allows the results to be displayed on colour maps. *Keys to the Past* supports this information with photographs, historic maps, a large glossary of archaeological and heritage terms, simple parish histories and general background information for the two counties. *Keys to the Past* is available through the Internet, on workstations at County Record Offices, at selected

heritage centres and through mobile units, which will ensure that any venue can be reached.

*Keys to the Past* is in the first wave of Sites and Monuments Record enhancement schemes funded by the Heritage Lottery Fund. Easy to use and a pleasure to look at, the *Keys to the Past* website should, for now and the future, be the first port of call for information relating to the cultural heritage and archaeology of Northumberland and Durham.

CB



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from National Park visitor centres. Thirlwall now takes its place alongside other medieval structures from the region's turbulent medieval past which have been consolidated by the Park Authority and opened to the public. These include Harbottle Castle, Dally Castle, Woodhouses Bastle and Low Cleughs Bastle.

Paul Frodsham, Northumberland  
National Park

*The ruins of Thirlwall Castle in a watercolour by T. Allom in 1832.*





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