

1. Executive Summary

The Norham Castle evaluation was undertaken during February 2005 as an extension of the Till-Tweed Geoarchaeology Project. The evaluation involved the excavation of a trench across an upstanding bank which had been tentatively dated to the Iron Age, based on its morphology and relationship with the medieval castle defences. The trench revealed the stratigraphy of the bank's construction, although no features were found set or cut into the crest of the bank. No buried land surface which could provide dating samples was found as the bank was built onto natural boulder clay after prior removal of the topsoil. The only small finds came from the topsoil, and were undiagnostic with the exception of a small fragment of medieval green-glazed pottery. A thin branch of wood was recovered from the primary dump in the east end of the trench and it is hoped that a radiocarbon determination or dendrochronology date can be obtained from this to provide a terminus ante quem for the construction of the bank. The constructional form of the bank suggests that this is not a prehistoric structure and is more likely to be associated with the medieval phases of activity on the site.

2. Introduction

- 2.1 This excavation was undertaken as an extension of the Till-Tweed Geoarchaeology Project, a large-scale research project run jointly by Archaeological Research Services Ltd and the University of Newcastle upon Tyne concerned with investigating the geoarchaeology of the Rivers Till and Tweed in north Northumberland. This work has been funded by the University of Newcastle upon Tyne with specialist contributions from English Heritage.
- 2.2 The work aimed to test a hypothesis put forward as a result of the recent English Heritage Survey (Pearson 2002). It was suggested in the survey report that an earthwork in the field to the south of the castle may represent the bank of an Iron Age promontory fort. If this is proven to be the case then the findings would have a significant impact not only on our understanding of the Iron Age in this region, but also on the management and conservation of the remains.
- 2.3 The evaluation was undertaken within the grounds of Norham Castle on the south side of the River Tweed in north Northumberland (Fig. 1). The trench was situated across a raised bank in the south-east corner of the field to the south of the road (NT 9075 4733). The feature under investigation comprises a large bank running parallel to the south-eastern boundary of the field. It has an average height at the apex of 2.5m above the surrounding land surface and is cut back on the eastern face to form a steeper incline than on the west side (Pearson 2002, 19). The east side drops away sharply to a man-made burn that connects with the Mill Burn to the south. The field in which the bank stands is under permanent pasture as are the majority of the earthworks within the boundaries of the Ancient Monument Scheduling.

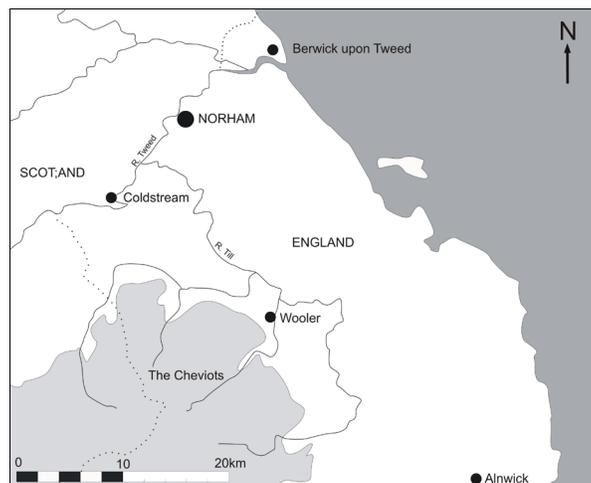


Fig. 1 Map showing the location of Norham. Redrawn with permission from English Heritage © (Pearson 2002).

- 2.4 Norham Castle stands on a spur of land described by the River Tweed to the north-west and by the deeply incised Mill Burn to the south. If this site is a promontory fort then the defended man-made boundary is represented by the bank on the eastern side. The site commands views northwards and westwards along the line of the Tweed as well as overlooking a natural crossing point. On the 'defended' side to the east, the site is overlooked by higher ground some 400-500m distant (Pearson 2002, 3). The site is naturally defensible and served with fresh water near at hand, as well as standing on the major east-west routeway of the River Tweed and the north-south routeway which crosses it at the Norham fording point.

3. Background

- 3.1 The castle at Norham stands on a promontory overlooking the River Tweed with the other natural boundary described by the deeply incised Mill Burn to the south. The predominant geology at the site is carboniferous red sandstone bedrock overlain in some areas by till deposits.
- 3.2 Norham Castle (Fig. 2) in its current form is the product of at least six phases of building, repair and refinement (Pearson 2002, 11-14). The original castle, which is represented by the positioning of the main upstanding architectural features still visible, if not the stonework itself, was built around 1121 for Bishop Ranulph Flambard (Lomas 1996, 20 in Pearson 2002, 11). This early fortress was enlarged in the later 12th century, most notably in the area of the keep and inner ward whilst the final phase of what could be termed the 'early construction' was undertaken by King John after he took control of the property in 1208 (Pearson 2002, 11-12). The following 200 years between the 'early construction' and the 'later construction' work saw the period of greatest military activity for the castle, during which it earned the reputation as the 'most dangerous place in England' (Fraser and Emsley 1978, 26), and so it is feasible to suggest that there were ongoing repairs undertaken throughout. The 'later construction' began in the early 15th century with strengthening of the west gate and a further storey added to the already large central keep (Pearson 2002, 12). The final period of refinement to the castle, while it was still a functioning military outpost, was undertaken in two stages, around 1495 when the aqueduct was constructed breaching the east curtain wall, and after the heavy bombardment and temporary capture by the Scots in 1513 (Pearson 2002, 12-13). The rebuilding after 1513 saw a significant change in the function of the castle and it is described as becoming 'less a medieval castle and more an early Tudor frontier artillery post' (Saunders 1997, 39 in Pearson 2002, 13). After the cessation of hostilities on the northern border, Norham became defunct as

a military installation and was sold into private hands (Pearson 2002, 14), achieving fame in the 19th century as the partial setting of the Walter Scott epic poem, *Marmion* (Fraser and Emsley 1978, 26). Norham was placed under the guardianship of the state in 1923 (Pearson 2002, 14).



Fig. 2 Looking north-east towards the keep of the medieval castle

- 3.3 The focus of this investigation is the field to the south of the road which has received little attention from previous investigations (Clark 1876; Jerningham 1883; Hunter Blair and Honeyman 1966). There has been a long tradition of the features in this field not being associated with the other medieval features on the site. The Reverend James Raine claimed in his architectural description that the field had contained buildings within living memory (1852, 300 in Pearson 2002, 9), whereas GT Clark's architectural description claimed that the visible archaeology represented 'the remains of the Roman Camp and the less regular banks and ditches of some of the besiegers of the castle' (Clark 1876, 309 in Pearson 2002, 9). The current guidebook for Norham Castle interprets the southern field, and the earthworks within, as a further outer bailey associated with the castle which may have been used as a large enclosure for livestock (Saunders 1998, 3, 20 in Pearson 2002, 9).
- 3.4 Historic surveys of the area to the south of the road do not include the upstanding bank under investigation in this evaluation. In both the first map of 1860 and the revised map of 1897 the path that runs along the northern portion of the bank and cuts through at the later gap in the bank is shown, but not the bank itself. The most recent investigation of the castle environs was a survey undertaken by English Heritage (Pearson

2002). This report established that the bank was not post-medieval as it appears to be cut by both the medieval plough furrows and a medieval boundary ditch running parallel to the modern road (Pearson 2002, 18). The bank appears to continue to the north of the road (Fig. 3) and the tentative suggestion was that it formed the man-made boundary of an Iron Age promontory fort, with the two other sides described by the River Tweed (Fig. 4) and the Mill Burn (Pearson 2002, 18). If this site could be shown to be an Iron Age promontory fort then it would represent the largest example of this monument type by area north of Yorkshire, and therefore have a critical impact on our understanding of settlement hierarchies during the Iron Age of north-eastern Britain.



Fig. 3 The probable extension of the bank on the north side of the road where it is overgrown with trees.



Fig. 4 View north from the bank extension to the cut that leads down to the river Tweed, which is visible in the centre of the picture.

4. Aims

- 4.1 This project aims to accord with national and regional research agendas, and in particular those relating to later prehistoric monuments if the presence of prehistoric archaeology is verified on the site.
- 4.2 The project aims are summarised below:
- Identify and record the condition of preservation of the bank.
 - Establish the date of the enclosure bank, thus testing whether it represents a prehistoric enclosure or is associated with later activity.
 - Characterise the nature and form of the structural remains.
 - Acquire any evidence for lifestyles and subsistence strategies.
 - If the presence of prehistoric archaeology is confirmed then identify any linkages with surrounding monuments of the same type and understand how the site relates to the surrounding contemporary landscape.

5. Method Statement

- 5.1 The trench was carefully sited so that a 5m wide section of undisturbed bank could be observed, especially along the top of the bank where it was hoped to identify evidence of some form of breastwork. It also allowed the trench to be sited in such a way as to facilitate the cutting of a section through an undisturbed area of bank to observe the stratigraphic sequence and to reveal a pre-existing soil horizon/land surface. If a sealed land surface was encountered then any organic samples could be taken that would allow for radiocarbon determinations to be obtained.



Fig. 5 View north-east along the bank prior to excavation.

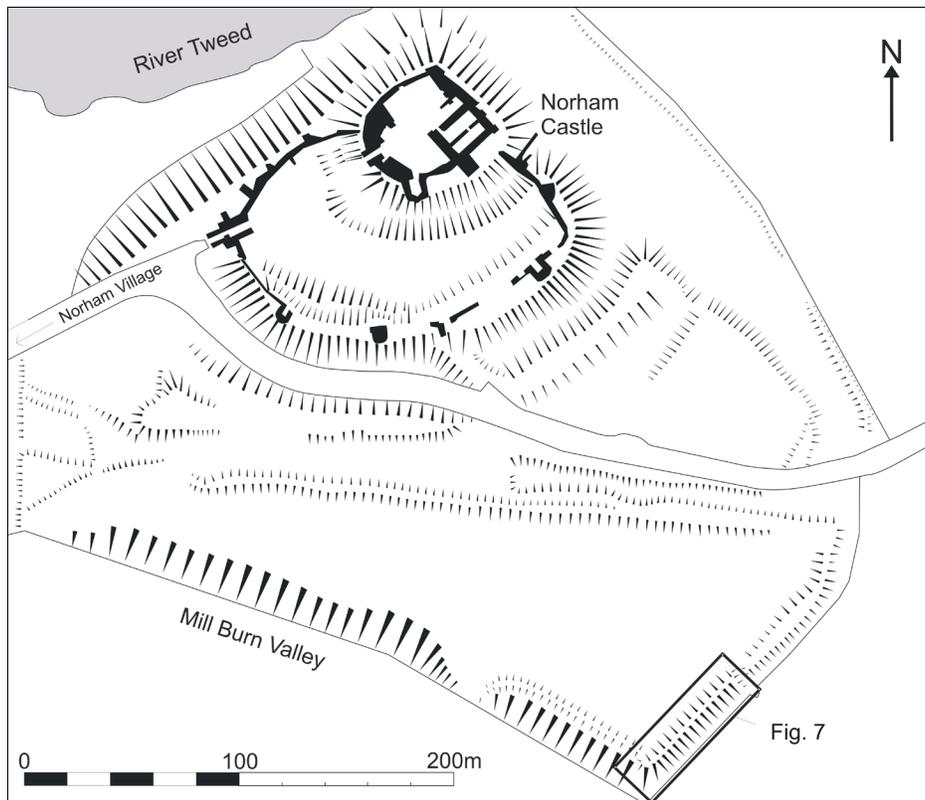


Fig. 6 Plan of the medieval castle and associated earthworks. Fig. 7 is shown as the rectangle in the bottom right. Redrawn with permission from English Heritage © (Pearson 2002).

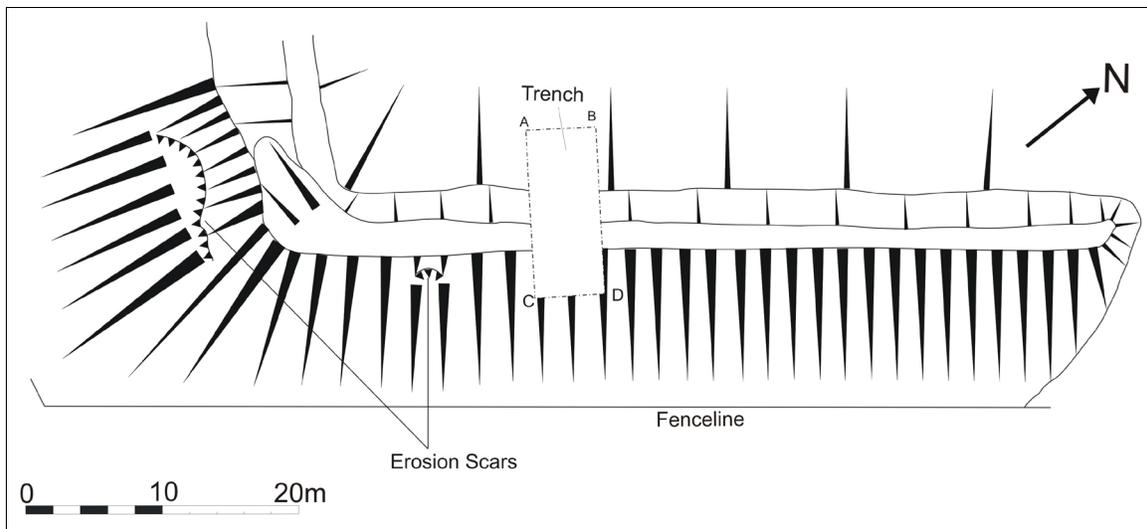


Fig. 7 Location of trench on the area of raised bank. Area of plan equates to the area marked by the rectangle in Fig. 6.

- 5.2 The area of initial excavation was laid out on the ground, covering a strip 2m wide by 12.3m long across the bank with the apex 3.4m from the eastern end of the trench. The turf and topsoil was removed by hand and kept separately for replacing at the conclusion of the works. The trench was cleaned down to the archaeological horizon where no features were found cut into the upper surface of the bank material. The trench was then extended to a width of 5m and once cleaned a 1m wide section was excavated down to the natural till and bedrock along the full length of the northern side of the trench. The site was recorded using a single context recording system and was surveyed in to the English Heritage castle survey and planned. The site was related to an Ordnance Survey benchmark and heights above sea level obtained.



Fig. 8 The bank looking south-east after removal of the topsoil and cleaning back (scales = 2m)

- 5.3 The evaluation at Norham was undertaken with the cooperation of a wide range of volunteers from the local and regional community. As well as the professional archaeologists present on site there were amateur archaeologists, members of local archaeological societies, local residents, archaeology adult learning students, university students and an A-Level college group accompanied by a lecturer. Through this increased participation the Norham project aimed to provide a greater access to the local heritage, both physically and intellectually and in turn increased learning opportunities for the participants.



Fig. 9 Surface stripping the enlarged trench with the help of volunteers.

- 5.4 At the conclusion of works, the site was reinstated in such a way as to cause as little disruption to the land as possible. The bank upcast and sediments from the 1m wide section had been kept separate from the topsoil removed earlier in the excavation and so this area was backfilled first. The topsoil was then replaced and finally the turf, which had been stacked to one side to keep it as fresh as possible.



Fig. 10 Trench after backfilling and returfing.

6. Stratigraphy Report

6.1.1 The stratigraphy of the bank consists of a turf and topsoil layer [1] averaging 0.16m in thickness and comprising a medium-fine clay-silt matrix of a medium-brown colour (7.5 YR 2.5/1). The few finds from the topsoil represent the total finds from the site. There were seven lithics along with a fragment of green-glazed pottery. The first archaeological horizon evident beneath the topsoil consisted of a compacted fine-grained grey (Gley 1 4/10Y) sandstone [3]. A maximum of 0.56m thick, this gravel horizon formed a capping layer across the bank. A dump of medium brown (7.5 YR 3/2) silty clay material [2], 0.43m thick at its maximum and containing rounded pebbles was mounded against the west side creating the shallow slope. The composition of the clay dump [2] suggests that it may have come from an alluvial/river gravel/clay setting. Beneath the gravel capping [3] there lay a horizon of red-grey redeposited boulder clay [4] which overlay the primary bank dump [5] (no colour match on the Munsell Chart for either [4] or [5]). The primary bank dump consisted of compacted light blue-grey gravel of a very uniform texture and colour suggesting that it was specially collected or quarried from one source. At its maximum it measured 0.59m thick. A small branch of wood was discovered protruding from the east end section at 0.65m below the surface sealed within the primary dump. Recognition of this primary dump layer is of the utmost importance in understanding the construction of the bank as this layer represents the first action. Beneath the primary dump lay a thin (average 0.1m thick) horizon of the natural boulder clay [6] almost identical in makeup to the redeposited boulder clay above [4]. In the west end of the trench, the red sandstone bedrock [8] lay directly beneath the topsoil, whereas at the eastern end the natural boulder clay [6] sat above a horizon of degraded red sandstone/regolith [7]. Below is a summary of the contexts recognised on the site by number.

Table of	Contexts				
Context Number	Context Description	Datum Level AOD	Small Finds	Datable Asstns.	Charred Material
1	Topsoil		6 Lithics/ 1 ceramic fragment		No
2	Dump of clay material				No
3	Compacted soft fine-grained sandstone				No
4	Redeposited Boulder clay				No
5	Gravel primary bank dump			Wooden branch	No
6	Natural Boulder Clay				No
7	Degraded red sandstone/regolith				No
8	Red sandstone natural bedrock				No

Table 1 Summary of contexts

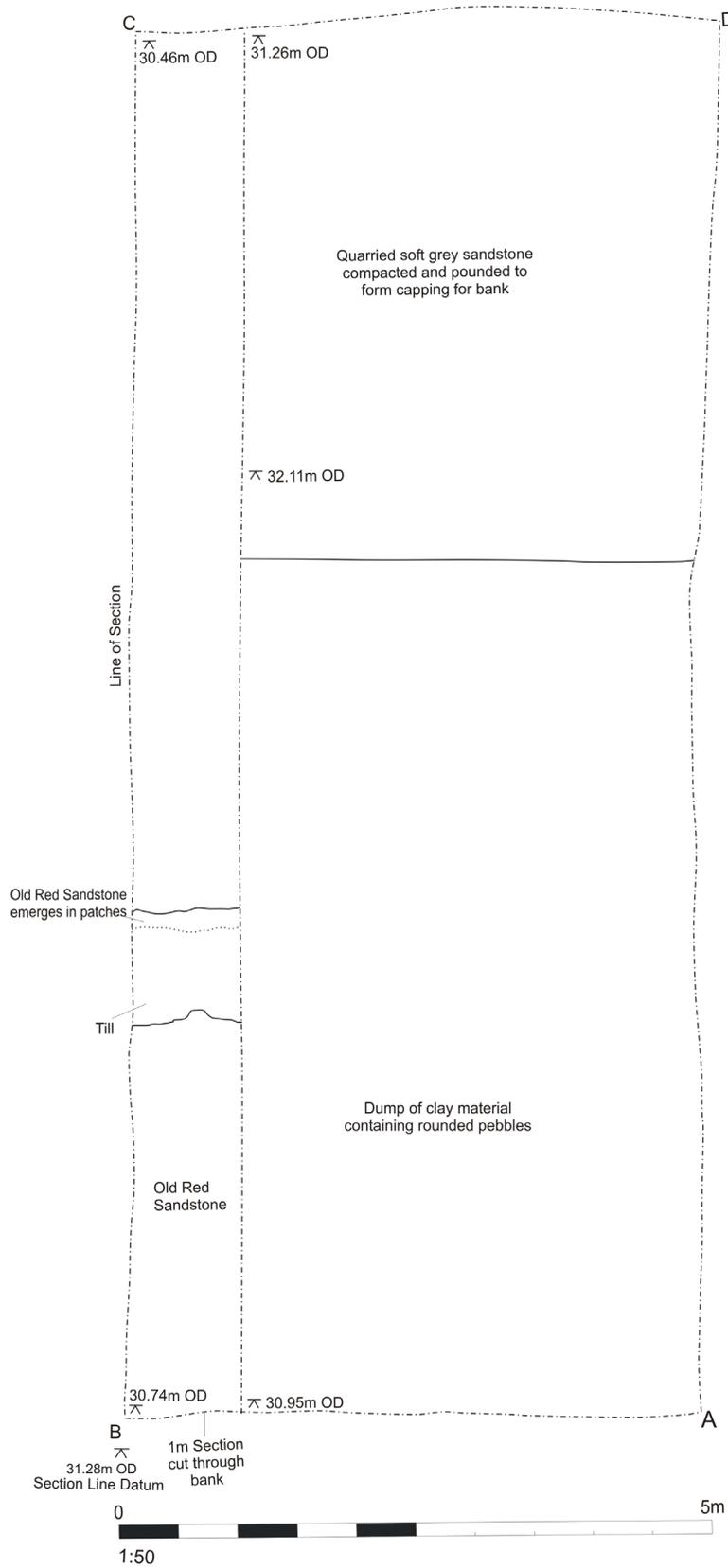


Fig. 11 Trench Plan showing section cut along the northern side.

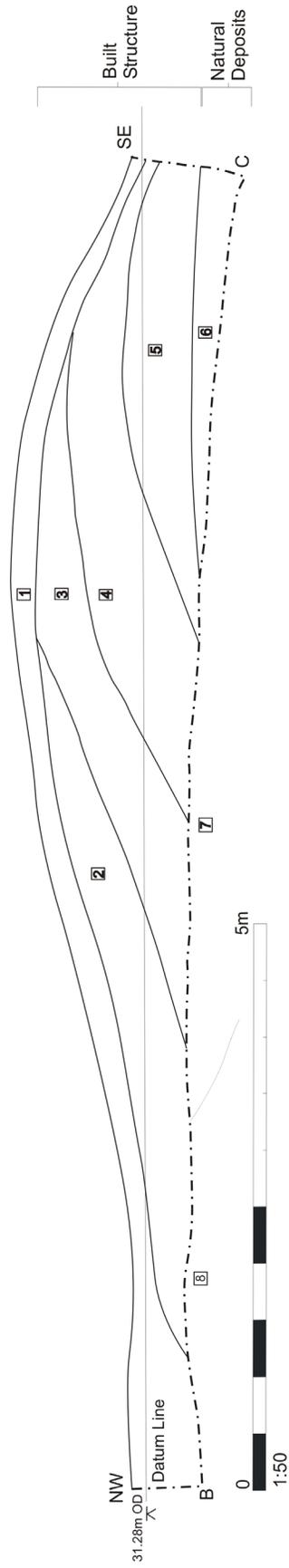


Fig. 12 Section through the bank along the trench edge B-C showing the stages of the bank construction with associated context numbers.

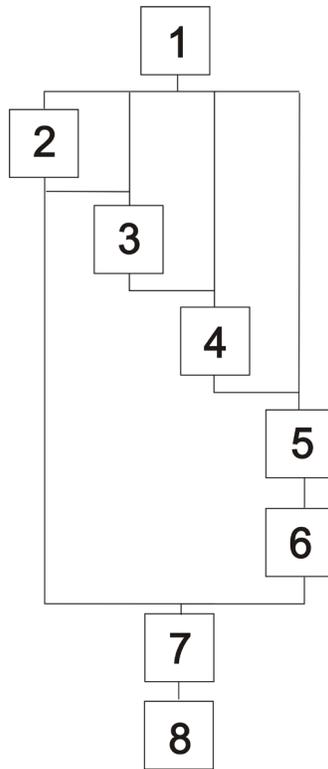


Fig. 13 Site matrix showing the stratigraphic relationships between the bank material



Fig. 14 View south-west along crest of the bank after initial cleaning looking south-west (scales = 2m)



Fig. 15 View along section with grey primary dump [5] visible at the base of the right hand section edge below the overlying clay layers (scales = 2m).

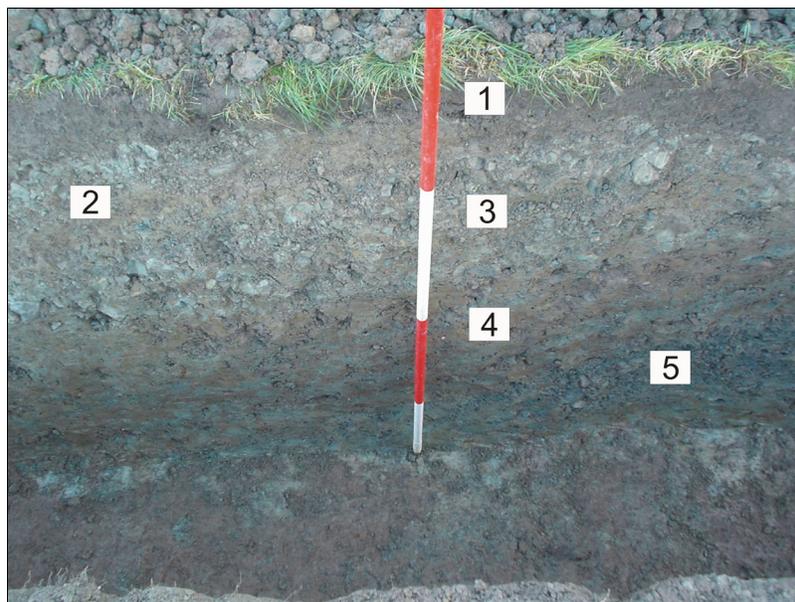


Fig. 16 Vertical view of the section from the crest of the bank showing the sequence of dumps forming the bank (scale = 2m).

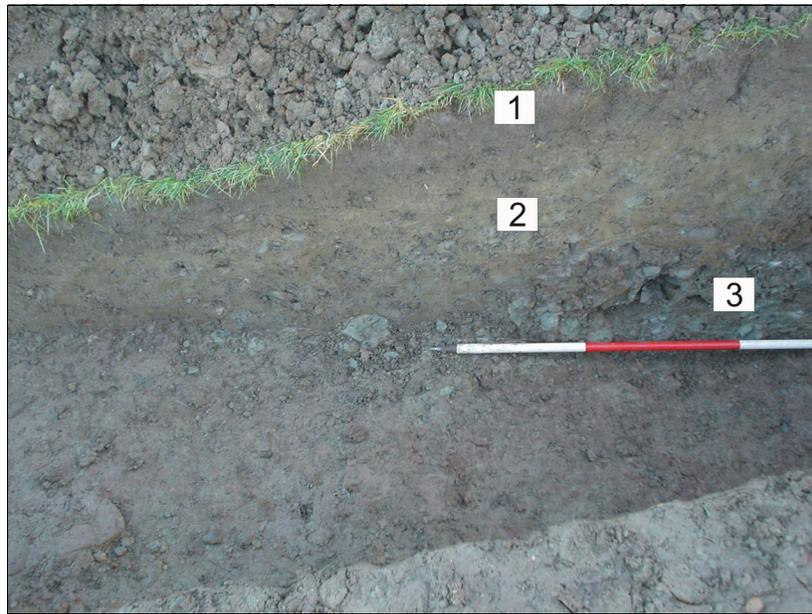


Fig. 17 View of the banks' tail where the dump [2] overlies the stone capping [3] (scale = 1.5m showing).



Fig. 18 View of the east end of the trench with part of the wooden branch visible in the section of the primary dump material [5] (scale = 1m).

7. Specialist Reports

Finds Report

By Clive Waddington

A total of eight small finds were recovered from the excavation, all of which came from the unstratified topsoil [1]. No finds other than the piece of wood were found within the archaeological deposits forming the bank structure. The finds included six pieces of struck flint, one piece of struck chert and a single sherd of medieval green glaze pottery. Although not very diagnostic the lithics included one parallel-sided blade segment likely to be of later Mesolithic date. No other datable associations were observed.

- 1 A primary flint flake made from orange-grey beach flint. It has maximum dimensions of 25mm long by 24mm wide by 11mm thick. Undiagnostic.
- 2 A broken primary flake made from light grey flint that is probably beach flint. Although undiagnostic it was conceived as a blade detachment with triangular section indicating it was flaked as part of a blade-based manufacturing tradition.
- 3 A small broken flint flake made from light grey flint. This small piece may be a segment of a blade detachment with triangular section. The surviving cortex is suggestive of a glacial origin for the flint.
- 4 A small burnt and broken blade segment that appears to have been utilised along one of its long edges. It belongs to a narrow, parallel-sided tradition of blade production and is of consistent size and morphology to equate it with Mesolithic blades found at other sites in the county (e.g. the dated Mesolithic site at Howick which dates to c.7900 cal BC, Waddington et al in press).
- 5 A small broken flake made from high quality dark flint. Undiagnostic.
- 6 A small squat blade made from red-brown flint typically found in beach assemblages and from boulder clay sources in Northumberland. It has evidence for previous small blade detachments on its dorsal surface indicating that it is from a small core that was used to produce small, squat microlith-size blades. It probably belongs to a Mesolithic tradition.
- 7 A multi-platform core made from dark grey chert. This core is small with maximum dimensions of 25mm by 27.5mm suggesting that it belongs to the Mesolithic on the basis of the microlith-size squat blade detachments that have been chipped off it.
- 8 A small broken sherd of Green Glaze pottery with a light grey inner fabric and rough fire-reddened inner surface. It has a maximum thickness of 8mm. Green Glaze pottery is typical on medieval sites in North-East England and typically dates to the 13th century AD.

Wood Identification

By Jacqui Huntley

The wood has been provisionally identified as being probably salix or prunus.

AMS Dates/Dendrochronology

By Alex Bayliss

8. Discussion and Dating

- 8.1 The earthwork is extremely well-preserved being made from robust materials and graded to form a substantial, uniform embankment. As the land surface below the bank had been scraped clean of topsoil before the construction of the bank there is little opportunity for preservation of organic material that would allow a *terminus post quem* to be obtained for the bank construction or for the preservation of environmental deposits that could shed light on land-use and vegetation around the site prior to the bank being in use. The deposits that form the bank are derived from the till deposits that mantle this area of landscape. This material must have come from excavated deposits within the immediate vicinity, with the most likely source being upcast from the large medieval ditches surrounding the castle. The relatively clear delineation between each deposit/horizon within the bank allows for a clear understanding of the construction sequence for the area of bank investigated. It appears to have been constructed as a single, planned event with no evidence in the investigated section for having been modified throughout its use-life.
- 8.2 The date of the bank remains ambiguous at present. A small branch of wood was recovered from a sealed context within the primary dump and it is hoped that this can provide a radiocarbon determination, and therefore a *terminus ante quem*, for the bank construction. The lack of any evidence for a breastwork surmounting the bank implies that the bank may not have functioned as a defensive rampart, however this is not conclusive proof of a non-defensive function as it could have been constructed simply as a glacis dump surmounted by an intended fighting platform. With so little known about lowland 'hillfort' sites in Northern Britain it is difficult to arrive at any kind of date estimate based on the morphological and constructional details of the bank. However, the huge amount of labour involved in constructing this bank required by the excavation and then mounding up of the till deposits, suggests a more modern rather than prehistoric date for this feature.

- 8.3 The most important horizon recognised within the stratigraphy is the primary dump. This layer was mounded onto the natural surface after the removal of topsoil and consists of relatively fine gravel of uniform texture. It would seem that the materials for this first phase of construction were extracted or quarried from the same source at the same time. The second phase of the construction was the mounding up of the natural boulder clay against and above the primary dump of gravel. It is possible that the boulder clay for this horizon was mounded up from the north-west side of the bank where the later bank material and topsoil sat directly on the Old Red Sandstone bedrock. The third stage took the form of a layer of compacted and pounded soft grey sandstone which formed the metalled capping of the bank at its highest point. This appears to have been reinforced/consolidated by a final layer of pebbly clay on the north-west face. The inclusions within the matrix of the layer suggest a fluvio-glacial provenance. No features found cut into the bank.
- 8.4 Due to the lack of features and small finds at the site, there has been little opportunity to explore further interpretive issues such as lifestyles and subsistence strategies.

9. Conclusion

- 9.1 The bank represents a substantial, carefully planned and well-executed feature. The bank is of uniform morphology and its constructional form was consistent across the area investigated. The latter observation implies that it is probably of uniform construction along its length. Although occupying a position that would lend itself to the defence of the promontory, the bank displayed no structural evidence for any kind of breastwork or other defensive features. Therefore it remains uncertain as to whether this bank represents a defensive earthwork or some other embanked feature. The movement of a significant volume of heavy clay to construct this feature is considered more consistent with a medieval or later date rather than a prehistoric date, however subsequent dating should shed more light on the dating issue.

10. Publicity, Confidentiality and Copyright

- 10.1 Any Publicity will be handled by the client.
- 10.2 Archaeological Research Services will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act, 1988.

11. Statement of Indemnity

- 11.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

Acknowledgements

We would like to record our thanks to the landowner Mr. Orpwood who kindly gave permission for this work to go ahead. We would also like to thank English Heritage for their cooperation with the various aspects of the project including specialist analysis and comment, in particular Kate Wilson, Trevor Pearson, Al Oswald, Jacqui Huntley and Alex Bayliss. Thanks are also due to the University of Newcastle upon Tyne who kindly funded the work and to Dave Passmore for his support and encouragement. A final thank-you goes to the volunteers and students who participated in the fieldwork, and without whom the excavation could not have been completed on time.

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Appendix 1 Project Design

Archaeological Project Design for a Small Evaluation Trenching Project in the Lower Tweed Valley

For: University of Newcastle
By: Archaeological Research Services Ltd.

3rd January 2005

1. Introduction

1.1 This specification has been prepared by Archaeological Research Services for The University of Newcastle. It consists of a project design for small-scale evaluation trenches on a maximum of two enclosure sites in the Lower Tweed Valley.

2. Background

2.1 The Lower Tweed Valley is currently the subject of study for the Till-Tweed Geoarchaeology Project and recent aerial photograph transcription has identified a substantial number of prehistoric enclosure sites. None of these sites have yet been tested by excavation and there is currently no dating available for these sites. As a result little is known of the form, function, date or condition of preservation of any of these sites. All the sites currently highlighted as potential candidates for evaluation lie on raised fluvio-glacial terraces and these landforms have been shown to be sensitive archaeological areas in other areas of the valley system (Passmore *et al.* 2002).

3. Aims and Timing

3.1 This project aims to accord with national and regional research agendas and in particular those relating to later prehistoric studies. The principal aim of this work is to sample at least one, and possibly two, prehistoric enclosure sites in the Lower Tweed valley in order to: (1) characterise their condition of preservation, (2) obtain dating information, and (3) add to the understanding of form and function of these monuments. Currently no prehistoric enclosures along this valley have been examined by way of archaeological excavation and their chronology remains unknown. In order to feed into the larger 'Till-Tweed Project' it is considered essential to obtain some dating control on this, the most numerous monument form, recognised by aerial survey as part of this project. Sites that can be highlighted as being of particular interest include the enclosure recently identified around Norham Castle which, if it is Iron Age, would form the

largest hillfort in the North-East region enclosing an area greater than Yeavinger Bell. This site has upstanding banks and ditches and so has good potential for providing dating material from either a sealed land surface below the bank, and/or from primary silts from the ditch fill. Similarly the enclosure at Green Hill near Horncliffe, which is also located on a bluff overlooking the river Tweed, also has a low upstanding bank and buried ditch and this could similarly provide dating material. Other sites considered to have good potential for dating include an unusual and unclassified enclosure at Groathaugh on a low terrace above the river Tweed and a possible mortuary enclosure near Wark on Tweed.

3.2 Given constraints of time and resources it is proposed to undertake 6 days of fieldwork utilizing a combination of professional staff and volunteers from the Borders Archaeological Society. It is intended to run the project during February 2005 with the excavation report completed by the end of February or early March. Any dating samples could be submitted shortly after excavation with an expected return date of May 2005. This would allow sufficient time for the results to be incorporated with the Till-Tweed monograph.

3.3 The project aims can be summarised as follows:

- Identify and record the condition of preservation of archaeological deposits at prehistoric enclosure sites in the setting of the Lower Tweed glacial deposits.
- Establish the chronological range of the enclosures selected for evaluation.
- Characterise the nature and form of the structural remains.
- Acquire any evidence for lifestyles and subsistence strategies.
- Identify any linkages with the surrounding monuments in order to understand how the site relates to the surrounding contemporary landscape.



The Green Hill Enclosure bank with possible entrance in left middle ground

4. Strategy

4.1 It is intended to sample one, and hopefully two, of these monuments by way of a series of evaluation trenches in order to minimise the impact on surviving archaeological remains. It is not yet known exactly how many trenches will be excavated as this will depend of the complexity of any stratigraphy encountered and the number of volunteers available. However, it is anticipated that three-four trenches will be excavated that are expected to measure in the order of 12m by 2-5m each. All trenches will be excavated by hand so that any upstanding archaeology is not removed by machine prior to any recording. As none of these monuments in this environment have so far been excavated it is considered important that this initial work should be undertaken cautiously with careful inspection of the stratigraphy as work progresses.

5. Project Management and Standards

5.1 The project will be carried out in compliance with the codes of conduct of the Institute of Field Archaeologists (IFA) (2000) and will follow the IFA Standard and Guidance for Excavations (1995).

5.2 All staff employed on the project will be suitably qualified and experienced for their respective project roles and have practical experience of archaeological excavation and recording. A dedicated project officer will be appointed working directly to CW and this person will have responsibility for organising the project (e.g. arranging all the volunteer help, accommodation, logistics *etc.*), as well as for undertaking all the post-excavation work which will include producing a full excavation report, creating an OASIS record, arranging the archive and passing it on to the County SMR and Museum of Antiquities as relevant, mounting and indexing all slides and photographs as well as producing all the illustrative records and figures (e.g. plans, sections, small find drawings, matrix *etc.*). All staff will be made aware of the results of the previous work carried out as part of the Till-Tweed Project and will be fully briefed of the work required by this project design. Each member of staff will be fully conversant with the aims and methodologies and will be given a copy of the project design to read. The excavation team will be led by Clive Waddington who is an expert on the archaeology and geomorphology of the area and is also a lithics and prehistoric pottery specialist. This will ensure that appropriate decisions regarding environmental and dating sampling will be able to be made in the field.

5.3 Deposits that have the potential for providing environmental or dating evidence will be assessed while work is in progress.

6. Methods

6.1 Topsoil and unstratified modern material will be removed by hand in successive spits down to the beginning of the archaeological horizon.

- 6.2 No machinery will track over areas that have previously been stripped.
- 6.3 The whole area will be cleaned using appropriate hand tools in order to expose any surviving archaeological features and deposits.
- 6.4 The cleaned areas will be scanned with a metal detector to identify whether any buried metal artefacts survive. This is particularly relevant for Anglo-Saxon remains that may include fragments of grave goods associated with burials.
- 6.5 Areas containing archaeological features and deposits will be recorded on a pre-excavation plan before excavation, sampling and recording.
- 6.6 All features exposed will be sampled and excavated by hand. 100% of all feature fills will be put through a 10mm mesh and the residue collected. If the residue is thought to have potential for environmental sampling it will be floated on site and passed through graduated sieves with the smallest being 500 μ (0.5mm). All deposits will be assessed for their potential for providing environmental or dating evidence.
- 6.7 In the event of human burials being discovered, they will be left *in situ*, covered and protected and the coroners' office informed. If removal is essential, work will comply with relevant Home Office regulations.
- 6.8 Appropriate procedures under the relevant legislation will be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996.
- 6.9 During and after the excavation, all recovered artefacts and environmental samples will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (this will include controlled storage, correct packaging, regular monitoring of conditions, immediate selection for conservation of vulnerable material).

7. Recording

- 7.1 The site will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area.
- 7.2 A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pro-forma record sheets and text descriptions appropriate to the work. Accurate scale plans and section drawings will be drawn at 1:50, 1:20 and 1:10 scales as appropriate
- 7.3 All archaeological deposits and features will be recorded with above ordnance datum (AOD) levels.

7.4 A photographic record of all contexts will be taken in colour transparency and black and white print and will include a clearly visible, graduated metric scale. A register of all photographs will be kept.

7.5 Where stratified deposits are encountered, a 'Harris' matrix will be compiled.

8. Finds Processing and Storage

8.1 All finds processing, conservation work and storage of finds will be carried out in compliance with the IFA guidelines for Finds Work (2001) and those set out by UKIC (1990).

8.2 Artefact collection and discard policies will be appropriate for the defined purpose.

8.3 Finds will be scanned to assess the date range of the assemblage and to establish the potential for further information for all categories of finds.

8.4 Bulk finds which are not discarded will be washed and, with the exception of animal bone, marked. Marking and labeling will be indelible and irremovable by abrasion. Bulk finds will be appropriately bagged, boxed and recorded. This process will be carried out no later than two months after the end of the excavation.

8.5 All small finds will be recorded as individual items and appropriately packaged (e.g. lithics in self-sealing plastic bags and ceramic in acid-free tissue paper). Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. This process will be carried out within two days of the small find being excavated. Prehistoric pottery will not be cleaned or be subject to any abrasion or loss of adhering residues.

8.6 During and after the excavation all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (inc. controlled storage, correct packaging, and regular monitoring, immediate selection for conservation of vulnerable material). All storage will have appropriate security provision.

8.7 Assessment and analysis of artefacts and environmental samples will be carried out by an approved named specialist. Lithics and pottery will be looked at by Clive Waddington while environmental assessment will be undertaken by Jacqui Cotton or Basil Davies (after consultation with Dave Passmore & Jacqui Huntley).

8.8 The deposition and disposal of artefacts will be agreed with the legal owner and Museum of Antiquities prior to the work taking place. All finds except treasure trove are the property of the landowner.

8.9 All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of the recipient museum.

9. Site archive

9.1 The archive will be compiled in an orderly fashion to the standards and format set out in Management of Archaeological Projects (HBMC 1991) and in accordance with the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990). This includes the indexing, ordering, quantification and checking for consistency of all original context records, object records, bulk find records, sample records, skeleton records (if recovered), photographic records, drawing records, photographs, drawings, level books, site note books, spot dating records and conservation records. A stratigraphy report and site matrix will accompany the primary record together with copies of all specialist reports, summary documents and photographic archive.

9.2 The archive will be deposited with the County SMR within 6 months of the fieldwork. Artefacts and a copy of the archive reports will be deposited with the regional collections museum (Museum of Antiquities) once all post-excavation work is completed and the final report produced.

9.3 A full OASIS record will be submitted for this work. ARS is a registered user of OASIS.

10. Report

10.1 An archive report will be produced once archaeological work has been completed. Two copies of each archive report (one bound, one unbound) will be submitted to The NCC Conservation Team. Each report will be bound with each page and paragraph numbered and will include as a minimum the following:

- A location plan of the site
- A location plan of the excavation showing the distribution of archaeological remains across the site. This will be at a suitable scale, and located with reference to the national grid, to allow the results to be accurately plotted on the Sites and Monuments Record.
- Detailed plans and sections of all archaeology located.
- A summary statement and discussion of the results.
- A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds.

11. Dissemination/Publication

11.1 A copy of the report will be submitted by ARS to the University of Newcastle and the County SMR within 2 months of the completion of the work.

The results of the work will be incorporated with the publication of the Till-Tweed Project monograph.

12. Monitoring

12.1 The NCC Conservation Team will be informed of the start date and timetable for each area in advance of work commencing. Reasonable access to the site will be allowed to the County Archaeologist or their nominee for the purpose of monitoring the archaeological scheme at all times.

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