
NORTH PENNINES ARCHAEOLOGY LTD

Client Reports No. CP/576/08

**ARCHAEOLOGICAL
WATCHING BRIEF
REPORT ON
LAND AT
FORCETT QUARRY,
EAST LAYTON,
RICHMONDSHIRE,
NORTH YORKSHIRE**



**FOR
HANSON LTD**

NGR NZ 159 106

OASIS REF: northpen3-41819

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6th May 2008



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EXECUTIVE SUMMARY

North Pennines Archaeology Ltd (NPAL) was invited by Andrew Josephs, Environmental Consultant, on behalf of his client, Hanson Aggregates Limited, to undertake an archaeological watching brief at Forcett Quarry, East Layton, Richmondshire, North Yorkshire (NGR NZ 159 106). The works involved a structured watching brief to observe record and excavate any archaeological deposits from the extraction area. A previous Desk-Based Assessment was undertaken of the area (Rees 2005), as well as a geophysical survey (Heapy and Webb 2006). The conclusions drawn from these works were that there remained the potential in the proposed extraction area for archaeological remains in the form of rural agriculture practices, either ridge and furrow earthworks or drainage systems. As a result, the North Yorkshire County Council Heritage Section, who advise Richmondshire Council recommended a watching brief be conducted on the extension site. This consisted of five non-consecutive days, undertaken throughout late February and March 2008.

The archaeological watching brief proved to be a good opportunity to locate, expose and record the history of land-use on the site, relating to post-medieval agriculture practices, such as ploughing and drainage. The recovery of a horseshoe large enough to fit a heavy draught horse such as a Shire or Clydesdale is indicative of the ploughing techniques employed on the area in the past. The blade like implement retrieved may also be connected to ploughing. Examples of numerous horseshoe-type field drains were recovered, themselves providing a good date range for when the land was improved, probably in the latter half of the 19th century.

The survival of late 19th century deposits within the site is of restricted local interest. As nothing of an earlier date was observed throughout the watching brief it can be surmised that no further deposits, artefacts, features or layers remain in the quarry expansion area, despite features being located just beyond the perimeter of the present extension.

ACKNOWLEDGEMENTS

North Pennines Archaeology Ltd would like to thank Hanson Aggregates Ltd, for commissioning the project and Dominic Doyle, Quarry Manager at Forcett, for his continued assistance throughout the project.

Further thanks are extended to Peter, Site Foreman for Forcett Quarry and to Jimmy, Project Foreman for Colton and colleagues for all of their help with the fieldwork aspect of this project.

The archaeological watching brief was undertaken by Nicola Gaskell, David Jackson and Matthew Nichol. Finds analysis, report writing and drawing production were undertaken by Nicola Gaskell. The project was managed by Matt Town, Project Manager for NPAL. The report was edited by Matt Town.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Andrew Josephs, Environmental Consultant contacted North Pennines Archaeology Limited, on behalf of his client Hanson Aggregates Limited with a request to tender for an Archaeological Watching Brief at Forcett Quarry, East Layton, Richmondshire, North Yorkshire (NGR NZ 159 106) (Figure 1). Gail Falkingham, Team Leader for Heritage and Environment at North Yorkshire County Council placed a condition on the extraction consent. The work was required as an extension was due to take place within the quarry in an area previously highlighted by a desk-based assessment and geophysical survey as having archaeological potential. Following the acceptance of a Project Design issued by NPAL Hanson Aggregates formally requested NPAL to undertake the work, beginning in late February 2008.
- 1.1.2 All ground-works associated with the soil stripping prior to extraction had to be excavated under a full watching brief condition. The objective of this watching brief was to obtain an adequate record of any archaeological deposits or finds, which would be disturbed or exposed by work associated with the development. All stages of the archaeological work were undertaken following approved statutory guidelines (e.g. IFA 2002) and professional standards.
- 1.1.3 This report comprises the results of the archaeological work programme, namely: the archaeological monitoring of the groundworks associated with the soil stripping prior to limestone extraction.

2 METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 A project design was prepared by Matt Town, NPAL Project Manager in accordance with a specification prepared by Gail Falkingham, the North Yorkshire County Council Heritage and Environment Team Leader. This was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists (IFA), and generally accepted best practice.

2.2 THE WATCHING BRIEF

- 2.2.1 The archaeological monitoring and supervision of the soil stripping associated with the quarry extension commenced on 28th February 2008 and was concluded on 27th March 2008, over five non-consecutive days. The works involved a structured watching brief to observe record and excavate any archaeological deposits from the stripping site. The machine stripping the area was a Komatsu PC 340 with an individual bucket capacity of approximately 4 tonnes. The soil was removed by three Volvo A30C dumpers, each capable of taking approximately 30 tonnes.

2.3 ARCHIVE

- 2.3.1 A full professional archive has been compiled in accordance with the project design, and with current UKIC (1990) and English Heritage guidelines (1991). The archive will be deposited within an appropriate repository and a copy of the report given to the County Historic Environment Record, at Northallerton, where viewing will be available on request. The archive can be accessed under the unique project identifier NPA08, FOR-A, CP576/08.
- 2.3.2 North Pennines Archaeology and the North Yorkshire County Council Heritage and Environment Team support the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an online index and access to the extensive and expanding body of grey literature created as a result of developer-funded archaeological fieldwork. As a result, details of the results of this study will be made available by North Pennines Archaeology, as a part of this national project.

3 BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1.1 The extraction area lies within a rural context on the northern edge of the village of East Layton, Richmondshire, North Yorkshire (NGR NZ 159 106). It consists of a tree plantation, previously improved for arable growth in the late 19th century.
- 3.1.2 Topographically the ground is at 140-150m AOD, being situated on ground that rises up from Cadwell Beck to the north of the site. The site geology comprises Great Limestone and Four Fathom Limestone overlain by drift deposits of boulder clay. The soils which are classified in the Duneswick association are described as fine loams that are prone to water-logging (Heapy and Webb 2006).

3.2 HISTORICAL BACKGROUND

- 3.2.1 **Introduction:** this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments specific to the study area.
- 3.2.2 Prior to the desk-based assessment in 2005 by Rathmell Archaeology and the geophysical survey in 2006 by WYAS there were no previous archaeological site investigations within the extraction area. The consent for continued extraction was given in 1991 and at that time no archaeological works were required.
- 3.2.3 The Yorkshire Dales Mapping Programme encompassed the proposed extraction area and identified a number of sites within and around the proposed extraction area. This survey was conducted between 1988 and 1992 by the National Archaeological Record and the Air Photography Unit of the Royal Commission on the Historical Monuments of England was based primarily on the 1st edition Ordnance Survey and aerial photograph sources.
- 3.2.4 The majority of sites located within the study area by the Yorkshire Dales National Mapping Programme are remnants of former agricultural systems (ridge and furrow and field dykes). Often these correlate with field boundaries illustrated on either the 1845 Tithe Map or the 1st edition Ordnance Survey (Rees 2005).
- 3.2.5 The archaeological baseline as defined by the desk-based assessment showed how there were no known sites within the expansion area with the exception of part of a nineteenth century quarry. It concluded that the expansion area would not affect any known archaeological sites that had not already been compromised by previous mineral extraction and that the potential for new sites was considered to be low, however, given the proliferation of sites in the surrounding area the chance of previously undetected archaeology remained (Rees 2005).

4 WATCHING BRIEF RESULTS

4.1 THE ARCHAEOLOGICAL WATCHING BRIEF

- 4.1.1 The watching brief was carried out over 5 non-consecutive days between the 28th February and 27th March 2008. Delays between the observation days were encountered due to adverse weather conditions which forced stoppages in the stripping area, either due to the waterlogged soil or the limestone becoming too wet and slippery for the on-site dumping vehicles to be able to drive safely over. Further delays were caused by the felled trees not being shredded, thereby allowing access for the machine. The area under observation had already been the subject of a desk-based assessment conducted by Rathmell Archaeology in 2005 (Rees 2005), with the conclusion that the area of proposed quarry extension maintained a potential for previously undetected archaeologically significant remains.
- 4.1.2 The entire area to be observed measured approximately 1.7ha (Figure 2) and was cleared of trees before the soil stripping and observations could take place. The size of the machine coupled with three dumpers to aid the removal of the soil meant that the process happened quickly. The earliest deposit observed was the top of the limestone, appearing as a very flat and even surface, approximately 6m below the topsoil. The limestone was very pale yellow in colour and was being utilised as the roadway for vehicles in the quarry. This was overlain by approximately 5m of boulder clay which varied in colour from mid grey to pale yellow. This layer contained frequent inclusions of medium to large sized limestone boulders.
- 4.1.3 The boulder clay was present across the entirety of the observed area, covering the limestone bedrock. The clay was in turn overlaid by a subsoil layer that comprised up to 0.40m thick light brown to yellow sandy clay that carried occasional inclusions of medium sized limestone pieces. This layer was partially affected by the roots of the trees that had just been removed.
- 4.1.4 The subsoil layer was covered by the topsoil layer, which was recorded as being on average between 0.20m and 0.40m thick. It comprised dark brown silty clay that was heavily affected by tree roots. A high percentage of splinters of wood and tree bark had also mixed in with this layer during the removal of the trees.
- 4.1.5 The only items of archaeological interest that were recovered included an unidentified ferrous metal object (iron) that measured 250mm in length and 25mm in width and 5mm in thickness and could be described as an agricultural tool such as a blade or knife and a ferrous (iron) horseshoe with a width of approximately 200mm, large enough for a heavy draught horse such as a Shire or Clydesdale. Samples of horseshoe-type field drain were examined on site but not retained. No further features, layers, deposits or artefacts of archaeological interest were observed.

5 CONCLUSIONS

5.1 CONCLUSIONS

- 5.1.1 No features, layers or deposits of archaeological interest were revealed within the soil strip. Only three items of a late 19th century date were recovered from the ground, two ferrous objects, a thrown horseshoe and possibly a knife or plough blade, both random finds in the topsoil layer and a sample of a horseshoe-type ceramic drain.
- 5.1.2 The archaeological watching brief carried out on the quarry extension area proved to be an opportunity to record the land-use in the immediate vicinity, relating to agricultural practices, namely land improvement in the form of field drains in what are soils notorious for water-logging and ploughing with horses. No more extensive evidence of human activity in the area was noted during the rapid removal of the soils.

5.2 RECOMMENDATIONS

- 5.2.1 As the entirety of the observed area has now been wholly removed no recommendation for any further archaeological work is required.

6 BIBLIOGRAPHY

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In Figure 1: Ordnance Survey 1:50000 HMSO © Crown Copyright

6.2 SECONDARY SOURCES

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APPENDIX 1: FIGURES

APPENDIX 2: PLATES



Plate 1 : Day 1 of stripping looking southeast



Plate 2: Day 1 of stripping looking south



Plate 3: Day 1 of stripping looking northeast



Plate 4: Day 1 excavations looking southeast



Plate 5: Day 2 excavations looking northeast



Plate 6 : Day 5 excavations looking south



Plate 7 : Day 5 excavations looking northwest



Plate 8 : Day 5 excavations looking northeast



Plate 9 : Aerial view of Forcett Quarry with Watching Brief area towards the top right