

**Whitehall Road/Walsh Lane, New
Farnley, West Yorkshire**

**Report on an Archaeological Watching
Brief**



Undertaking of Ground Reduction

ARS Ltd Report 2009/82
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Contents

List of Figures.....	1
Executive Summary.....	2
1. Introduction.....	3
2. Location, Land Use and Geology.....	3
3. Methodology.....	4
4. Results.....	6
5. Discussion.....	8
6. Conclusion.....	10
7. Publicity, confidentiality and copyright.....	10
8. Statement of indemnity.....	10
9. Acknowledgements.....	11
10. References.....	12
Appendix I - Plan and Section Drawings.....	13
Appendix II - Context register.....	17
Appendix III - Photographic Register.....	18
Appendix IV - Soil Sample Report.....	19

List of Figures

1.	Site location.....	3
2.	Site plan showing location of groundworks and trenches.....	5
3.	Area of ground reduction to the north-west of the site.....	6
4.	Section A, Showing pit (004)	7
5.	Section A, Showing pit (003)	7
6.	Section A, Showing pit (005)	9
7.	Pit (001) Half sectioned.....	10
8.	Plan of pits within the ground reduction phase.....	14
9.	Plan of pits after foundation trench excavation.....	15
10.	Sections of various pits.....	16

Executive Summary

An archaeological watching brief was undertaken by Archaeological Research Services Ltd on groundworks comprising ground reduction and foundation trenches. Excavation was undertaken prior to the construction of a bungalow on open ground bounded by Whitehall Road and Walsh Lane at New Farnley, West Yorkshire.

The watching brief focused on an area to the north and west of the site which underwent ground reduction excavation, followed by foundation trench excavations in the above area and extending into the south east sector of the site. A series of 22 pits randomly located in a compact cluster were identified either in plan or section during these excavations, they were of unknown origin and function. This watching brief did not reveal any other archaeological features, deposits, buried land surfaces or small finds during the groundworks.

1. Introduction

1.1. This report presents the findings of an archaeological watching brief undertaken by Alvaro Mora-Ottomano of Archaeological Research Services Ltd (ARS Ltd) on land bounded by Whitehall Road and Walsh Lane, New Farnley, West Yorkshire, during groundworks undertaken prior to the construction of a detached bungalow. The watching brief was undertaken for Mark Brotherton (Architect) and Paul Wagstaff, it was requested by West Yorkshire Archaeology Advisory Services (WYAAS) due to the position of the development site on the projected line of Roman Road 712 (Margary 1973), the current A58 Whitehall Road. A possible junction with another Roman road 150m to the west of the site increased the possibility of groundworks revealing deposits of archaeological interest.

2. Location, Land Use and Geology

2.1. The site is centred at SE 2456 3069, 3km south west of Leeds city centre (Fig. 1). A grassed area of waste ground approximately 450m² is bounded by housing to the north, east and south while coarse grassland opens out to the west; at a maximum height of 133m OD the ground gently slopes north-west to south-east to a low height of approximately 130m OD.

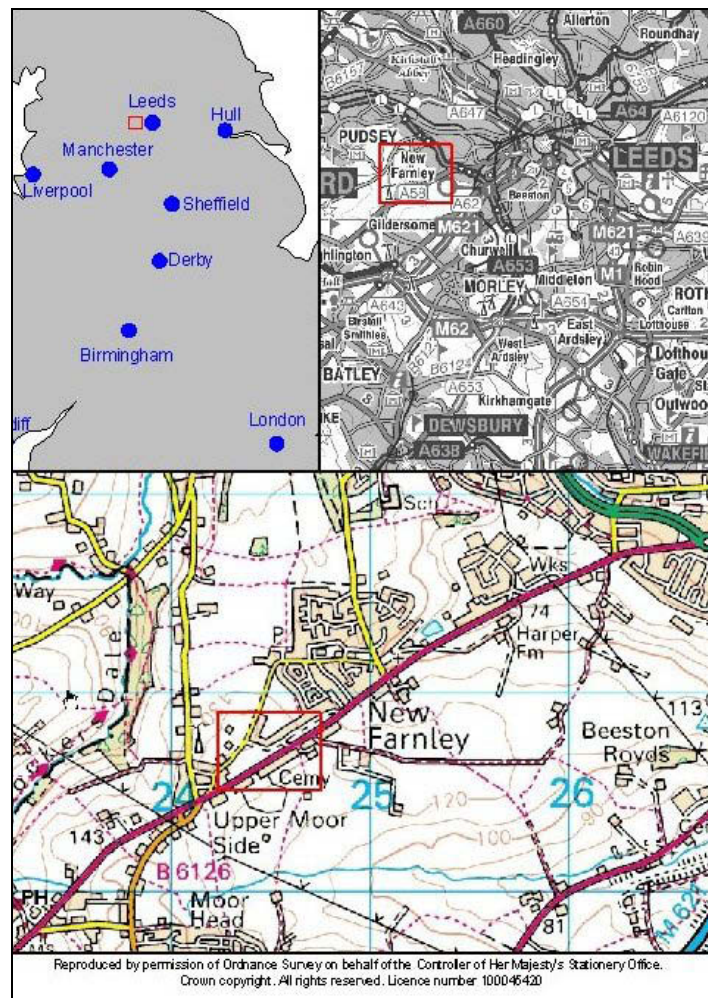


Fig. 1 Location of site

- 2.2 The underlying geology of the site is Pennine Lower Coal Measures and South Wales lower Coal Measures (undifferentiated), comprising Mudstone, Siltstone, Sandstone, Coal, Ironstone and Ferricrete (British Geological Survey 2009). The bedrock was overlain by superficial deposits of Glacial Till.

3. Methodology

- 3.1 The excavation initially undertaken was within the north-west sector of the site and necessitated ground reduction to facilitate a working level for further excavation of foundation trenches. All excavation was undertaken by a small 360° excavator using a toothless bucket.
- 3.2 All aspects of the investigation were carried out in accordance with the Institute for Archaeologists' *Code of Conduct (Revised 2008)* and *Standards and Guidance for an Archaeological Watching Brief (Revised 1999)*.
- 3.3 Any features or structures were to be fully cleaned, photographed and recorded in accordance with the standard and guidance stipulated by the Institute for Archaeologists (IfA 2001) and the guidance provided in *Archaeological Science at PPG16 Interventions* (English Heritage 2006).

Fig. 2 Site plan showing location groundworks and trenches



4. Results

- 4.1 Ground reduction undertaken in the north-west sector of the site resulted in excavation of overburden and yellow clay natural substratum to a depth of approximately 1.5m in the north-west corner of this sector of the site. The overburden consisted of occasional large sandstone blocks within dark brown topsoil (023), which existed to a maximum depth of 0.4m below the surface. The underlying natural clay substratum (024) sloped downwards from west to east and was cut by a series of pits. The pits were located towards the northern and western edges of the site (Fig. 3 & 8).



Fig. 3: Pits within the area of ground reduction and the northern edge of excavation, facing east.

- 4.2 A total of eighteen pits were identified within this phase of excavation, five pits were recorded within the northern edge of the site (Section A), and one was noted within the western trench section (Section B). Twelve pits were identified in plan at the surface of the reduced ground level, with three of these pits truncated by a deposit representing modern disturbance which ran south-west to north-east across the site (Fig. 8).
- 4.3 The predominant form of the pits was circular in plan and bowl-shaped. The fills of the pits were similar, consisting of an outer circle of mid-brown clay deposit with occasional charcoal flecks (primary deposit) and a secondary fill of blueish-grey clay and yellow clay. Despite the similarity of form of the deposits, there was no clear homogeneity of fill across all the pits, as can be observed through the differing sections of pit [004] (Fig. 4) and pit [003] (Fig. 5). A representative sample of these pits were recorded and drawn in section.



Fig. 4: Section A showing pit [004], facing north.



Fig. 5: Section A showing pit [003], facing north.

- 4.4 Pit [004] measured 2.2m in width, with the mid brown primary fill (037) a comparatively regular band of approximately 0.2m in width; a secondary fill of blueish-grey clay (036) 0.4m in depth was overlain by a mottled yellow grey clay band (035) 0.25m in depth.
- 4.5 Pit [003] measured 2.2m in width and at the limit of excavation was 0.9m deep. The primary deposit (032) within this pit was not as distinguishable as within [004], while the base consisted of re-deposited natural yellow clay (034) under a blueish-grey clay fill (033) 0.2m in thickness. These two fills created a slight mound in the centre of the pit, indicative of a deliberate backfill. A band of grey clay (031) 0.15m in depth was found over (033) which in turn was under a top fill (030) composed of firm brown clay.
- 4.6 The location of the largest pit [005] identified during the watching brief was at the limit of excavation in the north-west corner of the site (Fig. 6), three metres to the west of [004]. Observed in section A, [005] measured 3.5m in width x 1.2m depth. The primary deposit (041) was overlain by clay fills (042), (040), (039) and (038). Fill (042) appears to have been created from a deliberate action of tipping clay into the pit from the western side.
- 4.7 Located centrally within the cluster of circular pits (Fig 8), pit [001] was selected for further investigation, and so in addition to full recording, environmental samples were taken from the primary fill (025). The south facing section was 2.5m in length and initially excavated to a depth of 0.34m, which was deepened to 0.84m when the foundation trenching later cut through the pit. At 0.24m to 0.5m depth (025) was initially overlain by re-deposited natural clay (027) 3.4m in depth, with a central upper fill of (026) 0.28m depth (Fig. 7).
- 4.8 After ground levelling was complete foundation trenches were laid out and excavated into natural substratum (024), the trenches measured 0.6m to 1m in width by 0.6m to 0.9m depth. The foundation trenches cut through several of the pits exposing further sections, though no new information could be gleaned (Fig. 9).

5. Discussion

- 5.1 The majority of the pits found in Whitehall Road were in a good state of preservation. Given the amount of pit features uncovered, it is possible that there might be more pits beyond the development site. Twelve of the pits were of average size, being between 2m and 2.5m in diameter, with three larger pits over 3m in diameter and seven smaller pits less than 2m in diameter. There was no spatial distinction made between the different sized pits (Fig. 9).
- 5.2 Similar pits, excavated along Westgate in Wakefield, were identified to be post-medieval tanning pits (Rebecca Mann pers. comm.). However, the pits recorded here were positioned in an unsystematic manner which does not follow the standard layout of large tanneries of medieval and post-medieval periods. Furthermore, tanning pits are often flat-based with straight sides and may contain lining such as wooden planks or the 'ghost' remnants of such; whereas the pits on this site had concave base and sides, and were devoid of any recognisable lining or artefacts within their fills.

- 5.3 It is possible that these pits might have been a cruder type of tanning pits as the primary fills extended practically to all sides and bases of the pits; and thus could have been employed as a form of linings.
- 5.4 The soil sample taken from context (025) was examined by Jennifer Jones at Conservation Services, Department of Archaeology, Durham University for evidence of industrial residues (Full report, appendix IV, p.19). No industrial residues were recovered from the soil sample, and nothing was found to support an identification of the feature as a tanning pit.
- 5.5 While it is possible that these features may represent extractive pits for removing the natural clay, this interpretation is unlikely as the pits were deliberately backfilled with clay after their use.
- 5.6 Tithe maps of 1836-51 and OS maps from 1851 to the present do not indicate any occupation or industrial structures standing on the site, while to the north of Walsh Lane they show Plane Tree Farm with Sowden Pit further north from which coal and mineral extraction were undertaken. Therefore the cluster of pits although of unknown function and precise date, probably pre-date the 19th century maps.



Fig. 6: Section area 1 showing pit (005), facing north-west.



Fig. 7: Pit [001] half sectioned, facing north.

6. Conclusions

- 6.1 The features noted during the monitoring of groundworks are of unknown origin and function. Soil sample analysis undertaken on context (025) did not reveal any evidence of tanning activities within pit [001]. No other archaeological features, deposits, buried land surfaces or finds were identified during the watching brief.
- 6.2 It is possible that pits of a similar nature will survive outside the project area though it is uncertain whether they would reveal more interpretable evidence as the features encountered during this work were well preserved yet still contained no material culture.

7. Publicity, Confidentiality and Copyright

- 7.1 Any publicity will be handled by the client.
- 7.2 Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

8. Statement of Indemnity

- 8.1 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.

9. Acknowledgements

- 9.1 Archaeological Research Services Ltd would like to thank all those involved in the successful outcome of the project. This includes Mark Brotherton (Architect), Paul Wagstaff, Rebecca Mann of West Yorkshire Archaeological Advisory Service and all the groundworkers who undertook the excavation work.

References

IfA, *Code of Conduct*, Revised edition, October 2008

IfA, *Standard and Guidance for an Archaeological Watching Brief*, Revised edition, September

Margary, Ivan D. (1973), *Roman roads in Britain*. London, John Baker

Websites

British Geological Survey www.bgs.ac.uk/geoindex/index.htm

Appendix I: Plans and section drawings

INSERT FIG. 8

INSERT FIG. 9

INSERT FIG. 10

Appendix II: Context Register

Context	Description
001	Circular pit in plan 2.4m in width x 0.85m depth. Half sectioned
002	Circular pit in plan and section 2m width x 1.4m depth
003	Circular pit in plan and section 2.4m width x 0.9m depth.
004	Presumed circular pit in section 2.4m width x 0.95m depth
005	Presumed circular pit in section 3.5m width x 1.2m depth
006	Circular pit in plan and section 2.1m width x 1.25m depth
007	Circular pit in plan and section 1.9m width x 1.15m depth
008	Presumed circular pit in section 2.2m width x 1.1m depth
009	Presumed circular pit in section 2.1m width x 0.75m depth
010	Presumed circular pit in section 1.6m width x 0.4m depth
011	Circular pit in plan 1.3m width
012	Circular pit in plan 2.3m width
013	Circular pit in plan 3.1m width
014	Circular pit in plan 2m width
015	Circular pit in plan 3.1m width
016	Circular pit in plan 2.5m width
017	Circular pit in plan 1.5m width
018	Circular pit in plan 1.5m width
019	Presumed circular pit in section. Foundation trench excavation
020	Presumed circular pit in section. Foundation trench excavation
021	Presumed circular pit in section. Foundation trench excavation
022	Presumed circular pit in section. Foundation trench excavation
023	Overburden of coarse grassland and occasional large sandstone blocks within a dark brown topsoil existed to a maximum depth of 0.4m
024	Natural sub-stratum of yellowish clay
025	Mid brown clay, primary fill and possible lining deposit of pit [001]
026	Fill of pit [001], blueish- grey clay
027	Fill of pit [001], mottled yellow grey clay
028	Fill of pit [002], re-deposited natural yellow clay
029	Fill of pit [002], mid brown clay, primary fill and possible lining deposit of pit [002]
030	Fill of pit [003], grey clay
031	Fill of pit [003], yellow clay
032	Fill of pit [003], mid brown clay, primary fill and possible lining deposit of pit [003]
033	Fill of pit [003], grey clay
034	Fill of pit [003], yellow clay
035	Fill of pit [004], yellow clay
036	Fill of pit [004], blue clay
037	Fill of pit [004], mid brown clay, primary fill and possible lining deposit of pit [004]
038	Fill of pit [005], grey clay
039	Fill of pit [005], yellow clay
040	Fill of pit [005], grey clay
041	Fill of pit [005], mid brown clay, primary fill and possible lining deposit of pit [005]
042	Fill of pit [005], blue clay
043	Fill of pit [006], yellow clay
044	Fill of pit [006], grey clay
045	Fill of pit [007], blue clay
046	Fill of pit [007], yellow clay
047	Fill of pit [007], mid brown clay, primary fill and possible lining deposit of pit [007]
048	Fill of pit [008], blue clay
049	Fill of pit [008], mid brown clay, primary fill and possible lining deposit of pit [008]
050	Fill of pit [009], grey clay
051	Fill of pit [009], blue clay
052	Fill of pit [009], the same as (053)
053	Fill of pit [009], mid brown clay, primary fill and possible lining deposit of pit [009]
054	Fill of pit [010], yellow clay
055	Fill of pit [010], mid brown clay, primary fill and possible lining deposit of pit [010]

Appendix III: Photographic Register

Photo No.	Film/ Frame	Facing	Scale	Description
1				General view of ground reduction
2				General view of ground reduction
3				General view of ground reduction
4				General view of ground reduction
5		NE	2x1m	General view of pits
6		E	2x1m	General view of pits
7		E	2x1m	General view of pits
8		N	1m	South facing section A
9		N	1m	South facing section A
10		E	2x1m	General view of pits
11		SW	2m	North facing section through pit [001]
12		S	2m	North facing section through pit [001]
13		W	1m	East facing section of pit [002]
14		N	2x1m	South facing section of pit [003]
15		N	2x1m	South facing section of pit [004]
16		NE	2x1m	South facing section of pit [005]
17		NW	2x1m	South facing section of pit [005]
18		N	1m	South facing section of pit [006]
19		N	1m	South facing section of pit [007]
20		E	1m	East facing section of pit [001]

Appendix IV: Soil Sample Report

REPORT TO ARCHAEOLOGICAL RESEARCH SERVICES ON THE EXAMINATION OF A SOIL SAMPLE FROM WHITEHALL ROAD, NEW FARNLEY, W YORKS (WHR09)

Jennifer Jones, Conservation Services, Dept of Archaeology, Durham University

Introduction

The soil sample (Sample <1>) formed the first fill of a pit which was thought to possibly be a tanning pit. The aim of the examination was to detect any inclusions of industrial residues which might assist in identifying or confirming the function of the pit.

Methodology

The soil was examined visually and under X16 magnification, where appropriate. Lumps of material were broken apart by hand to examine fresh surfaces and to search for pieces of concealed residue.

Soil sample

The main matrix of the sample was a yellowish brown sandy clay (Munsell 10YR 4/4). Distributed through this were lumps/lenses of a grey clay (Munsell 2.5Y), which were found to be marbled with thin orange streaks when broken. Further smaller spots and nodules of a soft, red, clay-rich material (Munsell 2.5YR 5/8) also occurred within the matrix. A few irregularly shaped (up to c30mm) harder pieces of a similar red geology were also present, as was the occasional small (up to c15mm) pebble.

A dark, thin, discontinuous brittle layer was observed around the edges of many of the intact lumps/lenses of the grey clay. Under microscopic examination this layer resembled bituminous material, and attempts were made to dissolve a sample in turpentine substitute. The sample showed no dissolution, and it was concluded that the material was not organic but most probably an iron-rich compound, formed around the grey clay during burial.

Flecks and small (up to c5mm) flakes of charcoal were present frequently throughout the main matrix, though absent from the grey clay. The charcoal was mostly very soft and abraded. A few pieces of presumably hand recovered charcoal accompanied the soil sample. These were examined and found to be unusually hard - possibly partly vitrified by an unknown process. Vitrification made a positive identification impossible, though the charcoal was tentatively identified as oak (*Quercus robur*).

Discussion and Recommendations

No industrial residues were recovered from the soil sample, and nothing was found to support an identification of the feature as a tanning pit. The soil, though variable in colour and texture, was found to be almost 'clean', with only small quantities of charcoal and the occasional small piece of geology found in it. The lensing of the grey clay with its

irregular orange (oxidation?) marbling does not suggest formation or deposition in a high energy environment.

However, tanning does not leave durable inorganic residues within a deposit as do some industrial processes. Much of the tanning process uses organic materials which are easily lost through dissolution and biodegradation, leaving little visible trace. If conditions are favourable (i.e. waterlogged), quantities of bark may survive as evidence of oak tanning. No such evidence was recovered here.