An Archaeological Evaluation on land adjacent to Lukes Lane, Monkton, South Tyneside



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Executive Summary

In June 2013 Archaeological Research Services Ltd were commissioned by URS to undertake an archaeological evaluation on land adjacent to Lukes Lane, Monkton, Tyne and Wear. The site is situated on agricultural land, with scant evidence of use or occupation in prehistory or during the Roman period although the Wrekendyke Roman Road is recorded to run to the south of the site. It is believed that a World War II aircraft obstruction trench cuts through the middle of the southern part of the site. This has been identified through aerial photographs and geophysical survey.

The purpose of the evaluation was to determine the nature of linear features that run in an approximately NW-SE orientation.

Two trenches, each measuring $10m \times 2m$, were dug on the site, one in the northern field and one in the southern field. The trenches were opened using targeted geophysical results and with the aim of identifying and explaining two parallel linear features to the north and a single linear trench to the south. The evaluation successfully identified one of the linear features to the north as a narrow clay field drain and associated steep sided ditch to facilitate its placement. The other northern linear feature was a very shallow and wide probable drainage ditch or field boundary probably dating to the 19^{th} Century. The southern evaluation trench did not identify any features.

1. Introduction

1.1 In June 2013 Archaeological Research Services Ltd were commissioned by URS Infrastructure & Environment UK Ltd (URS) to undertake an archaeological evaluation on Lukes Lane in Monkton, Tyne and Wear.

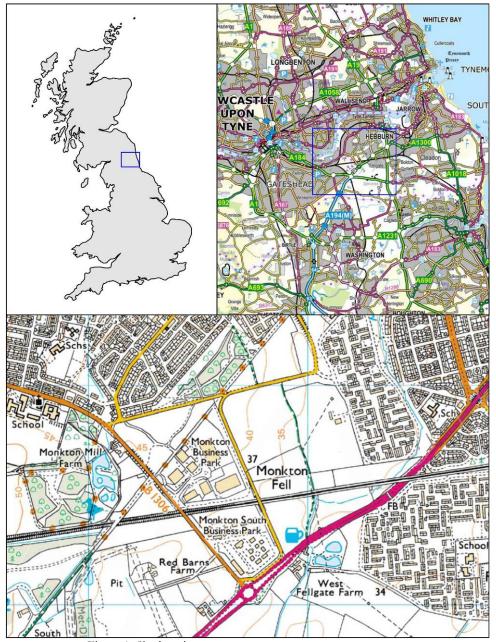


Figure 1: Site location Ordnance Survey data copyright OS, reproduced by permission, Licence no. 100045420

2. Location and Geology

- 2.1 The proposed development site comprises a number of fields adjacent to Luke's Lane, Monkton, Tyne and Wear which lies to the south-east of the centre of Newcastle. The site measures 11.9ha and is centred at NZ 31857 62864 (Fig.1). The northernmost field is bisected by a footpath which runs in a north south direction. It is bound to the north by a public footpath which follows the line of the former Bowes Railway. Forming the eastern boundary is Campbell Park Road and to the south is Monkton Lane which runs between this area and the southern portion of the site. This southern area comprises two agricultural fields whose western boundary is formed by Lukes Lane. To the east of these fields is a sports field. Immediately to the south is the Tyne and Wear Metro line which runs in an east west direction.
- 2.2 The solid geology of the area comprises sandstone and has an overlying superficial geology of clay. The drift geology of the area comprises Pelaw clay which overlies carboniferous Middle Coal measures (BGS 2014).

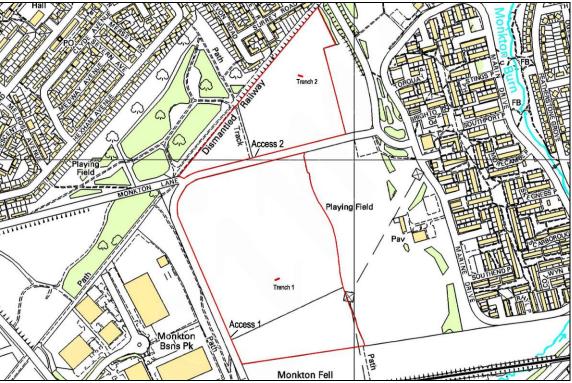


Figure 2. Location of evaluation trenches

3. Historical and Archaeological Background

3.1 The site is situated within a landscape that has seen limited activity in the Prehistoric and Roman periods. There is some evidence to suggest that the Wrekendyke Roman Road (running approximately from Wrekenton to South Shields) ran to the south of the site; this prompted the commission of a geophysical survey to help determine the potential for associated features to occur within the site. The results found no evidence to indicate associated activity.

- 3.2 It is highly likely that during the medieval period, the site was in agricultural use as inferred by cartographic evidence. The geophysical survey alluded to ploughing regimes in the northern part of the site, but it is unknown whether these are medieval in date. Subsequent geotechnical investigations showed evidence for possible remains of furrows, which were formed during ploughing.
- 3.3 It is probable that the land which made up the site belonged to the Manor of Monkton; as the settlement developed during the medieval period. Throughout the majority of the post-medieval period Monkton retained much of its medieval character and was virtually unaltered up until the 1930s; surrounding land was built upon and Monkton subsequently became part of a much larger urban conurbation.
- 3.4 Up until the 19th Century, agriculture dominated the local economy. By the late 19th Century, agriculture was no longer the dominant local industry, as heavy industry including Monkton Coke and Gas Works began to dominate the local industry and economy. In addition to this heavy industry, the transport infrastructure began to rapidly improve and by the late 19th Century the Bowes Railway was in operation, which ran along the northern boundary of the site and is now disused and dismantled.
- 3.5 In the early 1940's significant development took place within the site in the form of an aircraft obstruction feature. This is visible on aerial photographs and the geophysical survey and trial pitting proved the existence of a ditch. It is possible that there was also a bank either side of this ditch, however no evidence of this exists and the banks may have been removed by later ploughing, which may explain the relative flatness of the field and the shallow depth of other features uncovered during trial pitting. This feature forms part of a sequence of obstructions within the landscape.
- 3.6 The geophysical survey found only a limited number of features, some of which relate to post-medieval field boundaries, associated trackways, post-medieval/modern ploughing regimes and the presence of field drains.
- 3.7 The geotechnical pits showed that most features were comparatively shallow.

4. Aims and Objectives

4.1 The aim of the archaeological watching brief and evaluation was to gather sufficient information to establish the extent, condition, character and date of any archaeological features and deposits within the area of proposed development, and to record any features or deposits at an appropriate level.

5. Methodology

- 5.1 The archaeological evaluation comprised two trenches each measuring $10m \times 2m$. (Fig. 2).
- 5.2 The trenches were opened by machine using a toothless ditching bucket in level spits until the natural level was reached, at which point the trenches were examined and cleaned by hand. All machine excavation was carried out under careful archaeological supervision.

- 5.5 The deposits were recorded according to the normal principles of stratigraphic excavation. Each context was recorded on pro-forma records which included the following: character and contextual relationships; detailed description (dimensions and shape; soil components, colour, texture and consistency); interpretation and phasing as well as cross-references to the drawn, photographic and finds registers.
- 5.6 The trenches were planned at 1:50. Trench sides were drawn in section, as appropriate, at a scale of 1:20.
- 5.7 A photographic record was maintained including photographs of the trench. All images were taken in digital format and contain a graduated photographic scale.

6. Evaluation Results

- 6.1 Trench 1 was located in the lower field towards the south and measured 10 x 2m. The trench was excavated through black silty loam ploughsoil (001) which had a depth of 0.25m. Beneath this was natural orange clay with mottled grey patches (002) which continued beyond the limits of excavation. The upper horizon of the natural clay had been affected by ploughing so this was removed in order to improve visibility.
- 6.2 Aerial photographs and geophysical survey had identified a linear, possibly a WW2 anti-glider trench, running at right angles through the centre of Trench 1. However this was not discovered during excavation. There was a slight change in the colour of the natural clay where it became mottled with grey patches in the centre of the trench. A sondage was excavated from the centre of the trench towards the south in to the natural, encompassing the discoloured area to establish whether or not there was a cut. The mottled grey material continued and there was no evidence of a cut or of any fill material.
- 6.3 Trench 2 was excavated in the northern portion of the site, immediately adjacent to the dismantled Bowes Railway and Campbell Park Road. The trench measured 10m x 2m and was orientated North-west by South-east.
- 6.4 The evaluation trench was cut through topsoil and turf (201), which had a maximum depth of 0.27 metres. This layer sat directly on top of the natural clay (207), which was a yellowish brown colour.
- 6.5 Located at a distance of 2.5 metres south of the northern extent of the trench was a very shallow possible drainage ditch/field boundary (203), which had a maximum depth of 0.1 metres and was approximately 1.1 metres in width, orientated roughly east to west. This feature contained one fill (202), which was mid grey silty clay material (Figure 5). Contained in this fill were 3 fragments of clay pipe stem, porcelain and a relatively small fragment of pottery, suggesting a 19th century date.
- 6.6 Located at a distance of 2.6 metres north of the southern extent of the trench was a small field drain (206), which had a steep sided cut (205). The field drain was composed of 0.37m sections, which were 0.22 metres in diameter. Three sections of the field drain are evident, with the middle section inverted (Figure 4). The fill of the field drain cut (204) was 0.28 metres in depth and was composed of a yellowish grey silty clay.



Figure 3. Trench 1, looking west. Scales = 1m + 2m.



Figure 4. The sondage in Trench 1, looking north west. Scale = 1m.



Figure 5. Trench 2 looking south east. Scales = $2 \times 2m$.



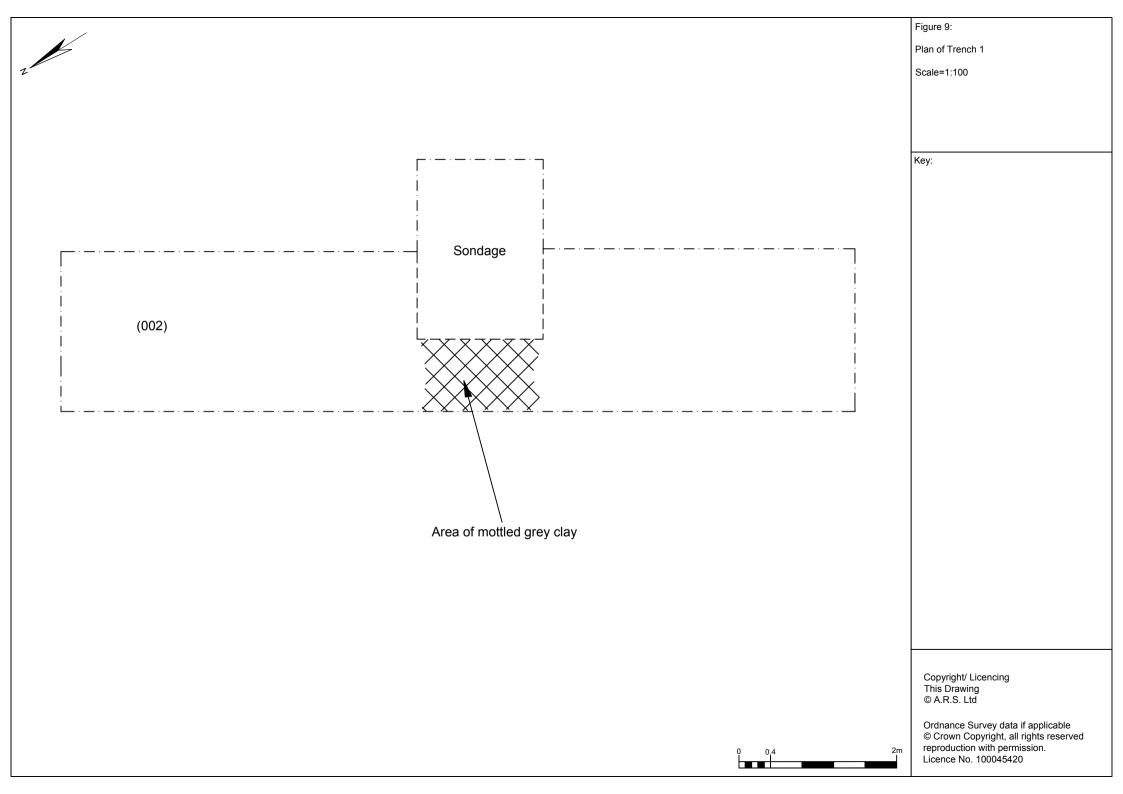
Figure 6. North-east aspect showing exposed field drain (206) and drainage ditch/field boundary (203). Scale = 2 x 2m.

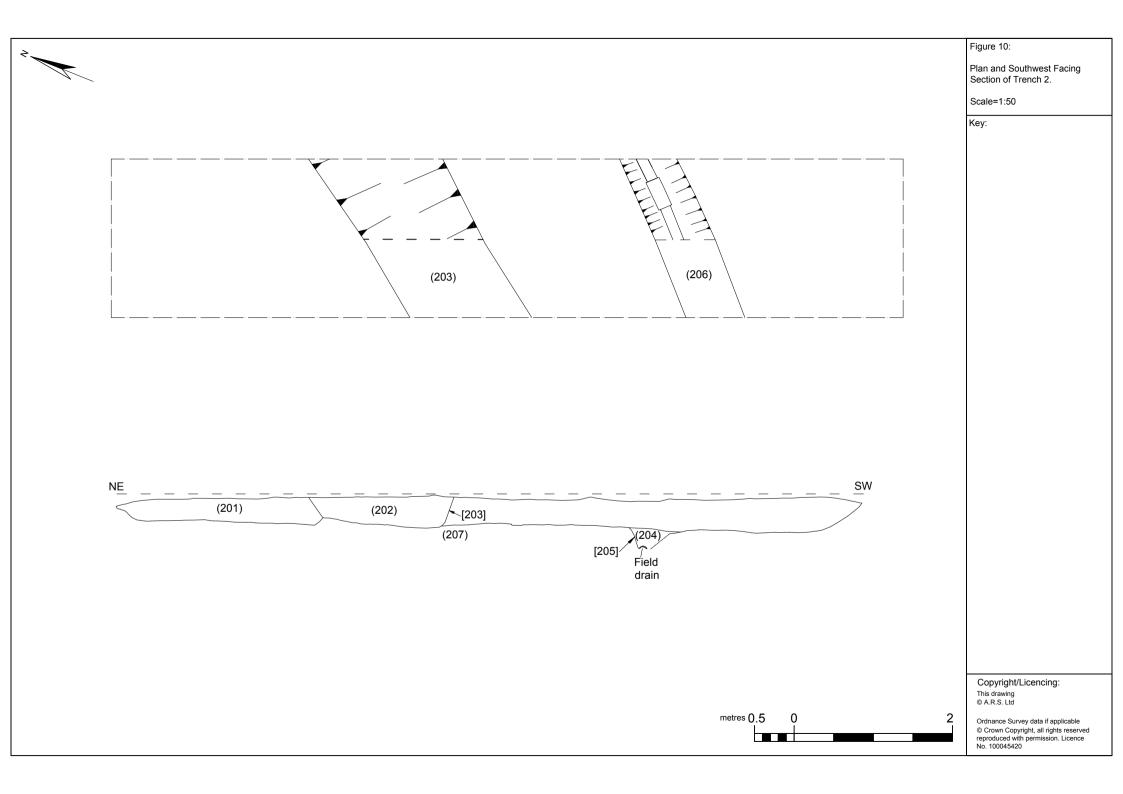


Figure 7. Field drain (206), showing inverted middle drain section.



Figure 8. Boundary/drainage ditch (203)





7. Discussion

- 7.1 Trench 2 successfully demonstrated the nature and extent of the two parallel linear features which were highlighted by the geophysical survey in the northern area of the development site. The most northern of these two linear features is a wide but very shallow and truncated field boundary or drainage ditch (203), which runs on an northeast-southwest orientation and contained clay pipe and Victorian pottery, which suggests a date in the 19th Century. The southern feature is a Victorian/Edwardian field drain (206), constructed during the late 19th to early 20th Century, comprised of 0.37 metre sections, which have a flat bottom and sub-circular rounded upper section. Both features were cut through the topsoil layer (201) and into the natural clay (207).
- 7.2 Trench 1 did not encounter any archaeological finds or features. A grey mottled area of clay was noted in the centre of the trench. It is possible that this represented the base of a linear feature or water-staining from moisture within such a feature. Alternatively, it could have represented the base of an ephemeral, ploughed out hedge line or field boundary, although no cut could be discerned.

8. Recommendations

8.1 The evaluation trench has successfully characterised the nature of features in this area. No further evaluation or recording is recommended. No finds are recommended to be retained.

9. Publicity, Confidentiality and Copyright

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

10. Statement of Indemnity

10.1 Any 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.

11. Acknowledgements

11.1 Archaeological Research Services Ltd would like to thank all those involved with this work, in particular Jim MacQueen of URS and John Foster of Taylor Wimpey.

12. References

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http://www.pastscape.org.uk/