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Westfield Nurseries
Norton
Malton
North Yorkshire
SE 8030 7185

Archaeological Evaluation by Trial Trenching

Authorised by *RA Ware*
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Contents	Page
Figure List	3
Plate List	4
Non-technical Summary	6
1. Introduction	7
2. Site Description	8
3. Geology and Soils	8
4. Archaeological and Historical Background	8
5. Objectives	10
6. Methodology	11
6.1 Evaluation	11
6.2 On-Site Recording	12
6.3 Plans and Sections	12
6.4 Photographic Record	12
6.5 Finds	12
7. Results	12
7.1 OS parcel 3086	12
7.8 OS Parcel 2672	14
8. Discussion	20
9. Implications of the Proposed Development	22
10. Bibliography	23
11. List of Project Contributors	24

Appendices

1. Context List	57
2. Finds Catalogue	61
3. Archive List	65
4. Photographic Listing	67
5. Brick Assessment	74
6. Specification	108

Figure List	Page
1. Site Location. (Scale 1:50000)	25
2. Proposed Development Area. (Scale 1:10000)	26
3. Trench Location. (Scale 1:2500)	27
4. Extract from the 1850 First Edition Ordnance Survey Map	28
5. Extract from the 1889 First Edition Ordnance Survey Map.	29
6. Plan of Trench 1. (Scale 1:150)	30
7. Trench 1 Sections. (Scale 1:150)	31
8. Trench 7 Plan. (Scale 1:100)	32
9. Trench 7 Sections. (Scale 1:25)	33
10. Trench 9 Plan. (Scale 1:100)	34
11. Trench 9 Section. (Scale 1:25)	35
12. Trench 12 Plan. (Scale 1:100)	36
13. Trench 12 Plan of Brick Structures. (Scale 1:30)	37
14. Trench 12 Sections. (Scale 1:25)	38
15. Trench 6 Plan. (Scale 1:100)	39
16. Trench 6 Sections. (Scale 1:25)	40
17. Trench 5 Section. (Scale 1:25)	41
18. Trench 4 Plan. (Scale 1:100)	42
19. Trench 4 Sections. (Scale 1:25)	43

Plate List	Page
1. Trench 1. General View. Facing North-west.	44
2. Trench 1 – Dump 1013. Facing North-west.	44
3. Trench 1 – Cut 1006 and Deposit 1007. Facing South.	45
4. Trench 1 – Deposits 1008 and 1009. Facing West.	45
5. Trench 1 – Cuts 1002 and 1014. Facing North.	46
6. Trench 1 – Dump 1017. Facing East.	46
7. Trench 7 – General View. Facing North.	47
8. Trench 7 – Deposits 7013, 7015-18. Facing West.	47
9. Trench 7 – Deposits 7005 and 7006. Facing North-east.	48
10. Trench 7 – Waster bricks in Fill 7009. Facing South.	48
11. Trench 9 – General View. Facing East.	49
12. Trench 9 – Pit 9023. Facing East.	49
13. Trench 9 – Pit 9013 and Ditch 9004. Facing North-east.	50
14. Trench 9 – Clamp Base 9005. Facing South-west.	50
15. Trench 12 – General View. Facing North-west.	51
16. Trench 12 – Walls 12003 and 12010; Steps 12015 and 12016. Facing South-west.	51
17. Trench 12 – Mortar Foundation 12008. Facing North-west.	52
18. Trench 12 - Post-setting 12012. Facing North-west.	52
19. Trench 6 – Ditch 6003. Facing North.	53
20. Trench 6 – Dump 6005. Facing West.	53
21. Trench 5 – General View. Facing North.	54
22. Trench 4 – Pit 4012. Facing North-east.	54
23. Trench 4 – Pit 4012. Facing South-east.	55

Plate List (con.)

- | | | |
|-----|---|----|
| 24. | Trench 10 – General View. Facing North. | 55 |
| 25. | Trench 8 – General View. Facing North. | 56 |
| 26. | Trench 8 – Modern Dumping. Facing West. | 56 |

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Non Technical Summary

An Archaeological evaluation was carried out by MAP Archaeological Consultancy Ltd on land at Westfield Nurseries, Norton, Malton, North Yorkshire during June and July 2009. The work was undertaken in advance of a planning application for residential development on behalf of Persimmon Homes. The Evaluation consisted of twelve trial trenches.

The trenches excavated in OS Parcel 3672 that formed the southern part of the site (Trenches 2, 3, 8, 10 and 11) showed this area to be truncated and subsequently used as a rubbish tip. The truncation is assumed to be the result of clay extraction, with the subsequent rubbish dumping taking place in the 1950s.

The remainder of the trenches (Trenches 1, 4, 5, 6, 7 and 9) were excavated in OS Parcel 3086 immediately to the north. With the exception of Trench 5, these trenches all contained evidence of clay extraction or brick manufacture, shown by clay or sand extraction pits, a brick structure, the bases of clamp kilns and dumps of kiln waste.

Cartographic and documentary evidence shows that bricks were manufactured at the site in the late 19th century, though the form of some of the bricks, pottery sherds and other cartographic evidence suggests that this activity had an earlier origin.

The Trial Trenching has provided evidence of archaeological deposits of a local and possible regional significance; there are no National significant deposits that would prevent development of the site.

1. Introduction

- 1.1 This report sets out the results of an archaeological evaluation by trial trenching carried out by MAP Archaeological Consultancy Ltd. on land at Westfield Nurseries, Scarborough Road, Norton, Malton, North Yorkshire (Figs. 1 - 3: SE 8030 7185). The Evaluation took place over four weeks in June-July 2009.
- 1.2 The Evaluation was carried out on behalf of Persimmon Homes (Yorkshire), prior to a planning application for the residential development of the site.
- 1.3 The evaluation was designed to establish the nature, location, extent and state of preservation of any archaeological remains within the proposed development area. The information provided from the evaluation is intended to allow an assessment to be made of the impact of the development upon the archaeological deposits at the site. This assessment will be used as the basis for an informed planning decision as to whether the development should be permitted. Upon the granting of permission, this information will assist in identifying options for minimising, avoiding damage to, and/or recording any archaeological remains. This strategy follows the archaeology policy issued by the Secretary of State for the Environment contained in *Planning Policy Guidance 16 'Archaeology and Planning' (PPG 16)*.
- 1.4 The MAP site code for the project was 03-06-09.
- 1.5 All work was funded by Persimmon Homes (Yorkshire) Ltd.
- 1.6 All maps within this report have been produced from the Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright, licence No. AL 50453A.

2. Site Description (centred at NGR SE 8030 7185)

- 2.1 The extent of the future application area is indicated on a site location plan supplied by Persimmon Homes (Yorkshire) Ltd at 1:2500 scale. The total area of the proposed development is approximately 5.7 ha.
- 2.2 Westfield Nurseries are situated on the eastern edge of Norton, c. 750m east of the town's historic core. The site formed the premises and land of the Westfield Nurseries. At the time of the trial trenching, the site consisted of three distinct zones (Fig. 3). To the north of Priorpot Beck lay the premises of Westfield Nurseries comprising derelict greenhouses and outbuildings, residential properties and gardens, and paddocks; this area was unavailable for evaluation. OS Parcel 3086, the area immediately south of Priorpot Beck, was covered with long grass, with OS Parcel 2672 to the south consisting of more dense regenerated scrub. Both areas were crossed by unofficial footpaths.
- 2.3 The southern boundary of the site consisted of an unnamed watercourse. Beyond the watercourse lay Norton Grove Industrial Estate, the access road to which (Westfield Way) formed the site's eastern boundary. The land to the west of the site was occupied by residential housing, Maudon Grove dating to the middle of the last century and the Redrow development which commenced in the early part of this century.

3. Geology and Soils

- 3.1 The soils at the site are recorded as being from the Landbeach Association, permeable calcareous coarse loamy soils over glaciofluvial sands and gravel (Mackney *et al*).

4. Historical and Archaeological Background

- 4.1 The large number of Neolithic and Bronze Age flint implements that have been found in Norton parish indicate occupation of those periods in the area. Iron Age occupation is evidenced by the cropmarks of square ditch barrows situated in the south of the parish, with a cluster immediately north of Norton

Howe (Robinson, no. 217). Part of the system of Iron Age land division (Norton Three Dikes) passes immediately east of the site, their projected line forming the eastern boundary (Robinson, no. 219).

- 4.2 Malton was an important Roman centre, with a fort and *vicus* (civilian settlement). Roman occupation extended into Norton and included industrial activity such as pottery production, as well as settlement and cemeteries. The eastern limit of Roman activity in Norton is unclear.
- 4.3 With the eastward expansion of Norton along Commercial Street in the second half of the 19th century segments of the Roman road from Malton to Settrington were uncovered (Robinson 1978), and this passes c. 250m south of the site. The closest concentration of known Roman settlement to the site is situated at Eastfield Road, c. 600m to the south-west (Hayes 1988, 66-72). However, a group of Roman objects consisting of a small amber bracelet, beads, an iron ring and the top of a Roman bell (perhaps a grave group) were found c. 160m south-west of the site near Priorpot Bridge around 1856 (Robinson, 364).
- 4.4 Norton was mentioned in the Domesday Survey (1086) as *Nortone* and *Nortona*, the name meaning 'north farm' (Smith 1937). The medieval settlement and parish church lay c. 800m west of the proposed development site. Before the enclosure of Norton's Open Fields between 1769 and 1772 the southern part of the site lay within East Field, with that part north of Priorpot Beck being situated within an area of old enclosure known as Priorpot Closes. The Outgang (i.e. the access route to the common pasture on the eastern margin of Norton parish) formed the site's southern boundary.
- 4.5 The First Edition Ordnance Survey map (1850 – Fig. 4) showed much of the area as open land. However, the northern part of the site was occupied by Brick Garth House and an associated orchard. Extractive industry in the locality was illustrated by a Brick and Tile Yard to the east (in the area of the modern Norton Grove) and a limestone quarry to the north. The 1889

Ordnance Survey map (Fig. 5) shows a cluster of three rectangular buildings in the central part of the site, labelled 'Brick and Tile works'. A further range of rectangular buildings plus a circular structure were situated in the field immediately to the west. This was presumably the premises of George Oldfield, listed as a Brick and Tile Manufacturer in Bulmer's directory in 1892 (Bulmer 1892, 252). These two maps show the southern part of the site to be occupied by an extensive clay pit. The 1928 6" Ordnance Survey map showed no traces of the brick and tile works, but a long rectangular greenhouse had been built in the grounds of Westfield Nurseries.

- 4.6 Two archaeological evaluations have recently taken place in the vicinity of the site. The first of these was located on land immediately southeast of the site, where a geophysical survey revealed several anomalies that proved to be of geological or recent origin; a single undated linear feature was also recorded (MAP 2007). The other evaluation took place on land immediately east of the site, across Westfield Way, where undated linear features were recorded subsequent to a geophysical survey (MAP 2008). In addition a Geophysical Survey and Watching Brief took place as part of the construction of Westfield Way. The Survey did not show any clear archaeological anomalies, and no deposits were revealed during the subsequent Watching Brief. Finally, a Watching Brief on the new Redrow Housing Estate immediately west of the site did not reveal any archaeological deposits or finds, but showed that part of the area at least had been quarried for clay to be used in brick manufacture.

5. Objectives

- 5.1 The objectives of the archaeological evaluation work within the proposed development area were:
1. To determine by means of trial trenching, the nature, depth, extent and state of preservation of any archaeological deposits to be affected by the development proposals.

2. To prepare a report summarising the results of the work and assessing the archaeological implications of proposed development,

3. To prepare and submit a suitable archive to the appropriate museum.

6. Methodology

6.1 Evaluation

6.1.1 Twelve trenches were excavated at locations agreed by the Archaeology Section of the Heritage Unit, NYCC (Fig. 3). The total area evaluated was approximately 2260m². Trenches 1 (30m x 30m), 4 (2m x 20m) 5 (2m x 20m), 6 (2m x 30m), 7 (20m x 20m), 9 (20m x 20m) and 12 (10m x10m) were situated in OS Parcel 3086. Trenches 2 (2m x 20m), 3 (2m x 20m), 8 (2m x 20m), 10 (10m x 10m) and 11 (10m x 10m) were positioned in OS parcel 3672 to the south. The axis of Trench 3 was changed from southeast to northwest to northwest to southeast to avoid a footpath, and the locations of Trenches 7 and 12 were slightly altered for the same reason.

6.1.2 The evaluation trenches were stripped of topsoil by a 15 tonne 360° tracked mechanical excavator, fitted with a toothless blade, operating under close archaeological supervision. Machining ceased at the top of archaeological or naturally-formed deposits, depending upon which was located soonest. The exposed surfaces were cleaned by shovel, hoe or trowel as appropriate, and all subsequent excavation carried out by hand.

6.1.3 Postholes and pits were sectioned and segments were excavated across linear features in order to determine their function, form and relationships.

6.1.4 All work was carried out in line with the Institute of Field Archaeologists Code of Conduct (IFA 1998).

6.1.5 All artefacts were retained for specialist analysis.

6.2 On-site Recording

- 6.2.1 All archaeological deposits were recorded according to correct principles of stratigraphic excavation on MAP's *pro forma* context sheets which are compatible with the MoLAS recording system. A total of 136 separate contexts were recorded.

6.3 Plans and Sections

- 6.3.1 The full extent of archaeological deposits were recorded in plan at a scale of 1:20 or 1:50 on drawing film. Sections of features and individual layers were drawn at 1:10 or 1:20 as appropriate, also on drawing film, and included an OD height. There were 40 plan and 23 section drawings.

6.4 Photographic Record

- 6.4.1 The photographic record comprised monochrome prints, and colour transparencies, in 35mm format, and a series of high-resolution digital images at six million pixels, recording all archaeological features encountered. There were 84 exposures in both monochrome print and colour transparencies, along with 79 digital images.

6.5 Finds

- 6.5.1 Finds were processed in accordance with English Heritage Guidelines (EH 1995). All finds were cleaned, identified, assessed, dated (where possible), marked (where appropriate), and properly packed and stored according to national guidelines.

7. Results

7.1 OS Parcel 3086

7.1.1 Trench 1 (Figs. 6 and 7)

Trench 1 was an open area, 30m x 30m in size, which examined potential archaeological activity in the northern part of the site, adjacent to Priorpot Beck (Pl. 1). The earliest deposits consisted of a dump or raft of brick and tile

(1013) to the north of which lay a mixed deposit (1022). There appeared to be *in situ* burning on the top of deposit 1013, and another area of burning was recorded to the north of 1013. A mixed deposit of burnt material (1018) was recorded lapping over the northern edge of Deposit 1013, with deposit 1015 overlapping the southern edge. A shallow linear band of brick and tile (1017) post-dated Deposit 1018 and may have been associated with three shallow north-south features (1002, 1004 and 1006) to the southeast. Three dumps of burnt material (1009, 1010 and 1011) were recorded in the northwest part of the trench.

- 7.1.2 Situated in the western/central part of Trench 1 Deposit 1013 was roughly rectangular in shape, with a length of c. 12m and a width of c. 8m (Pl. 2). It was composed of c. 50% brick and tile fragments in a clay silt matrix. Associated pottery sherds dated to the second half of the 18th century. Deposit 1022 lay on 1013's northern side, being a mixed surface of dark silt with reddish scorched patches and coal fragments. A patch of coherent brick and tile fragments (1023) was identified in the surface of Deposit 1022.
- 7.1.3 Context 1016 was a rectangular burnt area lying on the surface of Deposit 1013, and was overlain by a thin layer of coal fragments (1014). Another, slightly narrower area of *in situ* burning (1021) overlay Deposit 1022 to the north.
- 7.1.4 The southern edge of Deposit 1013 was overlain by a dump of yellowish brown sandy silt (1015), and the northern edge by a mixed brown sandy silt deposit (1018) that contained frequent brick/tile fragments, along with small coal and burnt clay fragments, and patches and lenses of raw grey clay. Both of these deposits contained late 18th century sherds.
- 7.1.5 Context 1007 represented a roughly rectangular dump of brick and tile fragments, situated along the southern baulk of the trench (Pl.3). It was 9.5m long and at least 4m wide.

7.1.6 Dump 1007 pre-dated a shallow north-south aligned linear feature (1006) that was at least 16m long, 1.60m wide and 0.08m deep (Pl. 3). The fill sandy silt fill (1005) was rich in small fragments of brick and tile. On the same alignment and of similar form were Features 1002 and 1004 which lay c. 10m to the east (Pl. 5). The dark clay silt fills (1001 and 1003 respectively) contained frequent tile and brick fragments, and a sherd dateable to the later 19th century. Also similar in form was a 10m long and 1.25m wide east-west aligned linear band of brick and tile fragments (1017 – Pl. 6) that overlay Deposit 1018.

7.1.7 The northwest part Trench 1 was occupied by a number of dump deposits, the earliest of which were two silty layers (1009 and 1019). Deposit 1008 formed a northwest-southeast aligned irregular linear band of brick and tile in the northwest corner of the trench (Pl. 5). Deposit 1011 consisted of a shallow roughly oval spread of coal fragments, and was overlain by an oval dump of brick and tile fragments (1010).

7.1.8 The latest features identified were two field drains (1012 and 1020) that crossed Trench 1 on parallel northwest to southeast alignments. Finally, the entire trench was covered by an even deposit of modern topsoil (1000).

7.2 Trench 7 (Figs. 8 and 9)

7.2.1 This trench was positioned in the central part of the site and was 20m x 20m in size (Pl. 7). A large area of dumping was recorded in the northern part of the trench, along with a substantial scorched area to the south. A linear feature (7012) and a possible quarry pit (7010=7023) were also recorded.

7.2.2 The area of dumping was examined in two box sections, one at the northwest, the other at the northeast corner of the trench. Natural deposits consisted of medium brown sand with lenses of grey clay. The former contained brown or yellowish brown sandy deposits (7013, 7015-18 – Pl. 8) along with a brown clay deposit (7015). In the northeast box-section a layer of brownish-yellow silty clay (7005 – Pl. 9) was overlain by a layer of brownish clay (7004) that was covered by a deposit of yellowish brown silty clay (7003). The deposits in

both box-sections were overlain by a deposit of dark clay silt that contained large numbers of CBM fragments (7002), which in turn was covered by a layer of silty clay (7001) at the northeast corner.

7.2.3 The area of scorching in the southern part of Trench 7 was recorded as context 7007, and existed as a reddish brown silty clay deposit. Similar material was recorded as 7025 in the southwest corner of the trench, where it overlay two sandy clay deposits (7026 and 7027).

7.2.4 Deposit 7007 was cut through by a straight-sided and vertically edged linear feature (7012), which crossed the trench on a northeast to southwest alignment. It was filled with mixed yellowish sandy and silty clay (7011=7006).

7.2.5 The southwestern end of Linear 7012 was cut by a north to south aligned feature that extended along the entire western edge of Trench 7. It was recorded as context 7010 in a segment excavated at the south, where the fills consisted of brownish sandy clay at the base (7024) with a more mixed yellowish brown deposit at the top (7009 – Pl. 10). Context 7009 contained a group of brick wasters and a mid-19th century sherd. Segment 7023 was excavated to the north, showing a more complex group of sandy fills (7019-7022). Context 7022 was a mixed dump that occupied the top of the feature, and was notable for containing two pieces of worked timber. Fill 7019 contained a clay tobacco pipe bowl from the second half of the 19th century.

7.3 Trench 9 (Figs 10 and 11)

7.3.1 Trench 9 was situated in the western part of the field and formed a 20m x 20m square (Pl. 11). Two large pits (9013 and 9009=9023 – presumably quarry pits) were recorded, along with an area of *in situ* burning (9005) and a linear feature (9004=9007).

7.3.2 Pit 9023 occupied much of the central part of Trench 9, extending for a length of at least 20m south-eastwards out of the trench (Pl. 13). It was c. 8m wide

and at least 0.65m deep. The profile of the fills (9014-9022) all showed that they had been tipped in from the north-east. Noteworthy among the fills were two dumps of tile and brick (9017 and 9021), and a tip-line of apparent re-deposited topsoil (9019). Contexts 9015, 9017 and 9016 all contained sherds of mid 18th century date. Dump 9017 equated with Deposit 9008, which was excavated at the intersection with linear feature 9007.

7.3.3 Pit 9013 was identified in a small segment at its intersection with linear feature 9004. The pit was 0.65m deep, and was filled at the base with yellowish brown sand (9012), which contained a late 17th / early 18th century sherd. The upper part of the pit had been affected by *in situ* burning, with a red layer at the top (9005), followed by a black layer (9010) and a dark red layer (9011). The area of burning was roughly rectangular, c. 10m in length, and over 3m in width, and its regularity of form and the degree of heat exhibited strongly suggest that it was the base of a clamp kiln (Pl. 14).

7.3.4 The latest feature was a linear ditch that crossed Trench 9 on a northeast to southwest alignment, which was excavated in two segments (9004 and 9007). This was the continuation of context 7012 from Trench 7 to the northeast. The ditch was vertically-sided, 0.85m wide and at least 0.95m deep (Pl. 13). Segment 9004 was filled with silty sand (9003) towards the base and sandy clay (9002) at the top. The other ditch segment (9007) was filled with a mixed silty sand deposit (9006). All three fills contained brick and tile fragments.

7.3.5 The entirety of Trench 9 was covered by a 0.30m thick layer of clay loam topsoil (9000).

7.4 Trench 12 (Figs. 12, 13 and 14)

7.4.1 Trench 12 formed a 10m square in the southern part of the field (Pl. 15). A brick structure (12010/12017), a probable mortar foundation (12009) and a post-setting (12012) were identified, along with a more recent field drain (12014)

- 7.4.2 The earliest element of the brick structure was a sunken floor of bricks laid in stretcher bond (12017), with no bonding material. (Similar plain bricks were used in the construction of all the elements of the structure.) An east-west wall (12010) was laid directly on to the brick floor (Pl. 16). Wall 12010 was mortar-bonded, and extended to five courses in height, the lowest four of which were in stretcher bond with a header-bonded top course. Wall 12013 formed the western wall of the structure, butting Wall 12010 from the south. Only the inner face of the top course of Wall 12013 was seen, being mortared in stretcher bond.
- 7.4.3 Two separately constructed steps led down to Floor 12017 from the east: Step 12016 underlying Step 12015 (Pl. 16). Both steps were constructed in mortar-bonded brick, and were two courses in height, with a stretcher-bonded lower course and header-bonded upper course.
- 7.4.4 A makeshift wall (12003 - in reality little more than a stack) was subsequently laid on to Floor 12017, butting Wall 12010 at the north end. Wall 12003 was four courses in height, with the un-bonded bricks laid header-wise, a single brick in thickness. There was considerable variation in the form of the constituent bricks, with many being misshapen (presumably wasters), and several incomplete examples being present. A lump of raw grey clay was incorporated into the top of the 'wall'.
- 7.4.5 At a later stage the spaces either side of Wall 12003 were infilled with dumps of different material: scorched reddish mixed sand (12002) to the west and yellowish brown gravely sand to the east (12001). At this point the structure underwent remodelling with a stretch of five weakly-mortared bricks being laid on the top of Wall 12010, offset slightly to the south to overlap Deposit 12002. On the east side a group of laterally-laid bricks (12007) were associated with a mixed clay deposit (12006) that could have been the result of robbing or perhaps the void left by a rotted timber threshold. A line of raw grey clay (12005) was laid against the outside of Wall 12010 at this time.

7.4.6 Other structural activity in Trench 12 was represented by a mortar foundation (12008/9) and a post-setting (12012). Mortar foundation 12008 formed an L-shaped feature to the northwest, and respecting the alignment, of the brick structure (Pl. 17). It consisted of pale brown mortar within a shallow cut (12009). Post-setting 12012 was situated to the north of the mortar foundation, and was represented by an oval posthole filled with coal-flecked grey clay (Pl. 18).

7.4.7 A modern field drain (12014) ran across the western side of the trench, and contained a late 19th century sherd. The sequence was completed by a 0.30m thickness of clay loam topsoil (12000).

7.5 Trench 6 (Figs. 15 and 16)

7.5.1 Trench 6 was located at the southern part of the field, forming an area 2m x 30m in size that ran parallel to the field boundary. A ditch (6003), an area of *in situ* burning (6004) and a dump of brick and tile (6005) were present.

7.5.2 Ditch 6003 ran across the western part of the trench on a northwest to southeast alignment (Pl. 19). It was vertically-sided with a rounded base that was cut into waterlogged natural sand. The fill (6002) consisted of mixed sandy silt with CBM and coal fragments, and lumps of raw and burnt clay. It also contained a mid-late 19th century sherd from a stoneware beer bottle.

7.5.3 Deposit 6004 formed an amorphous patch in the central part of the trench where the natural silty sand had been altered to a reddish brown colour by *in situ* burning.

7.5.4 Dump 6005 was recorded at the eastern end of Trench 6, and existed as a vaguely linear concentration that extended beyond the excavation limits (Pl. 20). It was composed of yellowish brown sandy silt, with patches of grey clay and burnt reddish sand. Around half of the dump consisted of random brick and tile fragments that were not evenly concentrated.

7.6 Trench 5 (Fig. 17)

7.6.1 Trench 5 was situated in the north-eastern corner of the field, was 2m x 20m in size and aligned with the site's eastern boundary (Pl. 21). No archaeological deposits were present.

7.6.2 Natural (5002) consisted of yellowish plastic clay mixed with sand lenses, overlain by a rooted subsoil deposit (5001) and modern topsoil (5000).

7.7 Trench 4 (Figs 18 and 19).

7.7.1 This was a southwest to northeast-aligned trench, 2m x 20m in size, positioned in the eastern part of the field. The single archaeological feature present was a large quarry pit (4012).

7.7.2 Pit 4012 was 12m long and at least 2m wide, with a depth of over 0.80m. The northern edge (the only one present within the limits of the trench) fell at c. 45° towards the base (Pls. 22 and 23). The earliest observed fill consisted of yellowish sand (4011), which was overlain by silty clay (4011) and a tip line of grey clay (4009) along the northern edge. Subsequent fills consisted of yellowish brown clay (4008), and yellowish sands (4004-4007). The upper part of the pit was occupied by a deposit of yellowish clayey sand (4003), in the top of which was a localised dump of brick and tile (4002). Fill 4003 contained 18th century sherds.

7.7.3 A thin layer of subsoil (4001) overlay Pit 4012, with loamy topsoil (4000) completing the sequence.

7.8 OS Parcel 2672

7.8.1 The five trenches (2, 3, 8, 10 and 11) excavated in this field all displayed the same stratigraphy of a truncated natural clay surface that was overlain by a dump of modern domestic rubbish and a thin recent topsoil (Pls. 25-26).

7.8.2 Natural deposits consisted of plastic grey clay that contained scattered small chalk/flint gravel. The natural surface was deepest at 21.76m AOD in Trench 8 in the central part of the field, and highest at 22.56m AOD in Trench 10 at the southwest corner. There was no evidence for a layer of buried topsoil overlying the natural clay, so the domestic rubbish was dumped straight on to the truncated surface. The 1889 OS map show the truncation to be the result of clay extraction.

7.8.3 The dump of domestic rubbish was shallowest in Trench 10, where it was 0.60m thick (10001), and deepest in Trench 8, where it was 1.25m thick (8001). The domestic rubbish contained copious amounts of ash, and domestic debris such as glass bottles and jars, butchered animal bone fragments, enamelware and battery fragments. There was very little plastic rubbish. A post-war date is indicated by the presence of a 'civilian duty' gas-mask (not retained) and a 1937 pattern military water-bottle. To provide a more accurate time-scale, Trench 10 yielded a 1953 coronation mug by the Bilton Pottery, so the dumping must be subsequent to that date.

8. Discussion

8.1 The Evaluation established that the archaeological deposits in the two separate OS parcels comprising the evaluated area were of different character. To the north, in OS Parcel 3086 all of the trial trenches, excepting Trench 5 showed clear evidence of brick manufacture. To the south, the trial trenches in OS Parcel 2672 identified that this area had been the subject of extensive clay extraction, followed by large-scale rubbish dumping.

8.2 Brick manufacture at the site appears to have been carried out using simple clamp kilns rather than more elaborate Scotch or Hoffmann-type kilns. Roughly rectangular areas of *in situ* burning were recorded in Trenches 1, 7 and 9, and represent the bases of clamp kilns. It is known that many rural brick makers continued with the use of traditional clamp kilns into the early part of the 20th century, rather than make a substantial investment in Hoffmann-type production. Clamp kilns were no doubt more suited to the

scale of local production. As an example, at Shide on the Isle of Wight bricks were manufactured in the open air before being fired in rectangular clamps (Hewitt).

- 8.3 The brick structure recorded in Trench 12 roughly coincides with the structures depicted on the 1892 OS map. As only part of the structure was present in the excavated area it is difficult to be certain of its function, but the absence of scorching to the structure and lack of fuel residues suggest that it was not connected with the actual firing of bricks or tiles. The structure itself showed clear evidence of modification, and had most likely superseded an earlier structure with a shallow mortar foundation. The post-setting indicates the additional presence of other, perhaps more temporary structures, in this location.
- 8.4 Substantial extraction pits were recorded in Trenches 5, 7 and 9, but whether they were dug for clay or sand is uncertain. The extraction pits were subsequently backfilled with brick and tile wasters and no doubt surplus soil from other extraction areas. Vertically-sided linear trenches, around 0.9m deep were used for clay extraction for the Scarborough brick kilns in the 18th and early 19th centuries (Pearson 2005, 17).
- 8.5 The linear dumps of brick and tile identified in Trench 1 are of uncertain origin, although they were later than the clamp kilns in the same area. At a rural brick works in Bexley operating before the Great War, narrow strips of concrete were used to dry the raw bricks before being fired in clamp kilns (Bexley Local Studies), and the linear features at Westfield Nurseries could possibly have a similar function.
- 8.6 Given that a huge clay extraction area is known from the south of the site, extending westwards into the adjacent field, the presence of smaller quarry pits could be seen as anomalous. However, it has already been noted that the depiction of Brickgarth House on the 1854 OS map suggests that brick making was taking place at the site at least as early as the mid-19th century, which

would make the Works depicted on the 1889 map the latest phase in a long-lived sequence of brick manufacture. The date range of the brick and tile from the site, which stretches back to the early 18th century, is physical evidence of early brick manufacture at the site. Therefore the individual clay pits, along with some of the clamp bases, can be seen as belonging to a phase that pre-dates Oldfield's late 19th century works.

- 8.7 In conclusion, the evaluation has been successful in identifying brick manufacture at the site from the early 18th century, perhaps 150 years earlier than George Oldfield's 'industrial' brick and tile works that is known to exist in the 1890s. The early brick manufacture was perhaps seasonal in nature and utilised temporary structures, the only traces of which survive below the ground as archaeological deposits.

9. Implications of the Proposed Development

- 9.1 The archaeological remains identified by the trial trenching relate to rural brick manufacture dating from the early 18th to the late 19th/early 20th centuries. No earlier activity was identified, whether of prehistoric, roman or medieval date. The archaeological remains are not of sufficient quality to prevent the development of the site. Rural early modern brick works have not been widely studied in the county and merit preservation by record.
- 9.2 The southern part of the site (OS Parcel 2672) was truncated during clay extraction, a process that will have removed any archaeological deposits (assuming these were present). The evaluation demonstrated that there are no archaeological implications for this area of the development.
- 9.3 The archaeological trial trenches in OS Parcel 3086 showed that there is a c. 0.30m of topsoil overlying the archaeological deposits. The archaeological deposits encountered on the site would not prevent development of the site and an appropriate mitigation would be preservation by record.

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