Toddington Nurseries
Littlehampton
West Sussex

Archaeological Evaluation Report

Oxford Archaeology

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Toddington Nurseries, Littlehampton West Sussex

NGR: TQ 0352 0356

ARCHAEOLOGICAL EVALUATION REPORT

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SUMMARY

Oxford Archaeology (OA) carried out a field evaluation at Toddington Nurseries, Littlehampton, West Sussex (NGR TQ 0352 0356) on behalf of Gifford and Partners Ltd. The evaluation revealed a possible Neolithic ditch to the north of the site, and several Bronze Age ditches and pits. The features were suggestive of localised Neolithic/early Bronze Age activity within the area, which later developed into a significant Bronze Age landscape. A Romano-British ditch was observed to the west of the site and a quantity of re-deposited Saxon pottery was recovered. A series of re-cut 12th or 13th-century boundary ditches were revealed that might have delineated the eastern edge of historic Toddington.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 In April and May 2005, Oxford Archaeology (OA) carried out a field evaluation at Toddington Nurseries, Littlehampton, West Sussex on behalf of Gifford and Partners Ltd. The work was carried out in advance of planning application for the development of the land by George Wimpey, Southern Ltd. Gifford and Partners Ltd produced a project design (Gifford and Partners Ltd, 2005) outlining the archaeological requirements of the work.

1.1.2 The development site is situated on the northern edge of Littlehampton (NGR TQ 0352 0356), bounded to the south by the Worthing Road, to the west by Toddington Lane, to the east by the Watermead Business Park and to the north by the Coastway (West) Railway line. The site is approximately 9.8 hectares in area.

1.2 Geology and topography

1.2.1 The site lies on Brickearth loess (BGS 1:50,000) on the Sussex Coastal Plain at 6 m above OD. The site is situated on horticultural land, which is thought to have been under intermittent arable cultivation since the late medieval period.

1.3 Archaeological and historical background

1.3.1 The archaeological background to the evaluation has been the subject of a separate desk study (Bennell, 2002), the results of which are summarised below. The site itself has produced no significant archaeological evidence. There are several known sites and locations with archaeological remains adjacent to the development site.

Bronze Age

1.3.2 Recent excavations to the east of the site revealed evidence for activity during the middle to late Bronze Age, including pottery and a cremation burial (Weaver 1995 and Lovell 1998). Occupation debris was also recorded to the south of the site.

Iron Age

1.3.3 A small amount of residual Iron Age pottery was recovered from the Watermead development, to the east of the site and features have been recorded within 1 km of the site.

Romano-British

1.3.4 Littlehampton Roman villa lies to the south-east of the site and the Angmering villa is located 2 km to the north-east of the site. Domestic debris, pits, structural evidence and several ditches were recorded at the Watermead development, to the east of the site (Gilkes and Hammond 1991).

Anglo-Saxon and medieval

1.3.5 The Domesday Book records occupation within the area during the Late Saxon period, including settlement at Totta's tun (Toddington).

1.3.6 The only archaeological remains to have been identified within the vicinity of the site were some late medieval pottery sherds.

Post-medieval

1.3.7 Within the area surrounding the site are five disused brick-fields, a windmill and railway station. There are six listed buildings situated in or near Toddington, ranging in date from the 16th century to the mid-19th century.

2 EVALUATION AIMS

2.1.1 To establish the presence/absence, nature, extent, character, quality, state of preservation and significance of any archaeological remains, deposits and features within the site.

2.1.2 To assess the geo-archaeological potential of the site.

2.1.3 To provide sufficient information to inform the Client of the archaeological implications for future redevelopment of the site.

3 EVALUATION METHODOLOGY

3.1 Scope of fieldwork

3.1.1 The evaluation consisted of 33 trenches, each measuring 30 m x 1.8 m (Fig 2). The overburden was removed under close archaeological supervision by a 360° mechanical excavator fitted with a toothless bucket.

3.1.2 The original proposal was for thirty evaluation trenches (representing a 4% sample of the site) with a contingency for a further 7 trenches (378 m²). The presence of slow worms and common lizards within the north-eastern area of site led to the planned number of trenches in that location being reduced from five to three. A number of trenches were moved or abandoned due to access problems and further trenches were undertaken in previously inaccessible areas of the site. In addition, one of the originally planned trenches, Trench 9, was extended at the request of Martin Wilson (Gifford and Partners Ltd) to comprise two intersecting 30 m trenches.

3.2 Fieldwork methods and recording

3.2.1 The trenches were cleaned by hand and the revealed features were sampled to determine their extent and nature, and to retrieve finds and environmental samples. All archaeological features were planned and where excavated their sections drawn at scales of 1:20. All features were photographed using colour slide and black and white print film. Recording followed procedures laid down in the *OAU Fieldwork Manual* (ed. D Wilkinson, 1992).

3.3 Finds

3.3.1 Finds were recovered by hand during the course of the excavation and bagged by context. Finds of special interest were given a unique small find number.

3.4 Palaeo-environmental evidence

3.4.1 At the request of John Mills, Sussex County Council Archaeologist, environmental samples were taken from all datable features. The deposits did not appear to be of obvious environmental significance and it was agreed that if the initial processing did not produce significant results it would not be necessary to process the remaining samples.

3.5 Presentation of results

3.5.1 Section 5 comprises a detailed description of archaeological observations within each trench and includes individual context descriptions, with archaeological deposits and features described from earliest to latest. Each trench is also shown in plan and section, where appropriate (see figures at back of report). General archaeological context information is summarised in the trench inventory (Appendix 1).

4 RESULTS: GENERAL

4.1 Soils and ground conditions

4.1.1 The site is located on Brickearth overlain by alluvial subsoil and topsoil. The majority of the trenches were located on arable land, laid to silage. The southernmost trenches, and the trenches within the north-east corner, were located within areas of scrub with light woodland The north-western trenches were located on patchy grassland.

4.1.2 Distribution of deposits

4.1.3 The evaluation revealed evidence for Neolithic activity in the north and Bronze Age settlement in the north, east and south of the site. A probable late Iron Age/Romano-British field boundary ditch was in the north-west part of the site. Medieval ditches were observed in the south-west corner of the site.

5 RESULTS: DESCRIPTIONS

5.1 Description of deposits

General

5.1.1 In all trenches natural brickearth was overlain by fluvial subsoil of orange brown clay silt. The thickness of the subsoil varied across the site, from 0.2 m thick in the centre of the site to 1.32 m in depth to the north. This was largely due to the undulating nature of the underlying natural brickearth. The subsoil contained large quantities of worked and burnt flint and was generally overlain by a topsoil deposit.

5.1.2 The topsoil and subsoil are not generally described within the individual trench descriptions. Generally the subsoil was numbered as 101 in Trench 1, as 201 in Trench 2 and so on. In Trench 1 the topsoil was numbered as 100, in Trench 2 as 200 and so on.

Trench 1 (Fig. 3)

5.1.3 In Trench 1 brickearth natural was recorded between 5.11 m OD and 5.38 m OD. This was cut by a large north-south aligned ditch (103), measuring over 1.8 m long by 8.4 m wide and over 0.92 m deep. There was a suggestion of a re-cut within the eastern limits of the ditch although the brown clay silt fill (104) was fairly homogenous throughout the ditch. Pottery dating from the 14th century was recovered from the fills. On the eastern edge, at the base of the ditch(es), two postholes (105 and 107) were revealed (not shown). They measured *c* 0.4 m in diameter and *c* 0.4 m deep and were both filled with similar deposits to (104).

Trench 2 (Fig. 4)

5.1.4 Natural brickearth (207) was revealed at 5.4 m OD. On the east side of the trench, a N-S aligned ditch cut was revealed (205). It was *c* 1 m wide and *c* 1 m deep. It was

filled by sandy silt (203) that contained 13th-century pottery. The ditch was truncated by a second ditch (209), 1.2 m wide and 0.8 m deep, filled with a similar deposit (210). On the west side of the trench a third ditch cut was revealed (208), it was 3 m wide and 1.1 m deep. It was filled with a brown clay silt (206) that was 0.4 m deep and contained 12th-century pottery. A cobbled surface (204) was revealed between the two sets of ditches. It comprised flint cobbles 30 mm to 150 mm in size and was laid as a 2 m wide, single course. The cobbles were overlain by a dumped clay silt (202) that filled all three ditches and was up to 0.6 m thick. The silt contained pottery dated from the 13th century and brick dated from the 16th-19th centuries. This was sealed by a subsoil (201) and topsoil (200), each 0.2 m thick.

Trench 3

5.1.5 Three modern rubbish pits were encountered but no significant archaeology was recorded in this trench.

Trench 4 (Fig. 5)

5.1.6 Natural brickearth (402) was revealed at 6.11 m OD and was cut by two features. Pit (403) was revealed to the west of the trench. It was sub-circular and flat bottomed. It measured over 1.7 m wide and 0.6 m deep. The single fill (404) was a brown orange clay silt. To the east of the trench a circular modern tree bole (405) was recorded that was filled with a brown silt (406).

Trench 5

5.1.7 Trench 5 contained no archaeological features.

Trench 6

5.1.8 Trench 6 contained no archaeological features.

Trench 7 (Fig. 5)

5.1.9 Natural (702) was revealed at 6.35 m OD. A N-S aligned cut (703) was observed to the west of the trench and measured more than 1.94 m in length, 1.06 m wide and 0.41 m deep. It had a `U'-shaped base with 45° sides. The sole fill (704) was a silt clay that contained pottery dated from the 13th century. A curvilinear cut (705) was seen to the east of the trench. It was also `U'-shaped in profile with 30° to 40° angled sides. It measured over 2.3 m in length, 0.60 m wide and 0.26 m deep and was filled with a silt clay (706).

Trench 8

5.1.10 Trench 8 contained no archaeological features.

Trench 9 (Fig. 6)

5.1.11 Natural (902) was identified at 6 m OD. At the centre of the trench two inter-cutting shallow pits were recorded. Pit 903 was 0.08 m deep, 0.44 m in diameter and was filled by an orange brown clay silt (906). Pit 911, to the south, measured 0.94 m wide

and 0.14 m deep and had an identical fill (912), leaving the relationship between the two features uncertain.

5.1.12 To the south of the pits a NE-SW aligned, shallow ditch cut (907) was revealed. It measured over 2.2 m in length, 0.66 m wide and was 0.1 m deep. It was filled with a brown silt clay (908) and intersected with a similar sized W-E aligned ditch (909). Ditch 909 had 70° to 80° sloping sides, a concave base and measured over 2.2 m long, 0.6 m wide and was 0.28 m deep. It was filled with a single silt clay fill (910).

5.1.13 In the eastern part of the trench, three further features were revealed. A NE-SW orientated ditch cut (904) was observed, with a concave base and shallow 25° sides. It measured over 1.8 m long, 1.1 m wide and 0.22 m deep and was filled with a brown silt sand (905). Middle Bronze Age pottery was recovered from the fill. A NE-SW aligned gully terminus (913) measured 0.36 m in width and 0.14 m in depth; it had a concave base and was filled with a brown clay silt (914). An irregular sided pit or possible tree bole (915), which continued into the extreme eastern baulk of the trench, was more than 0.8 m long, 0.56 m wide and 0.32 m deep and was filled with a silt clay (916).

Trench 10 (Fig. 7)

5.1.14 Trench 10 was aligned NE-SW and natural brickearth was revealed at 5.7 m OD. A ditch cut (1003) was observed at the NE end of the trench. It measured 2.2 m wide and 0.5 m deep. Two tree holes and two subsoil-filled hollows were also investigated and pottery dating to the 13th century was recovered, although this may have been intrusive.

Trench 11 (Fig. 8)

5.1.15 Trench 11 was aligned N-S, natural brickearth was revealed at 5.7 m OD. Towards the southern end of Trench 11, a posthole (1109) measuring 0.4 m in diameter and 0.26 m deep was recorded. It was filled by silt clays (1110 and 1104).

5.1.16 An E-W aligned ditch (1107) was observed in the centre of the trench. It was 6.9 m wide and 0.45m deep, with a flat base and a gently sloping northern side. It was filled with a silt clay (1108) that contained a near complete middle Bronze Age bucket urn (1105), vertically placed and positioned at the mid-point of the width of the ditch.

Trench 12 (Fig. 7)

5.1.17 Trench 12 was E-W aligned and natural brickearth was revealed at 6 m OD. An N-S aligned ditch cut (1203) was observed, it was 0.36 m wide and 0.28 m deep with a 'V'-shaped base. It was filled with a dark brown silt clay (1204).

Trench 13 (Fig. 9)

5.1.18 Trench 13 was aligned E-W and natural gravel was revealed at 6.05 m OD. At the east end of the trench was a ditch terminus (1305) that was 0.5 m wide and 0.12m deep, it had a concave base and was filled with a grey brown silt clay (1306). A large

posthole (1303) appeared to have been sited within the ditch terminus. The posthole had near vertical sides, a diameter of 0.6 m and was excavated to a depth of 0.64 m but not bottomed. It was filled with a grey brown silt sand (1304).

Trench 14 (Fig. 10)

5.1.19 The brickearth natural in Trench 14, lying at *c* 6.1 m OD, was cut by a series of features. These are described from south to north, along the alignment of the trench.

5.1.20 Pit cut (1403), a sub-circular feature, measured 1.66 m wide and was excavated to a depth of 1.15 m, although it was not bottomed. It was filled with a brown orange silt clay (1404) that contained ?middle Bronze Age pottery.

5.1.21 Pit 1405 measured 3.8 m in width and was excavated to a depth of 1.35 m; it was not fully excavated due to health and safety constraints. It was filled by an orange silt clay (1406) that contained 105 struck flints that probably dated to the late Bronze Age.

5.1.22 Ditch (1407) was aligned E-W, it was 2.19 m wide and 0.3 m deep with gently sloping sides and a flat base. It was filled with a brown orange silt clay (1408).

5.1.23 An un-excavated pit-like feature (1412) was obscured by the eastern edge of the trench. It measured 0.6 m in diameter and its visible fill (1411) was of a similar consistence and colour to those described previously within the trench.

5.1.24 At the northern end of the trench, the terminus of a ditch (1409) was recorded running into the eastern baulk. It had near vertical sides, was flat bottomed and measured 1.12 m wide and more than 0.36m deep. It was filled with a brown silt clay (1410).

Trench 15

5.1.25 Trench 15 contained no archaeological features.

Trench 16 (Fig. 9)

5.1.26 Trench 16 was aligned E-W and natural brickearth was seen at 4.91 m OD. A single NW-SE aligned gully (1603) was revealed. This feature measured 0.23 m in width and 0.15 m deep. It had near vertical sides, a flat bottom and contained a grey brown sand clay fill (1604).

Trench 17

5.1.27 Trench 17 contained no archaeological features.

Trench 18

5.1.28 Trench 18 contained no archaeological features.

Trench 19 (Fig. 11)

5.1.29 Trench 19 was aligned NE-SW, natural brickearth was revealed at 4.5 m OD. An E-W aligned linear feature (1903) was revealed. It was 0.97 m wide and 0.32 m deep with a u-shaped base and 45° sides. It was filled with a grey brown sand clay (1904).

Trench 20

5.1.30 Trench 20 contained no archaeological features.

Trench 21 (Fig. 11)

5.1.31 Trench 21 was aligned E-W and natural was revealed at 5 m OD. At the west end of the trench, a N-S aligned gully (2107) was observed. It was 0.3 m wide and 0.05 m deep. It was filled with a yellow brown silt clay (2108). Towards the east of the trench a N-S aligned ditch (2105) was observed. It was 0.5 m wide and 0.21 m deep with a flat base and gently sloping sides. It was filled with a grey orange silt clay (2106) that contained Romano-British pottery. A similarly aligned ditch feature (2103), 1 m to the east of 2105, was not excavated but was 1.1 m wide and filled by a brown grey silt clay (2104).

5.1.32 Three shallow scoop features were also revealed at the east end of the trench; a sub-circular, flat-bottomed feature (2113) was 0.06 m deep, and 0.5 m wide. It was filled with a brown silt clay. Feature 2111 measured 0.3 m wide and 0.03 m deep. It was flat-bottomed and filled with a brown silt clay. A further flat-bottomed scoop (2109) was 1.2 m wide and 0.05 m deep, it was filled with a brown silt clay.

Trench 23 (Fig. 12)

5.1.33 Trench 23 was aligned N-S, natural was revealed at 5 m OD. Three parallel E-W aligned linear features were identified within the trench, although none were excavated due to the presence of endangered lizards. The northernmost of these (2303) measured 1.05 m wide and contained a fill of grey brown silt clay (2304). To the south of 2303 was a linear feature (2305), it measured 4.2 m wide and was filled with a dark orange brown silt clay (2306). To the south of 2303 was a third linear feature (2307), it was 3.3 m wide with a similar orange brown silt clay fill (2308).

Trench 24 (Fig. 12)

5.1.34 Trench 24 was aligned E-W and natural brickearth was revealed at 5.5 m OD. Two linear features and three probable pits were revealed but were not excavated due to the presence of endangered lizards. A N-S aligned ditch was revealed (2403), it was 1.2 m wide and contained a brown silt clay (2404). Late Bronze Age/early Iron Age pottery was recovered from the surface of the ditch. The NW edge of 2403 was truncated by sub-circular feature (2405). This probable pit cut measured 1.95 m wide and was filled with a grey brown silt clay (2406).

5.1.35 To the west of the trench a large, sub-circular feature (2407) measured 1.36 m wide and was filled with a silt clay (2408). Pottery dated from the 13th century was

recovered from the surface of the feature. It was truncated on its west side by a similarly shaped, though smaller feature (2411). It was 1.36 m wide and had a grey brown silt clay fill (2412). A N-S aligned linear feature (2409) was also recorded to the west of these features. It measured 0.6 m in width and contained a grey brown clay silt (2410) with 20 % flint inclusions.

Trench 25

5.1.36 Trench 25 contained no archaeological features.

Trench27

5.1.37 Trench 27 contained no archaeological features.

Trench 28 (Fig. 13)

5.1.38 Trench 28 was aligned NE-SW and natural brickearth was identified at *c* 5.5 m OD. A NE-SW aligned linear feature (2803) was observed along the eastern side of the trench. It was *c* 0.5 m wide and had a 45° side and a concave base. It was 0.36 m deep and filled with a brown orange clay silt (2804) that contained pottery dated from the late prehistoric period. It appeared to be contemporary with, or the same as, a NW-SE aligned ditch cut (2805) to the centre of the trench.

5.1.39 Ditch 2805 was 0.66 m wide and 0.16 m deep and had a shallow, concave base. It was filled a brown orange clay silt (2806). Ditch 2805 had an uncertain relationship with ditch 2807 to the north. Ditch 2807 was 1.0 m wide and 0.6 m deep, it had a concave base and 45° sides. It was filled with an orange brown clay silt (2808). Ditch (2809) was located to the north of ditch 2807; it was 0.66 m wide, 0.33 m deep and v-shaped in profile. It was filled by a brown clay silt (2810).

Trench 29 (Fig. 14)

5.1.40 Trench 29 was aligned E-W and natural brickearth was observed at 5.2 m OD. An E-W aligned gully (2903) was revealed that measured 5.5 m long, 0.38 m wide and 0.1 m deep. A terminus was present at the western end although the eastern end appeared to fade out. The base was concave with shallow sides and it was filled with a dark brown clay silt (2904).

Trench 30 (Fig. 13)

5.1.41 Trench 30 was aligned E-W and natural brickearth was observed at 6 m OD. Two converging ditch cuts were observed, one aligned SW-NE (3003), the other SE-NW. Ditch 3003 had a concave base, 30° to 40° sides and was 0.2 m deep. It was filled by an orange brown clay silt (3004).

Trench 31 (Fig. 15)

5.1.42 Trench 31 was aligned NE-SW and natural brickearth was observed at 6.42 m OD. A N-S aligned, 'V'-shaped ditch (3103) was observed that measured 1.46 m in width and 0.88 m deep. It was filled by an orange brown silt clay (3105), up to 0.36 m in

thickness that was overlain by a 0.58 m thick brown clay silt (3104). Both fills appeared to have dumped in from the SE side of the ditch and contained pottery dated to the middle Bronze Age.

Trench 32 (Fig. 15)

5.1.43 Trench 32 was aligned NW-SE and natural brickearth was observed at 6.4 m OD. At the east end of the trench a NE-SW aligned ditch (3204) was observed. It measured 0.9 m in width and 0.36 m deep. It had a concave base and 45° sides. It was filled with a grey brown clay silt (3203). In the middle of the trench a tree hole (3208) was seen filled with a brown silt (3207), which was cut by a N-S aligned gully (3206). The gully was 0.55 m wide, 0.15 m deep and filled with a grey brown clay silt (3205).

Trench 33

5.1.44 Trench 33 contained a tree hole but no archaeological features.

Trench 34 (Fig. 16)

5.1.45 Trench 34 was aligned E-W and natural brickearth was observed at 3.7 m OD, *c* 1.4 m below ground level. Because of the deep depth of deposits, a limited excavation strategy was employed.

5.1.46 A total of five broadly N-S orientated linear features were recorded. At the west end of the trench a NW-SE aligned ditch (3411) was recorded. It was 0.7 m wide but not excavated. To the east of (3411), and on the same alignment, the first of two parallel ditch cuts (3405) was investigated. It was 0.92 m wide and over 0.16 m deep but not bottomed. It was filled by a brown clay silt (3404) that contained early/middle Neolithic pottery. An eastern, parallel ditch (3410) was not excavated but was 0.7 metres wide.

5.1.47 To the east of the trench, a NW-SE aligned linear cut (3409) was recorded in plan, it measured 1.05 m in width. To the east a large N-S orientated ditch (3407) was investigated. It was 2.6 metres wide and was over 0.30 m deep, but it was not bottomed. It was filled by an orange brown clay silt (3408).

5.1.48 The ditches were overlain by a silty subsoil (3403) and a topsoil (3402). Above the topsoil was 0.5 m of modern made ground (3401) below a modern topsoil (3400).

5.2 Finds

Prehistoric Pottery

5.2.1 A total of 463 prehistoric sherds (8243 g) was recovered from the site. The majority of the diagnostic material dated to the middle Bronze Age, whilst some early or middle Neolithic decorated pot was recovered from ditch 3405.

Other Pottery

5.2.2 The remainder of the pottery assemblage comprised 130 sherds with a total weight of 1,314 g. The bulk of this assemblage was of medieval date, although small quantities of Romano-British and early/middle Saxon pottery were also present.

Flint

5.2.3 A total of 336 struck flints and 1192 pieces (24.658 kg) of burnt unworked flint were recovered from the evaluation. The flint work was in variable condition and mostly derived from the subsoil. A large assemblage of later Bronze Age flint work (105 pieces) was recovered from pit 1405. From its general technological appearance, much of the remaining assemblage is probably also later prehistoric in origin. A small number of blades may be Mesolithic or Neolithic in date, while the presence of a thumbnail scraper within ditch 3405 indicated late Neolithic or early Bronze Age activity.

Animal Bone

5.2.4 A total of 105 fragments (686g) of animal bone were recovered from the site. The bones were generally recovered from medieval ditch fills; bone was poorly preserved within the fills of the prehistoric features. Identified taxa included horse, cattle, pig, sheep/goat and dog with further fragments identified as large mammal (probably horse or cattle) and medium mammal (probably sheep/goat, pig or dog).

Ceramic Building Material (CBM)

5.2.5 A total of 16 fragments (667g) of CBM were recovered from the site. The material comprised medieval and post-medieval roof tiles and 16th- to 19th-century bricks. The material was generally recovered from the subsoil and from the infilling of medieval ditches, to the west of the site.

Fired clay

5.2.6 A total of three fragments of fired clay were recovered from the site. The fragments were recovered from the subsoil and the fill of a medieval ditch (208).

Glass

5.2.7 A total of 2 fragments of glass were recovered from the site. Both were recovered from topsoil and were of a post medieval or modern date.

Slag

5.2.8 A total of five fragments of slag were recovered from the site. Three fragments were from the subsoil and two were from ditch fill 104.

Worked Stone

5.2.9 Two pieces of worked stone were recovered from the site. Both were small fragments of indeterminate function.

5.3 Palaeo-environmental remains

Carbonized plant remains and charcoal

5.3.1 Eleven 40 litre samples were taken during the work. Four samples were initially processed to assess the preservation of material. These samples were visually assessed on site and at Oxford Archaeology, and selected as the samples with the best preservation. The samples were processed by flotation using a modified Siraf-type machine, with the flot collected onto a 250 micron mesh. The samples were air-dried and the flots scanned under a binocular microscope at x10 and x20 magnification at the Oxford University Museum by Professor Mark Robinson.

5.3.2 The volume of the flots was generally small with significant percentages of the volume formed by modern root matter. The quantities of archaeological material were generally low. No further work was deemed necessary.

Shell

5.3.3 A total of 58 fragments of oyster shell were recovered from the site. The majority of the shell was recovered from the medieval ditches within Trenches 1 and 2, although some was recovered from the subsoil.

6 DISCUSSION AND INTERPRETATION

6.1 Reliability of field investigation

6.1.1 The results of the evaluation appeared to be generally reliable. There was little cross contamination of finds within the features. However, as a result of post-medieval ploughing, some medieval and post-medieval pottery was recovered from the upper levels of the prehistoric features.

6.1.2 A large amount of re-deposited worked and burnt flint was recovered from medieval ditches and the subsoil. This did not appear to effect the phasing of the site, although the prehistoric features were dated by pottery, not flint alone.

6.1.3 The presence of standing buildings to the north of the site meant that a full evaluation of the site could not be made. Trenches 23, 24 and 34 could not be fully evaluated because of the presence of rare lizards and depth of the archaeology. Surface finds were recovered from the features and the fills recorded. Although surface finds should not be relied upon to provide accurate dating, the nature of the fills suggested that the features were prehistoric.

6.2 Overall interpretation

Neolithic

6.2.1 A NW-SE aligned ditch, containing early to middle Neolithic pottery and a late Neolithic/early Bronze Age scraper, was observed to the NW of the site in Trench 34. The ditch was possibly a boundary ditch and was suggestive of Neolithic

settlement within the area. Two parallel ditches were also observed which might have represented a continuation of the boundary into the Bronze Age.

Bronze Age

6.2.2 Bronze Age features were prevalent throughout the SE part of the site. In Trench 14, located to the south of the central area, two pits were identified; one of which was over 4 m wide and may have been a waterhole. A total of 105 struck flints was recovered from its fills and were composed entirely of debitage and cores. The struck flint was accompanied by an additional 99 pieces (5.566 kg) of burnt unworked flint, which may reflect the deposition of hearth debris or the remains of industrial activity.

6.2.3 Undated ditches and a pit were seen to the north of the pits, the nature of their fills and close proximity suggested that they might have been contemporary.

6.2.4 To the south of pits, in Trench 11 a possible ditch was identified from which a near complete bucket urn was recovered. Although the vessel had been vertically placed it's lack of both a base and a rim suggested it had been re-deposited.

6.2.5 Well-dated ditches were also observed in Trenches 9 and 31 and features with similar alignments and fills were observed throughout the SE corner of site.

6.2.6 To the north, in Trench 30, Bronze Age ditches were also observed, in close proximity to similar undated ditches. The ditches did not form a coherent pattern between the evaluation trenches, and any early field boundaries cannot be identified at this stage.

Iron Age/Roman

6.2.7 A probable early Roman, N-S aligned ditch was identified to the west of the site. It appeared to run between Trenches 21 and 28 and may have formed the boundary of a field associated with Roman activity to the east of the site, at the Watermead development. In Trench 21 the ditch was flanked by two similarly aligned but undated ditches that may have formed later Roman boundaries.

Saxon

6.2.8 No Saxon features were revealed although four sherds of Saxon pottery were recovered. Toddington is recorded in the Domesday Book, and the site was most likely agricultural land in the Saxon period.

Medieval

6.2.9 A large N-S aligned ditch was observed within Trenches 1 and 2. Within Trench 2, to the east of the ditch, two parallel ditches and a cobbled surface were observed. The ditches may have formed a sequence of boundary ditches between the eastern limits of Toddington and agricultural land. As the ditches silted up the cobbles may have been laid to reclaim boggy land or act as a ford across the ditches.

6.2.10 A medieval ditch was also noted in Trench 7 to the south of the site. This may have formed a shallow field boundary. The dating of the medieval pit identified in Trench 24 was from surface finds, and as such is unreliable.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL FEATURE INVENTORY

Trench	Orientation	Depth of Natural (m OD)	Average depth to Natural	Archaeology present	Context	Type	Dimensions and Depth	Finds Y/N	Date
1	E-W	5.38	0.62m	Y	100	Topsoil	0.14		
					101	Subsoil	0.46		
					102	Natural			
					103	Ditch cut	>1.80x8.40x >0.92m	Y	?14thC
					104	Ditch fill			?14thC
					105	Posthole	0.40x0.40 deep	N	
					106	Posthole fill			
					107	Posthole	0.36x0.42deep	N	
					108	Posthole fill			
2	E-W	5.85	0.40m	Y	200	Topsoil			
					201	Subsoil			
					202	Ditch fill			
					203	Ditch fill			
					204	Cobbled surface	1.00x2.00m	N	
					205	Ditch cut	>1.8x1.4x0.6m		13thC
					206	Ditch fill			
					207	Natural			
					208	Ditch cut	>1.80x3.00x 0.40m		12thC
					209	Ditch cut	>1.8x1.2x0.8m		
					210	Ditch fill			
3	E-W	5.78	0.87m	N	300	Topsoil			
					301	Subsoil			
					302	Natural			
4	E-W	6.11	0.60m	Y	400	Topsoil			
					401	Subsoil			
					402	Natural			
					403	Pit cut	1.20x1.70x0.60m	Y	
					404	Pit fill			
					405	Tree bole			
					406	Tree bole fill			
5	N-S	6.14	0.56m	N	500	Topsoil			
					501	Subsoil			
					502	Natural			
6	N-S	5.98	0.78m	N	600	Topsoil			
					601	Subsoil			
					602	Natural			
7	E-W	5.92	0.78m	Y	700	Topsoil			
					701	Subsoil			
					702	Natural			

Trench	Orientation	Depth of Natural (m OD)	Average depth to Natural	Archaeology present	Context	Type	Dimensions and Depth	Finds Y/N	Date
					703	Ditch cut	<1.94x1.06x 0.41m	Y	13thC
					704	Ditch fill			
					705	Ditch cut	<1.94x1.06x 0.26	N	
					706	Ditch fill			
8	E-W	6.16	0.52m	N	800	Topsoil			
					801	Subsoil			
					802	Natural			
9	E-W	6.05	0.60m	Y	900	Topsoil			
					901	Subsoil			
					902	Natural			
					903	Pit cut	0.44x0.44x0. 08	N	
					904	Ditch cut	>1.80x1.10x 0.22m	Y	Middle Bronze Age
					905	Ditch fill			
					906	Pit fill			
					907	Ditch cut	>1.80x0.66x 0.10m	Y	
					908	Ditch fill			
					909	Ditch cut	x0.60x0.28m	Y	
					910	Ditch fill			
					911	Pit cut	0.94x0.54x0. 14m	N	
					912	Pit fill			
					913	Gully Cut	x0.36x0.14m	Y	
					914	Gully fill			
					915	Pit cut	0.56x0.32de ep	N	
					916	Pit fill			
10	SW-NE	5.5	1.10m	Y	1000	Topsoil			
					1001	Subsoil			
					1002	Natural			
					1003	Ditch cut	>1.80x2.20x 0.50m	N	
					1004	Ditch fill			
11	N-S	6.6	0.81m	Y	1100	Topsoil		Y	
					1101	Subsoil			
					1102	Natural			
					1103	Pit cut	0.90x0.12m		
					1104	Pit fill			
					1105	Bucket urn			Middle Bronze Age
					1106	Fill of urn			
					1107	Cut	>1.8x6.9x0.4 5m	Y	Middle Bronze Age
					1108	Ditch fill			
					1109	Posthole	0.40x0.26m	N	

Trench	Orientation	Depth of Natural (m OD)	Average depth to Natural	Archaeology present	Context	Type	Dimensions and Depth	Finds Y/N	Date
					1110	Posthole fill			
12	E-W	5.71	0.84m	Y	1200	Topsoil			
					1201	Subsoil			
					1202	Natural			
					1203	Gully Cut	>1.80x0.36x 0.28m	Y	
					1204	Gully fill			
13	E-W	5.49	0.91m	Y	1300	Topsoil		Y	
					1301	Subsoil			
					1302	Natural			
					1303	Posthole	0.60x>0.64m		
					1304	Posthole fill			
					1305	Ditch cut	>0.80x0.50x 0.12m	N	
					1306	Ditch fill			
14	N-S	5.95	0.60m	Y	1400	Topsoil			
					1401	Subsoil			
					1402	Natural			
					1403	Pit cut	1.40x1.96x> 1.15m	Y	Middle Bronze Age?
					1404	Pit fill			
					1405	Pit cut	>1.87x3.80x 1.35m	Y	Middle Bronze Age
					1406	Pit fill			
					1407	Ditch cut	>1.80x2.19x 0.26m	Y	
					1408	Ditch fill			
					1409	Ditch cut	>1.01mx1.12 mx0.36m	N	
					1410	Ditch fill			
					1411	Pit cut	>0.7x0.6m	N	
15	E-W	5.75	0.65m	N	1500	Topsoil			
					1501	Subsoil			
					1502	Natural			
16	E-W	4.9	0.85m	Y	1600	Topsoil			
					1601	Subsoil			
					1602	Natural			
					1603	Gully Cut	0.93x0.23x0. 15m	N	
					1604	Gully fill			
17	E-W	5.21	0.54m	N	1700	Topsoil			
					1701	Subsoil			
					1702	Natural			
18	N-S	4.59	0.81m	N	1800	Topsoil			
					1801	Subsoil			
					1802	Natural			
19	NE-SW	4.65	0.90m	Y	1900	Topsoil			
					1901	Subsoil			
					1902	Natural			
					1903	Ditch cut	>1.97x0.97x	N	

Trench	Orientation	Depth of Natural (m OD)	Average depth to Natural	Archaeology present	Context	Type	Dimensions and Depth	Finds Y/N	Date
							0.32m		
					1904	Ditch fill			
20	N-S	5.28	0.64m	N	2000	Topsoil			
					2001	Subsoil			
					2002	Natural			
21	E-W	5.79	0.65	Y	2100	Topsoil			
					2101	Subsoil			
					2102	Natural			
					2103	Ditch cut	>1.80mx1.70 x?	N	
					2104	Ditch fill			
					2105	Ditch cut	>1.80x0.50x 0.21m	Y	R-B
					2106	Ditch fill			
					2107	Gully Cut	>1.80x0.30x 0.02m	N	
					2108	Ditch fill			
					2109	Scoop	1.20x>0.30x 0.05	Y	Prehist?
					2110	Scoop fill			
					2111	Scoop	0.30x>0.30x 0.03m	Y	Prehist?
					2112	Scoop fill			
					2113	Scoop	>0.53x0.50x 0.06m	N	
					2114	Scoop fill			
23	N-S	5	0.9	Y	2300	Topsoil			
					2301	Subsoil			
					2302	Natural			
					2303	Ditch cut	>1.8x<1.05 m		
					2304	Ditch fill			
					2305	Ditch cut	>1.8x<4.2		
					2306	Ditch fill			
					2307	Ditch cut	>1.8x<3.3	Y	Bronze Age?
24	E-W	5.4	0.76m	Y	2400	Topsoil			
					2401	Subsoil			
					2402	Natural			
					2403	Ditch cut	>1.90x1.20m	Y	Late Bronze Age/Earl y Iron Age
					2404	Ditch fill			
					2405	Pit cut	1.03x1.95m	Y	
					2406	Pit fill			
					2407	Pit cut	1.36x3.10m	Y	13thC
					2408	Pit fill			
					2409	Ditch cut	>1.90x0.60m	Y	Late Bronze Age

Trench	Orientation	Depth of Natural (m OD)	Average depth to Natural	Archaeology present	Context	Type	Dimensions and Depth	Finds Y/N	Date
					2410	Ditch fill			
					2411	Pit cut	1.36x1.25m	Y	
					2412	Pit fill			
25	NW-SE	4.9	0.85m	N	2500	Topsoil			
					2501	Subsoil			
					2502	Natural			
27	E-W	5.7	0.55m	N	2700	Topsoil			
					2701	Subsoil			
					2702	Natural			
28	N-S	5.4	0.35m	Y	2800	Topsoil			
					2801	Subsoil			
					2802	Natural			
					2803	Ditch cut	>13.5x>0.52 x0.36m	Y	Late prehistoric
					2804	Ditch fill			
					2805	Ditch cut	>2.2x0.66x0.16m	N	
					2806	Ditch fill			
					2807	Ditch cut	>2.2x1.0x0.6m	Y	
					2808	Ditch fill			
					2809	Ditch cut	>2.2x0.66x0.33m	N	
					2810	Ditch fill			
29	E-W	5.2	0.60m	Y	2900	Topsoil			
					2901	Subsoil			
					2902	Natural			
					2903	Gully Cut	5.5x<0.38x<0.1m	N	
					2904	Gully fill			
					2905	Gully cut	0.38x0.1	N	
					2906	Gully fill			
30	E-W	5.09	0.66m	Y	3000	Topsoil			
					3001	Subsoil			
					3002	Natural			
					3003	Ditch cut	>1.80x0.66x 0.20m	Y	
					3004	Ditch fill			
31	SW-NE	6.3	0.50m	Y	3100	Topsoil			
					3101	Subsoil			
					3102	Natural			
					3103	Ditch cut	>3.20x1.46x 0.88m	Y	Middle Bronze Age
					3104	Ditch fill			
					3105	Ditch fill			
32	NW-SE	6.3	0.52m	Y	3200	Topsoil			
					3201	Subsoil			
					3202	Natural			
					3203	Ditch fill			
					3204	Ditch cut	>2.10x0.90x	N	

Trench	Orientation	Depth of Natural (m OD)	Average depth to Natural	Archaeology present	Context	Type	Dimensions and Depth	Finds Y/N	Date
							0.36m		
					3205	Gully fill			
					3206	Gully Cut	>2.35x0.55x 0.15m		
					3207	Tree bole fill			
					3208	Tree bole		N	
33	SW-NE	5.5	0.78m	N	3300	Topsoil			
					3301	Subsoil			
					3302	Tree bole fill			
					3303	Tree bole fill			
					3304	Tree bole			
					3305	Natural			
34	E-W	3.8	1.40m	Y	3400	Topsoil			
					3401	Made ground			
					3402	Buried topsoil			
					3403	Subsoil			
					3404	Ditch fill			
					3405	Ditch cut	>2.28x0.92x 0.16m	Y	Early/Mid Neolithic
					3406	Natural			
					3407	Ditch cut	>2.00x2.60x 0.30m	Y	
					3408	Ditch fill			
					3409	Ditch cut	>2.0x<1.05 m	N	
					3410	Ditch cut	>2.5x<0.8m	N	
					3411	Ditch cut	>2.4x<0.7m	N	

APPENDIX 2 PREHISTORIC POTTERY

By Emily Edwards

A total of 463 prehistoric sherds (8243 g) were recovered from Toddington Nurseries, Littlehampton. The majority of the diagnostic material dated to the middle Bronze Age, whilst some early or middle Neolithic decorated pot was recovered from context 3404 (see Table A2.1).

The pottery was counted and weighed by context whilst fabric and form were briefly noted. Generally speaking, in excess of 20 sherds (or several diagnostic sherds) are required from a single prehistoric feature to allow some precision of dating which takes residuality into account. This must be taken into account with the spot dating especially where there are less than five sherds.

Contexts 905 and 1105 contained many fragments from two Bucket Urns decorated with finger impressed cordons. These were both thick walled and tempered with coarse, badly sorted and calcined flint. Although neither were complete, the vessel from context 1105 was discovered partially intact (the base and rim were entirely missing). It was not clear whether the damage to this vessel was post deposition (the vessel was not considered to be in situ) or

whether the vessel was deposited in this incomplete state. Being very fragile, the vessel collapsed on excavation of the contents, whereupon much charred residue was noted on the internal walls. The early or middle Neolithic pottery included a rim with a convex externally expanded form, a whipped cord decorated body sherd and a fingernail decorated body sherd. These must be fully examined in order to determine date.

Neither Neolithic nor Bronze Age settlement sites or monuments are usual over the coastal area of West Sussex but the flint fabrics, forms and decoration are consistent with assemblages of the same date from elsewhere in the south of England. Toddington Nurseries is, however, within 7-8 km south west of the one hectare enclosure of Highdown Hill which is considered to be one of the only major settlements to have been discovered in West Sussex (Drewett *et al* 1988, 92).

Any further work at the site at Littlehampton could, therefore, provide a significant contribution to our understanding of the middle Bronze Age in this area. To this end, the pottery from this evaluation should be considered alongside other groups of artefacts recovered from the site and the diagnostic material should be drawn. The copious quantities of charred residue on the internal walls of the vessel from 1105 should be assessed for radiocarbon date potential or sent off for residue analysis. Measurements of the vessel were taken and the profile may be estimated. The presence of almost identically tempered early or middle Neolithic sherds (including one externally expanded rim) decorated with whipped cord (context 3404) will necessitate a full examination of fabrics in order to facilitate secure dating of the smaller sherds.

Table A2.1 Incidence of prehistoric pottery by context

Context	Date	Sherd Count	Weight (g)	Comment
701	Preh	2	4 g	Flint tempered
905	MBA	300	5257 g	Fragments from one coarsely flint tempered Deverel Rimbury Bucket Urn
1101	LBA/EIA	1	2 g	Flint and sand body sherd
1105	MBA	46	2547 g	Fragments of a coarsely flint tempered Deverel Rimbury Bucket Urn
1301	Preh	2	8 g	Flint body sherds
1401	MBA	20	74 g	Flint tempered sherds including two rims
1404	MBA?	1	6 g	Coarse flint body sherd
1404	Ind	1	1 g	One flint sherd and one non ceramic
1406	MBA	21	132 g	Flint tempered base, rim and body sherds
1801	Preh	1	3 g	flint
1901	Preh	2	5 g	Flint body sherds
2101	LBA/EIA?	1	4 g	Flint body sherd
2101	LBA	10	32	Coarse flint tempered base sherds
2401	LBA/EIA?	1	4 g	Burnished sherd tempered with flint and sand
2404	LBA/EIA?	1	4 g	Flint and sand body sherd
2410	MBA	2	25 g	Coarse flint
2410	LBA?	1	4 g	Flint and sand body sherd
2410	Ind	2	5 g	Sand and flint
2804	LPREH	1	6 g	Rim
3004	Ind	3	4 g	flint
3014	Preh	1	1 g	Flint and sand
3103	MBA?	2	8 g	
3104	MBA?	23	64 g	Coarse flint fabric and fine very common flint tempered shoulder

Context	Date	Sherd Count	Weight (g)	Comment
3404	EN/MN	14	50 g	Whipped cord decorated body sherd, fingernail body, impressed cord rim?
3404	Preh	4	15 g	Coarse flint. Three are fired to a pink colour
Totals		463	8243 g	

APPENDIX 3 MEDIEVAL POTTERY

By Paul Blinkhorn

The pottery assemblage comprised 130 sherds with a total weight of 1,314 g. The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference was 0.80. The bulk of the assemblage was of medieval date, although small quantities of prehistoric, Romano-British and early/middle Saxon pottery were also present.

Fabric

?*Bronze Age*: Coarse, friable hand-built ware with dense, large flint grits. 1 sherd, 5 g.

Romano-British: 21 sherds, 138 g.

Early/middle Saxon hand-built wares.

F1: Coarse black fabric, brown outer surface, moderate to dense sub-angular quartz up to 1 mm. 3 sherds, 14 g, EVE = 0.03.

F2: Sparse to moderate organic voids up to 5 mm. 1 sherd, 7 g, EVE = 0.

None of the hand-built pottery from this site was decorated, meaning that it is impossible to date other than to within the early to middle Saxon period (c AD450-850). Plain pottery of this type is very difficult to date closely, unless accompanied by decorated sherds or datable imports such as Ipswich ware or Continental wares. The Anglo-Saxons largely ceased decorating pottery in the early part of the 7th century (Myres 1977), but such wares were rare even when they were used. Usually, decorated wares only comprise around 3% of the pottery from settlement sites of the 5th and 6th century, such as Mucking in Essex (Hamerow 1994), and rarely occur in small assemblages. Thus, a small assemblage lacking decorated pottery cannot be given a date of later than the 6th century with any confidence.

Saxo-Norman and Later

F200: *Saxo-Norman ware*: Wheel-finished grey ware, fine sandy fabric. 11th – 12th century (Barton 1979, 75). 3 sherds, 11 g, EVE = 0.

Medieval "West Sussex-type wares". A number of medieval pottery production centres are known from West Sussex, such as Binstead, Chichester, Graffham, and Heyshott (Barton 1979; McCarthy and Brooks 1988, 324). They were all producing a similar range of vessels, in fabrics based on sand and/or flint tempering. The classification system used here is based simply on the main types of temper.

F300: Fine sandy. Slightly sandy texture, reduced grey/brown or oxidized to a reddish orange colour. Few visible inclusions except for a few sherds with rare angular white flint up to 2mm. 13th – 14th century. 13 sherds, 106 g, EVE = 0.11.

F301: Oxidized buff to red sandy fabric with a pale grey core. Some sherds reduced to a grey-brown. Moderate to dense quartz up to 1mm. 13th – 14th century. 56 sherds, 634 g, EVE = 0.51.

F302: Moderate to dense angular white flint up to 3mm. 12th – 14th century? 26 sherds, 350 g, EVE = 0.15.

F425: *Red Earthenwares*: Fine sandy earthenware, usually with a brown or green glaze, occurring in a range of utilitarian forms. Such 'country pottery' was first made in the 16th century, and in some areas continued in use until the 19th century. 3 sherds, 25 g.

F1000: *Miscellaneous 19th and 20th century wares*. 3 sherds, 21 g.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table A3.1. Each date should be regarded as a *terminus post quem*.

Discussion

The small assemblage of early/middle Saxon pottery is a useful addition to the small corpus of known material in the county. It is all abraded and redeposited in later features, apart from a single small rimsherd from context 3001.

The range of medieval wares is fairly typical of assemblages of that date from west Sussex, comprising mainly sandy and flint-tempered wares of the 'West Sussex' tradition (Barton 1979). The glazed jugs seem likely to be mainly Chichester types, having horizontal rilling which is said to be typical of the products of the kiln at Orchard St., Chichester (ibid. 160). It would seem likely that most of the medieval pottery from this site is from that source. Certainly, the highly decorated jugs noted at other production centres in the county are absent.

Most of the medieval pottery is in good condition, and a range of domestic vessels were noted, mainly jugs, bowls and jars, although two handles from skillets were also noted. They were sooted underneath their handles, showing that they had been placed on a fire at some point during their use.

Decoration was largely absent, other than applied strips on jars, glaze and rilling on jugs, and the edge of one of the skillet handles was thumb-impressed.

Generally, the medieval pottery was in good condition, with little sign of abrasion, suggesting that it was broken and deposited in the immediate vicinity of these excavations. The presence of prehistoric, Romano-British and early/middle Saxon pottery, not all of which was redeposited, suggests that there are likely to be features of that date also present.

Table A3.1: Pottery occurrence by number and weight (in g) of sherds per context by fabric type

	BA		RB		F1		F2		F200		F300		F301		F302		F425		19th C		Date
Ctx	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	
104			1	1					1	7	7	64	27	428	7	155					14thC?
202											1	4	3	53							13thC
203													5	49							13thC
206															1	119					12thC
301											1	8									13thC
401															1	11					12thC?
601									2	4											11thC??
701													7	56	3	10					13thC
704			1	30									1	1							13thC
900																	2	24	3	21	19thC
901															1	3					13thC
1007							1	7					2	11							13thC
1101											1	4	3	9	7	37					13thC
1201											2	22	1	2							13thC
1406															1	2					12thC?
1601													1	1			1	4			U/S
1701													2	5	1	2					13thC
2101			1	1											2	4					12thC?
2106	1	5	17	98																	RB
2301			1	8	2	8							1	5							13thC
2408													2	9							13thC
3001					1	6															E/MS?
3101											1	4			1	2					13thC
3301													1	5	1	5					13thC
Total	1	5	21	138	3	14	1	7	3	11	13	106	56	634	26	350	3	28	3	21	

APPENDIX 4 FLINT

By Kate Cramp with Rebecca Devaney

Introduction

A total of 336 struck flints and 1192 pieces (24.658 kg) of burnt unworked flint were recovered from the evaluation at Toddington Nurseries, Littlehampton (Table A4.1). The flintwork is in variable condition and derives mainly from subsoil contexts. A large assemblage of later Bronze Age flintwork (105 pieces) was recovered from pit 1405. From its general technological appearance, much of the remaining assemblage is probably also later prehistoric in origin. A small number of blades may be Mesolithic or Neolithic in date, while the presence of a thumbnail scraper (tr. 34, context 3404) indicates late Neolithic or early Bronze age activity.

Table A4.1: Quantification of struck flint

Category	Total
Flake	252
Blade	5
Bladelike flake	4
Core face/edge rejuvenation flake	1
Irregular waste	32
Multi-platform flake core	8
Core on a flake	6
Unclassifiable core	10
Tested nodule	3
Retouched flake	7
End scraper	3
End-and-side scraper	2
Thumbnail scraper	1
Notch	1
Piercer	1
Total	336

Quantification

The largest assemblage, a total of 105 flints, was recovered from pit 1405 in trench 14 (Table 2). Assemblages of reasonable size were also recovered from trench 11 (30 pieces), trench 21 (29 pieces), trench 31 (19 pieces) and trench 34 (19 pieces). Most trenches, however, produced only small numbers of struck flints.

Burnt unworked flint was recovered in small quantities from most trenches and was generally heavily calcined to a white-grey colour. The largest assemblage by piece and by weight was retrieved from trench 14 (108 pieces, 5.720 kg), while significant quantities came from trench 9 (100 pieces, 1.448 kg), trench 11 (94 pieces, 2.382 kg), trench 13 (39 pieces, 1.139 kg), trench 21 (89 pieces, 2.236 kg) and trench 23 (55 pieces 1.137 kg).

Condition

The flintwork is in variable condition. As might be expected, much of the material from the ploughsoil and the subsoil is in poor condition. These pieces (e.g. from contexts 601, 701, 1701, 2001 and 3101) are rolled and glossed in appearance and display recent edge damage, probably incurred by ploughing activity. Other groups (e.g. from contexts 1406, 2101 and 3404) are in much fresher condition and by implication are unlikely to have been significantly disturbed following their original deposition.

Raw material

The flint nodules used for the production of the debitage and tools in the assemblage appears to have been, for the most part, a good quality chalk-derived flint. These nodules are characterised by a weathered, slightly stained cortex and a mottled grey-brown interior. The flint was probably procured from surface deposits of chalk flint, which would have been fairly locally available given the proximity of the site to the South Downs.

Dating and technology

The assemblage is largely composed of thick, hard-hammer flakes (252 pieces) and irregular waste (32 pieces). Blades and bladelike flakes are less numerous and suggest a later

prehistoric date for majority of the flintwork (e.g. Pitts and Jacobi, 1979, Ford 1987). Of the 24 cores recovered from the evaluation, most were aimed at the production of flakes. The majority were reduced from several platforms using hard-hammer percussion with minimal preparation; six examples have been made on thick flakes. The cores range in weight from 12 g to 120 g with an average of 55.95 g.

The retouched component consists of simple edge-retouched flakes and scrapers. One notched flake (context 2101) and one piercer (context 2401) were also recovered. The neatly retouched thumbnail scraper from context 3404 can be dated to the late Neolithic or early Bronze Age. This piece is in fresh condition and was recovered from a pit containing several other flints, which may be in contemporary association.

The majority of the tools are chronologically undiagnostic, although the quality and character of the retouch on a number of the scrapers (e.g. from context 2112) might indicate a Neolithic or perhaps early Bronze Age date for some.

Of particular note is the assemblage of 105 struck flints from a single fill within pit [1405]. The flintwork is in a fresh, uncorticated condition and is composed entirely of debitage and cores. The assemblage is dominated by thick, hard-hammer flakes with simple or cortical platforms and hinged terminations. While no closely datable tool types are present, the technological appearance of the flintwork is consistent with a later Bronze Age industry. The struck flint was accompanied by an additional 99 pieces (5.566 kg) of burnt unworked flint, which may reflect the deposition of hearth debris or the remains of industrial activity.

Potential for further work

The material from pit [1405] would benefit from a more detailed treatment, perhaps involving technological and metrical analysis that would allow a fuller description of the knapping strategy. Given the fairly disparate distribution of the remaining assemblage, no further work is recommended. It would, however, be necessary to consider this material alongside any additional flintwork recovered in future excavation at the site.

Table A4.2: Quantification of struck flint by trench and by context

Trench	Context	Total
Trench 1	104	6
Trench 2	202	1
	203	2
Trench 3	301	2
Trench 4	401	2
	404	1
Trench 6	601	10
Trench 7	701	5
	704	1
Trench 8	801	2
Trench 9	900	2
	905	1
	908	2
	909	5
Trench 10	1001	2
	1046	1
Trench 11	1101	28
	1108	2
Trench 12	1201	1
Trench 13	1301	7
	1304	1
Trench 14	1401	1
	1404	5
	1406	105
	1408	14
Trench 16	1601	3
Trench 17	1701	7
Trench 18	1801	4
Trench 19	1901	10
Trench 20	2001	4
Trench 21	2101	19
	2106	5
	2110	2
	2112	3
Trench 23	2301	6
Trench 24	2401	1
	2406	1
	2408	4
	2409	6
	2410	3
Trench 28	2804	1
Trench 30	3004	1
Trench 31	3101	3
	3104	13
	3105	3
Trench 32	3201	3
Trench 33	3301	6
Trench 34	3404	17

Trench	Context	Total
	3408	2
Total		336

Table A4.3: Distribution of struck and burnt unworked flint by trench

Trench:	No. of struck flints:	No. of burnt unworked flints:	Weight of burnt unworked flints (g):
Trench 1	6	9	108
Trench 2	3	2	222
Trench 3	2	4	156
Trench 4	3	6	108
Trench 5		1	66
Trench 6	10	15	348
Trench 7	6	29	889
Trench 8	2	9	279
Trench 9	10	100	1448
Trench 10	3	19	660
Trench 11	30	94	2382
Trench 12	1	18	414
Trench 13	8	39	1139
Trench 14	125	108	5720
Trench 15		4	116
Trench 16	3	10	203
Trench 17	7	25	640
Trench 18	4	13	291
Trench 19	10	33	806
Trench 20	4	20	423
Trench 21	29	89	2236
Trench 23	6	55	1137
Trench 24	15	35	758
Trench 25		3	53
Trench 28	1	3	42
Trench 30	1	9	173
Trench 31	19	42	694
Trench 32	3	7	235
Trench 33	6	10	324
Trench 34	19	45	869
Total	336	856	22939

APPENDIX 5 STONE

By Ruth Shaffrey

Thirteen pieces of stone were retained. The stone was examined with the aid of a x10 magnification hand lens. Two pieces of stone are worked but both are small fragments of indeterminate function.

Table A5.1 Catalogue

Context	Description
203	Flat fragment of quartzitic sandstone with one worked edge
1406	Small flat fragment of pale brown sandstone with one worked edge

APPENDIX 6 ANIMAL BONE

By Fay Worley

A total of 105 fragments (686g) of animal bone were recovered from contexts (101), (104), (203), (206), (500), (1301), (1408), (2408) and (3408). Identified taxa included horse, cattle, pig, sheep/goat and dog with further fragments identified as large mammal (probably horse or cattle) and medium mammal (probably sheep/goat, pig or dog). Table A6.1 presents the number and weight of fragments of animal bone from each context.

Table A6.1. Refitted number and weight of fragments of animal bone in each context.

Species	101	104	203	206	500	1301	1408	2804	3408	Total
Cattle		4 (355g)		1 (73g)						5 (428g)
Horse			1 (39g)							1 (39g)
Large mammal	1 (17g)	12 (50g)		2 (31g)			26 (64g)		1 (2g)	42 (164g)
Pig		3 (31g)						2 (5g)		5 (36g)
Sheep/goat		1 (3g)								1 (3g)
Dog			1 (8g)							1 (8g)
Medium mammal						1 (1g)				1 (1g)
Indeterminate			1 (0g)		1 (1g)		1 (0g)	1 (1g)	29 (5g)	33 (7g)
Total	1 (17g)	20 (439g)	3 (47g)	3 (104g)	1 (1g)	1 (1g)	27 (64g)	3 (6g)	30 (7g)	89 (686g)

The species and elements identified, age-at-death of the animals and evidence for butchery are discussed by context below.

(101) contained a five fragments of cortical bone which refitted to a single large mammal long bone. (104) included cattle, pig and sheep/goat bone. Cattle elements included a right mandible with complete permanent dentition (second deciduous premolar lost post-mortem and missing). Tooth eruption and attrition suggests that the animal died when senile

(following Halstead 1985). A right cattle nasal bone and right metacarpal was also identified and a large mammal rib from this context may also be cattle.

The pig was represented by a fragment of right proximal tibia. The proximal epiphysis was unfused suggesting an age at death of less than 3.5years (following Silver 1969). (104) also included fragments of pig left and right mandible. The left included the deciduous fourth premolar and first molar (immature by attrition) while the right included the second and third premolars. Tooth eruption suggests an age at death of less than 12-16 months (following Silver 1969) while tooth attrition indicates that the animal was immature at death (following Halstead 1985). The single sheep/goat element was a maxillary first or second molar.

(203) included three fragments of animal bone a horse maxillary molar, a large dog unfused distal tibia (suggesting an age at death of less than 13-16 months (following Silver 1969) and a further indeterminate fragment.

(206) included a cattle metatarsal which had probably been butchered, with the distal diaphysis chopped off diagonally, probably during dismemberment. The context also included a two refitting fragments of ramus from a large mammal mandible. The mandible had been butchered with roughly horizontal cuts on the medial and lateral face of the ramus just below the hinge. The hinge itself had been chopped off. This butchery may result from removal of the mandible to access the tongue.

(500) contained only a single fragment of indeterminate cortical bone. (1301) contained only a small fragment of medium mammal sized long bone diaphysis. (1408) included an indeterminate tooth enamel fragment and 32 fragments of large mammal long bone diaphysis, seven of which could be refitted and identified as probable horse/cattle left distal tibia.

(2804) included two pig tooth fragments and an indeterminate fragment of cortical bone. The pig tooth fragments were from mandibular second molar and a third molar. The third molar had not erupted and the second was not fully formed but did show possible slight wear. If from the same animal, these teeth suggest an age at death of 7-22 months (following Silver 1969).
(3408) included 29 fragments of indeterminate cortical bone and a fragment of horse or cattle tooth. The condition of the animal bone falls into two categories. Bone from contexts (104), (203), (206) and (500) were in fair condition retaining much of the surface of the elements, while bone from the remaining contexts had a very chalky texture.

APPENDIX 7 CHARRED PLANT REMAINS

By Prof Mark Robinson and Seren Griffiths

Methodology

Eleven 40 litre samples were taken as part of the excavation for the Littlehampton Evaluation to assess the potential of charred plant remains. Four samples were initially processed to assess the preservation of material. These samples were visually assessed on site and at Oxford Archaeology, and selected as the samples with the best preservation. The samples were processed by flotation using a modified Siraf-type machine, with the flot collected onto a 250 micron mesh. The samples were air-dried and the flots scanned under a binocular microscope at x10 and x20 magnification at the Oxford University Museum by Professor Mark Robinson.

Results

Charred Plant Remains

The volume of the flots was generally small with significant percentages of the volume formed by modern root matter. The quantities of archaeological material were generally low. Sample 129 (context 1406) produced frequent quantities of highly comminuted indeterminate charcoal. One indeterminate weed seed was recovered. Sample 127 (1108) produced two *Triticum* sp. (wheat) elements and two indeterminate cereal grains. Samples 128 (904) and 124 (3408) produced evidence of *Triticum dicoccum* (emmer wheat). A *Corylus avellana* (hazel) nutshell fragment and a *Rumex* sp. (dock) seed were also present. A species of pea (cf. *Pisum* sp.) was identified in 128 (904).

Three of the samples were from Bronze Age features, while one was from a Romano-British feature. Samples 124 (3408), 127 (1108), 128 (904) provide an interesting example of Bronze Age subsistence economies, covering a range of wild - eg. *Corylus avellana* (hazel nut) - and domesticated resources such as *Triticum dicoccum* (emmer wheat). This is consistent with current understanding of Bronze Age subsistence strategies. However the quantities of material in the samples processed were exceedingly low. The remains from the Romano-British feature were particularly sparse. Given the poverty of these samples it was concluded that further processing would only be beneficial if it would be possible to extract significantly greater quantities of charred material (by an order of magnitude). As these samples were the best preserved from the site, further processing of these samples is not recommended. On the basis of this assessment any further excavations at the site should include a sampling strategy to deposits most likely to produce remains.

Table A7.1- A summary of the charred plant remains

Sample No	Context No	Flot vol (ml)	Type of context	Charcoal	Grain	Chaff	Weeds	Other
129	1406	20	Ditch	++			+ indeterminate	
127	1108	40	Ditch	+++	+ Triticum sp. (wheat), indeterminate cereal			
124	3408	80	Ditch	+++	+	+ Triticum dicoccum glume base (emmer wheat).	++ Rumex sp. (dock), indeterminate weeds	+ Corylus avellana (hazel nutshell)
128	60	40	Pit	+	++ Triticum dicoccum (emmer wheat)., indeterminate cereal			Pisum sp. (pea)

Key: +=present (up to 5 items), ++=frequent (5-25), +++=common (25-100)

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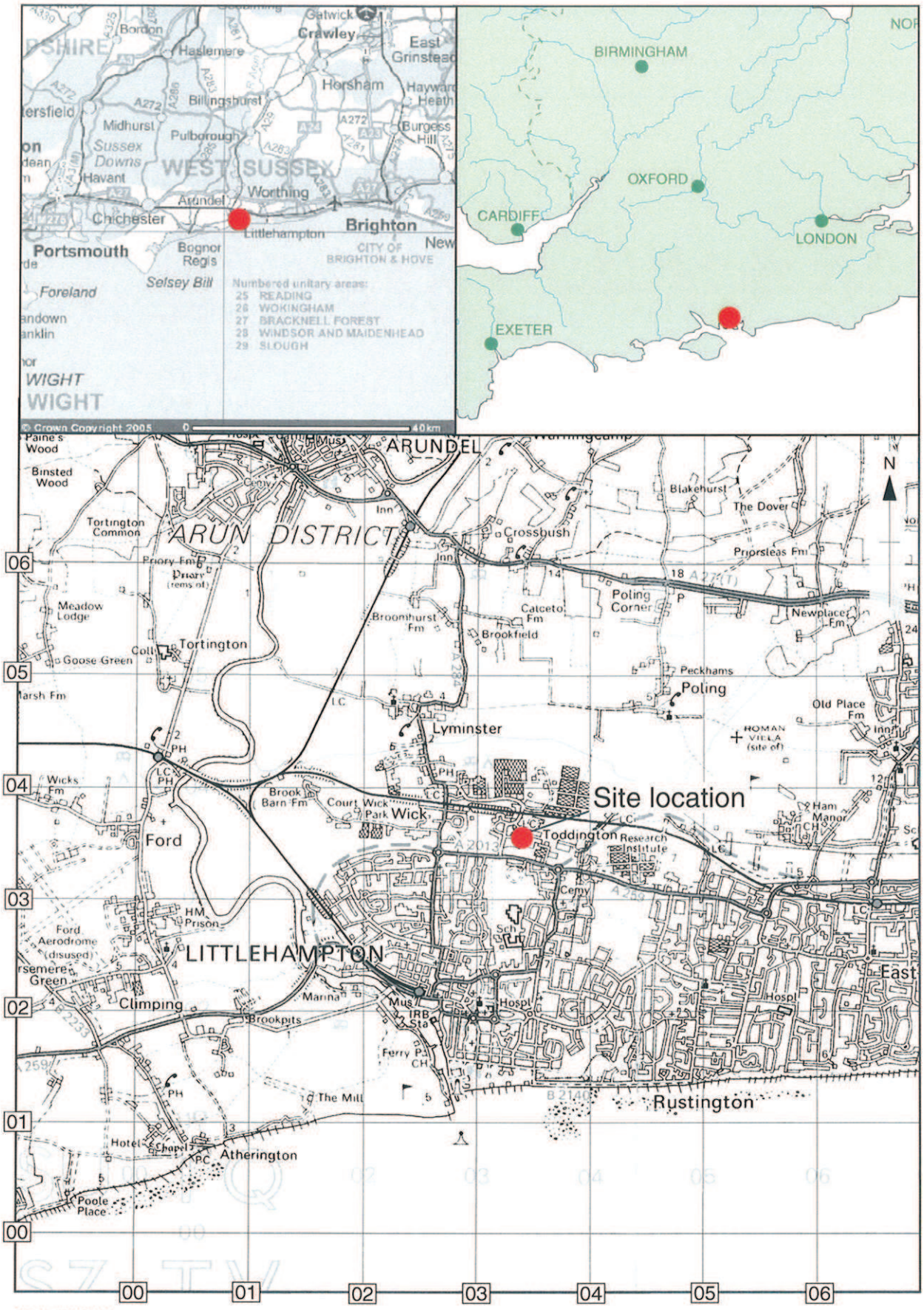
APPENDIX 9 SUMMARY OF SITE DETAILS

Site name: Toddington Nurseries, Littlehampton, West Sussex
Site code: LITOD05
Grid reference: TQ 0352 0356
Type of evaluation: Thirty-three 30 m trenches.
Date and duration of project: April-May 2005
Area of site: 9.8 ha
Summary of results: Neolithic, Bronze Age, Iron Age and Roman ditches. Bronze Age pits and waterhole. Roman and medieval boundary ditches.
Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Littlehampton Museum in due course, under the following accession number: *to be confirmed*



Scale 1:50,000

Figure 1: Site location

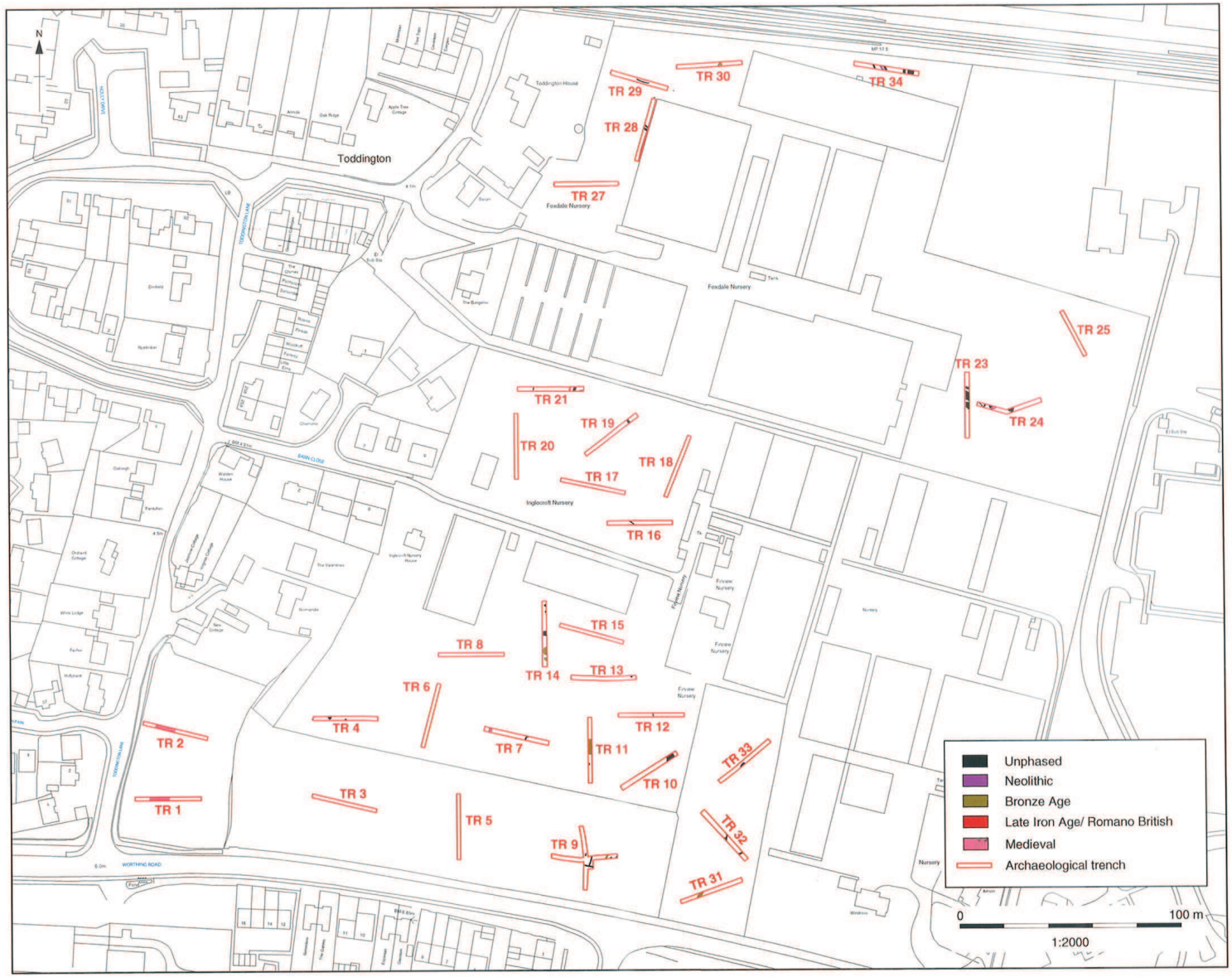


Figure 2: Trench location plan

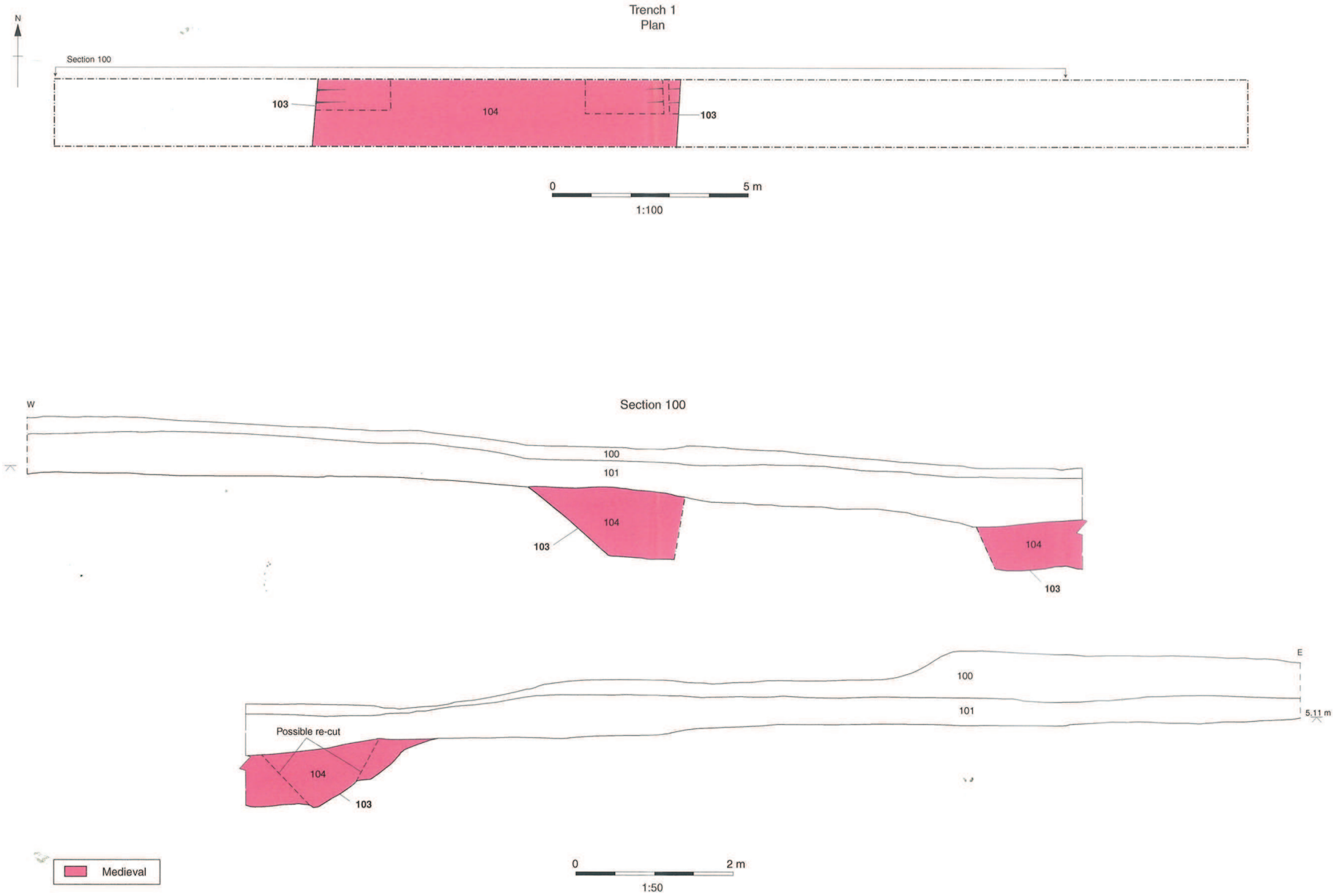


Figure 3: Trench 1, plan and section

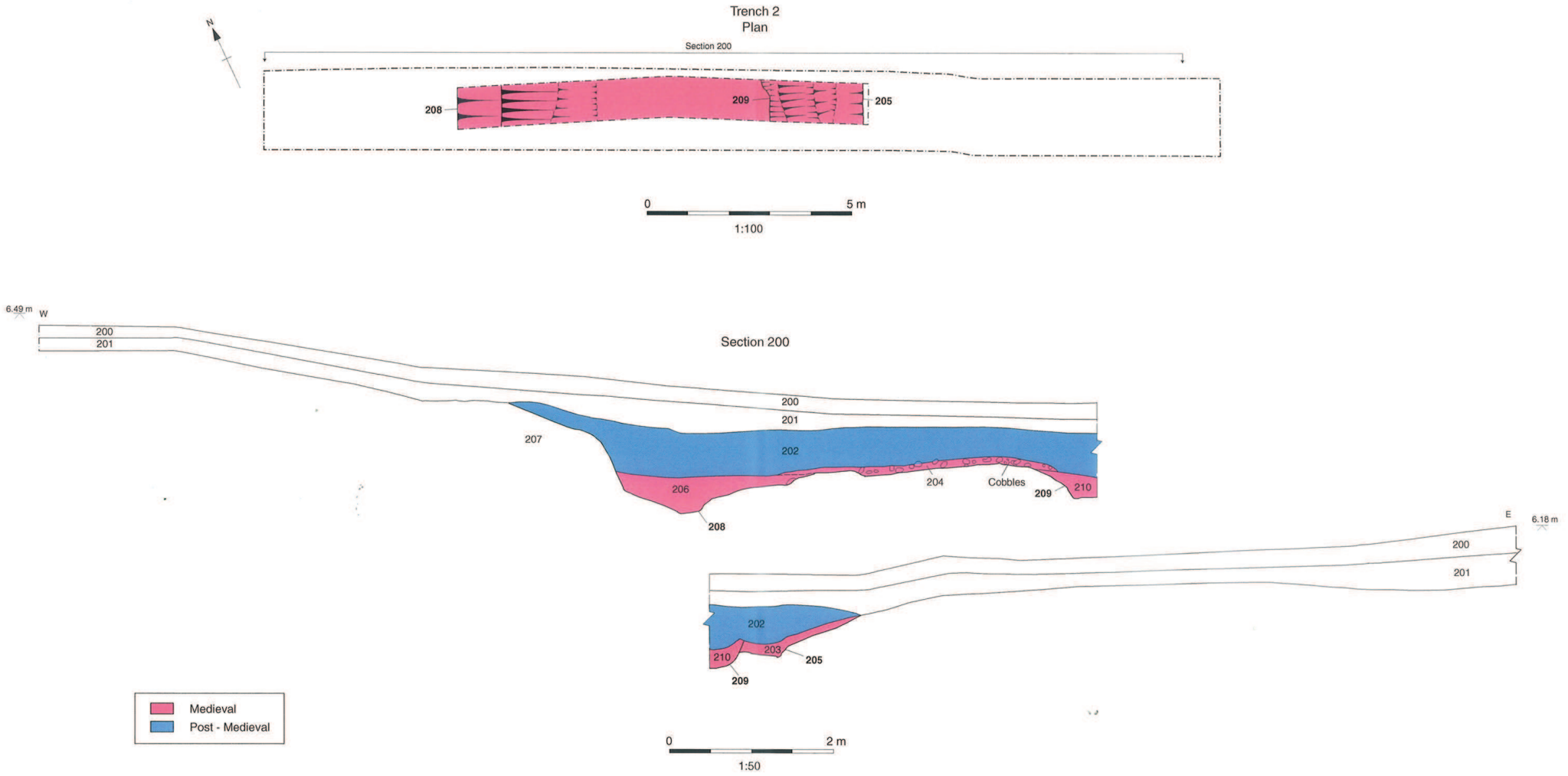


Figure 4: Trench 2, plan and section

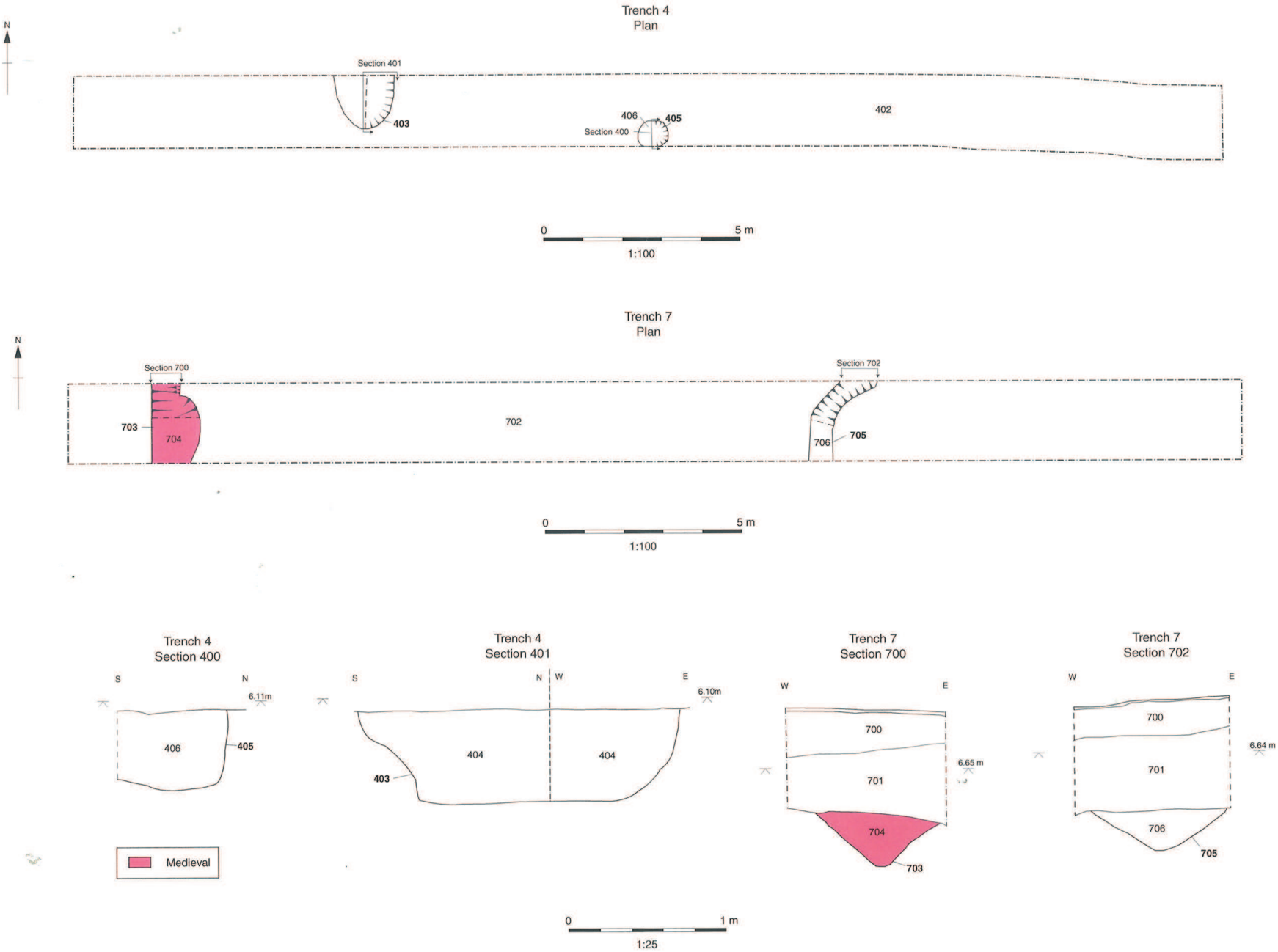
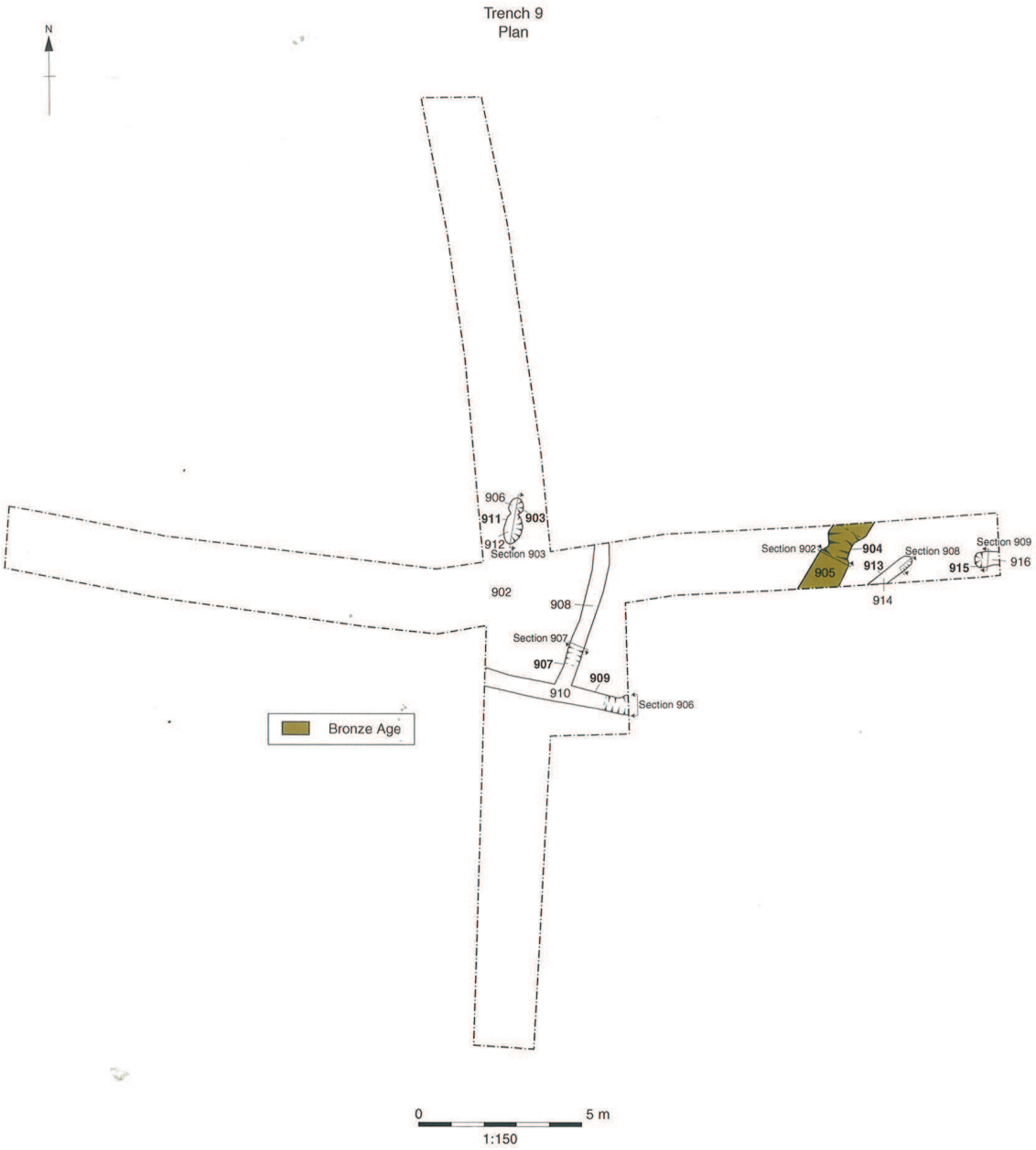


Figure 5: Trenches 4 and 7, plans and sections



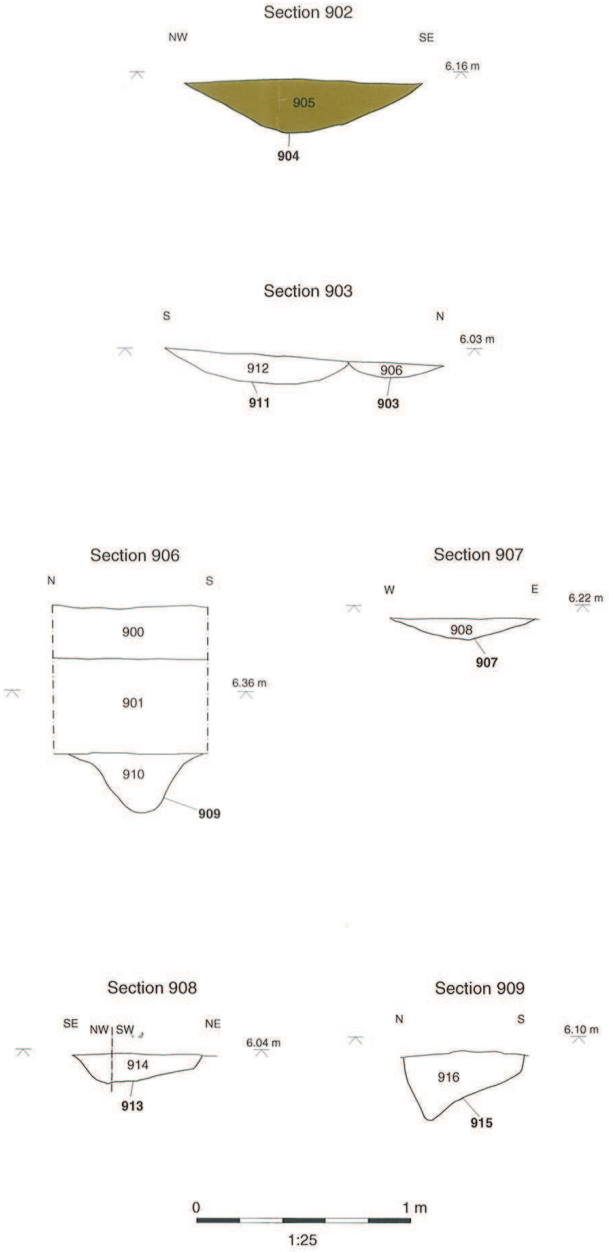


Figure 6: Trench 9, plan and sections

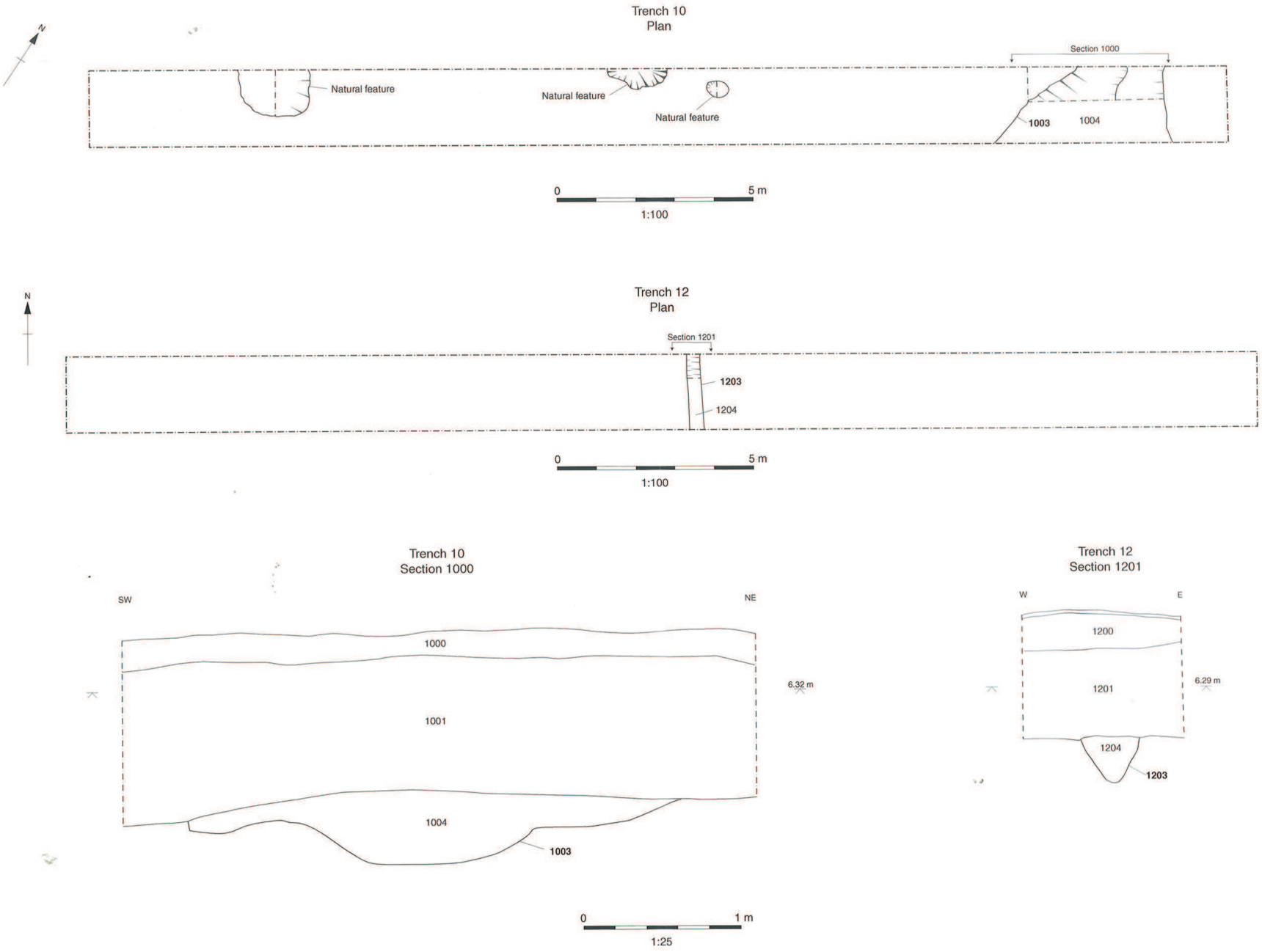
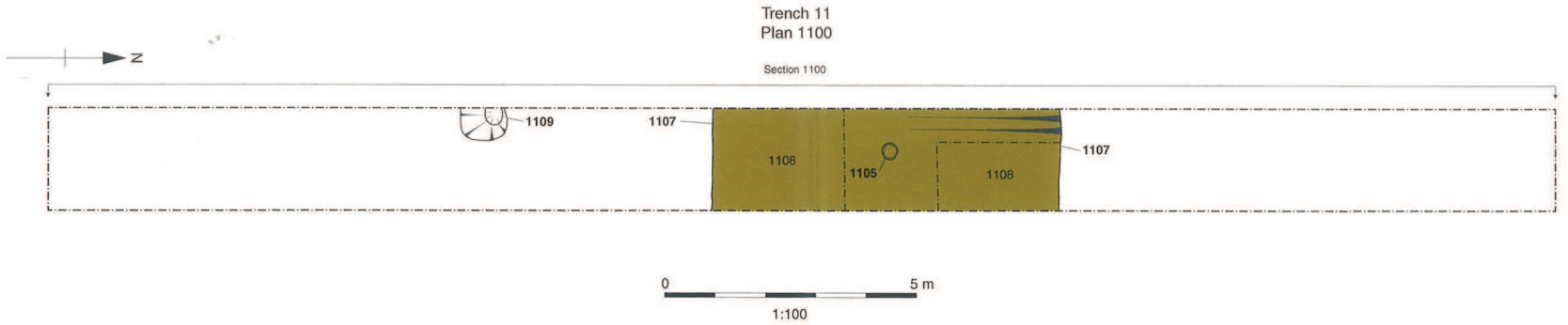


Figure 7: Trenches 10 and 12, plans and sections



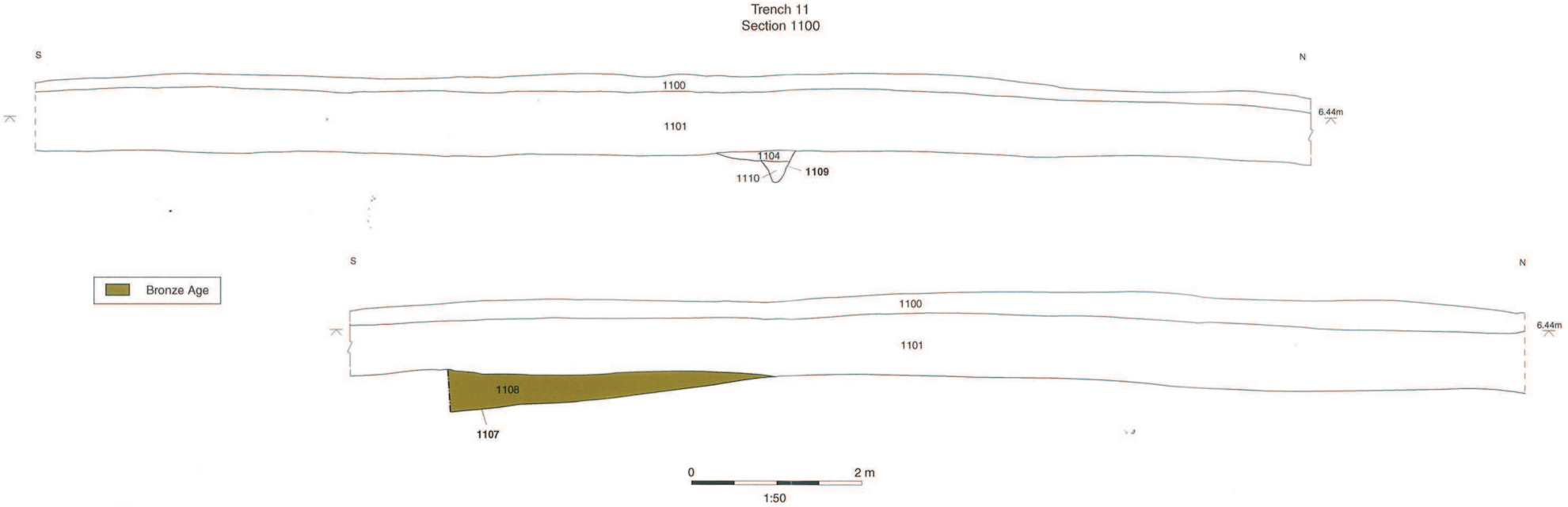


Figure 8: Trench 11, plan and section

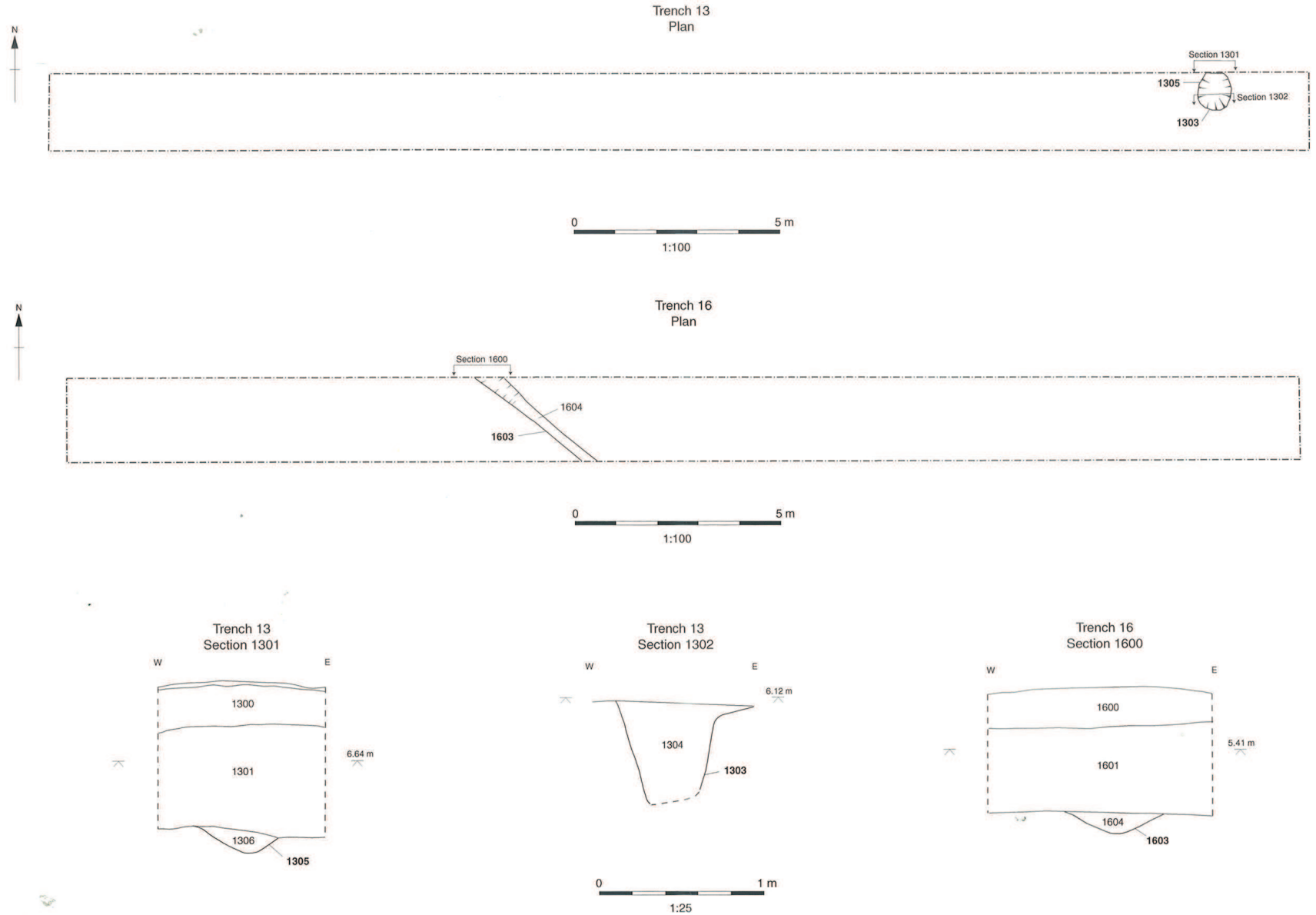
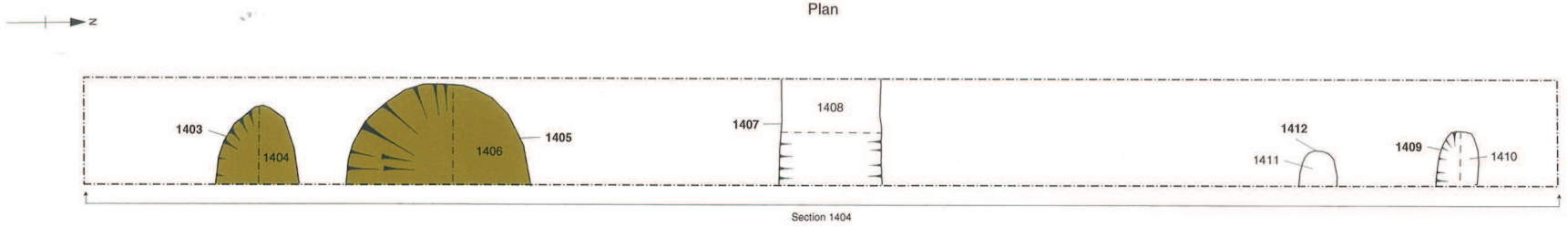


Figure 9: Trenches 13 and 16, plans and sections

Trench 14
Plan



Trench 14
Section 1404

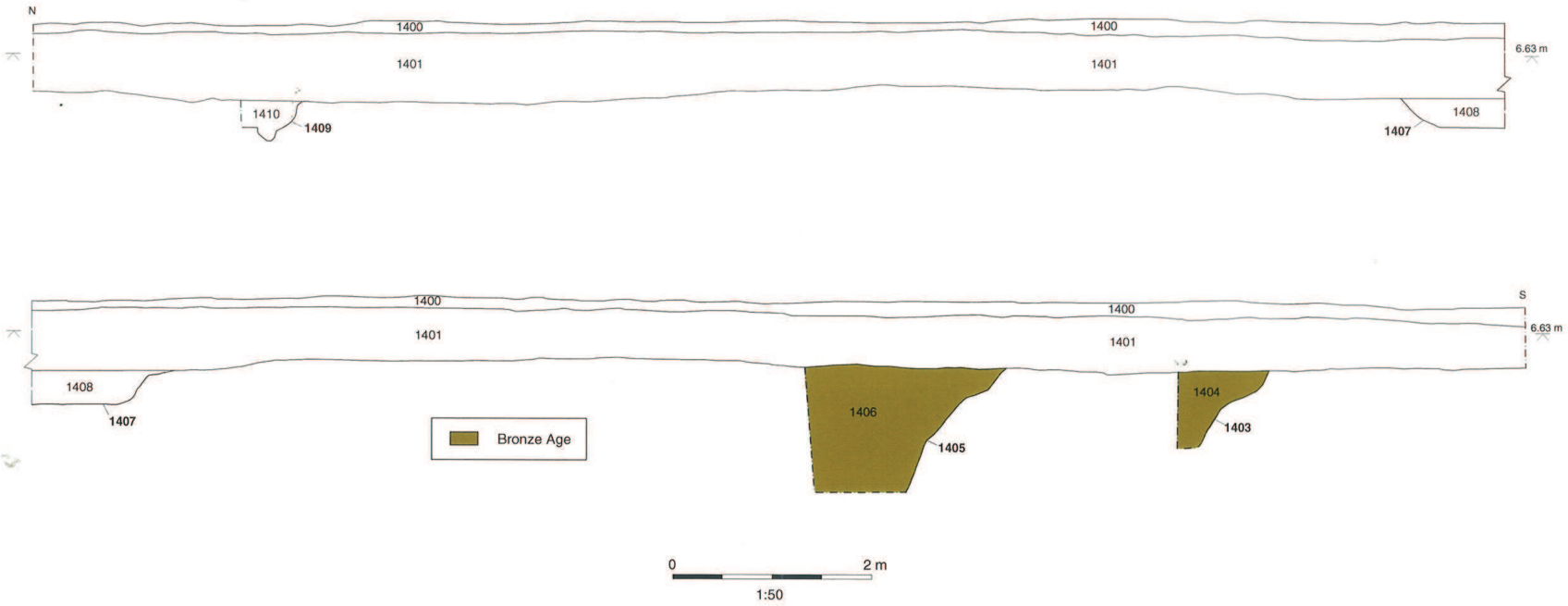


Figure 10: Trench 14, plan and section

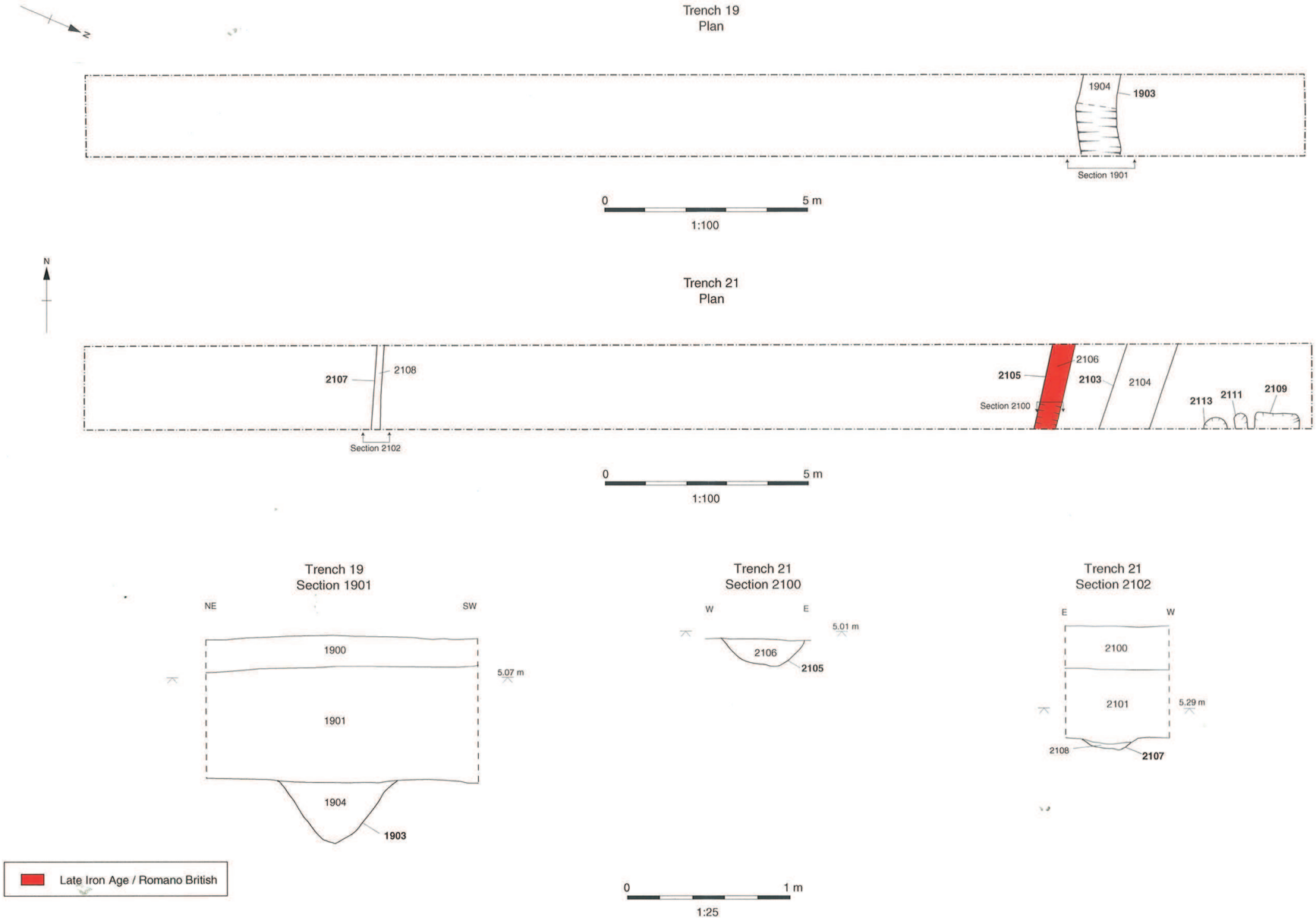


Figure 11: Trenches 19 and 21, plans and sections

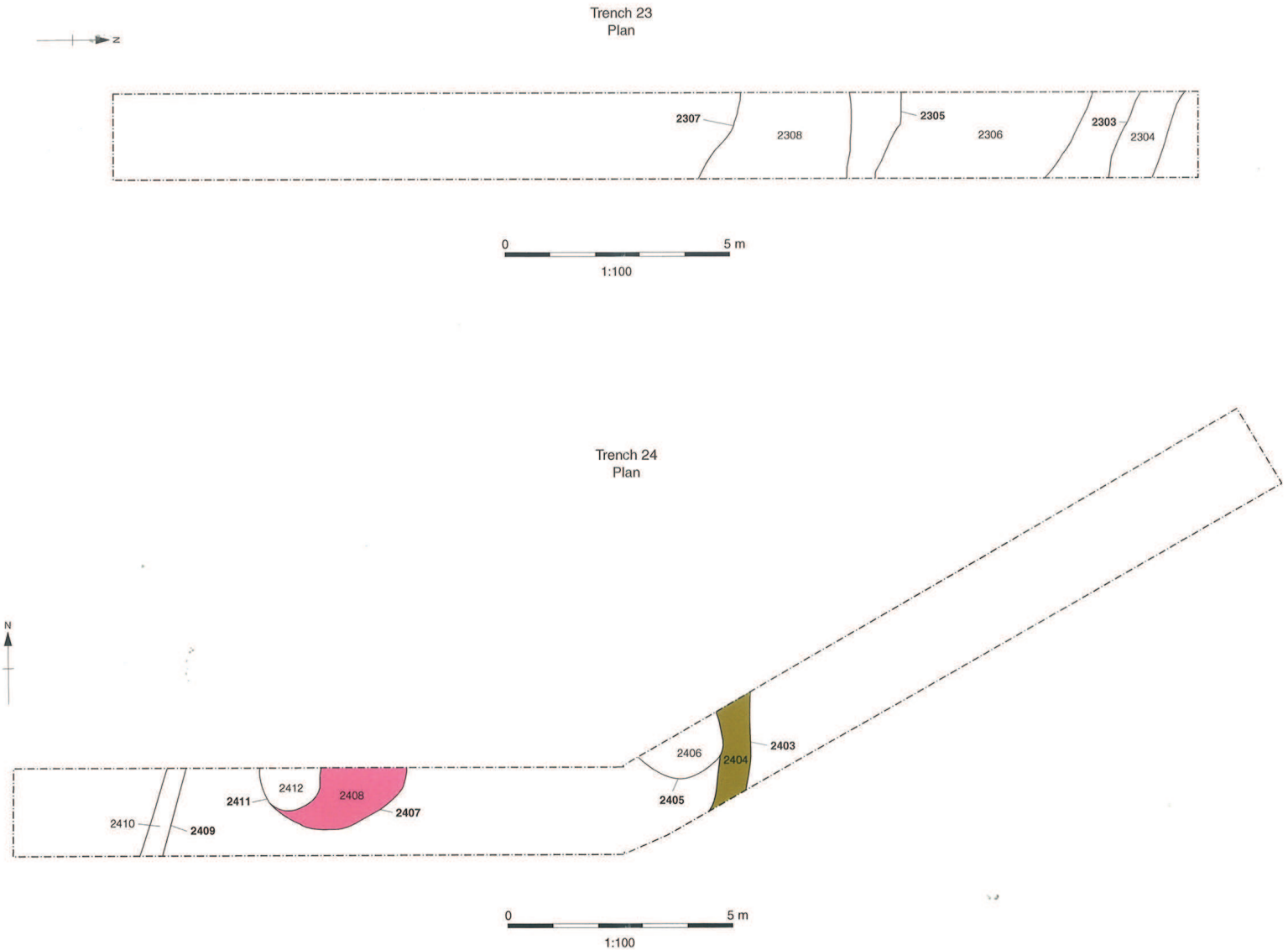


Figure 12: Trenches 23 and 24

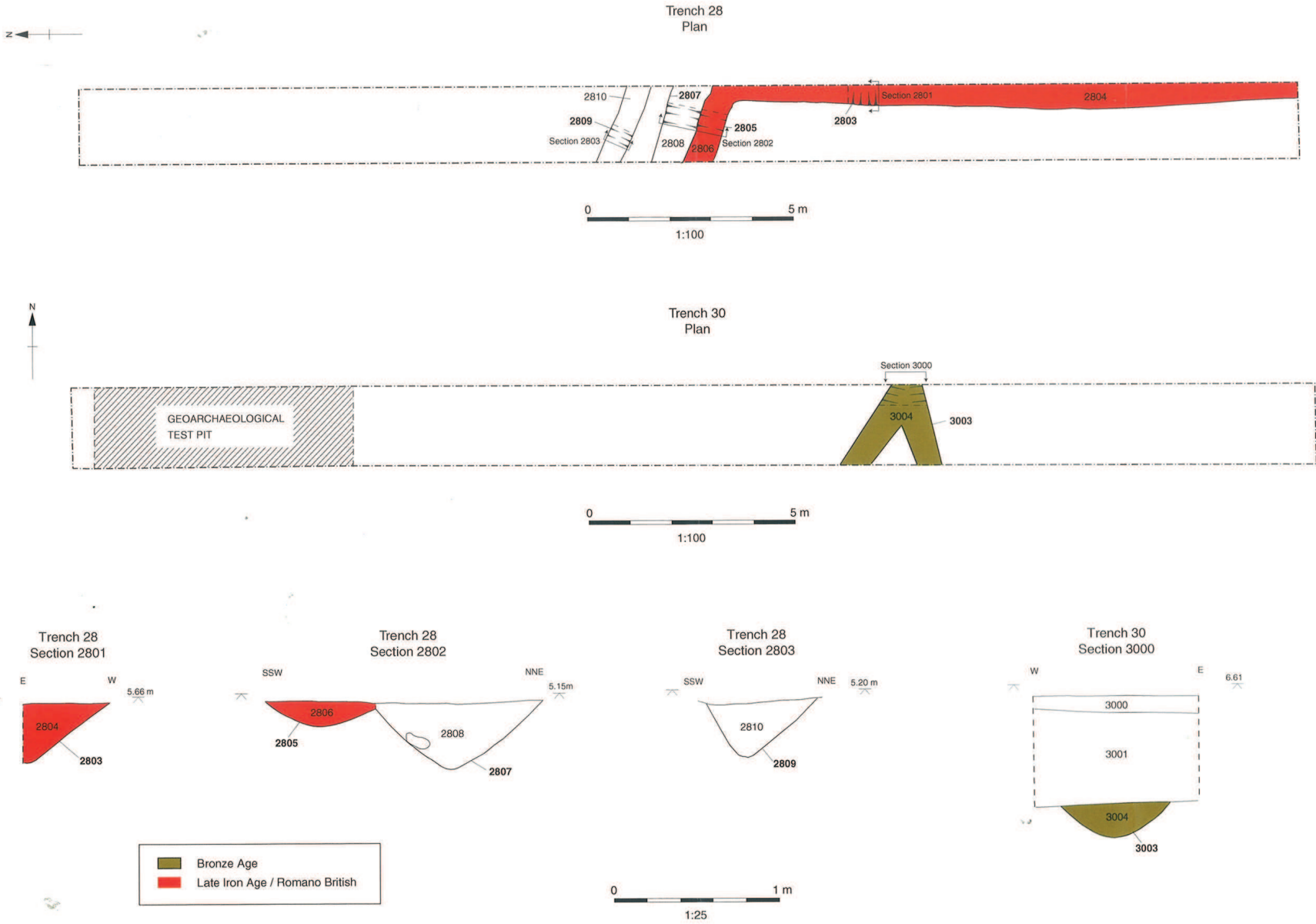
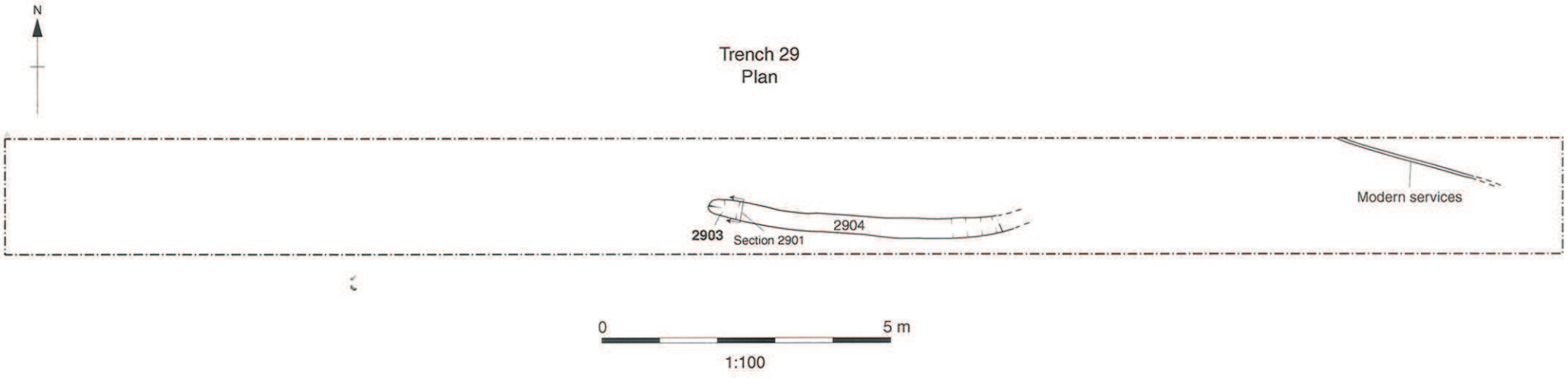


Figure 13: Trenches 28 and 30, plans and sections



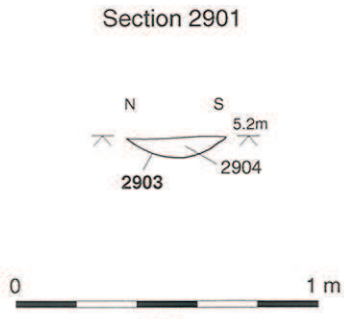


Figure 14: Trench 29, plan and section

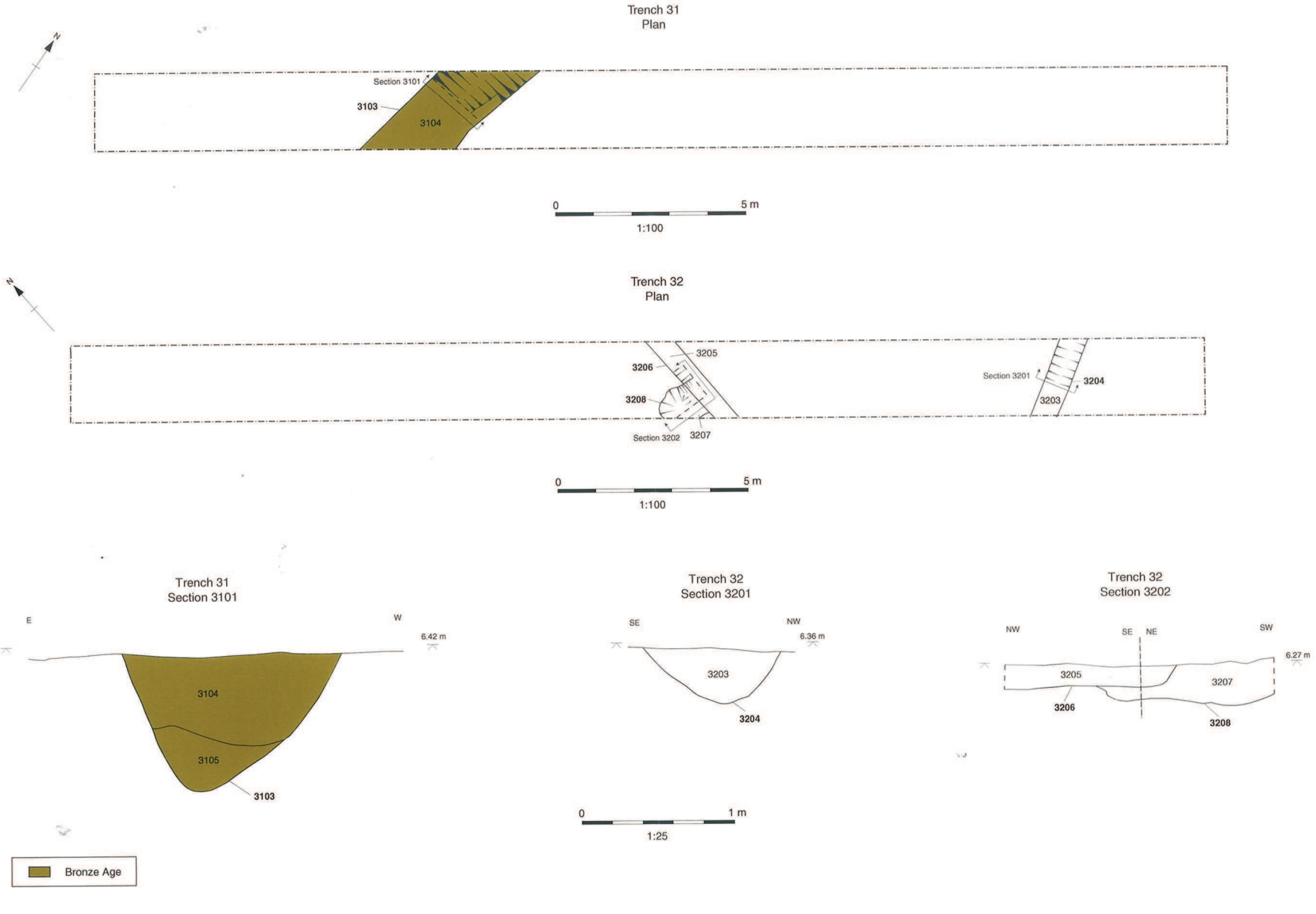
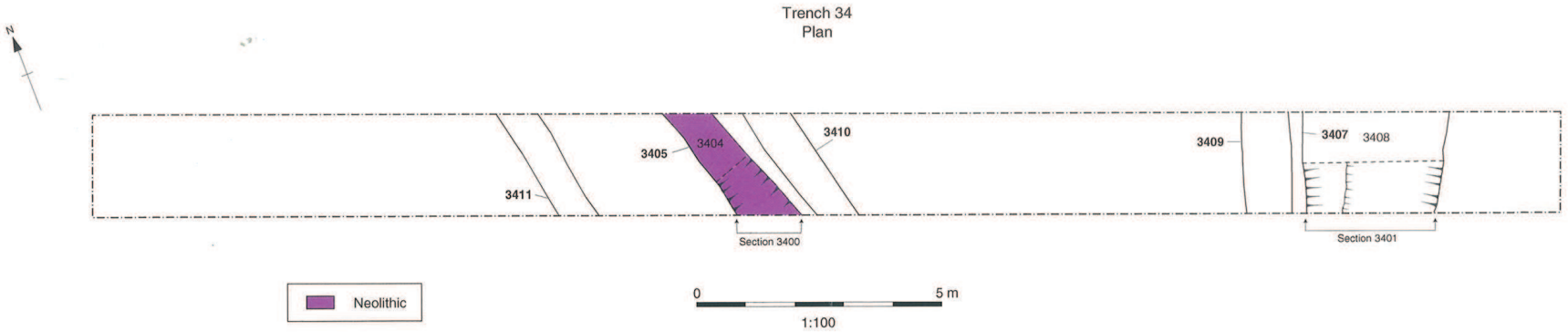


Figure 15: Trench 31 and 32, Plans and Sections



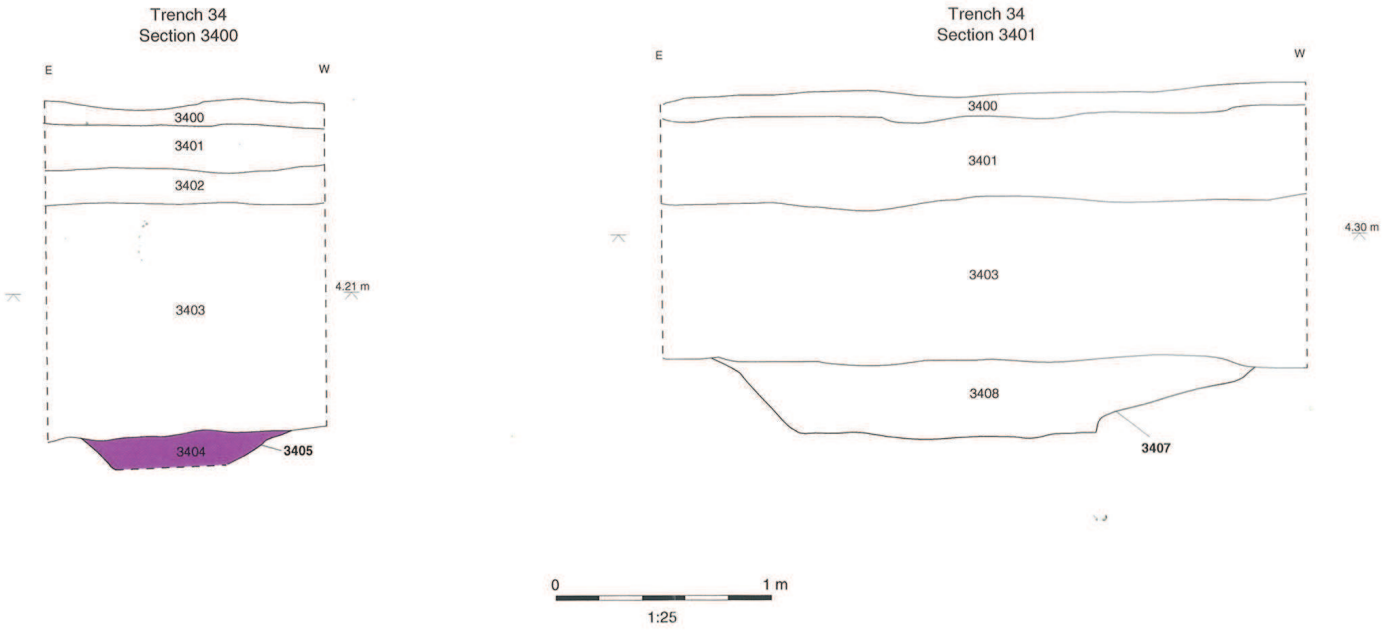


Figure 16: Trench 34, plan and sections

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