

Audley End House Essex



Archaeological Watching Brief



Oxford Archaeology

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SUMMARY

In September 2002, Oxford Archaeology (OA) carried out an archaeological watching brief at Audley End House, Essex. The work was carried out at the request of English Heritage following the accidental disturbance of human remains during the construction of maintenance shafts. These were being excavated to provide access to existing below ground fire hydrants. The remains were initially thought to be of two individuals, but further analysis has suggested a single burial.

Additionally, the line of a brick culvert partially revealed during a watching brief in 1999/2000 (Howes, 2000) was further investigated.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 Due to the urgent nature of the request from English Heritage, no formal brief or Written Scheme of Investigation was produced. Discussions took place with John Burditt of English Heritage as to the best way to mitigate the impact of the works and the following report details the findings of the resulting watching brief.

1.1.2 The watching brief monitored two phases of work. The first of these was the excavation of three 1m trenches to expose below ground fire hydrants immediately to the south and east of the house (Fig. 3). The second was to establish the location of a section of brick culvert which had been previously recorded within the 'Cartshed Yard' (Howes, 2000) and was known to drain into the River Cam (Fig. 4).

1.2 Geology and topography

The following two sections are based largely on extracts from the Conservation Plan produced by Julian Munby and John Rhodes (OAU 2001)

1.2.1 The house and park of Audley End (Figs 1 and 2) lie in the north-west corner of Essex (NGR TL 5247 3815), at a point where the Upper Chalk of the Cambridge belt passes under the boulder clay plateau in the north-west of the county. The River Cam flows northward through the park along a narrow alluvial plain, 10 miles upstream from Cambridge. The house sits at approximately 45 m OD with rising land to the north (80 m OD), east (70 m OD) and west (90 m OD).

1.3 Archaeological and historical background

1.3.1 The Audley End Conservation Plan identified 8 key phases of development at the site.

Phase I - Before the Abbey

1.3.2 In addition to stray finds of Paleolithic and Mesolithic flints, evidence of Neolithic settlement has been found in Saffron Walden, and Bronze Age ring ditches have been observed on aerial photographs. The Early Iron Age hillfort on Ring Hill (to the

west) is a prominent monument and evidence for other settlements and field systems have been detected in the vicinity. Roman roads cross the east park and there is evidence for a possible kiln east of the house, with other settlements outside the park. The archaeological work of the Hon. Richard Neville (later 4th Lord Braybrooke) in the 1840s was concentrated on the Roman villa at Great Chesterford, north-west of Audley End. An Anglo-Saxon cemetery between Saffron Walden and Audley End indicates the precursor of the medieval town.

Phase II - Walden Abbey

- 1.3.3 The Benedictine priory of St Mary and St James of Walden was founded between 1139 and 1143 by Geoffrey de Mandeville, 1st Earl of Essex. In 1190 the priory was made into the Abbey of Walden by Richard I, by which time its buildings had already been moved twice. In 1166 Prior Reginald undertook major improvements which created the Abbey which survived until the 16th century. It is likely that in the 13th century, house plots were laid out along the street which bounded the abbey precinct on the south, and the village of Walden grew up. Later landscaping of the park destroyed much of the west end of the village.

Phase III - The Tudor House

- 1.3.4 In 1538, at the dissolution of the monasteries, the Abbey was surrendered to the Crown and immediately granted to Sir Thomas Audley, Henry VIII's Lord Chancellor. Some abbey buildings were demolished, but the nave became a three-storey domestic range and the buildings around the cloister were remodelled, creating a courtyard house with its Great Hall in the former Abbot's Lodgings of the western range. Audley died in 1544, but on the accession of James I, his descendent, Thomas Howard was created Earl of Suffolk and Lord Chamberlain of the Household and subsequently Lord Treasurer. He began work on a new house in c 1605.

Phase IV - The Jacobean Palace

- 1.3.5 The new house was constructed on an exceptionally grand scale around a courtyard, and directly on the plan of the demolished Tudor house. The original scheme was extended by the addition of an outer court and work seems to have been completed by c 1614, at a reputed cost of £200,000. The area around the new house was then completely remodelled to create a rigidly-aligned garden and park. In 1618, amidst hints of corruption, the Earl was relieved of his office as Lord Treasurer, and in 1626 he died. The inevitable loss of status and wealth left the family with debts from which subsequent Earls were never able fully to recover. From the 1620s to the restoration of Charles II the house and estate deteriorated considerably. But with the purchase of Audley End as a royal residence the Office of Works took responsibility for the house's maintenance. The 3rd Earl of Suffolk continued to reside at Audley End as Keeper of the Palace. No major structural works were required to turn the house into a royal palace, although the state apartments were remodelled.

- 1.3.6 After the initial remodelling however, expenditure on the house was modest and in 1695, the Earl wrote to the King's Surveyor, pointing out increasing delapidations. The surveyor urged William III to give up the burdensome responsibility and in 1701 the house was returned to the Howard family.

Phase V - The 18th-Century House

- 1.3.7 With its return to the Earls of Suffolk, Audley End entered a period of considerable contraction. Subsidiary ranges were demolished, leaving the former Inner Court as the main house, where some modernisation was carried out. Following the death of the 10th Earl, the future of the house was in some doubt but in 1751 the Countess of Portsmouth began a range of works to secure the fabric of the building and improve the accommodation. In 1752-3, the whole eastern (Gallery) side of the court was demolished and the Hall in the west wing now became the nucleus of a smaller, though still very grand house. An open arcade on the rear of the Hall was built to form a new link between the remaining north and south wings.
- 1.3.8 Lady Portsmouth's nephew, Sir John Griffin Griffin, inherited the house in 1762 and initiated a further period of transformation, including the rebuilding of the arcade and a wide-ranging re-landscaping of the park. He was created 1st Baron Braybrooke in 1788.

Phase VI - The Jacobean Revival House

- 1.3.9 Between the late 18th century and the onset of World War II, the house underwent a number of relatively minor alterations under the 2nd to 7th Lords Braybrooke. The estate was expanded through the purchase of Western Park including Ring Hill, Saffron Walden Lodge was rebuilt and the park walls renewed.
- 1.3.10 Between 1825 and 1835 the 3rd Lord determined to recover and recreate the Jacobean character of the house which survives today.
- 1.3.11 Between 1904 and 1914, major renewals and extensions to the water supply and sanitation systems were undertaken.

Phase VII - Wartime and Aftermath

- 1.3.12 From 1942 to 1944, Audley End was a training centre for the Polish section of the Special Operations Executive and electricity was installed in some rooms of the house at this time. Defences were built in and around the park, including extant pill boxes and tank traps. The park itself was ploughed for crop growing. The 7th Lord died in 1943 and both sons, including the 8th Lord were killed on active service. In 1948, Audley End was purchased for the nation through the National Land Fund and put into the care of the Ministry of Works.

Phase VIII - In National Ownership

- 1.3.13 Since 1974 the house has been administered by the Department of the Environment and from 1984 by English Heritage.
- 1.3.14 During the 1950s, a number of alterations to the interior of the house were made which impacted considerably on its historic fabric and character. A number of these changes have been reversed or ameliorated.
- 1.3.15 Recent major restoration works have been carried out in the gardens with the reconstruction of the 19th-century parterre, on the basis of research and archaeological investigation, and from the late 1990s, the restoration of the kitchen garden.

2 WATCHING BRIEF AIMS

2.1 General

- 2.1.1 To establish the presence/absence of archaeological remains during the works.
- 2.1.2 To determine the extent, condition, nature, character, quality and date of any archaeological remains present
- 2.1.3 To establish the ecofactual and environmental potential of archaeological deposits and features.
- 2.1.4 To make available the results of the investigation.

3 WATCHING BRIEF METHODOLOGY

3.1 Scope of fieldwork

- 3.1.1 The watching brief monitored two phases of work.
- 3.1.2 Phase I comprised the excavation of three trenches measuring c 1m trenches to expose below ground fire-hydrants immediately to the south and east of the house.
- 3.1.3 Phase II was undertaken to locate the line of the continuation of a brick culvert which had been previously recorded within the 'Cartshed Yard' and was known to drain into the River Cam.
- 3.1.4 All features and deposits were issued with unique context numbers, and context recording was in accordance with established OA practice (OA Field Manual 1992). A context inventory can be found in Appendix 1.

3.2 Finds

- 3.2.1 No artefacts were retained during the watching brief.

4 RESULTS: DESCRIPTIONS

4.1 Description of deposits

- ***Trench 1 (Figs 3 and 5)***

- 4.1.1 Trench 1 was excavated *c* 2.8 m to the south of the Great Drawing Room and measured 1.44 m (north to south) by a maximum of 1.05 m (east to west). It was excavated to a maximum depth of 1.16 m. Whilst the majority of the material excavated consisted of backfill associated with the original installation of the fire hydrant, the following archaeological deposits were revealed in section and plan.
- 4.1.2 The earliest deposit observed was a friable, reddish brown clay silt (111) which was at least 0.44 m thick and present throughout the trench. The origin of this deposit was uncertain, although it was fairly sterile and may be alluvial in nature.
- 4.1.3 The original excavation for the installation of the fire hydrant had removed the feet of an east-west aligned inhumation and Trench 1 revealed the legs and left forearm of the same (109 and 106 respectively). The grave cut associated with this burial (110) cut the possible alluvial deposit described above and was backfilled by a deposit very similar in composition (108). The remains were initially thought to be the legs of two inhumations, although further analysis of the bones suggests that they are from a single burial and that the bones labelled 106 are the radius and ulna of the same individual. However, if 106 and 109 are from the same burial, it seems to have been disturbed, as the bones labelled 106 are on a slightly different alignment and out of position. The post-mortem breaks identified during the analysis of the bones (see below) may also suggest that the bones have been disturbed at some point, possibly during the original installation of the fire hydrant.
- 4.1.4 A second grave cut was recorded during fieldwork on section 101 (107), although it now seems likely that this represents the interface of a variation in the backfill of grave cut 110. As recorded, the respective fills of cuts 107 and 110 (105 and 108) are very similar, 105 being slightly paler and containing a higher concentration of flint fragments, and it seems likely that this simply reflects the re-deposition of deposit 111 as grave backfill.
- 4.1.5 The fills of the grave and the ‘alluvial’ deposit were overlain by a layer of friable, mid brownish grey clay silt (104) approximately 0.35 m thick and presumably representing a deposit of made ground associated with the overlying gravel path. The gravel path has clearly been extant for some considerable time as layer 112, which overlies the made ground, clearly indicated several phases of re-surfacing, represented by compact bands of grey and yellowish grey fine gravel (in total 0.3 m thick). The cut for the fire hydrant (103) was observed cutting all these deposits and was filled by a friable, mid brownish grey clay silt with brick fragments and 20th-century material throughout. The most recent surface of the gravel path (101) was the only deposit to overlie the backfill of the original trench.

- ***Trench 2 (Figs 3 and 6)***

- 4.1.6 Trench 2 was excavated *c* 2.8 m east of the room currently housing the Adam Library Display. The trench measured 1.2 m by 1.2 m and 0.9 m deep and was excavated

through the backfill of the existing trench for the fire hydrant. The new trench extended *c* 0.2 m further west than the original and the resulting section revealed the 'intact' stratigraphy as follows.

- 4.1.7 A 0.38 m+ thick deposit of friable, light brownish grey clay silt (208) was overlain by a firm light brown sandy clay approximately 0.3 m thick (207). These are likely to be the equivalent of the made ground deposit 104 in Trench 1 and they are also overlain by compact bands of light brown and yellow gravels (206) representing the numerous phases of re-surfacing of the gravel path. All these deposits are truncated by the hydrant trench (205) which has been backfilled by a mixed deposit of light brown silty clay with crushed concrete, brick rubble and gravel (202 - 204). The current gravel surface is approximately 0.04 m thick (201).

- ***Trench 3 (Figs 3 and 7)***

- 4.1.8 Trench 3 was excavated approximately 15.5 m north and 2.5 m east of the north-eastern corner of the Former Butler's Bedroom and measured 1.5 m by 1.5 m and 1 m deep. As with Trenches 1 and 2, Trench 3 was slightly larger than the original trench and revealed the following stratigraphic sequence.
- 4.1.9 A friable, mid brownish grey clayey silt deposit (306) was observed towards the base of the trench which was at least 0.21 m thick and may represent a garden soil. This was overlain by a firm, mid brown silty clay approximately 0.25 m thick (305), which may represent a made ground deposit similar to those observed in Trenches 1 and 2, as it is overlain by the gravel surfaces (304) observed in the other two trenches.
- 4.1.10 These deposits had been truncated by the hydrant trench (303) which is backfilled by a light brown silty clay, which is presumably a redeposition of 305 and 306 (302) and is overlain by the current gravel surface (301).

- ***Trenches 4, 5 and 6 (Figs 4 and 8)***

- 4.1.11 Trenches 4, 5 and 6 were opened along the projected line of a brick culvert (503) which is known to drain into the River Cam to the north of the Cartshed Yard and could be seen in a manhole to the south-east of the Gardeners House.
- 4.1.12 This involved a hand excavated 'trench' being excavated along the projected line of the culvert every few meters (see Fig. 4, Trenches 5a - 5k). Two additional trenches (4 and 6) were required within the Cartshed Yard as the line of site between the culvert observed in 5j and the projected line within the Yard was obscured by the standing wall.
- 4.1.13 Trenches 4 and 5k - within the Cartshed Yard - revealed a layer of made ground (402 and 505) which was overlain by the gravel surface of the Yard. This overlay the natural gravel within Trench 4 (403), and a light brown sandy clay with brick rubble and mortar in Trench 5k (506). Deposit 506 overlay the culvert and probably represents the backfill of the construction cut for the same (although the cut was not visible within the confines of the trench).

- 4.1.14 As Trench 6 lay within the Yard but outside the modern gravel surface. The deposits observed towards the base of the trench (604 and 603) probably represent garden soils similar to those observed to the west (see below). These are subsequently overlain by a spread of gravel (602 - probably overspill from the deposition of the modern surface and a modern topsoil (601).
- 4.1.15 Trenches 5a to 5j were excavated to the top of the culvert which was encountered at an average depth of 0.6 m (Trenches 5a-5h) and a maximum depth of 0.87 m (Trench 5j). The overlying deposits comprised a friable, mid brown clay silt (502) with inclusions of ceramic building material and mortar. This was interpreted as the probable fill of the construction cut for the culvert, and the equivalent of deposit 506 in Trench 5k. Overlying this deposit was a friable mid grey silty loam garden soil (501) which was fairly constant along the length of Trench 5 and similar in composition to deposit 603 within the Cartshed Yard.

4.2 Human Skeletal Remains

By Annsophie Witkin

• **Introduction**

- 4.2.1 The isolated partially complete inhumation (106 and 109) had been interred in grave cut number [110] orientated east-west. The east end of the cut had been truncated by the construction cut [103] for a modern fire extinguisher. The skeleton was supine, extended with the hands resting on the proximal femora. Two numbers were given to the skeletal remains. The upper left arm (106) was originally thought to be part of a shallower inhumation burial but there are no differences in the general appearance and size of the bones to support this. The bones present consisted of the legs, hands, left lower arm and bones from the right foot.

• **Methodology**

- 4.2.2 The human skeletal remains were examined to establish completeness and the state of preservation. Completeness was scored using four categories, namely poor (0 - 25%), fair (26-50%), good (51-75%) and excellent (76-100%). Skeletal preservation was also scored using a scale ranging from poor (near complete destruction of the cortical surface) to excellent (cortical surfaces of the bones preserved).
- 4.2.3 The sex of the individual was established through metrical data (Workshop 1980). Age could not be established to any degree of certainty since the bones were fully fused and none of the bones used to estimate age were present. Stature was calculated using the regression formulae of Trotter (Trotter 1970).
- 4.2.4 Pathological lesions were described using the universally accepted recording standards and terminology (Buikstra and Ubelaker 1994).

• **Preservation and completeness**

4.2.5 The skeleton was in a good state of preservation with some degeneration of the cortical surfaces on the left femur and tibia. The bones present were both femora, tibiae, fibulae and patellae. Left radius and ulna all left carpals apart from the pisiform and all left metacarpals and 21 phalanges from both hands were also present. The only surviving bones from the feet were the right talus, calcaneus, intermediate and lateral cuneiforms. All the long bones of the legs had post-mortem breaks.

- *Sex and age estimates*

4.2.6 The diameter of the femoral heads and the femoral bicondylar width clearly indicate that this individual fell well within the male category.

4.2.7 All the skeletal elements present were fully fused which indicated this individual was over 20 years old. It is not possible to age this individual with any higher degree of accuracy. All that can be said is that he was clearly an adult.

- *Stature*

4.2.8 Stature was calculated using the combined measurement of left femur and tibia. The bones were chosen because the stature estimate obtained carries the least error. This individual was 173.4 ± 2.99 cm tall. The average stature for males during the Anglo-Saxon period was 173.2, during the medieval period it was 171.8 cm and modern 20th century average height is 175 cm (Roberts and Manchester 1995, 27). It is clear this individual was of average stature, even when compared with earlier and later time periods.

- *Pathology*

- Infectious disease*

4.2.9 The medial side, distal end of the right tibia and the anterior side of the proximal right fibula exhibited relatively small patches of striated lamellar bone which indicated a healed infection. This type of infection involves only the surface of the bones and is known as periostitis. The precise aetiology is not known but it is believed that due to the close proximity to the skin surface, the infection may have been caused by minor shin trauma.

- Joint disease*

4.2.10 Throughout life, joints are subjected to wear and tear. This gradual deterioration of the joint surfaces is common in older individuals. Today, up to 85% of individuals are affected by joint diseases such as osteoarthritis (Roberts and Manchester 1995, 100). The changes that take place are new bone formation around the margins of the joint or on the surface itself and porosity. When the cartilage within the joint has worn away, the bone to bone contact causes the bone to be polished, or eburnated. Eburnation is an important criteria for the diagnosis of osteoarthritis in skeletal remains. The aetiology is multifactoral but increasing age, genetic predisposition,

lifestyle and environmental factors such as climate all play a part in the development of osteoarthritis.

- 4.2.11 Degenerative changes to the joint surfaces were present on the right and left distal femora (knee joint). The osteophyte formation was very slight.

• ***Catalogue of the inhumation***

- 4.2.12 Preservation and completeness Good. Lower half of body present

Age: Adult

Sex: M

Stature: 173.4m

Pathology: Slight degenerative joint disease

slight periostitis.

4.3 Palaeo-environmental remains

- 4.3.1 No deposits suitable for sampling were identified.

5 DISCUSSION AND INTERPRETATION

5.1 Overall interpretation

- 5.1.1 Although deposit 111 has been tentatively interpreted as an alluvial deposit, its origin and that of 306 to the north is uncertain. Both are overlain by the 'made ground' for the gravel path (104 and 305) which was not bottomed in Trench 2 (207), but they differ sufficiently in composition to suggest a different origin. It is possible that 111 is alluvial and represents a ground surface contemporary with the Abbey which has been truncated and/or buried during the numerous phases of development across the site. It is equally possible that within Trench 3, this 'alluvium' has been completely truncated and replaced by an imported garden soil (306). The limited nature of the recent excavations makes interpretation of these deposits problematic and no definitive conclusions can be drawn.

- 5.1.2 It is possible that 106 and 109 are two burials given the slightly different alignment and the apparent variation in fills between 105 and 108. However, it seems more likely, given the results of the bone analysis and the disturbance from the original installation of the fire hydrant, that they represent a single inhumation which has been disturbed and partially truncated during this process and that 107 represents a variation within the backfill of 110 (105 and 108).

- 5.1.3 Although no dating evidence was recovered with the burial or from the deposits through which it is cut, it is possible that it is associated with Walden Abbey. Although the monastic cemetery is thought to lie to the east of the abbey, and the south wing of the present Audley End occupies the site of the Frater, it may be that a lay brother or someone indirectly connected to the community has been buried within

the shadow of the Abbey walls. It is also worth noting that the location of the infirmary is not known. It is possible that it lay to the south-east of the abbey buildings and that this burial is associated with the infirmary.

- 5.1.4 The made ground and resurfaced gravel pathway are also undated although presumably relate to the last major re-building programme at Audley End by Sir John Griffin Griffin in the latter part of the 18th century.
- 5.1.5 Whilst the line of the brick culvert is now firmly established the date still remains uncertain, although it is feasible to suggest that it too originates from the developments of the 18th century, and is possibly contemporary with the adjacent Kitchen Garden, which was established in 1770. Although ceramic building material was observed throughout the possible construction cut backfill (502 and 506), it was all very fragmented and attributing a date to the deposit(s) was problematic. No finds were recovered from the overlying garden soil in Trenches 5a to 5j or from the deposits within the Cartshed Yard.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

<i>Trench</i>	<i>Ctxt No</i>	<i>Type</i>	<i>Width (m)</i>	<i>Thick. (m)</i>	<i>Comment</i>	<i>Finds</i>	<i>No./wt</i>	<i>Date</i>
Trench 1								
	101	Layer		0.05m	gravel path			
	102	Fill		0.9m	modern backfill			
	103	Cut			modern cut			
	104	Layer		0.35m	made ground			
	105	Fill		0.4m	grave backfill			
	106	Skeleton			left radius and ulna			
	107	?Cut			interface between 105 and 108			
	108	Fill		0.45m	grave backfill			
	109	Skeleton			legs only			
	110	Cut			grave cut			
	111	Layer			alluvium/garden soil			
	112	Layer		0.3m	built up gravel surfaces			
Trench 2								
	201	Layer		0.2m	gravel surface			
	202	Fill		0.1m	modern backfill			
	203	Fill		0.06m	modern backfill			
	204	Fill		0.8m	modern backfill			
	205	Cut			modern cut			
	206	Layer		0.28m	built up gravel surfaces			
	207	Layer		0.3m	made ground			
	208	Layer		0.38m	made ground			
Trench 3								
	301	Layer		0.25m	gravel surface			
	302	Fill		0.7m	modern backfill			
	303	Cut			modern cut			
	304	Layer		0.5m	built up gravel surfaces			
	305	Layer		0.25m	made ground			

	306	Layer		0.21m+	?garden soil			
	307	'Fill'			concrete casing			
Trench 4								
	401	Layer		0.22m	gravel surface			
	402	Layer		1m	made ground			
	403	Layer		0.1m+	gravel natural			
Trench 5								
	501	Layer		0.75m max	garden soil			
	502	Layer		0.2m+	made ground / construction cut backfill			
	503	Structure			brick culvert			
	504	Layer		0.25m	topsoil			
	505	Layer		0.65m	made ground			
	506	?Fill		0.3m	?construction cut backfill			
Trench 6								
	601	Layer		0.32m	garden soil			
	602	Layer		0.3m	gravel surface			
	603	Layer		0.22m	garden soil			
	604	Layer			made ground			

APPENDIX 2 BIBLIOGRAPHY AND REFERENCES

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APPENDIX 3 SUMMARY OF SITE DETAILS

Site name: Audley End, Essex

Site code: SWAUE02

Grid reference: TL 5247 3815

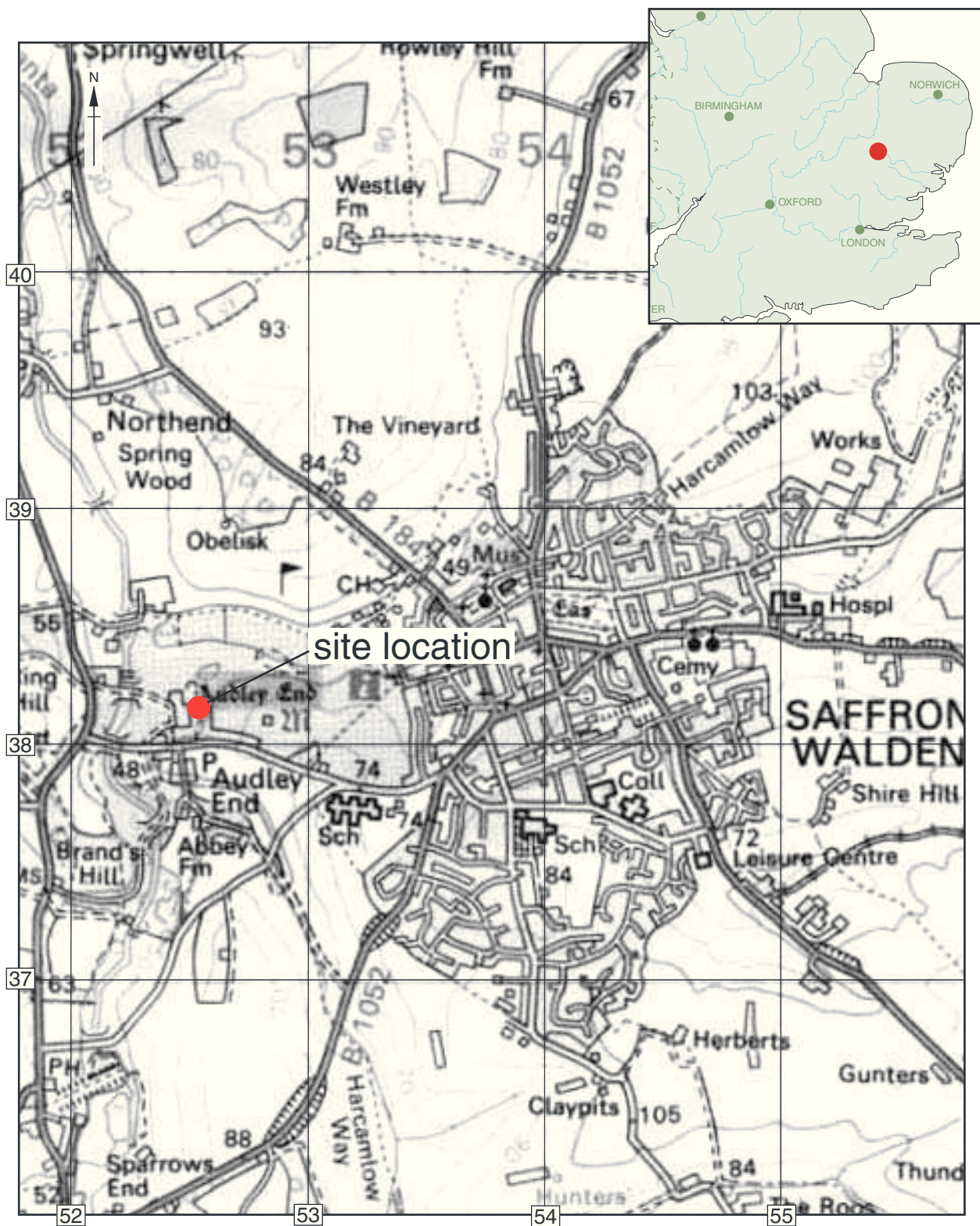
Type of evaluation: Trial holes and excavations through existing service trenches

Date and duration of project: 20th Sept 2002 - 1st Oct 2002

Area of site: Fifteen individual pits

Summary of results: One inhumation, possibly associated with medieval Walden Abbey; A possibly 18th-century culvert; various made ground layers and garden soils associated with landscaping of Audley End Park

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Saffron Walden Museum (Awaiting Consent)



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Figure 1: Site location.

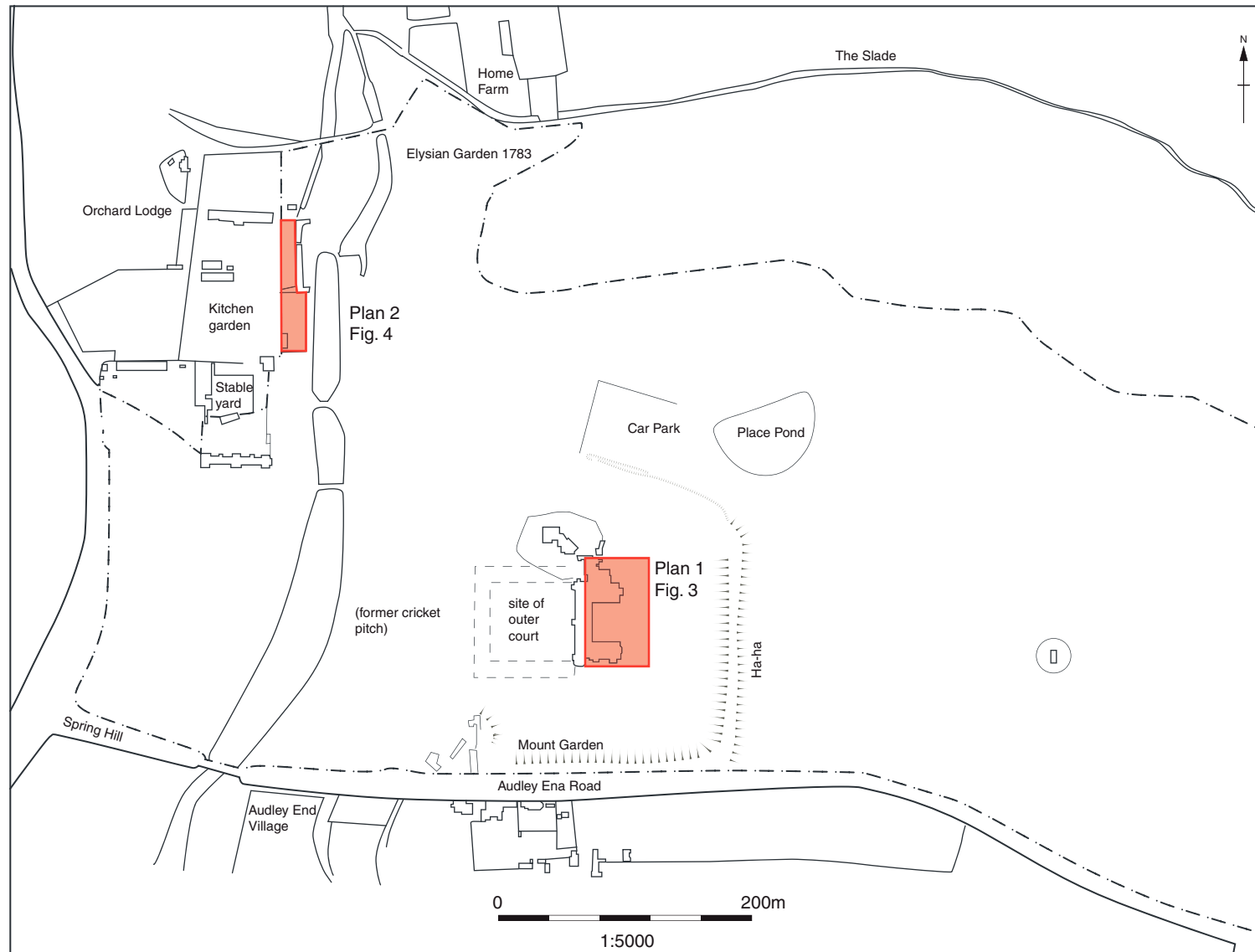


Figure 2 : Plan of Park and House

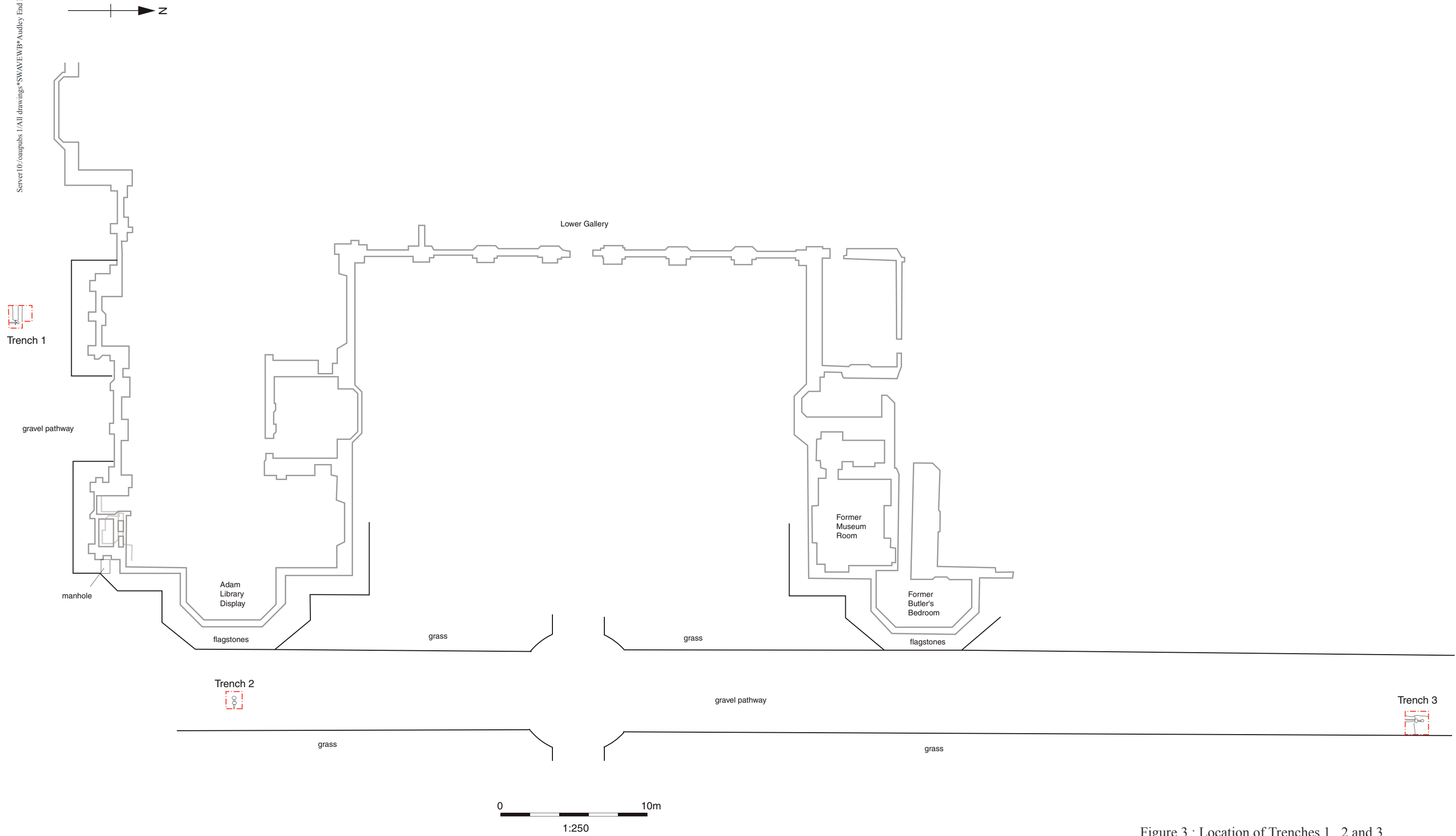


Figure 3 : Location of Trenches 1, 2 and 3

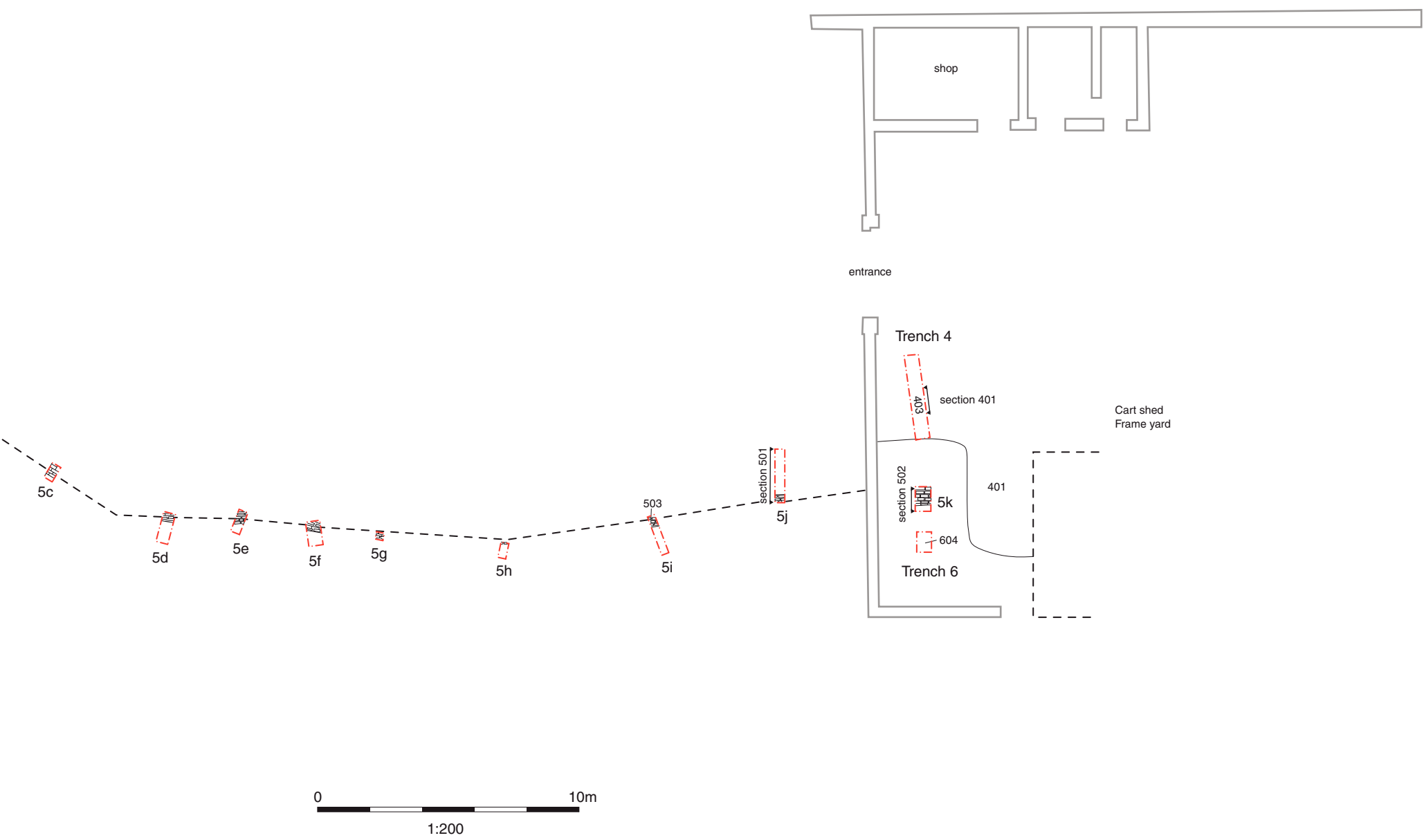


Figure 4 : Location of Trenches 4, 5a-k and 6.

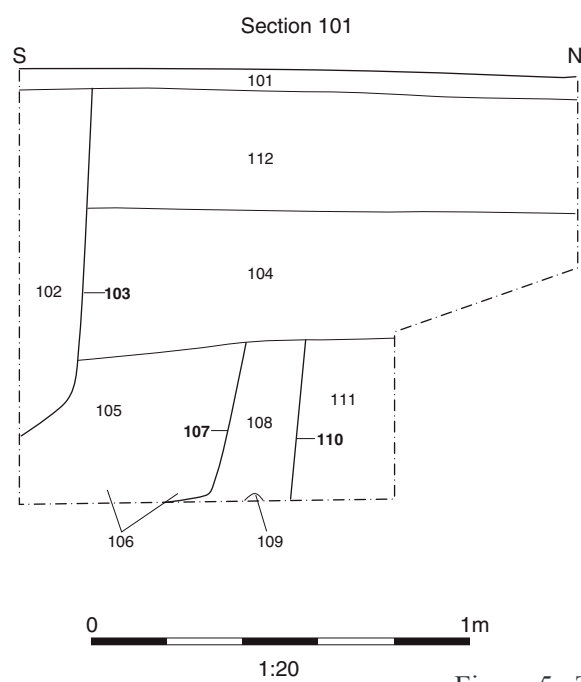
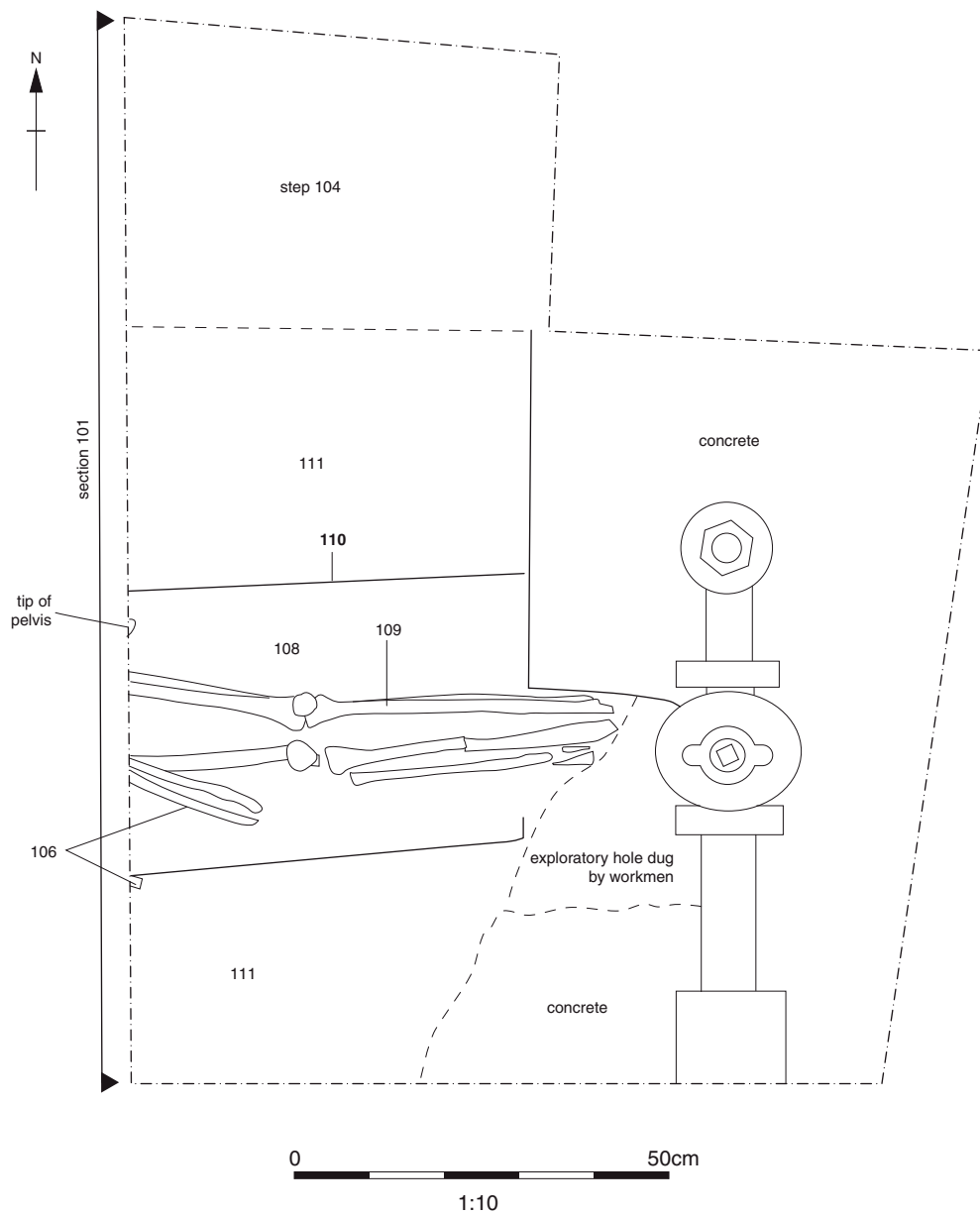


Figure 5 : Trench 1, Plan and Section

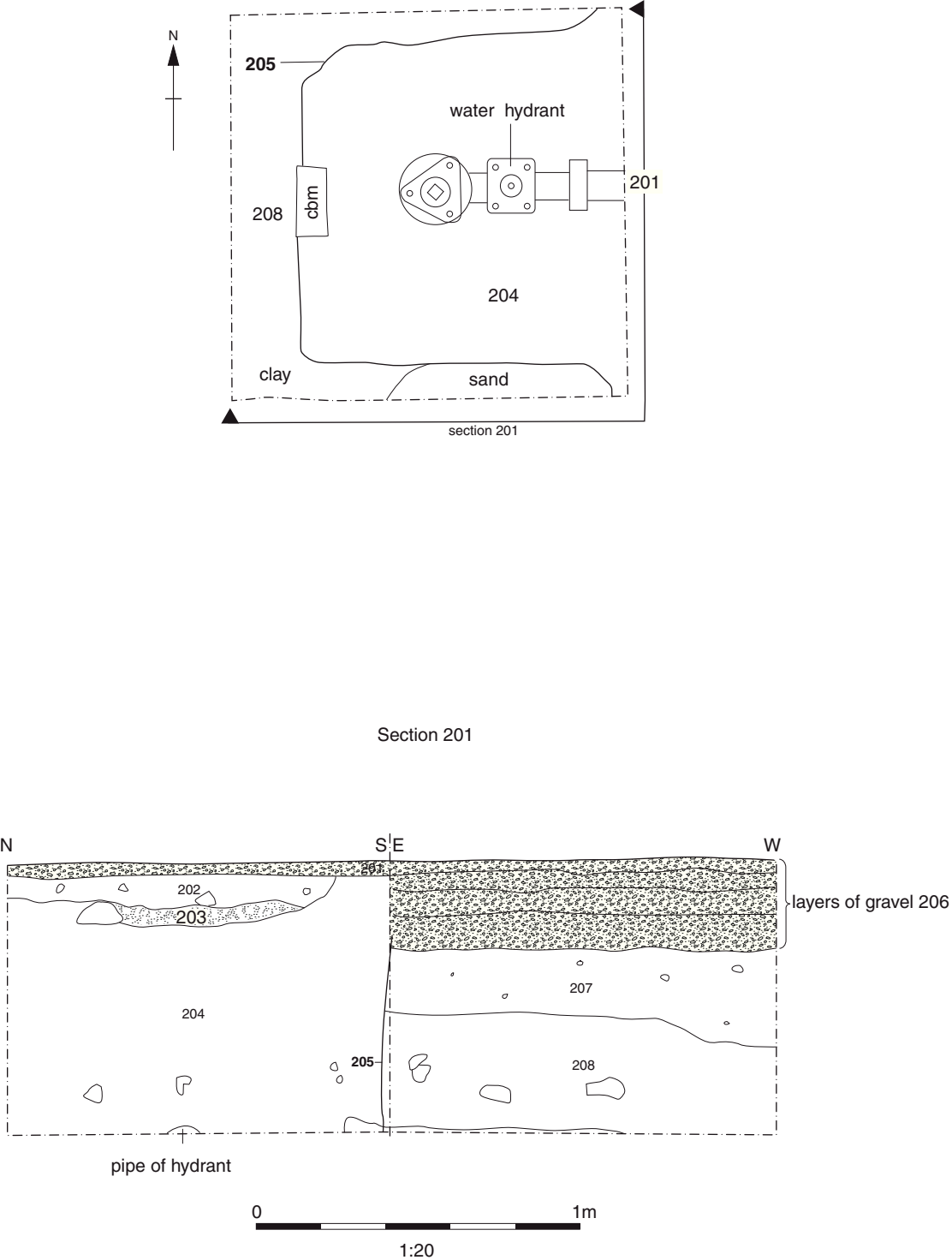
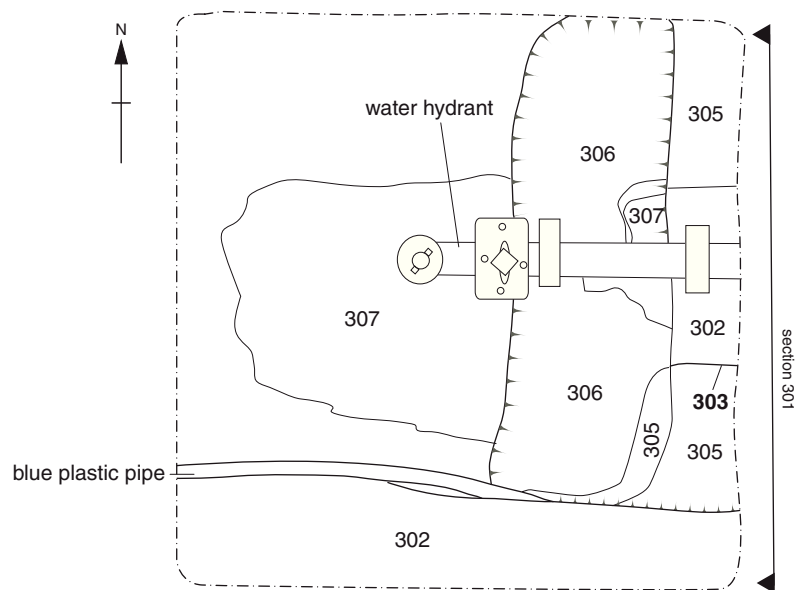


Figure 6 : Trench 2, Plan and Section



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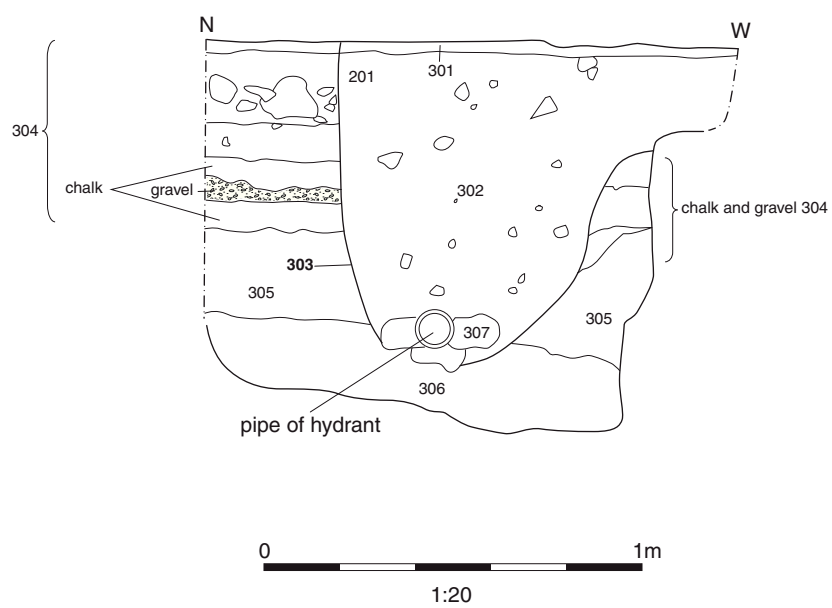


Figure 7 : Trench 3, Plan and Section

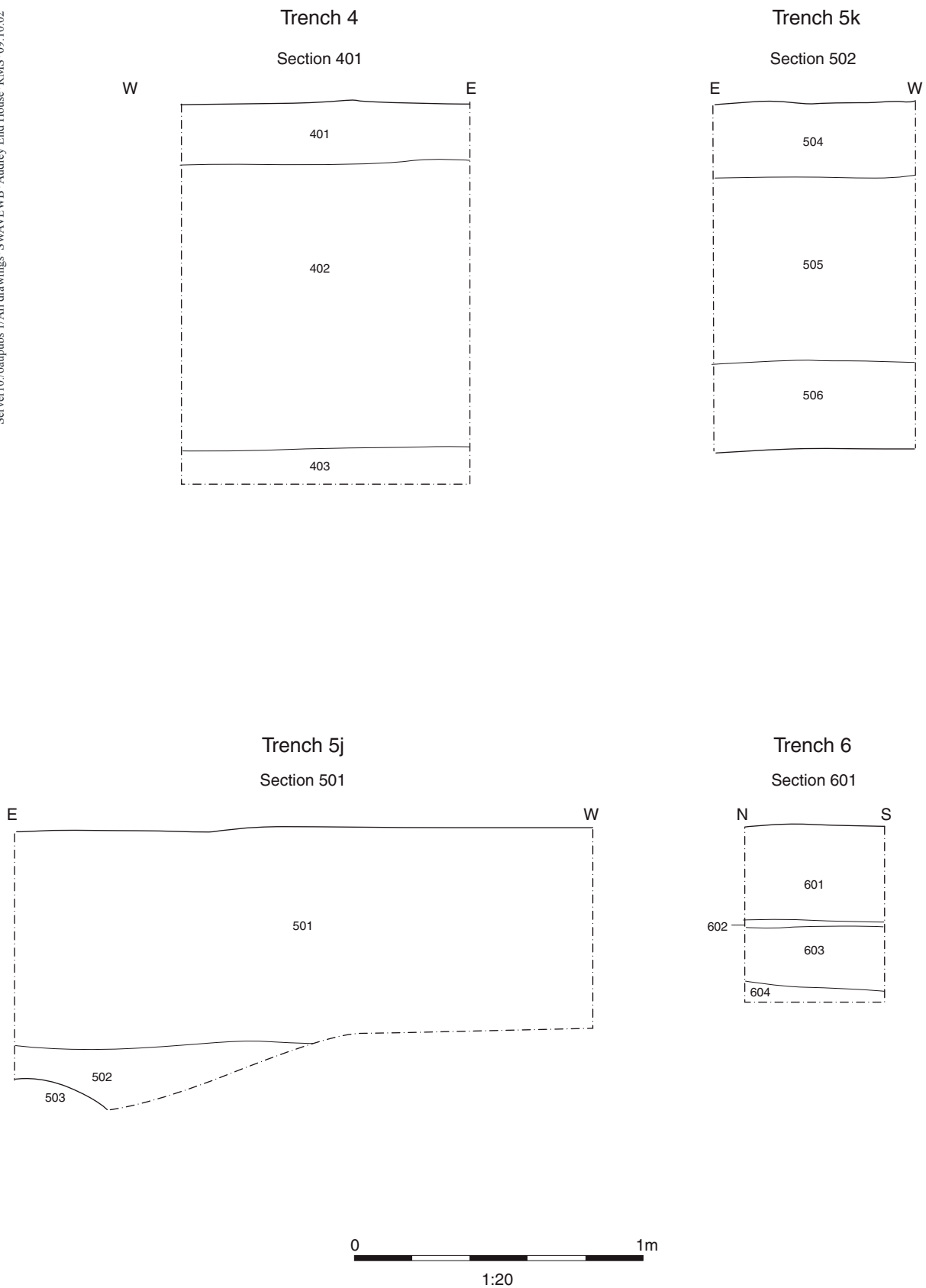


Figure 8 : Sample Sections Along Trenches 4, 5 and 6



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