

THE QUAY ANTIQUES CENTRE, EXETER SWW NEW SEWER

(NGR SX 92004 92105)

Results of an archaeological watching brief

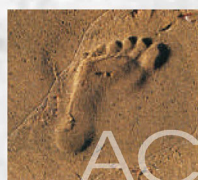
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On behalf of:
South West Water Ltd

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archaeology

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Summary

An archaeological watching brief was carried out by AC archaeology between February and March 2014 during groundworks for the construction of a new sewer adjacent to the Quay Antiques Centre, Exeter (SX 92004 92105). The site had the potential for exposing features and deposits associated with a number of earlier phases of the development of the quay.

The excavation exposed a small bonded stone revetment wall behind which a series of soil, clay and rubble deposits extended 35m northwest. These deposits although mixed probably represent a single event of infilling behind the revetment wall and are likely, along with the revetment wall, to date to the remodelling of the quay in the late 17th century. Above these deposits, phases of quay heightening and re-surfacing were identified. To the northeast of the revetment wall further deposits of made ground relating to further re-modelling of the quay were identified. Within this material a large sandstone slab with a kerb, probably displaced from an earlier quay and dumped with early 18th century infill, was recorded.

1. INTRODUCTION (Figs 1-2)

- 1.1 This report presents the results of an archaeological watching brief carried out between 17 February and 11 March 2014 by AC archaeology during groundworks associated with the construction of a new sewer adjacent to The Quay Antiques Centre, Exeter, Devon (SX 92004 92105). The site is located on the historic quayside within the Exeter Area of Archaeological Importance. Guidance on the scope of the works and historical background was provided by the Exeter City Council Archaeology Officer (ECCAO). The work was commissioned by South West Water.
- 1.2 The new sewer is located on the north side of The Quay Antiques Centre, and takes waste from the Centre to the existing sewer situated to the southeast and close to the far end of the open transit shed. The works comprised excavations for around 40m of new pipe and the installation of four new manholes along its route. The trench was excavated to a maximum depth of 1.30m. The site lies at a height of between 7.3m and 7.6m aOD, with the underlying geology comprising Permian Sandstone of the Whipton formation overlain by Quaternary alluvium of clay, silt, sand and gravel.

2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 2.1 Obstructions and an unnavigable river hindered access to Exeter until the late 1560s when the Exeter Canal was constructed (Henderson 1991). A new quay was constructed in 1564 outside the city walls on the floodplain of the River Exe below steep sandstone cliffs. Its northeast side was supported by a wattle revetment holding back reclamation deposits. In 1574 the quay was extended with a new Heavitree stone wall supported on rows of oak piles. On its east side a crane cellar (situated under the present Quay House) was constructed. At this period, the west side of the quay was defined by a gravel bank or mole, which divided the quay from the end of the Higher Leat to the west. The bank, later referred to as Little Island, may have been constructed in 1567-8 to deflect silt-laden waters away from the quay.
- 2.2 In 1676 the mole was provided with a revetment wall, and it may well have been expanded along its northeast side. In 1680 the quay was reorganised, which included the construction of the Custom House. The basin between the quay wall and the mole was filled in, leaving a new, 50m long, 6m wide lighter dock adjacent to the cellar, with the quay extended and a new quay wall constructed further to the south.

- 2.3** The lighter dock was infilled in c. 1701 when the canal was deepened to take ships and boats with a greater draught. The quay wall was subsequently realigned to its present position and quay lengthened to the south of this in around 1771.

3. AIMS

- 3.1** The objective of the works was to observe, investigate, excavate and record any surviving below-ground archaeological deposits and artefacts exposed during the groundworks. Particular attention was paid to observe any exposures of the successive stone quay and dock walls, along with associated timbers such as piles or wattles, as well as reclamation deposits behind the walls and overlying surfaces.

4. METHODOLOGY

- 4.1** All monitoring and recording were carried out in line with a method statement prepared by AC archaeology (Passmore 2014).
- 4.2** All excavations were undertaken with a 360° mechanical excavator fitted with a toothless bucket. Material was removed to the required formation level or the top of significant archaeological deposits at which depth hand excavation was conducted by the site archaeologist. All exposed features were recorded prior to removal by the contractor.

5. RESULTS (Figs 2-3; Plates 1-5)

- 5.1** The construction trench for the sewer ran for a total length of approximately 40m, measured 0.50-0.73m in width, and was excavated to a maximum depth of 1.30m below ground level. The trench for the sewer main was dug in three sections. The first section (Trench 1) ran NE-SW and cut across the modern road on the quay, to join the existing main sewer under the northern side of the quay road. The second section (Trench 2) joined with the first at a right angle and ran roughly parallel with the eaves of the open transit shed (ESE-WNW) to a manhole outside the north entrance to Quay Antiques. The third section (Trench 3) joined with the second and ran parallel with the north-east wall of The Quay Antiques Centre (NW-SE) before turning SW for short section parallel to the NE gable wall. Along the length of the excavation a number of modern services truncated deposits, with a higher concentration of the former occurring toward the northwest end of The Quay Antiques Centre.

5.2 Trench 1 (Plans figs 3a-b, sections 3c-d; Plates 1 and 2)

This section of the sewer trench ran across the road with a small separate addition beyond the kerb to the south-west. Beneath the modern basalt and granite cobbles of the road surface (100) excavation revealed 0.42-0.55m of modern hard-core overlying archaeological deposits (101). The hard-core in the NE half was different to that in the SE half. Beneath the hard-core at the NE end two underlying deposits (108 and 109' not illustrated) associated with the existing sewer were exposed.

Beneath the hard-core deposit to the SE a large sandstone slab (F102) measuring approximately 2m long, and 0.08-0.28m thick, with its width extending beyond the limits of excavation, was exposed. The block had a large flat surface with a thicker 'kerb' running along the NE edge, protruding some 0.2m above the main part of the slab. Running along the inside of the 'kerb' on the SW side a shallow irregular groove (c. 0.02m deep) was noted. Approximately 0.90-1.0m SW of the kerb a pair of irregular grooves similar to the one against the kerb were observed. The sandstone slab was situated at 6.47-6.63m aOD.

Below the sandstone slab was a made ground deposit (103) of moderately compact red to reddish brown silty sandy clay containing moderate amounts of moderately sorted sub-angular and sub-rounded gravels. One sherd of 18th century pottery was recovered from this deposit. Below this two more deposits of sandy silty clay with varying amounts of moderately sorted sub-angular and sub-rounded gravels (104 and 105) were exposed overlying a possible rubble structure F107 extending 0.70m into the trench at the SW end. Abutting this to the NE a deposit of smaller, less structured rubble (106) was observed. Both F107 and (106) consisted of sub-angular sandstone and breccia cobbles (>0.20m across) in a fine red sandy matrix. It is possible that (106) represents a collapse of F107.

5.3 Trench 2 (Plan fig. 3e, sections figs 3f-g; Plates 3-5)

This section of trench ran parallel to the open transit shed but did not join completely with Trench 1; there was a gap of approximately 0.50m between the two trenches. Beneath the modern tarmac surface (111); c. 0.10m thick) a cobbled surface F112 was exposed. This surface was observed extending for c. 26m in a NW direction towards the entrance to Quay Antiques Centre before it had been truncated by the laying of other modern tarmac surfaces. The area within the open-transit shed to the SW is also cobbled in a similar fashion. Below this was a deposit of mid grey-brown coarse sand (113) with abundant well sorted sub-angular gravels and pebbles (20-50mm), with sparse slate fragments and fragments of clay pipe stem. This deposit continued, albeit truncated by a number of modern services, for the full length of the sewer trench as far as the gable end of Quay Antiques Centre and is interpreted as a pre-modern hard-core associated with surface F112. Beneath this in the SE 3m of the trench was a band of well compacted dark red coarse sand (114) with frequent breccia derived gravels up to 0.05m thick. This overlaid a deposit of moderately to well compacted red sandy clay (115) with frequent sub angular breccia derived gravels (>25mm) and sparse sub angular sandstone cobbles (>150mm). This deposit was 0.55m+ thick and extended in all directions, except to the NW.

To the NW, deposit 115 abutted a masonry structure F116. The structure consisted of up to three courses of mortar bonded squared breccia blocks (measuring 0.26x0.20x0.19m to 0.50x0.46x0.19m) with a maximum surviving height of 0.47m. The top course of masonry displayed remnants of a mortar bed suggesting it may have once been topped by a further course. The main bulk of this structure ran in a N-S direction, possibly beginning to turn to a NW-SE direction beyond the NE edge of excavation. The top course of F116 was recorded at 6.81m AOD. Abutting this structure to the SE below (115) was a thin (>0.10m thick) band of dark brown to black coarse sandy clay (117) with moderate amounts of well sorted sub angular gravels (>3mm) that overlaid another deposit of red sandy clay (118) derived from the same material as (115).

Structure F116 sat directly on top of deposits consisting of brownish red (119), mid brown (121) and purple-red (120) sand which extended back in a NW direction for approximately two metres. Above these deposits and behind (NW) of F116 was a deposit of well compacted red sandy clay (125) up to 0.52m thick. Deposit (125) was sealed by a deposit (127) of brown sandy clay with frequent poorly sorted sub angular gravels (>20mm). This deposit extended in a SE direction and sealed the top of F116 and (115) to the SE. This deposit in turn was sealed by hard-core layer (113).

Behind F116 to the NW was a series of made-ground deposits (126, 128-30, 133-8). These consisted of deposits of red to purple-red sand and sandy clay up to 5.0m in length with varying amounts of variably sorted breccia and sandstone derived gravels to cobbles (c. 25-200mm long), interspersed, though not in any regular way, with brown to green-brown sandy clay (in varying quantities) with variably sorted gravel inclusions. The deposits in this sequence also contained varying amounts of crushed slate, mortar, CBM fragments, charcoal, clay pipe, butchered animal bone and small pottery fragments. The angle of these deposits suggests that they were successively dumped in a NW-SE direction. In places these deposits were sealed by

a band of very well compacted coarse sandy clay around 0.20m thick with abundant well sorted sub-angular breccia-derived gravels (>15mm). The top of this deposit and other similar ones was at c. 7.0m AOD; they were sealed by deposit (113).

A linear soakaway F122 had been cut made ground 126. It was aligned N-S and was 0.42m wide by 0.18m deep. It contained a single fill (123) consisting of loose mid brown sandy clay and abundant sandstone river cobbles (c. 125mm in diameter). It contained three sherds of post-medieval pottery and fragments of clay tobacco pipe.

Around three quarters of the way along Trench 2, roughly at the point where the open transit shed joins The Quay Antiques Centre, the deposit sequence below (113) started to change. This relationship with upstanding structures is likely to be wholly coincidental. The large dumps of breccia and sandstone rich deposits (e.g. 126) were replaced by smaller deposits of brown, reddish brown and yellow brown sands and sandy clay with moderate to abundant moderately to well sorted smooth gravels and pebbles (>75mm) in the lower c. 0.40m of the trench (139-146). Deposits in this sequence also contained varying amounts of crushed slate, mortar, CBM fragments, charcoal, clay pipe, butchered animal bone fragments and small pottery fragments. Deposit 145 contained a fragment of earthenware floor tile of possible 18th or 19th century date. Overlying these are a series of breccia and sandstone rich deposits, measuring at least c. 0.50m in thickness (124, 128 and 135-6). The upper interface of these deposits was very well compacted. This breccia and sandstone material possibly represents a single episode of raising ground levels in this area.

5.4 Trench 3

Trench 3 was located outside of The Quay Antiques Centre. In this section of the sewer trench the deposit sequence continued in a similar fashion to that described above with modern tarmac overlying a pre-modern hard-core base. The cobbled surface exposed in Trench 2 was not present. Below the tarmac and hard-core (111) was the same band of breccia and sandstone rich material (147-154) representing dumped made ground deposits, again overlying more sandy clay and gravelly deposits (155-158). Approximately 8m from the NW end of the trench the sandy clay and gravel deposits in the lower part of the trench became thinner (averaging around 0.10m thick) and were now almost pure sand and gravels (without any clay and silt content). These lower sandy gravel deposits contained no finds and are likely to derive from re-deposited river gravel material. Deposits in the last 3m of this section of trench and in the short section that turned round the gable end of The Quay Antiques Centre were heavily truncated by a range of modern services including a 450mm diameter concrete sewer running E-W at a depth of 1.20-1.60m below ground level.

6 The Finds by Kerry Kerr-Peterson

6.1 Introduction

All finds recovered on site during the watching brief were retained, cleaned and marked where appropriate. They were then quantified according to material type within each context and the assemblage was scanned to extract information regarding the range, nature and date of artefacts represented. This is discussed below. The watching brief produced small amounts of post-medieval pottery, clay tobacco pipe, ceramic building material, animal bone and shell. The finds are summarised by context in Table 1 below.

6.2 The pottery

In total, 19 sherds (311g) of post-medieval pottery was recovered from seven contexts. The majority of the contexts that produced pottery were made ground deposits, apart from context 123, the fill of soakaway F122. Much of the pottery assemblage comprises imported wares dating from the 17th and 18th centuries.

The imported pottery includes two body sherds and a rim sherd of hand-painted tin-glazed earthenware from context (123), and a polychrome base sherd from (158) decorated with a hand-painted floral design. These are likely to have been imported from the Netherlands. In addition there were three pieces of German Westerwald stoneware, including two body sherds with sprig moulding and cobalt blue decoration from (158), and a complete tankard base from (151). These date from c. 1650-1725. Context 158 also produced a single body sherd of Merida-type ware. This would have been imported from Portugal and probably dates from the 17th century. Deposit (105) produced a single body sherd of Beauvais sgraffito ware, imported from south-west France and dating to the late 16th or early 17th century. A small body sherd of 16th-century Raeren stoneware was recovered from (113). The rest of the pottery assemblage consists of local coarse wares of 18th century date, including seven sherds of 18th-century South Somerset-type earthenware and a fragment of a North Devon sgraffito dish.

Con- text	Description	Post-Medieval Pottery		Clay Tobacco Pipe		CBM		Animal bone		Shell	
		No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
103	Made ground	1	5								
105	Made ground	1	13								
113	Made ground	3	18	3	8						
123	Fill of F122	3	21	4	17						
129	Made ground			2	19						
138	Made ground			6	35			4	337		
139	Group number for dumps			3	13			3	56	1	37
143	Made ground	1	16	2	35						
145	Made ground			2	21	1	221				
148	Made ground			4	27			1	3		
150	Made ground			1	5						
151	Made ground	1	112	2	12	1	49				
158	Made ground	9	126	1	7			2	132		
Totals		19	311	30	199	2	270	10	528	1	37

Table 1: Finds quantified by material type. CBM = Ceramic building material

6.3 Clay tobacco pipe

In total 30 (199g) clay tobacco pipe fragments was recovered. They include 23 plain stem fragments, one of which, from (148), has a mid-green glaze. The remaining pieces are all bowl fragments. Those from (138) and (145) date from c. 1620-1660 and the remainder date from c. 1660-1720. The bowl forms are comparable with examples manufactured in the Barnstaple area.

6.4 Ceramic building material (CBM)

Two fragments (270g) of CBM were recovered from made ground contexts (151) and (145). Context (151) produced a fragment of late 17th- to 18th-century Delft tin-glazed tile with blue hand-painted decoration. The fragment from context (145) is a piece of flat red earthenware floor tile, which has a patch of industrial residue on the anterior surface. This is likely to date from the 18th or 19th century.

6.5 Animal bone and shell

Ten fragments (528g) of animal bone were recovered from four contexts. The faunal assemblage contains a variety of fragmented long bones including cattle metacarpals and metatarsals. Several of the bones are from young individuals and a fragment from (139), displays evidence of pathology in the form of an abscess. Deposit (148) produced a single sheep's tooth. A single valve from a common oyster (17g) was recovered from (139).

7. DISCUSSION (Fig. 4)

7.1 The made ground deposits in Trenches 2 and 3 are composed of re-deposited natural at the western, earliest part of the infilling, followed by mixed dumps of soils and clays including residual artefacts to the east and then more coarse deposits with a greater amount of breccia/sandstone behind revetment wall F116. This made ground, although variable in content and suggestive of phasing dumping, is probably the result of one or two episodes of infill, dating to the 1680 re-modelling of the dock, and on the basis of a few of the finds probably also in the early 18th century. This involved the infilling to make a more formal but smaller ('lighter') dock between Little Island and the front of the Quay House. The revetment wall (F116) is of no great size and perhaps indicates that close to the river this south side of the new dock was constructed to limit erosion rather than to form the front of a quay – the main quay for unloading and loading presumably being on the north side directly in front of the Quay House. The 18th-century deposits could represent localised repairs to or infilling of slumped late 17th-century reclamation. The layout of the 1680 remodelling as reconstructed on the City Historic Environment Record is reproduced as Fig. 4, which shows the outline of the dock in relation to the recent observations.

7.2 There was no indication (in the form of any clear breaks in the deposits) that there had been an accretion-like movement out towards the river where a revetment might formerly have stood. Revetment wall F116 provides the only archaeological evidence for a previous quayside prior to the current one. Mortar on the top course indicates that it would have stood higher than its revealed surviving 0.46m depth. At this height the top sits at 6.81m aOD. A contemporary fill deposit (125) located directly behind the wall reaches nearly 7m aOD, which is closer to the current neighbouring quayside height of 7.15m aOD. All of the deposits in direct association with wall F116 were unfortunately devoid of finds.

7.3 The stone slab F102 gave the impression, being a level surface with an apparent deliberate kerb and with grooves representing possible wheel ruts, that it had formerly served as the surface of a quay. However, its relative height above sea level (6.63m aOD) and its location to the northeast of revetment F116 would suggest that it, and the layers below it containing 18th century pottery, are infill of the 1680 dock, which was filled in c. 1701. In this scenario the stone slab must have been displaced from elsewhere, perhaps from a significantly earlier quay, and used as fill. The sandstone rubble F107 and (106) may also have been part of a demolished quay structure, which was also dumped as infill material.

7.4 Later remodelling of the quay involving the raising of the ground level included its resurfacing with a cobbled surface.

8. ARCHIVE AND OASIS

8.1 The finds, paper and digital archive is currently held at the offices of AC archaeology Ltd, at 4 Halthaies Workshops, Bradninch, near Exeter, Devon, EX5 4LQ, and will be offered to the RAMM, Exeter. A temporary reference number (RAMM 14/09) has been allocated. The site records will be digitised and archived at the ADS.

8.2 The OASIS (Online AccesS to the Index of Archaeological InvestigationS) number for this project is 176676 and contains a copy of this report.

9. ACKNOWLEDGEMENTS

9.1 The fieldwork was commissioned by the South West Water and managed for them by James Field and for AC archaeology by Andrew Passmore. The watching brief was undertaken by William Smith, who also prepared the report. The illustrations were drawn by Elisabeth Patkai. Thanks are due to the City Archaeological Officer Andrew Pye for discussions on the development of the site, and for providing data from the Historic Environment Record.

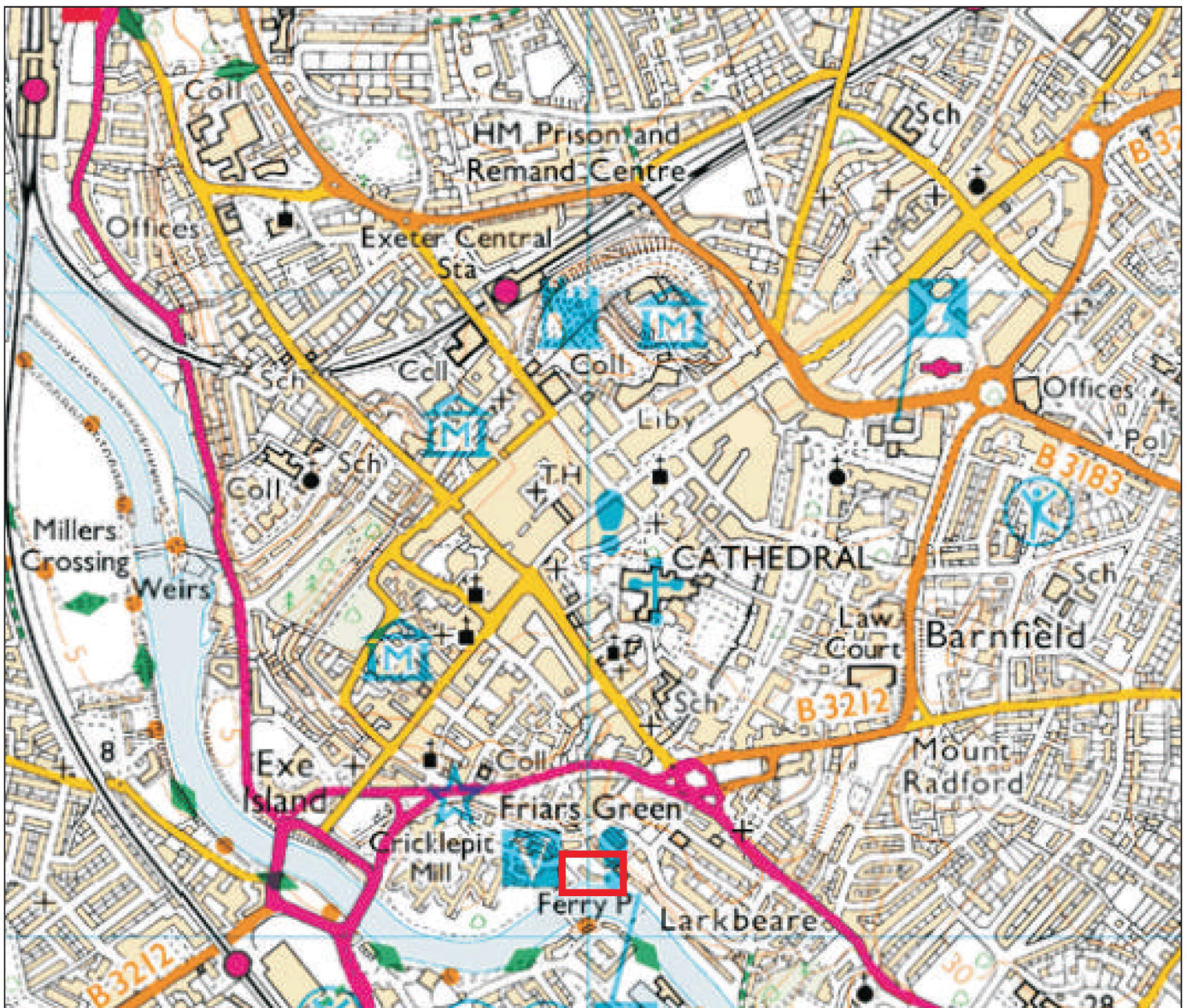
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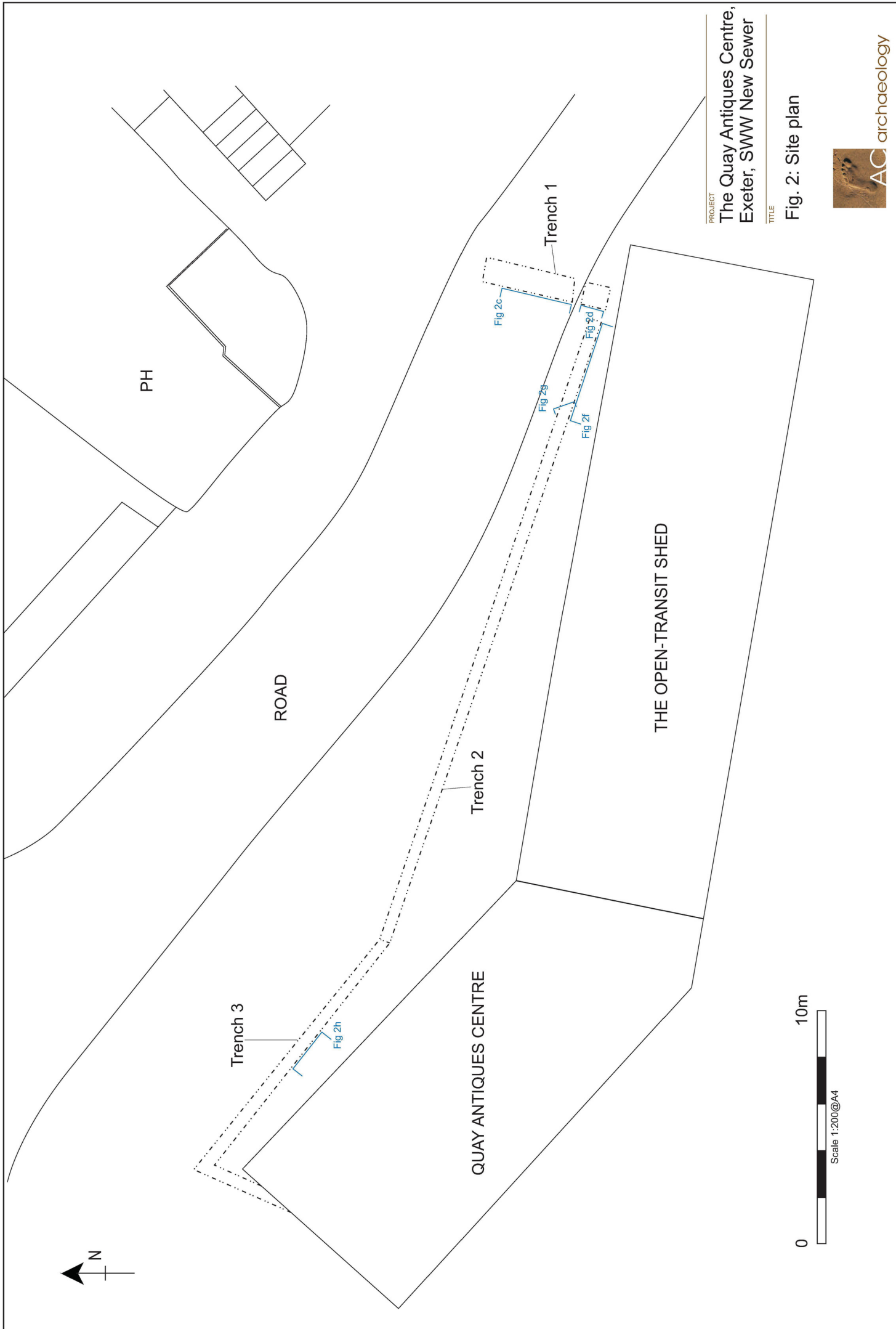
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New Sewer

TITLE

Fig. 1: Site location





PROJECT

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Exeter, SWW New Sewer

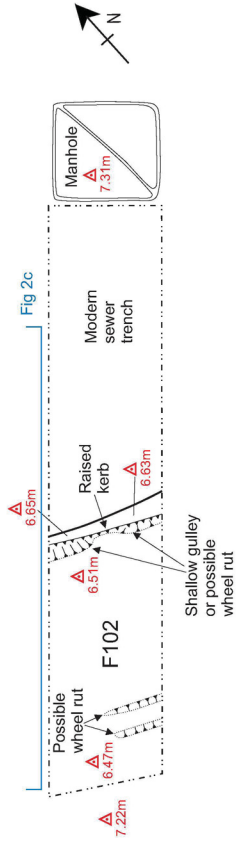
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Fig. 2: Site plan

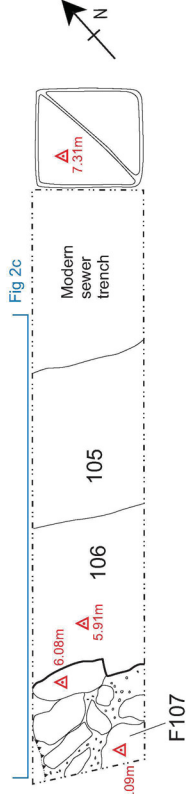


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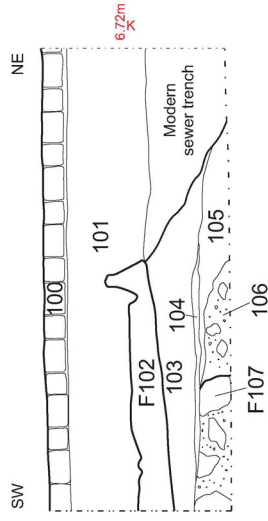
a) Plan of Trench 1



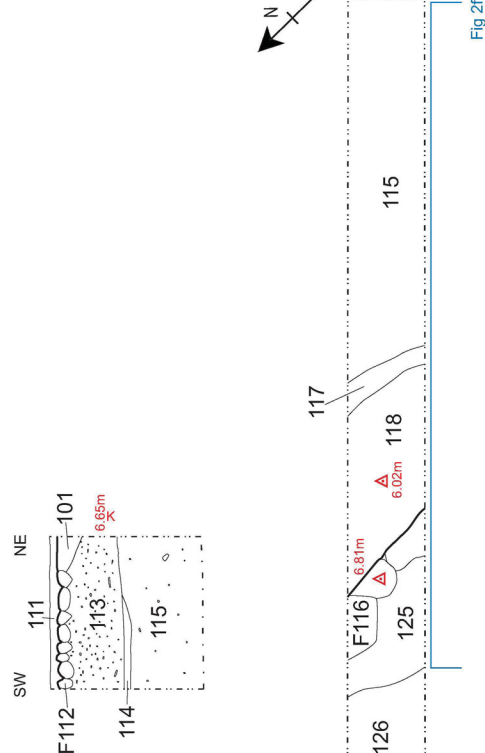
b) Plan of F107, Trench 1



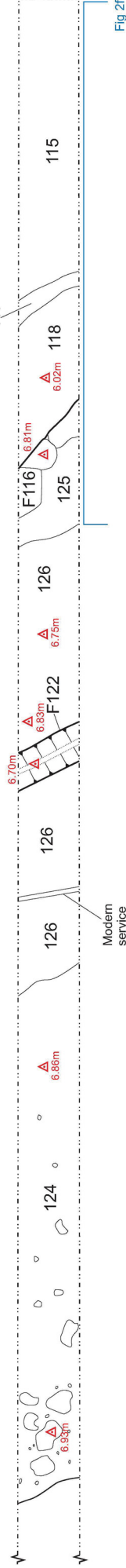
c) Trench 1, section of F102



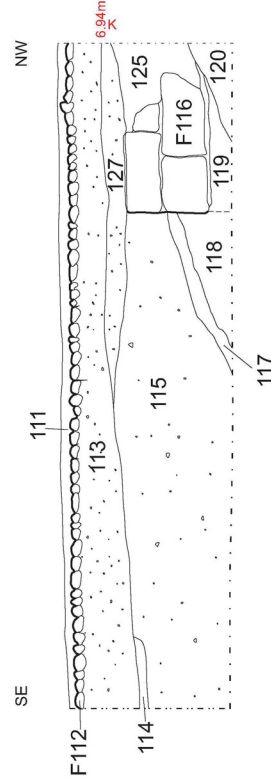
d) Trench 1 extension, section



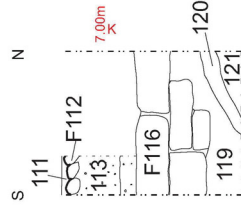
e) Plan of Trench 2



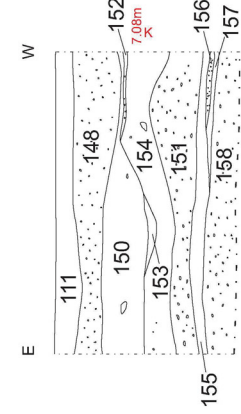
f) Trench 2 section of F116

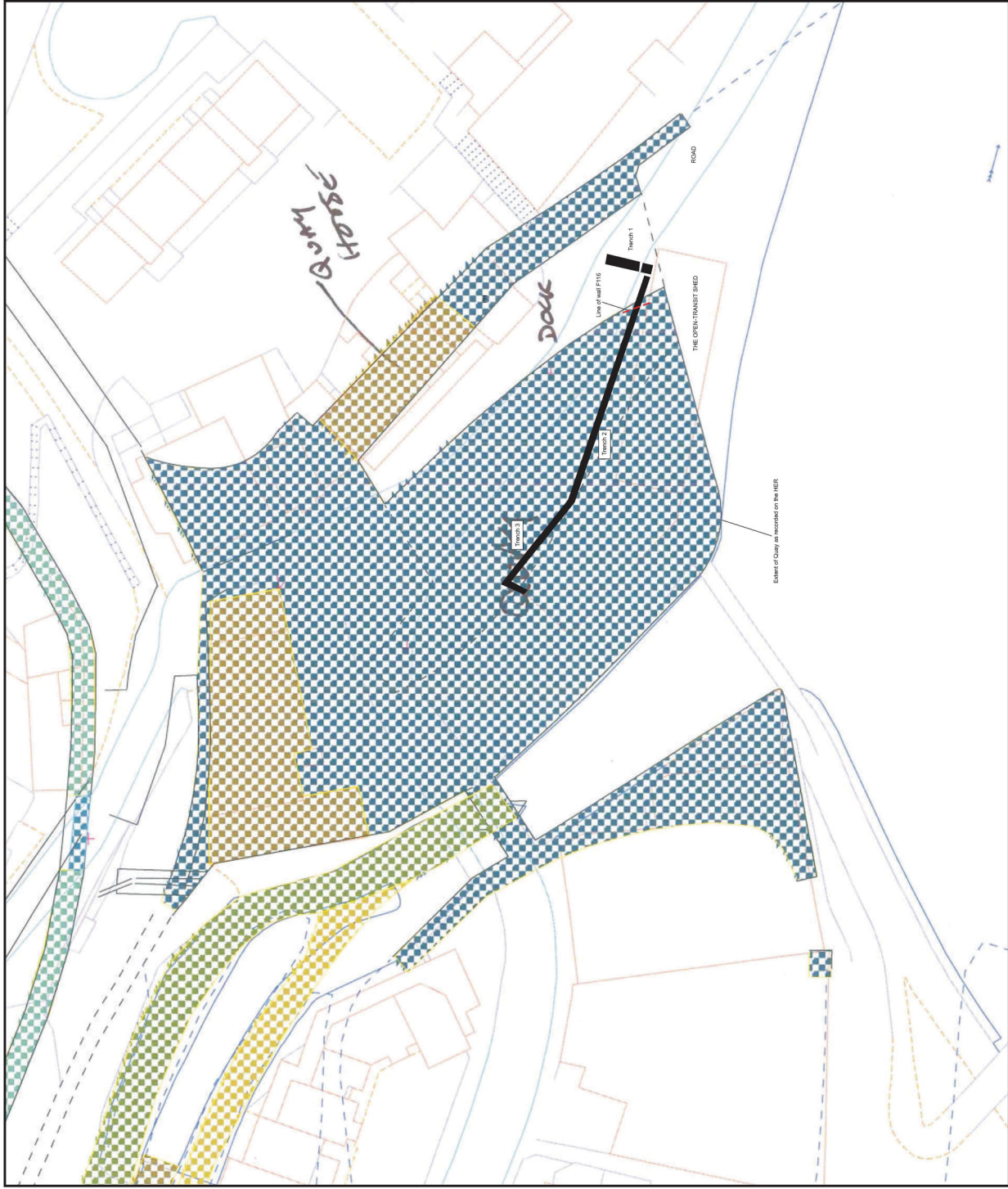


g) Trench 2, elevation of F116



h) Trench 3, section





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not to scale

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The Quay Antiques Centre,
Exeter, SWW New Sewer

TITLE

Fig. 4: Observations
overlaid onto a map
showing the HER data
for the period 1650-1750



AC archaeology



Plate 1: Location of Trench 1
in fenced off area, looking west



Plate 2: Trench 1, sandstone
slab F102. 1m scale.



Plate 3: Trench 2, surface F112.
1m and 0.5m scales.



Plate 4: Trench 2, east-facing elevation of wall F116. 1m and 0.5m scales.



Plate 5: Trench 2, wall F116, looking north-east. 0.5m scale.

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