

II: Archaeological Observations at Snow Hill Car Park, Nantwich, Cheshire

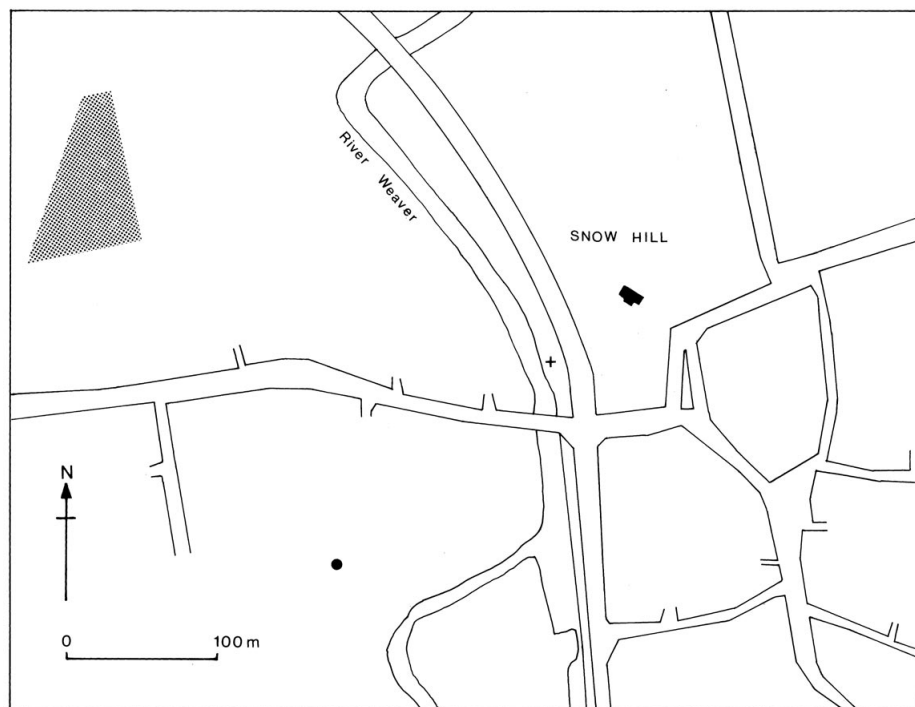
By Malcolm Reid BA MIFA FSA Scot, with contributions from Jonathan Lageard BA PhD, Quita Mould MA FSA and Felicity Wild MA FSA

Construction of an electricity substation at Snow Hill, Nantwich, has provided conclusive evidence of Roman occupation within the part of the town that lies to the east of the River Weaver. Artefacts recovered during building work and the dating of structural timbers indicate that the area was occupied in the second century AD. The analysis of the timbers also suggests that occupation may have begun in the previous century.

Location of the site and the circumstances leading to the observations

In 2004 a new electricity substation was constructed at the Snow Hill car park in Nantwich (SJ 65015247) near the east bank of the River Weaver (Ill 1). A stable platform to support the weight of the transformer meant that the made-up ground above natural clay had to be removed. The plans for this development were unfortunately not referred to the archaeological advisors for the county. As a consequence, no provision was made for the recording and excavation of archaeological deposits prior to, or during, the groundwork phase of the development. This report is based on the observations made by the contractors and by M Reid, and on the artefacts and structural timbers recovered at the time.

Snow Hill car park is situated on the northern fringe of the present commercial centre of Nantwich. Archaeological discoveries to the west of the River Weaver, in particular those at Kingsley Fields (Cheshire County Council 2003; Connelly & Power 2005), have demonstrated that an important Roman settlement based on the production of salt from brine had been established at Nantwich by the mid-second century. Roman artefacts found since the nineteenth century within the town centre to the east of the Weaver suggest that this area also formed part of the Roman settlement (Petch 1987, 209; Shaw & Clark 2002). However, it has not been possible to substantiate this view (until now) because of a lack of structural remains. In the medieval and post-medieval periods Snow Hill was one of the main salt producing areas within the town (Shaw & Clark 2002). An ancient brine spring, known as 'Old Biot', is located next to the river and it is very likely that other former brine springs lie nearby. At the time of the earliest large scale Ordnance Survey map (1851) Snow Hill was characterised by an irregular pattern of buildings and open spaces. By 1910 the area had witnessed many changes, including the building of the town hall, public baths and rows of terraced houses (Ordnance Survey 1910). During the 1960s and the 1970s the area, including the adjacent streets to the south and east, was extensively redeveloped.

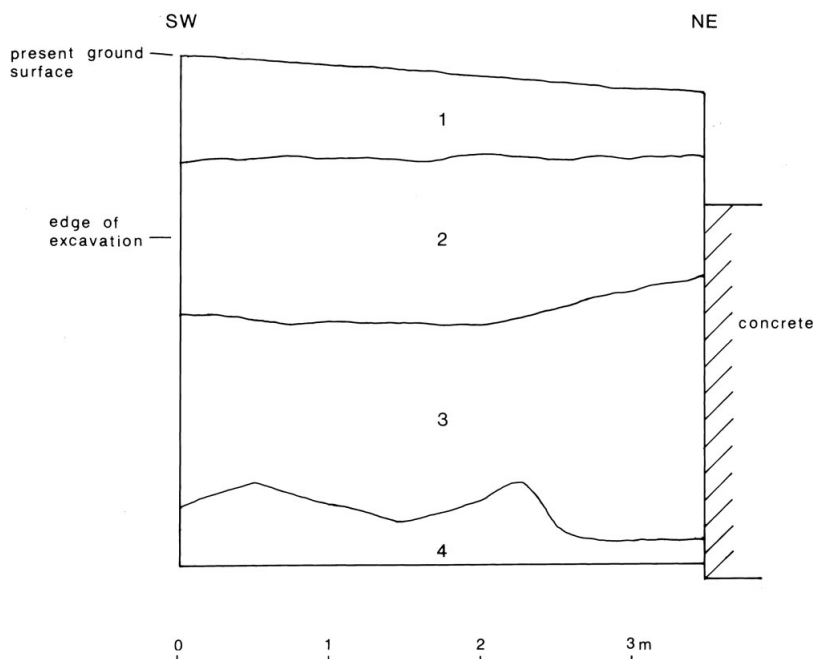


III. II.1 Snow Hill, Nantwich: location plan. Reproduced from 1993 Ordnance Survey maps with the permission of the Controller of Her Majesty's Stationery Office, © Crown Copyright NC/05/100039641. The new electricity substation is shown in black and the cross indicates the position of the brine spring, 'Old Biot'. The stippled area represents the Kingsley Fields archaeological excavation undertaken in 2002 and the circle marks the site of a second century plank-built tank excavated in 1985. Drawn by M Reid

The excavation for the substation and the archaeological deposits revealed

The concrete base for the substation measures 8m by 15m overall and averages 2.5m thick. The hole for the base was dug entirely by machine, but the unstable nature of the ground meant that it had to be excavated in sections and each section infilled with concrete immediately. The final section to be excavated, approximately 2m by 3.5m, formed the north western corner of the base and was observed by the author. The depositional sequence revealed at that time (III 2) is crucial in explaining the observations and findings made by the contractors.

An orange-brown clay of glacial origin (4) was encountered across much of the site at a depth of 3m to 3.5m from the present ground surface. Above the natural clay were a series of unconsolidated deposits of gravel, clay and sand (3), which ranged from light brown to grey in colour. These deposits were encountered throughout the site and for the most part were thickest at the north west (up to 1.75m thick) and thinner and patchy towards the south east. In a few isolated areas these deposits reached a greater depth (presumably the fills of deeper cut features) and were not excavated. Within these deposits, and clearly contemporary with them, were the *in-situ* remains of waterlogged timbers forming lines and curving



III. II.2 The depositional sequence at the north western corner of the electricity substation. 1 — modern overburden, 2 — humic silty clay, 3 — deposits of gravel, clay and sand, 4 — natural clay. Drawn from photographs by M Reid

arrangements, some associated with wattle hurdles. All the Roman artefacts described in this report were recovered from these deposits. The presence of this material provides a firm indication that all these deposits and the associated stake-built structures are of Roman date.

During the course of the excavation other, more substantial, structural timbers were found. Some of these timbers were salvaged from the spoil heap and examined to determine their suitability for dating purposes. Dendrochronological analysis has shown that the majority of the timbers can be dated to the Roman period (*see the report by J Lageard, below*).

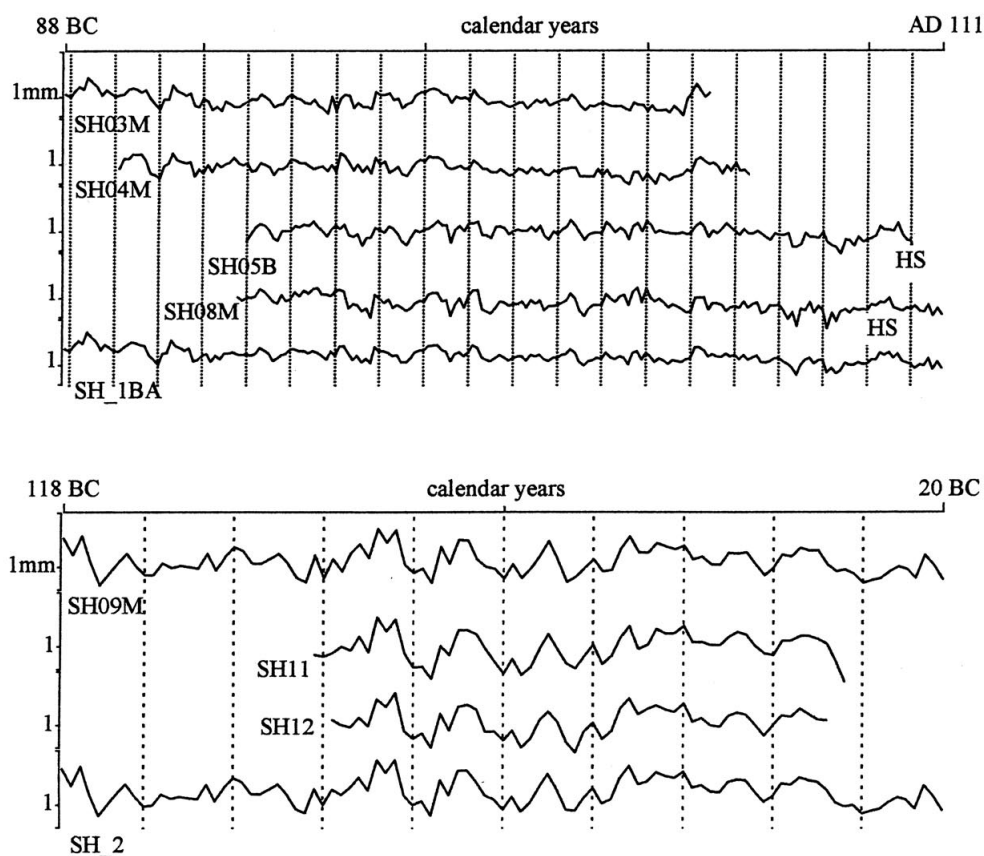
Overlying these deposits was a substantial layer (a largely undifferentiated accumulation) of dark grey humic silty clay (2), between 0.8m and 2m thick, which produced a very strong smell of ammonia. It also contained pieces of waterlogged wood, including structural remains. At the south-east of the site large upright timbers (up to 0.3m square) were found within this layer. Several had been driven into the underlying deposits, including the natural clay, making it difficult to remove them entirely. The contractor could not discern the plan of this structure because of the way the site was excavated. The author did not see any of the timbers *in-situ* and it is unclear whether they are contemporary with, or earlier than, the surrounding humic deposit. It is also uncertain whether any of the timbers dated by dendrochronology came from this structure. From their size, it is apparent that these timbers formed part of a substantial construction, possibly piles for a causeway leading down to the river. No artefacts were recovered from this layer, although in places hand-

made bricks were embedded in the top of the deposit. At several sites in Nantwich (to the east and west of the River Weaver) thick humic deposits, similar to that recorded at Snow Hill, have been excavated archaeologically. All appear to be accumulations of organic refuse of medieval and post-medieval date (M Leah *pers comm*). However, in some instances it is possible that the development of these deposits may have originated in the late Roman or post-Roman periods (Drew & Lageard 2005). At Snow Hill modern overburden (1), averaging 0.7m thick, sealed the humic deposit.

Analysis of the timbers

Jonathan Lageard

Twelve oak timbers (*Quercus* sp) were recovered from the site and transferred to the Dendrochronology Laboratory, Manchester Metropolitan University (Cheshire) for examination and assigned sample numbers SH01 to SH12. They comprised five posts, four planks, two posts/planks and a wedge-shaped timber. The timbers varied in size from 1.735m x 0.25m x 0.10m (SH01) to 0.435m x 0.095m x 0.04m (SH12). All timbers, with the exception of



III. 11.3 Ring-width records of chronologies SH_1BA, SH_2 and their component timbers (SH03, 04, 05 and 08; SH09, 11 and 12). HS indicates the heartwood/sapwood boundary. M denotes a mean record of more than one measurement per sample. Single measurements were recorded from SH05 (denoted by a B) and samples SH11 and SH12.

the wedge-shaped piece, were either neatly or roughly squared in cross section. Several displayed joints and other diagnostic features: one post had a bowl-shaped cut, probably made with an adze, and the remains of a possible mortise; another post had a similar bowl-shaped cut, while a further post also contained a mortise; one of the planks had two right-angled cuts forming narrower lengths at each end and one of its ends was chamfered.

Nine timbers exceeded the minimum criterion of fifty annual rings (*cf* Hillam 1998) for dendrochronological crossmatching (comparison of ring-series to establish contemporaneity) and standard ring-width measurements were made producing tree-ring series ranging from fifty-six to 160 years. Computer-assisted Student's *t* tests provided the statistical basis for crossmatching and contemporaneous trees were identified using *t*-values in excess of a critical value of *t* = 5 (signifying a confidence level above which ring-width patterns had a significant degree of similarity).

Crossmatching of records from individual timbers helped to identify two groups of contemporaneous records and facilitated the construction of site chronologies SH_1BA and SH_2. The ring-width records of these site chronologies and their component timbers are shown in III.3. The chronological data from Snow Hill was then compared to reference chronologies (dated in calendar years by dendrochronology) from sites in Cheshire, Lancashire, Worcestershire and London (*see* Table 1) held at the Dendrochronology Laboratory, University of Sheffield (Groves *pers comm*). From this analysis SH_1BA produced a date range of 88 BC to AD 111 and SH_2 dates from 118 BC to 20 BC.

<i>Reference chronology</i>	<i>Date span</i>	<i>Student's t-value for SH_1BA</i>	<i>Student's t-value for SH_2</i>
Cheshire: Middlewich (Tyers – University of Sheffield)	125 BC–AD 96	7.41	5.83
Cheshire: Kingsley Fields, Nantwich (Tyers 2004)	198 BC–AD 130	8.17	5.99
Cheshire: Nantwich (Howard <i>et al</i> (Nottingham University), in McNeil & Roberts 1987)	134 BC–AD 132	5.92	7.33
Lancashire: Ribchester (Hillam – University of Sheffield)	295 BC–AD 91	5.43	4.63
Lancashire: Walton-le-Dale (Groves 1987)	282 BC–AD 119	5.77	4.59
Worcestershire: Upwich, Droitwich (Groves & Hillam 1997)	256 BC–AD 61	5.74	4.41
London – City: Cheapside (Tyers 1992)	205 BC–AD 63	5.00	3.71
London – City: Regis House (Boswijk & Tyers 1996)	186 BC–AD 107	4.19	4.97

Table II.1 Date spans and Student's *t* correlation values for parts of the selected reference chronologies that crossmatch with the Snow Hill chronologies SH_1BA and SH_2

Dendrochronological interpretation

Two component timbers of chronology SH_1BA, SH05B and SH08M, included four and fourteen sapwood rings respectively, allowing the calculation of estimated felling dates for both (cf Tyers 1998). SH05B was felled in AD 129 \pm 18 years and SH08M in AD 125 \pm 18 years at 95 per cent confidence limits. The date for Snow Hill site chronology SH_1BA and its associated felling dates are therefore very close in age to existing dated Roman chronologies from Nantwich: Kingsley Fields (AD 130: Tyers 2004) and from the plank-built tank discovered at St Anne's Lane to the west of the River Weaver (felling date of AD 132: data from Howard *et al* (Nottingham University), reported in McNeil & Roberts 1987). This indicates that these three sites may form part of a contemporaneous phase of building in Roman Nantwich.

Site chronology SH_2 in contrast has no associated felling dates. From the examination of modern trees, where sapwood is present, it can be estimated that tree SH09M, from chronology SH_2, was not felled before 10 BC. Although the two chronologies from Snow Hill may be contemporary, SH_2 provides the intriguing possibility of an earlier phase of building, in the first century AD.

Further information can be gleaned from comparisons between component ring series within the site chronologies. Such comparisons for SH_2 range from $t = 14.53$ to $t = 18.04$. Visually, the ring-width records are very similar (*see* Ill 3) and studies of modern ring sequences indicate that t -values in excess of 10 are usually from timbers cut from the same tree (Hillam 1998). Similar observations were made in McNeil & Roberts (1987) where three ring series appeared to have originated from the same tree, while a fourth timber had probably been reused.

Samian ware

Felicity Wild and Malcolm Reid

The five sherds listed below are all Hadrianic or early Antonine and similar in date to the earliest material recovered from the recent excavations at Kingsley Fields (Wild *forthcoming*). Although it is not possible to draw conclusions from a mere five sherds, it is worth noting that, unlike at Kingsley Fields, where the bulk of the material was later second century AD, none of the sherds from Snow Hill is later than c.AD 160.

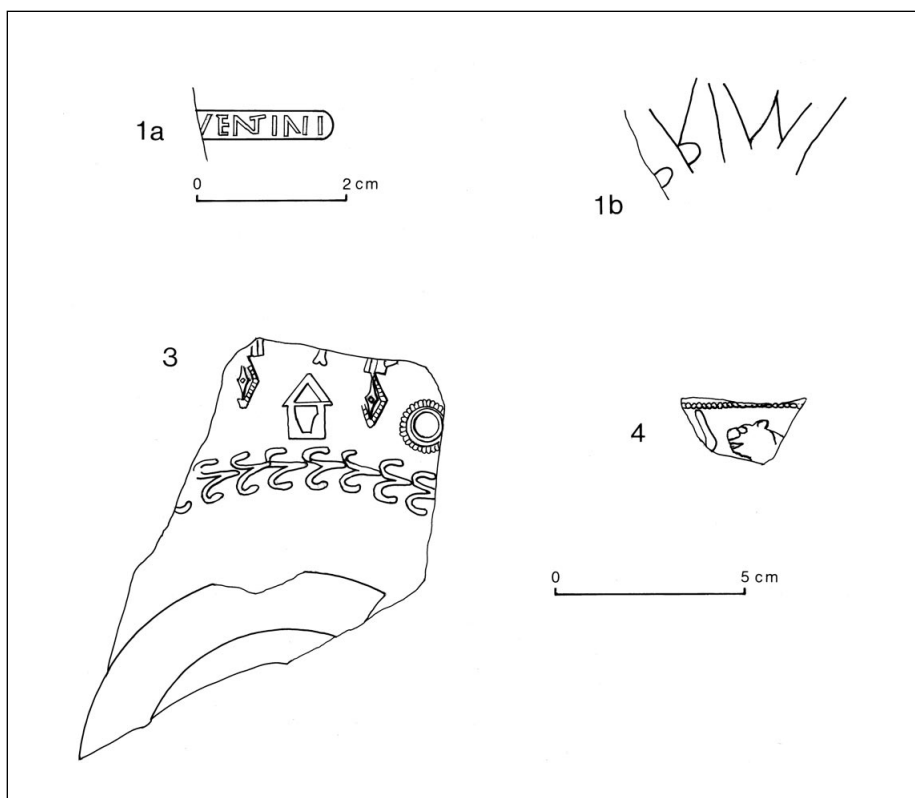
In the following list, figure types are quoted from Oswald 1936–37 (O.) and decorative motifs from Rogers 1974 (Rogers).

1. Form Dragendorff (Drag.) 27, Central Gaulish. About half of the cup, with a rim diameter of 90mm, showing the stamp [A] VENTINI of Aventinus ii of Lezoux (Ill 4.1a). Aventinus was at work c.AD 150–180, though as form 27 ceased to be made c.AD 160, the date of the cup is likely to be c.AD 150–160. On the lower part of the exterior, above the footstand, is a *graffito* (Ill 4.1b). It was drawn out using a sharp-pointed implement after firing and then inscribed with a wider pointed or bladed tool. The *graffito* is retrograde and inverted in relation to the rim. The vessel is broken across the first letter, which is considered to be a P. The vertical stroke of the letter is missing. Assuming the first letter is a P, the *graffito* reads PRIMI, '(property of) Primus'.

The most common forms of inscribed samian vessels indicating personal ownership are cups (Forms Drag. 27 and 33) and plain ware bowls (RIB 2 (7), 7 and 14, Tables IX and X). Inverted inscriptions on samian vessels are not common (a minimum of 5 per cent of those noted in RIB 2 (7) are inverted). Retrograde inscriptions are particularly rare (*ibid*, 7 and 12, Table V) and may be an indication of semi-literacy (M Hassall *pers comm*).

2. Form Drag. 27, Central Gaulish. Almost half of the cup, with a rim diameter of 140mm. The apparently ansate end of the potter's stamp is visible, though with no surviving letters. The stamp die may have slipped during impression. Hadrianic-early Antonine. Not illustrated.

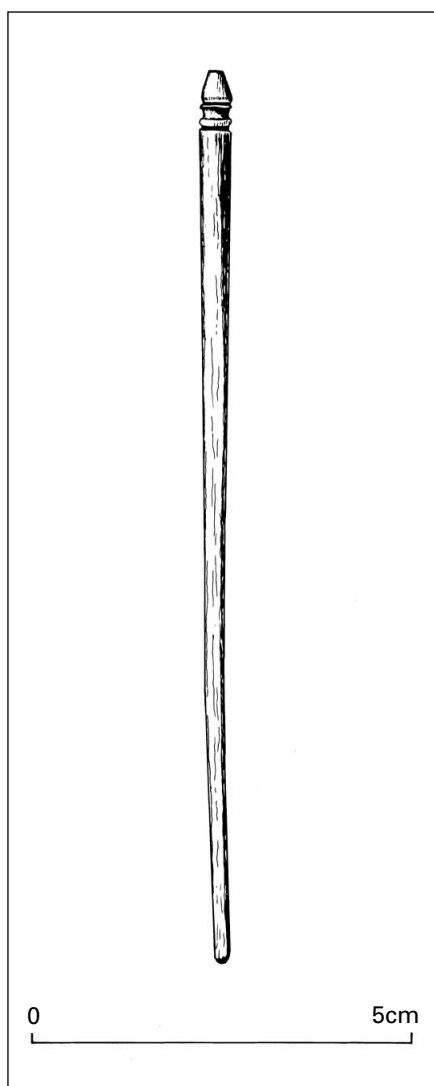
3. Form Drag. 37, Central Gaulish. Base fragment, showing a basal wreath of a bifid motif (Rogers G361) and decoration consisting of vertical impressions of the diamond (Rogers U28), the small 'house' motif (Rogers U272) and the beaded ring (Rogers C290) (Ill 4.3). The motifs were all used by the Quintilianus group. Bowls in their style show the basal wreath with a similar, rather unstructured decorative scheme, including C290 (Rogers 1999, pl 93, 22), the 'house' U272 (*ibid*, pl 94, 43, again with C290) and the diamond U28 used vertically as part of a composite motif (*ibid*, pl 93, 27). *Circa* AD 125–145.



III. II.4 Samian ware: vessel numbers 1, 3 and 4. 1a maker's stamp (Scale 1/1), 1b *graffito*, 3 and 4 decorated sherds (Scale 1/2). Drawn by M Reid

4. Form Drag. 37, Central Gaulish. A small sherd showing a bead row (beneath the now missing ovolo) above the head of a panther (probably O.1542) and a figure with sword (possibly O.210) (Ill 4.4). Too little survives to identify the potter with certainty, but O.1542 and O.210 were used together on a bowl with a freestyle hunting scene signed by Arcanus (Stanfield & Simpson 1958, pl 78, 7). Arcanus is likely to have used bead rows as well as his more normal wavy-line borders (*cf ibid*, pl. 78, 6, which, although unsigned, shares two types with pl 78, 7). *Circa* AD 120–140.

5. Form Drag. 18/31 or 31, Central Gaulish. Small sherd of rim. Hadrianic or early Antonine. Not illustrated.



Ill. II.5 Bone pin (Scale 1/1). Drawn by M Reid

Coarse pottery

Two body sherds of Cheshire Plain oxidised ware (not illustrated), both coated with a white slip on the exterior surface. The remains of a handle scar on one sherd indicates that it was part of a flagon or handled jar. The exterior of this vessel has been burnt. Both sherds probably date to the second century AD.

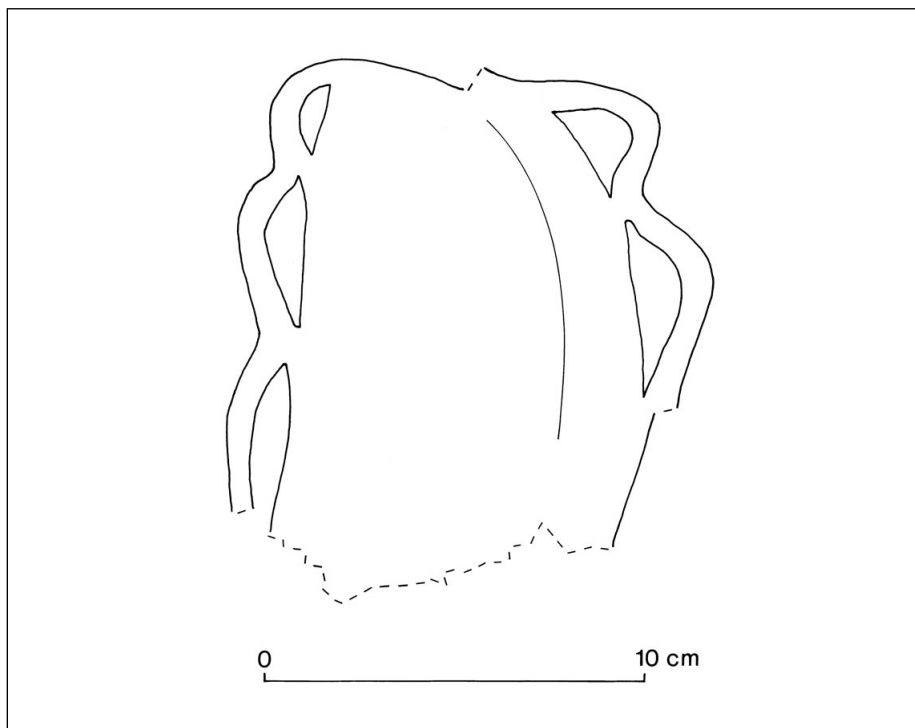
Bone pin

A bone hairpin or clothes fastening pin, with a conical head and three transverse grooves beneath. Broken near the tip. 117mm long (Ill. II.5). Crummy Type Two (Crummy 1979 and Crummy 1983, 21), dated to the second century AD.

Leather shoe

Quita Mould

The forepart of a one-piece shoe made of cowhide, 3mm thick, torn away from the rest of the shoe across the lower tread (surviving length 144mm, maximum width 95mm) (Ill. II.6). The shoe is of adult size and was worn on the right foot. Three D-shaped fastening loops survive on the left side and two on the right, with the stub from a pierced tab or possibly an integral fastening lace in the centre at the front. The upper interior edges of the loops are tooled (with a rounded profile), while the lower interior edges of the loops are plain cut. A marking-out line is present on the flesh side demarcating the sole area that is folded upward to wrap around the foot.



III. II.6 Leather shoe: flesh view (Scale 1/2). The marking-out line is shown on the right, and the broken lines represent the torn edges. Drawn by M Reid from a drawing by Q Mould

The condition of the shoe is unusual as it shows only light wear, unlike the majority of examples of Roman footwear that have been found which tend to be heavily worn before being discarded. The shoe is considered to be contemporary with the other objects found at Snow Hill. It may be compared with the eight one-piece shoes of second-century date found during the archaeological excavations at Kingsley Fields in 2002 (Mould 2004). Two of the three styles of one-piece shoe found at Kingsley Fields have plain, D-shaped loops like the Snow Hill shoe. These plain loops are a common feature of one-piece shoes.

Conclusions

The observations made during the excavation of the substation base clearly indicate that well-preserved and deeply stratified archaeological deposits survive in the southern part of the Snow Hill area of Nantwich. The stratigraphic sequence recorded here, together with the associated artefacts and structural remains, have provided the first substantive evidence for Roman occupation on the eastern side of the River Weaver. The artefacts recovered from the site all appear to be of second-century date and as such suggest that the Roman occupation at Snow Hill was contemporary with the earliest phases of the settlement at Kingsley Fields, 350m to the west. Without a clearer understanding of the stratigraphy and a precise stratigraphic provenance for the artefacts, it is not possible to give a firm indication about how these objects were deposited. However, bearing in mind the personal nature and quality of particular items, it is tempting to suggest that some form

of ritual deposition may have taken place here, perhaps in association with the brine springs and akin to the veneration of springs apparent elsewhere (Woodward 1992, 53).

Further confirmation of the date of Roman occupation at Snow Hill has been provided by the dendrochronological analysis of the structural timbers. The later of the two site chronologies (SH_1BA) indicates that timber buildings were constructed here in the early second century, assuming the timbers were not reused. These structures were contemporary with the plank-built tank excavated in 1985 to the west of the River Weaver and the earliest timbers so far dated from the Kingsley Fields excavation. The earlier tree-ring sequence from Snow Hill (SH_2) raises the possibility that occupation in this part of the town may have begun earlier, during the first century AD.

The large upright timbers found during the excavation of the substation indicate the existence of a substantial structure in the south eastern part of Snow Hill. The date and function of this structure is not certain, but its position suggests a possible causeway close to the river.

The artefacts described in this report and the associated site archive have been deposited with the Cheshire Museum Service and some of the material is housed in Nantwich Museum. Samples taken for dendrochronological analysis have been retained at Manchester Metropolitan University.

Acknowledgements

This report would not been possible without the assistance of the personnel of QuFab Construction, in particular the site foreman, Dean Mooney. Through their observations and the objects collected they have provided important information about the origins and development of Nantwich. I am most grateful to them all.

I am also very grateful to Dr Jonathan Lageard, Quita Mould and Felicity Wild for agreeing to examine the material and for producing their reports so promptly. Thanks are also due to Cathy Groves for carrying out dendrochronological reference comparisons and providing supporting information, Brenda Dickinson for confirming the identification of the potter's stamp on one of the samian vessels and to Mark Hassall for his comments on the samian vessel *graffito*. In addition, I would like to thank Dr Jill Collens, Mark Leah and Gill Dunn for their help and advice during this project, and to Dr Peter Carrington for commenting on the report.

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