

**River Sow Improvement
Scheme.**

**The Mill, Millbank, Victoria
Park, Stafford, Staffordshire**

**Archaeological Evaluation 2003,
An Interim Assessment**

Birmingham University Field Archaeology Unit
Project No. 947.02
February 2003

River Sow Improvement Scheme
The Mill, Mill Bank, Victoria Park, Stafford, Staffordshire
Archaeological Evaluation 2003, Interim Assessment

By
Josh Williams

with contributions by
Marina Ciaraldi, Annette Hancocks, Emma Hancox and Stephanie Rátkai

For further information please contact:
Simon Buteux, Iain Ferris or Alex Jones (Directors)
Birmingham University Field Archaeology Unit
The University of Birmingham
Edgbaston
Birmingham B15 2TT
Tel: 0121 414 5513
Fax: 0121 414 5516
E-Mail: BUFAU@bham.ac.uk
Web Address: <http://www.bufau.bham.ac.uk>

**River Sow Improvement Scheme
The Mill, Mill Bank, Victoria Park, Stafford, Staffordshire
Archaeological Evaluation 2003, Interim Assessment**

Contents

1.0	Summary	1
2.0	Introduction	1
3.0	Site Location	1
4.0	Archaeological Background	2
5.0	Aims	2
6.0	Method	3
7.0	Results	3
8.0	The Finds <i>by Annette Hancocks, Stephanie Rátkai and Emma Hancox</i>	6
9.0	The Environmental Evidence <i>by Marina Ciaraldi</i>	8
10.0	Discussion	9
11.0	Acknowledgements	10
12.0	References	10

Figures

Fig. 1	Site Location
Fig. 2	Trench Location
Fig. 3	Trench A, Plan
Fig. 4	F102 - Southwest Facing Elevation
Fig. 5	Trench B, Plan

Plates

Plate 1	Trench A, Timber Beams
Plate 2	Mortice cut into F113
Plate 3	Trench A, F101 and F102
Plate 4	Trench B, F200

**River Sow Improvement Scheme
The Mill, Mill Bank, Victoria Park, Stafford, Staffordshire
Archaeological Evaluation 2003, Interim Assessment**

1.0 Summary

An archaeological evaluation was carried out along the line of a proposed new culvert running from a landscape pool in Victoria Park, through the disused water mill in Mill Bank, Stafford and into the River Sow to the east of the mill (NGR SK 921 229). The evaluation consisted of four trial trenches and aimed to characterise the nature and extent of any archaeological deposits. The work was carried out in February 2003 by Birmingham University Field Archaeology Unit (BUFAU) who were commissioned by Jackson Civil Engineering Co. Ltd on behalf of the Environment Agency. The evaluation revealed a number of timber beams, which may relate to a medieval timber mill, although no dateable artefacts were retrieved. The timbers were covered in a moss which may have been used for bedding, or possibly for thatch. Large stone walls were also uncovered, forming part of a 17th century mill, dated from pottery retrieved from stratified deposits. Earlier river deposits were sampled for environmental analysis and revealed well-preserved insect and plant remains. Unfortunately, pottery could not securely date to the timber structures, so only further excavation and dendrochronological dating will fully characterise these structures.

2.0 Introduction

An evaluation was undertaken by Birmingham University Field Archaeology Unit on behalf of Jackson Civil Engineering Co. Ltd, on the site of the disused mill at Mill Bank, Stafford in February 2003, in advance of work intended to improve the flow of the River Sow. The evaluation was undertaken on the advice of the Archaeology Section of Stafford Borough Council. The evaluation consisted of four trial trenches, excavated after a stone wall was located during the laying of a new pipe from the pool in Victoria Park, through the area of the disused mill into the River Sow.

The work was carried out in accordance with a Brief prepared by Stafford Borough Council (Wilkinson 2002) and in accordance with a Written Scheme of Investigation (BUFAU 2003) and the guidelines set down in the Institute of Field Archaeologists *Standards and Guidance for Archaeological Evaluations* (Institute of Field Archaeologists 1999).

3.0 Site Location (Fig. 1)

The site lies at the south end of the historic town of Stafford and to the west of Bridge Street and to the west of Espley's Yard (NGR SK 921 229; Fig.1.). The area targeted for the evaluation was the site of the disused mill, previously a feature in an area of public park, and the areas immediately to the east and the west of the mill.

4.0 Archaeological Background

A more detailed archaeological background is provided in the brief (Wilkinson 2002), a summary of which is provided below:

The historic town of Stafford lies in the valley of the River Sow, on its north and east banks. The earliest archaeological evidence of settlement dates to the prehistoric period and continues through the Anglo-Saxon and medieval period to the present day.

Stafford was founded as a *burh* by Aethelflaed in AD. 913 and developed into a commercial centre with a mint (AD. 924-1189), market and pottery manufacturing industry. Stafford became the county town in the eleventh century. The Domesday Survey records Stafford as being walled, with suburbs developing to the north and south. Burgage plots were laid out and monasteries were founded and by the seventeenth century the centre of Stafford was laid out much as it is today.

It is recorded that from 1164-5 the burgesses of Stafford held of the king a mill on the Sow southwest, of the town centre. In 1173 it passed into the possession of Robert de Stafford and remained in the hands of the Stafford family until 1879. In the nineteenth century complaints about flooding caused by the damming of the river at the mill led to the construction of a weir and floodgates. The last structure to grind corn on the site was constructed in 1834 by George Brewster and was demolished in 1957. The mill site was then laid out as an extension to Victoria Park, with two undershot wheels left in position (Wilkinson 2002).

In 1788 a map shows the area between Newport Road and the river, as being devoid of buildings, which may have been due to the ordered clearance of buildings during the Civil War in 1642. The area around Espleys Yard was shown on the Ordnance Survey map of 1881, as containing a garden plot, immediately adjacent of the south bank of the river and running back from Bridge Street. A row of terraced houses running at right angles to the river was also shown to the west of the house and garden. These appear to have been demolished in the first half of the twentieth century.

5.0 Aims

The archaeological work was intended to provide a record of any archaeological deposits or features which might be present below the modern ground surface and to help elucidate further the history and significance of the archaeology of the site as a whole. In particular, evidence relating to the 17th century mill and to any surviving structures or deposits of earlier medieval mills was sought, along with any evidence of any former river deposits, which would be useful for environmental analysis. This evaluation aimed to assess the importance of the archaeological deposits and to aid a decision as to the method of preservation.

6.0 Method (Fig. 2)

Four evaluation trenches, were excavated along the possible line of the new pipe (Fig. 2), after a large stone wall was located in Trench A. The overburden in each trench was removed using a mechanical excavator.

Where appropriate, possible archaeological features were hand excavated to provide information concerning the survival and complexity of feature fills, and to recover artefactual evidence. A detailed context and feature record on individual pro-forma record cards was maintained and all features were photographed using both colour and black and white film. Sections and plans were drawn at a scale of 1:50 or 1:20 as appropriate. Where no archaeological deposits were identified, a record of the stratigraphy was made.

These records form the site archive, which at the time of writing are housed at the Field Archaeology Unit, until final archive deposition arrangements are made.

7.0 Results (Figs 2-5)

Trench A (Figs 3 and 4; Plates 1-3)

Trench A was 9m long and 3m wide and excavated on approximately an east-west alignment (Fig. 3). The ground sloped down from east (AOD 74.82m) to west (AOD 73.62) and as a result, there was significantly more overburden to remove at the eastern end of the trench. The trench was excavated to a maximum depth of 2.3m at the eastern end (AOD 72.50m). The lowest deposit encountered was a blue organic sand and gravel river deposit, with occasional patches of clay (1026), located at a depth of 72.84m AOD. A single piece of 17th century pottery was present in the deposit, but is likely to have been intrusive, having been retrieved from directly under a later stone wall. Upright timbers could be seen to have been driven into this deposit

Lying directly over 1026 were a series of horizontal timber beams (Plate 1). A large timber beam (F103) was located on the south side of the trench, measuring 1.3m in length and 0.3m in width and height. This timber had a rectangular mortice slot (0.3m x 0.1m x 0.1m) cut in the centre, presumably to hold an upright timber. A smaller timber plank (F105) was revealed 1m to the west of F103, and at right angles to it. This was 1.2m in length, 0.1m wide and 0.3m high. On the north side of the trench two parallel timbers (F111 and F112) were uncovered, running on a north-south alignment. Both beams were 0.5m long, 0.25m wide and 0.25m high. A parallel beam (F114) was recorded 1m to the east, measuring 1.45m in length, 0.2m in width and 0.35m in height. This butted up against an east-west timber beam (F113) at its southern end, which was 2.2m in length, 0.25m in width and 0.32m in height. This beam had three mortice slots (Plate 2) cut into it, similar in size to the mortice in F103. Running along the south side of F113 was a wooden plank, 2m in length, 0.05m wide and 0.3m high. Parallel to F113, and butting up against F114, was another timber beam (F115), 1.2m in length, 0.3m in width, and 0.3m

high. The end of a massive timber beam (F108) was also revealed on the eastern edge of the trench, measuring 0.3m in length, 0.5m in width and 0.3m in depth.

Clay deposits were packed around the timbers. Between F112, F113 and F114 was a blue clay (1004), containing some bone. Between F114 and F115 was a pink clay (1005) with a similar deposit (1006) between F113, F114 and F115. Another deposit of pink clay (1008) surrounded the large timber 1008. 1006 was partially excavated and contained one 13th/14th century piece of medieval pottery and two 17th century post-medieval sherds of pottery. The clay appeared to have been deliberately packed around the timbers, although it is possible that it was used to level the ground after the timbers went out of use.

Overlying the timbers and clay layers were a series of large sandstone walls. Rubble foundations (F106, F107, F110) for these walls lay directly over timbers F111, F112 and F113 and cut through planks F105 and F116. F107 and F110 did not support upright walls, although these could have been truncated or robbed out. F106 provided the foundations for a large, northwest-southeast aligned wall (F102, Plate 3). This wall had three courses remaining, and measured 5.6m in length, 0.9m in width and 0.95m in height. The wall was constructed from well-dressed sandstone blocks on its southwest facing elevation (Fig. 4) with rubble and pink clay making up the northeast facing side. The sandstone blocks varied in size from 1.25m x 0.45m x 0.25m to 0.3m x 0.3m x 0.3m. The pink clay matrix of the wall was identical to the clay packing around the earlier timbers. In the southeast corner of the trench, this wall turned to an east west alignment (F109), although retaining its size and shape. An upright timber beam appeared to have been built into this wall on its north facing side.

Butted up against F102 at its western end was a V-shaped stone wall (F101), measuring 2m along its northwest-southeast axis and 1.4m along its northeast-southwest axis. The wall was stepped downwards to a point at its northern most edge, and was three courses high, measuring 0.9m in height. A sandstone and brick wall (F117), running north-south, had been built over the eastern edge of F101. This wall was 1.95m long and 0.5m wide. This followed the same line as another sandstone wall (F104) butted up against the southwest facing elevation of F101. F104 was 1.2m long, 0.9m wide and 0.2m high, although the wall could be seen to have three courses within the north facing section of the trench (not illustrated). One further sandstone wall (F100) was located in the northwestern corner of the trench, running on a north-south alignment, and measuring 1m in length, 0.4m in width and 0.45m in height.

A series of rubble, sand and clay layers (1001, 1002, 1003 and 1007) covered and surrounded the sandstone walls. These were given separate numbers for their location within the trench, but were essentially part of the same backfilling of the structures. These layers contained some residual sherds of 13th-14th medieval pottery, a large number of 17th-19th century pottery, bone and tile (see below). The trench was capped with a mixed layer of overburden (1000) containing topsoil rubble and hardcore.

Trench B (Fig. 5, Plate 4)

This trench was 3m long and 1.7m wide and excavated on a north-south alignment. The trench was excavated to a depth of 0.7m below the present ground surface (AOD 73.75m). Two rows of large sandstones (F200/2002, 2.3m long, 1.2m wide) were located running on a north-south alignment, covering the majority of the trench. The largest stone measured 0.8m x 0.3m x 0.2m, with the smallest measuring 0.1m x 0.1m x 0.1m. The stones were covered with a 0.4m thick layer of brick and rubble (2002). F200 and 2001 were cut by a modern ceramic drainpipe (2003) in the southwest corner of the trench. The entire trench was covered with a 0.3m layer of rubble and hardcore forming the surface of a footpath.

Trench C

Trench C was 4m long and 1m wide and excavated on a north-south alignment. The trench was excavated to a maximum depth of 1.25m below the present ground level (AOD 73.60m). The earliest deposit encountered was a black waterlogged, organic, humic silty clay (3003). This was overlain by a dark grey/brown organic silty clay (3002), 0.5m thick, which was sealed by a yellowish brown silty sand (3001), 0.3m thick. The trench was capped with a mid brown sandy silt topsoil (3000), 0.3m deep. All deposits contained fragments of brick and rubble and modern debris.

Trench D

This trench was 4m long and 1m wide and excavated on a northwest-southeast alignment. The trench was excavated to a maximum depth of 1.15m below the present ground level (AOD 73.50m). The earliest deposit encountered was a black waterlogged, organic, humic silty clay (4003). This was overlain by a dark grey/brown organic silty clay (4002), 0.5m thick, which was sealed by a yellowish brown silty sand (3001), 0.3m thick. The trench was capped with a mid brown sandy silt topsoil (3000), 0.3m deep. All deposits contained fragments of brick and rubble and modern debris.

8.0 The Finds

Find type	Quantity
Pottery	
<i>Medieval</i>	1 (14g)
<i>Post-Medieval</i>	52 (1624g)
Other finds	
<i>Ceramic: Clay Pipe</i>	9 (76g)
<i>Tile: ceramic</i>	33 (4908g)
<i>Brick: ceramic</i>	1 (1g)
<i>Mortar</i>	1 (18g)
<i>Iron: other</i>	2 (511g)
<i>Glass: Bottle</i>	8 (214g)
<i>Stone: other</i>	1 (10g)
<i>Worked bone</i>	1 (34g)
<i>Animal bone</i>	2813g
<i>Shell</i>	4 (11g)
<i>Leather</i>	2
<i>Wood</i>	10 pieces

Table 1: Summary of finds totals

Factual data by Annette Hancock

Pottery

A small pottery assemblage of Post-Medieval date was recovered from the evaluation phase. This comprised a single residual sherd of medieval date, 13th/14th century AD, and 52 sherds of Post-Medieval pottery (1.6Kg). The material was rapidly scanned, identified and spot-dated by Stephanie Rátkai (Table 2 below). There would appear to be some limited evidence for pottery production in the vicinity, as several of the sherds showed signs of being wasters, with layer 1002 containing the rim of a slipped coarseware waster.

Context	Description	Comments	Spot-date
1000	Layer	13 (408g)	19 th century AD with residual 18 th
1001	Layer	Early trailed slipware (light/dark) Yellow ware, mottled ware, creamware, stonewares, blackware	18 th century AD with residual mid 17 th – early 18 th century
1002	Layer	Coarseware, waster rim with glaze on break and no ware where been chipped pot away during stacking. Pottery-making? Blackwares	Mid-late 17 th century
1003	Layer	Mixed context with residual medieval tile	19 th -?18 th century AD with residual medieval
1006	Layer	Very reduced Blackware, with residual Medieval pottery	17 th century AD with residual 13 th -14 th century AD
1007	Layer	Yellow ware Dual slipware	Late 17 th /Early 18 th century AD

Table 2: Pottery spot-dating by *Stephanie Rátkai*

Ceramic Roof Tile

33 fragments (4908g) of roof tile were recovered from five contexts, 1001, 1002, 1003, 1004 and 1006. Context 1003 contained the most diagnostic pieces with evidence of fixing points and finger-smearing on the under side of the tile, presumably to secure it to the overlapping tile.

Other finds of interest

These include an almost complete poison bottle from 1000, two small fragments of leather shoe soles and the assemblage of animal bone. The latter is discussed below.

The Animal Bone by *Emma Hancox*

Factual Data

A small amount of bone was hand collected from the excavations, weighing 2813g. No bulk samples were taken for sieving. The bone came from six contexts 1000, 1001, 1002, 1003, 1004 and 1006, all post-Medieval in date. It was in good/fair condition. Cow, sheep/goat, pig and horse were noted along with a goat homcore. Evidence of butchery was found in two contexts (1000 and 1001). There was no evidence of gnawing, burning or pathology.

Out of the 25 recordable sheep/goat bones 24 were metapodials; 9 metacarpals, 14 metatarsals and 1 unfused distal epiphysis. This is an unusually high percentage of the

sample. The most common reason for a high number of metapodials in an assemblage is that it is related to tanning. Often hides were brought to the tanning site with the feet bones still attached. Two pieces of leather were recovered from the excavation and it is possible that the assemblage relates to this industry. Three horncores were also recovered, horncores are often found on tanning sites. Another possible suggestion for the high number of sheep metapodials is that they were being used in the making of roof tiles. It has been found at another site that the metapodials were snapped in two and used to suspend tiles on to dry (Rátkai *pers. comm.*). A waster tile was found within the pottery assemblage. However, as all the metapodials here are complete this seems a less likely explanation. The assemblage is too small to draw any reasonable conclusions.

Context	Preservation	Countable Bones/Teeth				Measurable Bones/Teeth				Comments
		Bovid	Ovid	Suvid	Other	Bovid	Ovid	Suvid	Other	
1000	Good									Chop marks noted on rib frags.
1001	Good/fair	1	3	1	1		2			Horse humerus. Chop marks on one bone. Cow horncore
1002	Good/fair	1	15		2	1	9			Horse bones. Goat horncore.
1003	Good/fair		1				1			
1004	Good/fair	1	6				6			
1006	Good/fair									Cow horncore.

Table 3 – Animal Bone, preservation and countable bones and teeth identified to species

Statement of potential and recommendations

Given the small size of the assemblage it is felt that there is little archaeological potential and no further work is considered necessary. Should the site go to open area excavation it may be possible to re-examine the assemblage along with further finds. The finds archive comprises 5 boxes, 7 assemblage summary sheets and will be deposited at City Museum Stoke-on-Trent once ownership of finds has been transferred. Museum Accession Number 2002.LH.2002.

9.0 Environmental Evidence *by Marina Ciaraldi*

Two soil samples, 1006 and 1026, were collected. The samples examined were taken from two organic layers, which were in direct contact with the wooden structures uncovered by the excavation. Sample 1006 was spot-dated to 17th century but it also contained residual medieval pottery (13th/14th century).

The samples contained waterlogged organic remains and, therefore were processed accordingly. Sub-samples of 100ml were sieved on a set of sieves with different mesh sizes (respectively 0.3mm, 0.5mm and 1mm). The different fractions were then scanned under a low-power stereo microscope.

The results of the preliminary analysis are discussed in order to establish:

- the nature and the preservation of organic remains
- the potential of the organic assemblages in understanding the site economy
- the potential of reconstructing the palaeoenvironment of the site

The two samples contained a fairly amount of waterlogged seeds and insect remains (Table 4). The seeds present include species typical of wet areas, such as rushes (*Juncus* sp.), sedges (*Carex* sp.), buttercups (*Ranunculus acris/repens*) and docks (*Polygonum/Persicaria*). The presence of mosses (also visible during excavation as forming a thick layer in direct contact with the wood), also suggests that the area around was damp. The presence of leaves of ling (*Calluna vulgaris* L.) and bracken (*Pteridium aquilinum* L.) indicates that these might have been used as bedding material or, in the case of ling, for thatching.

The samples examined show that organic remains are well preserved in waterlogged deposits. The study of pollen and that of insect and plant macroremains can provide important evidence on the nature of the human occupation of the site as well as that of the surrounding palaeoenvironment. The site can represent a useful comparison with the contemporary sites in Birmingham (Ciaraldi forthcoming). On this basis, it is recommended that sampling of waterlogged deposits is carried out in any further excavations.

Sample N.	Context	Date range	Description
1	1006	17 th	Insect remains. Caddice fly cases. <i>Ranunculus acris/repens</i> , <i>Pteridium aquilinum</i> , <i>Carex</i> sp., <i>Crataegus</i> sp., <i>Juncus</i> sp., <i>Glyceria</i> sp., <i>Calluna vulgaris</i> L., <i>Ledum palustre</i> L., <i>Rorippa nasturtium-aquatica</i> , <i>Chrysanthemum</i> cf. <i>segetum</i> , mosses
2	1026	N/A	<i>Polygonum hydropiper</i> L., <i>Alnus</i> sp., <i>Juncus</i> sp., Caryophyllaceae, <i>Ranunculus lingua</i> L., <i>Pteridium aquilinum</i> L., <i>Stellaria uliginosa</i> L., <i>Lychnis flos-cuculi</i> L., Compositae. <i>Daphnia</i> 's ephippia

Table 4. List of the soil samples assessed

10.0 Discussion

The earliest deposit in Trench A is the former river deposit 1026, which contained a single sherd of 17th century post-medieval pottery, but this is likely to have been intrusive from the construction of the large sandstone wall F102. The river deposit seems to pre-date both the timber and stone mill structures.

The timber beams and planks clearly form part of a wooden structure present before the sandstone structures. The mortice joints within the timbers F103 and F113 would have been for setting upright timbers for a building. The exact nature of the structure is uncertain, especially with the lack of dating evidence associated with it, but it is possible that it was part of the timber mill recorded from the Domesday period. This would mean that the clay packing the timbers would have been placed as a levelling deposit for the construction of the stone structure, and this is emphasised by the use of similar clay within the matrix of walls F102 and F117.

The stone structure clearly dates from the 17th/18th century, and is likely to have been part of the mill from this period. The V-shaped wall (F101) could be a 'splitter' to channel water either side of the mill, and the timber upright within wall F109 may have been used to hold the waterwheel on the south side of the mill. The large and well constructed nature of the walls suggest a substantial, high status building.

It is likely that the wall (F200) located in Trench B is part of the same structure, although any deposits in the area of Trenches C and D would have been truncated. The limited area of the evaluation makes it difficult to ascertain the exact character of the deposits, although the structures are almost certainly associated with previous mills. Further excavation along the line of the new pipe, and dendrochronological dating of the timber beams would help to date and characterise the archaeology.

11.0 Acknowledgements

The evaluation was carried out by Kate Bain, Tim Evans, Emma Hancox and Josh Williams. This report was written by Josh Williams and edited by Gary Coates, who also managed the project. The illustrations were prepared by Bryony Ryder. Thanks are due to Annette Hancocks for her finds report, Emma Hancox for her bone report and Marina Ciaraldi for her environmental report. Thanks are also due to Stephanie Rátkai for spot dating the pottery.

Thanks are due to the Site Manager, Paul Watson, and his staff of Jackson Civil Engineering Co. Ltd, W.S. Atkins Consultants Ltd and the Environment Agency.

David Wilkinson, Borough Archaeologist, monitored the project on behalf of Stafford Borough Council.

12.0 References

BUFAU 2003 *River Sow Improvement Scheme, Stafford, Staffordshire 2003. Written Scheme of Investigation for Archaeological Field Evaluation.* BUFAU.

Ciaraldi, M. forthcoming "The botanical evidence from Park Street, Moor Street and Edgbaston Street, Birmingham". In *untitled*. Oxbow.

Institute of Field Archaeologists *Standards and Guidance for Archaeological Evaluations* (Institute of Field Archaeologists 1999).

Wilkinson, D. 2002 *Brief for an archaeological evaluation in Stafford as part of the River Sow improvement*. SBC.



Fig.1

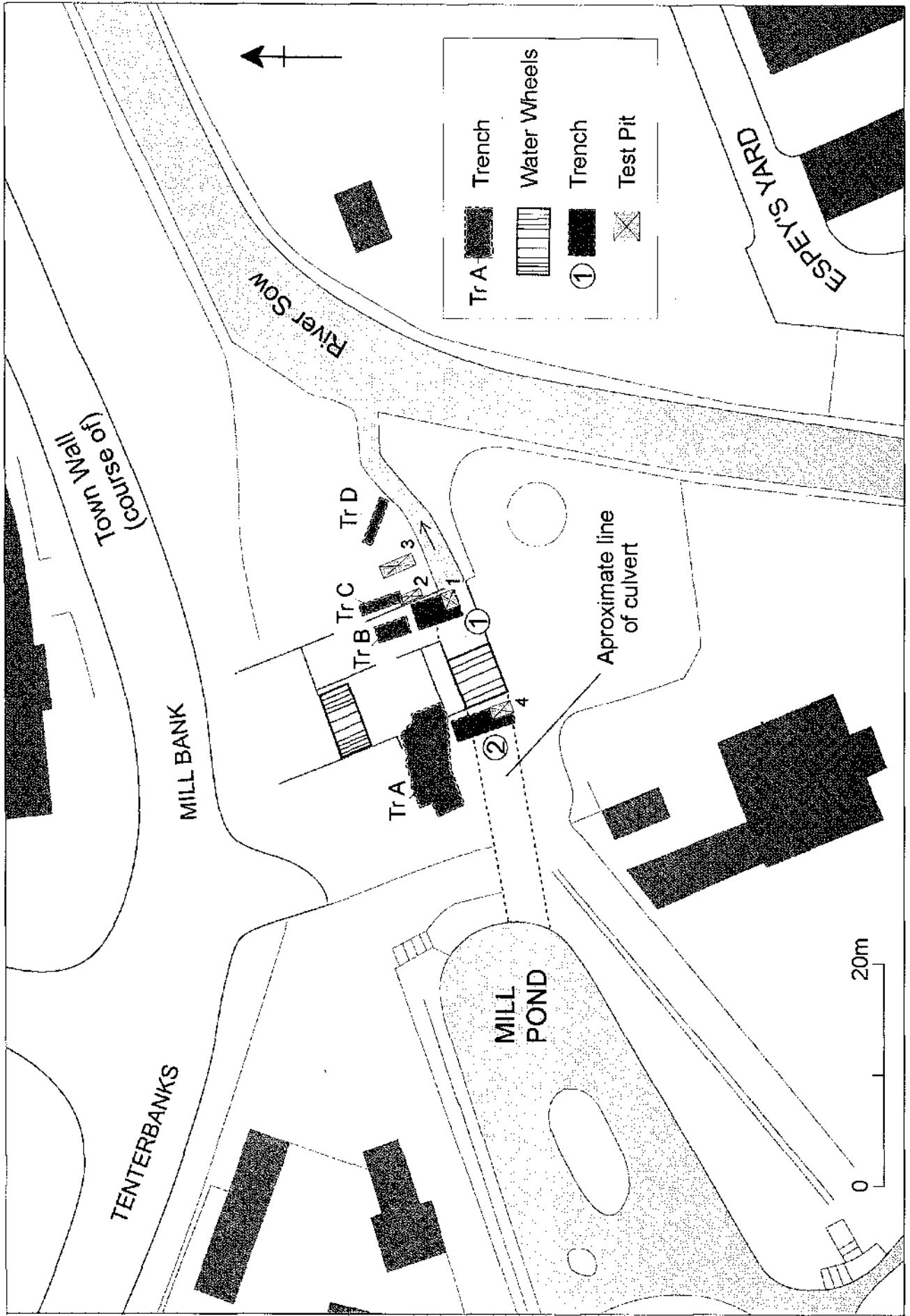


Fig.2

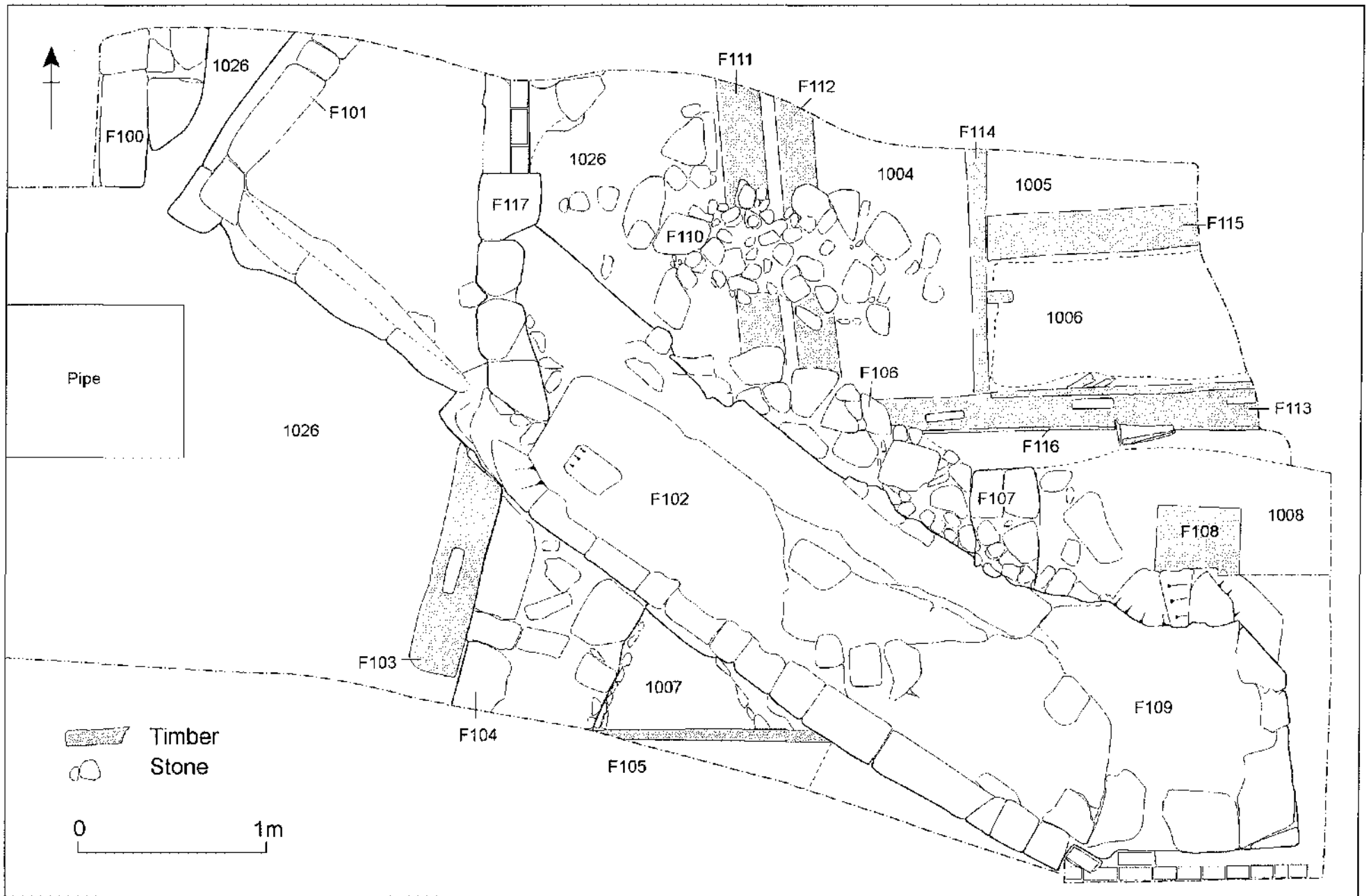


Fig.3

Fig.4 Area A F102 - South-East Facing Elevation

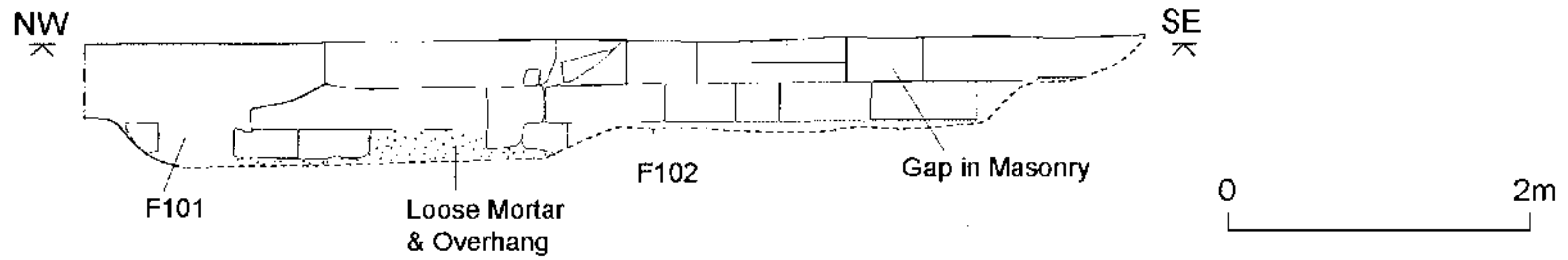
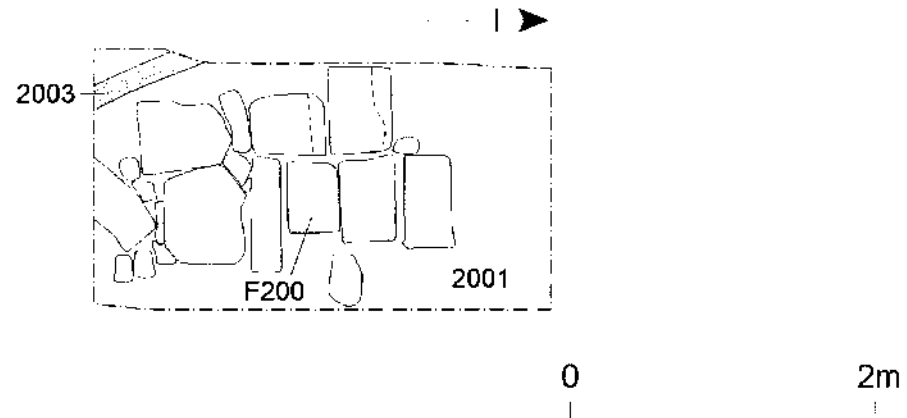


Fig.5 Trench B



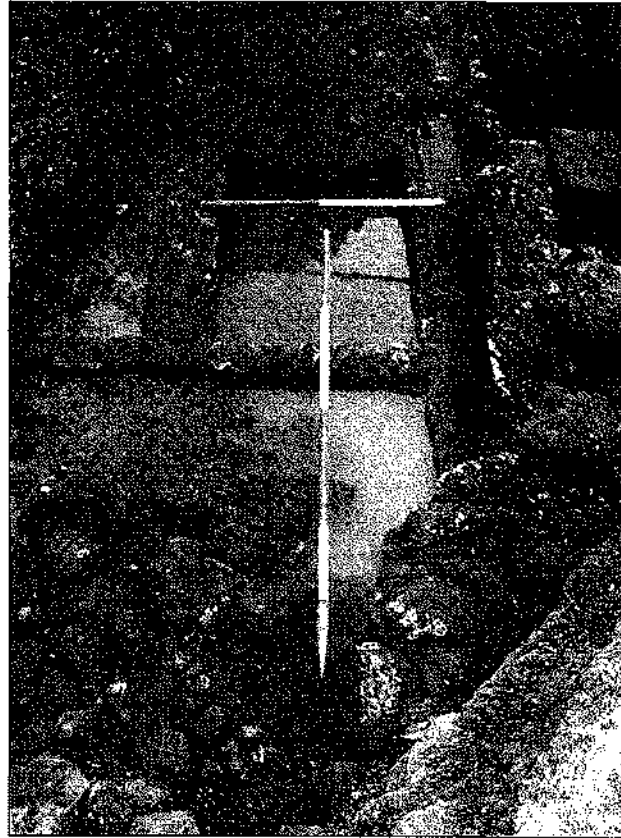


Plate 1: Trench A, timber beams.



Plate 2: Mortise cut into F113.

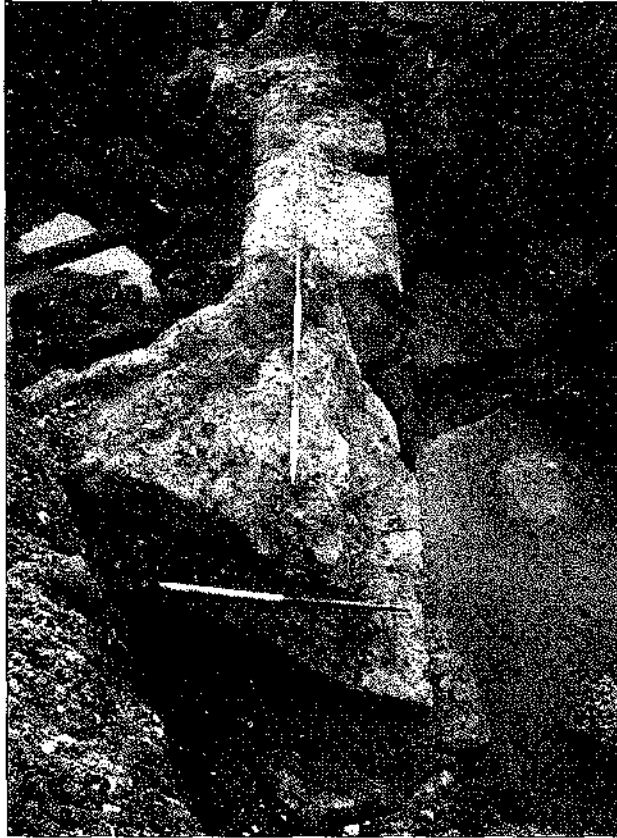


Plate 3: Trench A, F101 and F102.

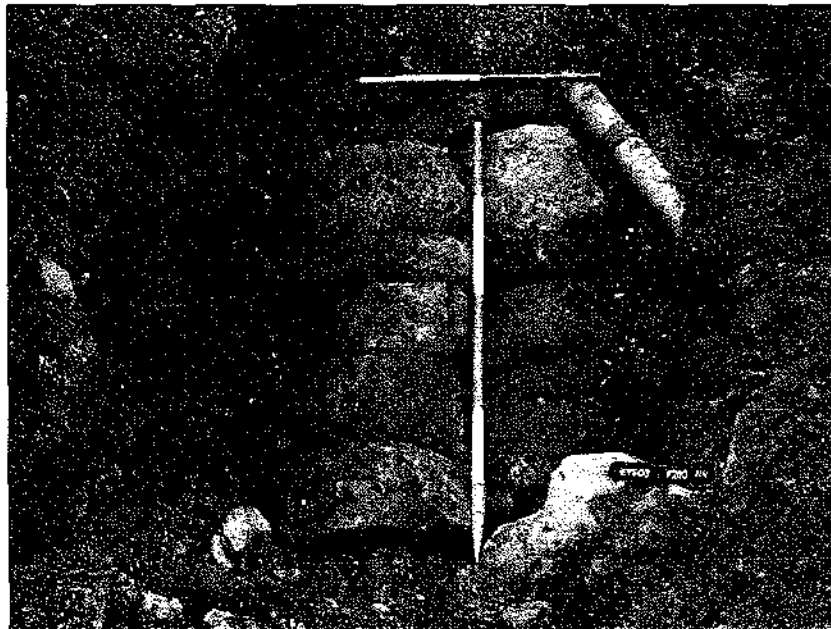


Plate 4: Trench B, F200.