ARCHAEOLOGICAL WATCHING BRIEF ON THE SEVERN TRENT SEWERAGE WORKS AT THROCKMORTON, WORCESTERSHIRE

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Archaeological watching brief on the Severn Trent sewerage works at Throckmorton, Worcestershire.

By James Goad, Erica Darch and Andrew Mann

Part 1 Project summary

An archaeological watching brief was undertaken on behalf of Severn Trent Water and Charles Haswell and Partners Ltd. (consulting engineer), during the installation of first-time sewerage comprising a sewerage treatment works, pumping station and mains system in Throckmorton village, Worcestershire (NGR SO 9783 4932). The project aimed to determine if any archaeological deposits were present and if it added to our knowledge of the development and changing nature of the settlement from the medieval to the modern periods.

The pipe trenching itself exposed few archaeological features of any significance aside from where trenching occurred down Long Lane and The Lea. Here a cobbled surface was clearly visible in section underneath the modern clinker and tarmac surface.

The area of the treatment plant was more productive in terms of archaeological deposits found. A series of linear features were detected, one cutting through a medieval plough furrow, and yielding a few sherds of pottery. In addition to this a feature was revealed in the south-west corner of the area, which was probably the rubble foundations of a wall. This provided evidence of something structural, although no dating evidence was retrieved from it.

Part 2 Detailed report

1. Background

1.1 Reasons for the project

An archaeological watching brief was undertaken at Throckmorton, Worcestershire (NGR SO 9783 4932; Fig 1), on behalf of Severn Trent Water. The client installed a first-time sewerage comprising a sewerage treatment works, pumping station and mains system and notified Worcestershire Archaeological Service who decided that sites of archaeological interest would be affected.

1.2 **Project parameters**

The project conforms to the *Standard and guidance for an archaeological watching brief* (IFA 1999). The project conforms to the brief prepared by the Planning Advisory Section (AS 2001) which followed recommendations made in a desk-based assessment for the scheme (AS 2000).

1.3 Aims

The aims of the watching brief were stated in the brief (AS 2001). These were to try and locate archaeological features in the areas in question, and if possible to obtain some dating evidence for the abandonment of ridge and furrow agriculture.

2. **Methods**

2.1 **Documentary search**

All sources used where those listed in the desk-based assessment (AS 2000).

2.2 Fieldwork

2.2.1 Fieldwork strategy

Fieldwork was undertaken on 25th and 26th January 2001 for the test pitting, and between 21st February and 16th May 2002 for the pipe trenching and treatment plant construction. The test pitting was undertaken using a JCB with a toothed bucket.

Trenching was undertaken using a toothed bucket, about 0.70m-0.80m wide. Deep excavations in the area of the treatment plant were conducted using a larger toothed bucket. A flat bucket seemed to have been used to strip part of the topsoil in the area of the treatment plant. The excavated spoil was deposited in a dumper truck and dumped on a spoil heap which in turn was spread around and compacted straight away by a JCB. The sewer pipe was inserted rapidly after shoring of the trench sides, with the individual sections of the pipe being welded together. The laid pipe was then covered in gravel up to the level of the present ground or road surface.

Each field or parcel of land crossed by the pipeline and treatment plant was treated as a separate unit of observation and record. Wherever possible all the exposed surfaces were inspected for archaeological features. Sketch and scale sections were drawn of the sides of the excavations, and annotated as required with deposit descriptions and other notes. Photographs

of any archaeology were taken for the archive along with working shots of the scheme in progress. Written records of any archaeological deposits were made.

Most of the potential archaeological features were excavated by hand to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Service practice (CAS 1995).

The area of the treatment plant and the length of pipe trench leading from this area up to the edge of Long Lane were subject to a continuous watching brief. Trenching down Long Lane itself and up The Lea allowed visits to be more intermittent.

In addition to the groundwork inspections a metal detecting survey was carried out around the site of the treatment plant and the length of pipe trench connecting that area to Long Lane.

2.2.2 Structural analysis

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

2.3 Artefacts

2.3.1 **Artefact recovery policy**

The artefact recovery policy conformed to standard Service practice (CAS 1995; appendix 2).

2.3.2 Method of analysis

All hand-retrieved finds were examined. Artefacts were identified, quantified, dated and recorded on a Microsoft Access 97 database. A *terminus post quem* was produced for each stratified context.

Pottery was examined and recorded by fabric type and form according to the fabric reference series maintained by the service (Hurst and Rees 1992).

2.3.3 **Significance**

The assemblage was too small to draw any conclusions about activities which may have been carried out in the past, and it was not unusual for material retrieved from a watching brief in the area.

2.4 **Environment**

2.4.1 **Methods**

2.4.2 Fieldwork and sampling policy

The environmental sampling policy was as defined in the County Archaeological Service Recording System (1995 as amended).

2.4.3 **Processing and analysis**

The samples were processed by flotation followed by wet-sieving using a Siraf tank. The flots were collected on a $300\mu m$ sieve and the residues retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

The residues were fully sorted by eye and the abundance of each category of environmental remains estimated. The flots were scanned using a low power EMT stereo light microscope and remains identified using modern reference collections housed at the County Archaeological Service.

2.4.4 Results

Only a small quantity of environmental remains were recovered from these samples. Cereal or grass straw and leaf fragments were found in all three samples. This is likely to be modern intrusive material as it is unlikely to have survived for long in deposits which did not appear to have been waterlogged.

Mollusc remains

There did not appear to be any dramatic changes in the mollusc assemblages between these samples. All three contained molluscs, which prefer dry open grassland environments with very little shade.

Contexts 003 and 005, which were taken from medieval ridge and furrow, appear to contain mostly open grassland species. These include *Vallonia pulchella*, *Vallonia excentrica* and *Vertigo pygmaea*. *Cecilioides acicula* was also present. However this species is disregarded due to its subterranean nature (Evans 1972), which means they are likely to be modern contaminants of the archaeological deposits. The presence of *Lymnaea truncatula* suggests the furrow had contained some standing water, probably periodically. The lack of certain species namely Limacidae seems to suggest that the samples were taken from upper fill material, which represents the discontinuity of the ridge and furrow as arable land. The presence of *Pupilla muscorum* also reinforces this as Evans (1972) suggests this species is not tolerant of intensively agricultural land.

The sample taken from the post-medieval ditch, context 001 has a very similar assemblage to the medieval samples. This again includes a number of species, which prefer dry open environments. These again include *Vallonia pulchella*, *Vallonia excentrica* and *Vertigo pygmaea*. As with contexts 003 and 005 *Ceciliodes acicula* is disregarded as a modern contaminant. It appears as if the immediate environment of the ditch was one of short turfed grassland.

It would therefore appear as if the samples taken from the medieval furrows are representing a period when the land was no longer being cultivated as arable land but was being maintained as short turfed grassland as grazing. This would seem to continue until after the medieval period.

2.5 The methods in retrospect

In general, the methods are considered to have been appropriate to the aims of the project, and to have provided enough information to allow informed interpretations of past activity and land-use to be made.

With regard to fieldwork, a large part of the pipeline route was examined. The visibility of the exposed surfaces within the trench was generally very good. Sometimes however the pouring of gravel on to the laid pipe resulted in some dust sticking to the sides of the trench which could have obscured potential archaeological features. In addition to this the rapid nature of the trenching and pipe laying, as well as Health and Safety considerations, meant that long lengths of trench could not be left open for inspection, and that access in to the trench was occasionally denied. Generally, relatively short stretches of trench were dug, the pipe laid down and the trench backfilled with gravel before trenching began on another short stretch.

Visibility of features within the area of the treatment plant was made easier by the fact that a large portion of it was stripped using a toothless bucket, though at times vehicles tracking over

the area tended to obscure the ground surface. However an adequate record of the archaeology present was made.

Collection of finds from topsoil stripping and trenching was prevented by the fact that spoil was deposited straight in to a dumper truck after excavation and deposited on a spoil heap which was then immediately compacted by JCB machine.

The hours worked by the contractors, which included weekend work, meant that stretches of pipe trench could not be observed before backfilling.

Nevertheless, enough positive results were achieved from this watching brief to suggest that a good degree of confidence can be expressed in the conclusions of this project.

3. Topographical and archaeological context

The topographical and archaeological contexts are listed in the desk-based assessment for this project (AS 2000).

4. **Description**

The results of the structural analysis are presented in the Appendix, with Table 1 summarising the artefacts recovered. The contexts investigated are shown in Table 2 with the natural deposits observed listed in Table 3. The features excavated and recorded are shown in Fig 3-8.

A number of archaeological features were identified during the course of the project. These features took the form of ditches and a possible wall base in and around the area of the treatment plant. A couple of medieval plough furrows were also located. In addition to this, a layer of cobbling was present in the sections of the pipe trench down Long Lane and The Lea.

4.1 Phase 1 Natural deposits

Natural deposits were exposed in all the parcels of land that were cut through by the pipe trench and excavated prior to the installation of the treatment plant. A more detailed description of these deposits can be found in Table 3.

5. **Discussion**

The area in question had a series of finds and sites that were covered in the desk-based assessment and dated from the Roman period onwards.

During the course of the trenching and installation of the treatment plant the archaeology uncovered by this activity was of a medieval and post-medieval date.

5.1 Artefacts analysis

A summary of the artefacts recovered can be seen in Table 1.

Material	Fabric No	Date range	Period	Total	Weight (gms)
BONE				2	32
BRICK			MOD	1	114
BRICK			POST MED	2	152
FE				7	146
GLASS			POST MED / MOD	1	2
POT	69		MED	2	6
POT	85	19th C +	MOD	3	22
POT	81		POST MED	1	18
POT	84	L18th - E19th C	POST MED	1	17
TILE				2	6
TILE		13th - 18th C	POST MED	4	108
TILE			MOD	1	13

Table 1. The artefacts recovered

The level of preservation and abrasion were average. All the dateable finds were post-medieval or modern except for two sherds of oxidised glazed Malvernian ware (fabric 69) which was medieval. Other pottery fabrics recovered were stoneware (81), creamware (84) and modern stone china (85). The tile was mostly a common type dating from the 13th to 18th century. Bone, glass and some iron nails and a horseshoe were also recovered.

Terminus post quem dates were determined for the following contexts: 001 (18th C), 401 (post-medieval), and 601 (modern).

5.2 Medieval

Two features date from the medieval period: features 006 and 004 respectively (Fig 3). The similarity in their shape and their fills make it highly likely these are medieval plough furrows. A field drain was also noted running down the centre of 004 (Fig 4), which is consistent with use of furrows in the post medieval and modern periods. Areas of the village have a number of sites of ridge and furrow (WSM 2385-6, 5620-2, 20028-9) which indicate that the area of the treatment plant was an area of arable cultivation identical to these.

5.3 **Post-medieval**

It would seem as though land usage had changed from the medieval period, given the fact that furrow 004 had been cut by ditch 002 (Figs 4 and 6). Ditch 002 has been firmly dated to the post-medieval period with a sherd of 18th century pot.

The fact that arable farming has stopped in this location in this period is also supported by the environmental evidence. The molluscs recovered from the samples in the furrow represent species consistent with open grassland environments and occasional flooding.

At some time during the late medieval or early post-medieval periods arable farming ceased and the land was most likely used for pasture, as pointed to by the environmental evidence. With the grass cropped by grazing cattle and the disused ridge and furrow occasionally filling up with water in heavy rain, the conditions would then have been consistent with the habitats of the molluscs recovered from the samples.

Cartographic evidence shows that there was a considerable amount of roadside squatter settlements that had developed alongside roadside verges by the late 18th century. This is evident from the positioning of piece-meal roadside settlement in front of the continuous boundary that once represented the edge of the road. The encroaching of fields into the former roads could also be seen. The dating of this encroachment is problematical, but is most likely to have occurred in the 17th-18th centuries (AS 2000, Fig 7).

It could be possible that the farming practices in this area of the village had changed under these new settlers who had pursued pastoral farming policy alongside arable. However, the dating of the change of land use wasn't close enough to confirm this, and it's equally as likely that the ridge and furrow system in this spot had fallen out of use at the end of the medieval period, before the squatter settlements took place.

Although no dating evidence was recovered from wall 009 (Fig 5 and 7), the feature appears to belong to the post-medieval or modern periods and was quite possibly a wall for a boundary or property division, or formed part of a building. This phase of building, whether it represents house building or land enclosure, could well represent the arrival of squatter occupation in the village. Alternatively, this feature could represent a much later phase of activity altogether and have been a standing structure that was demolished in advance of the construction of the adjacent airfield. This fate could also explain the fate of ditch 008 (Fig 3) which, from its fill, seems quite modern. It's possible that this linear feature represented a field boundary that was removed at the same time.

Clearly visible in the sections of the pipe trench running down Long Lane and The Lea was a layer of cobbling below the modern layers of clinker and tarmac (Fig 8). Although no artefactual material was recovered from this layer, this phase of activity has been roughly dated through cartographic evidence. In this period the medieval street system was transformed with the removal westwards of the existing north-south route through the village, to the present position of Long Lane. This could have been in keeping with a desire to increase privacy around the principal residence of Throckmorton Court (Hurst, 2000). The cobbled surface visible during trenching can therefore comfortably be dated to 17th-18th century.

The impact upon the archaeological deposits in the village seem to have been fairly minimal. The excavation of the narrow pipe trench didn't affect any deposits of any great significance and it can be assumed that the vast majority of the post-medieval road surface down Long Lane and The Lea remain preserved *in situ* below the present tarmac. The trenching and excavation, along with the movement of machinery in the area of the treatment plant had a greater impact upon the archaeology present there, though the deposits were of limited significance.

6. **Publication summary**

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, the Service intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An archaeological watching brief was undertaken for Severn Trent Water at Throckmorton, Worcestershire (NGR SO 9783 4932; WSM 31913). The area of the treatment plant (WSM 31742) and the pipeline (WSM 31743-31745) passed through areas of varying archaeological interest with finds and evidence of land use dating from the medieval through to the modern periods. The fieldwork took the form of examination and recording of the exposed surfaces within pipe trenches and larger excavations in the area of the treatment plant. A metal detecting survey was conducted in addition to the standard fieldwork. Post-fieldwork comprised artefactual and environmental studies.

The watching brief was successful in the location of archaeology. The discovery of a medieval furrow cut by a ditch from the 18th century gave us insights in to the pattern of land usage from the medieval through to the post-medieval periods. An area of arable farmland had become pastural around the same time as squatter settlements appeared in the village in the 17-18th centuries. This picture of a change in agriculture was supported by environmental evidence. Such a change in land usage could have been a consequence of changing farming practices under these new settlers. However, it is also feasible that the ridge and furrow system in this part of the village had already fallen out of use prior to the arrival of the squatters.

A couple of undatable features in the area now holding the treatment plant, a thin ditch and rubble wall base, could have been either post-medieval or modern and could have represented farming activity continuing after the roadside squatter settlements had long disappeared. The construction of the airfield during the Second World War could account for their disuse.

7. The archive

The archive consists of:

1	Context record AS1
26	Fieldwork progress records AS2
2	Colour transparency films
2	Black and white photographic films
2	Context registers
1	Photographic register
1	Sample register
5	Scale drawings
21	Sketch drawings
23	Sheets of permatrace
1	Box of finds
1	Computer disk

Context record AS1

The project archive is intended to be placed at:

Worcestershire County Museum

Hartlebury Castle

Hartlebury

Near Kidderminster

Worcestershire DY11 7XZ

Tel Hartlebury (01299) 250416

8. Acknowledgements

The Service would like to thank the following for their kind assistance in the successful conclusion of this project, Severn Trent Water and Charles Haswell and Partners Ltd.

9. **Personnel**

The report preparation was led by James Goad. The project manager responsible for the quality of the project was Simon Woodiwiss. Fieldwork was undertaken by Paul Williams and James Goad with finds analysis by Erica Darch, environmental analysis by Andrew Mann and illustration by Carolyn Hunt.

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11. **Abbreviations**

BSB Break of Slope Base.

BST Break of Slope Top.

NMR National Monuments Record.

SMR Sites and Monuments Record.

WAS Worcester Archaeology Service.

WSM Numbers prefixed with 'WSM' are the primary reference numbers used by

the Worcestershire County Sites and Monuments Record.

WCRO Worcestershire County Records Office.

Appendix

Table 2: Context descriptions

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
001	Ditch fill	Fill of ditch 002. Mid brown clay fill with occasional small to medium rounded stones. Contains pot.	0.28m-0.58m
002	Ditch cut	Profile;	
		BST-Gradual	
		SIDES-Concave	
		BSB-Gradual	
		BASE-Uneven	
		Cuts furrow 004 and is on a different alignment to it. Mainly visible by fill on the surface rather than in the section. Orientated north-east to south-west rather than the east-west furrow. Postmedieval in date.	
003	Fill of furrow 004	Mid brown clay with occasional small to medium rounded stones. Contains pot and brick.	0.22m-0.44m
004	Furrow cut, filled by	Profile;	
	003	BST-Unknown	
		SIDES-Convex	
		BSB-Imperceptible	
		BASE-Flat	
		Wide and shallow profile suggests this is a furrow which has been cut by ditch 002.	
005	Ditch or furrow fill of 006	Mid brown clay fill containing occasional small rounded stones and rare charcoal flecking. Significant rooting present	0.32m-0.51m

006	Furrow or field boundary ditch	Another broad and shallow linear like 004 but with much more rooting. This could possibly be a field boundary rather than a plough furrow.	0.32m-0.51m
007	Ditch fill of 008	A very mixed "cloddy" clay mostly mid grey in colour with lighter brown material included. Occasional small rounded stone inclusions	0.18m-0.25m
008	Ditch cut	Profile;	
		BST-Gradual	
		SIDES-Concave	
		BSB-Gradual	
		BASE-Concave	
		Narrow ditch or gully. Possibly a drainage ditch or field boundary. Dating uncertain.	

Table 3: Natural deposits

SMR number	Deposit descriptions	Average depth from ground surface (m)
WSM 31743	Topsoil	0m-0.25m
WSM 31743	Subsoil	0.25m-0.50m
WSM 31743	Light brown silty gravels	0m-0.20m
WSM 31743	Light grey yellowy mixed clays	0.60m-0.80m
WSM 31743	Light green grey clay	0.80m-1.50m
WSM 31743	Light orangey brown silty clay	0.20m-0.80m
WSM 31743	Blue grey clay	0.80m-1m
WSM 31743	Pale green clay	1m-1.30m
WSM 31743	Blue grey clay	1.30m-
WSM 31743	Mid brown clay	0.30m-
WSM 31743	Mid brown sandy clay	0m-0.20m
WSM 31743	Light orangey grey mixed clays	0.20m-1m
WSM 31743	Light blue grey clay	1m-1.50m
WSM 31743	Mid to light brown clay	0.35m-1.30m
WSM 31743	Dark grey alluvial silt	0.70m-1.20m
WSM 31744	Yellowy brown clay	0.70m-2.10m
WSM 31744	Dark grey silty sand	0m-0.20m
WSM 31744	Mid brown clay	0.20m-0.70m
WSM 31744	Dark brown greyish clay	0.70m-1.20m
WSM 31744	Light grey sandy gravels	0m-0.20m
WSM 31744	Mid brown sandy gravels	0.20m-0.40m
WSM 31744	Light grey clay	0.90-1.20m
WSM 31745	Blue grey clay	0.40m-

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