# ARCHAEOLOGICAL WATCHING BRIEF ALONG THE HOLLYWASTE TO TRIMPLEY RURAL TRUNK PIPELINE

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Project 2995 Report 1677 WSM 38540

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# Archaeological watching brief along the route of the Hollywaste (Shropshire) to Trimpley (Worcestershire) rural trunk pipeline Andrew Mann

# With contributions by Alan Clapham, C Jane Evans, David Williams, Dennis Williams and Steve Willis

# Part 1 Project summary

An archaeological watching brief was undertaken along the route of the rural trunk water pipeline between Hollywaste covered reservoir and Trimpley reservoir (NGR 377210 278945-364568 275792), through parts of south Shropshire and north Worcestershire. It was undertaken on behalf of Severn Trent Water and in liaison with Entec UK Ltd. The project aimed to determine if any significant archaeological remains were present, and if so, to excavate and record them so as to indicate their location, date and nature prior to the installation of the pipeline.

Across most of the pipeline route very few archaeological remains were identified other than occasional remains related to post-medieval and modern farming. Frequent archaeological remains were however identified as the pipeline crossed through a Roman fort at Wall Town. These included the defensive ditches in the southwest corner of the fort and numerous sandstone wall foundations and floors within the interior of the fort. Two previously unidentified defensive ditches on the south side of the fort confirm that the original 1st century fort extended further south than the 2nd century layout. Internally, however, only one partial sandstone floor was recorded that belonged to the earlier fort. As the fort was remodelled the earlier defensive ditches were purposefully backfilled and a more substantial defensive arrangement was adopted. This included the construction of a stone-faced rampart across the southern side of the fort. The remains of a possible stone gateway were also discovered on the eastern side of the fort.

Internally the majority of the walls belonging to the later fort were found within the southwestern quadrant and were aligned approximately north-south. Photos of parch marks within the southeastern quadrant of the fort also confirm that buildings, probably barrack blocks covered the entire southern half of the fort. These appear to have been dissected by a road running north-south through the southern half of the fort. It is also possible that this road continues south beyond the fort based upon the results of a recent LiDAR survey.

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# Part 2 Detailed report

## 1. Background

#### 1.1 Reasons for the project

An archaeological watching brief was undertaken, on behalf of Severn Trent Water and in liaison with Entec Ltd, during the installation of the rural trunk water pipeline between Hollywaste covered reservoir and Trimpley reservoir (NGR 377210 278945-364568 275792). The route of the pipeline ran through parts of south Shropshire and north Worcestershire comprising both cross-country and road lengths (Fig 1). A previous desk based assessment (DBA) and walkover survey undertaken by Entec UK (Entec 2006), had identified any known cultural heritage constraints or archaeological areas of potential affected by the pipeline. Although the development had been permitted good practice meant that the pipeline was routed to minimise negative effects on any cultural heritage or archaeological remains. A programme of archaeological monitoring (watching brief) of the development was also implemented. A number of sites of archaeological interest were identified within the DBA as potentially affected by the development including a number of crop-marks towards the western end of the pipeline, a Roman Fort (SMRN 1186, SM SA102) within the middle section of the development, and possible prehistoric to medieval activity at the eastern end of the pipeline.

#### 1.2 **Project parameters**

The project conforms to the *Standard and guidance for an archaeological watching brief* (IFA 1999). The project also conforms to a specification prepared by Entec UK (Entec 2006) for which a project proposal was produced (HEAS 2006).

#### 1.3 Aims

The aims of the watching brief were to record any archaeological remains of interest and report upon the findings.

#### 2. **Methods**

#### 2.1 **Documentary search**

Prior to fieldwork beginning the desk-based assessment (Entec 2006) was consulted. It was decided not to search the relevant SMRs again as these had been consulted for the previous stage of works and the report had only been submitted one month prior to the watching brief commencing. The study area covered the length of the pipeline and encompassed an area 500m either side of the proposed route. The Worcestershire portion of the fieldwork was referenced in the HER as WSM 38540.

Cartographic sources

• First Edition Ordnance Survey Map Sheets 67 NW, NE, and 77 NW, NE 1884 1:2, 500

Aerial photographs

- CPE/uk/2095, frame 3159
- Raf/543/1507, frame 424

#### Documentary sources

• County histories (Worcestershire VCH I)

#### 2.2 Fieldwork methodology

#### 2.2.1 Fieldwork strategy

A detailed specification was prepared by the Service (HEAS 2006). Fieldwork was undertaken between 16th November 2006 and 15th May 2007. The HER site reference number and site code for Worcestershire section of the pipeline is WSM 38540.

The development was divided into three separate lengths (Fig 1) that were each under the control of three different subcontracted construction firms as follows:

- West section from the Hollywaste covered reservoir to Six Ashes over a mixture of pasture and arable fields crossing the River Rea near to Walfords Bridge (Enterprise Group);
- Middle section from the Six Ashes cross roads to Buttonoak, along the route of the B4363 (Balfour Beatty), and;
- East section from Buttonoak to Trimpley reservoir across pasture fields and through the Wyre Forest, crossing the River Severn at Graft Wood (Alfred McAlpine).

#### Western section

The west section required intermittent archaeological monitoring along most of the pipeline route. Within the western one-third of the pipeline an easement of between 3.0-8.0m was stripped and this was monitored prior to the excavation of the pipe trench using a trenching machine. Only a 200m length of pipeline was not monitored during this phase of works where a drilling machine was used to cross the River Rea. This length of pipeline ran through or near to crop-marks identified on aerial photographs (Entec 2006).

#### Central section

Most of the central length of the pipeline between Six Ashes and Buttonoak ran along the existing B4363. This was constructed using a trenching machine that the Brief specified did not generally require archaeological monitoring (Entec 2006). Full and continuous archaeological monitoring was, however, undertaken as required only within and for 100m either side of Wall Town scheduled monument, although the road and deposits below the road do not fall within the scheduled area. The Brief stated that construction here should be continuously monitored due to the quality of the remains previously recorded at this site (Appleton-Fox 2001 and Kenney 2003). A wheeled excavator was used across the scheduled area until significant archaeological deposits were identified, all subsequent excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Due to the depth of the trench and the unstable nature of its sides, it was not always possible to enter the trench to record the deposits. As a result, when necessary recording was undertaken from outside of the trench.

This phase of works also required archaeological monitoring of the construction of a 46.0x106.0m area for a depot at Bradley Farm.

#### Eastern section

The east section of the pipeline from Buttonoak to the Trimpley reservoir and was dug using a 360° tracked excavator that required intermittent archaeological monitoring as specified by the Brief. Passing through pasture fields to the east and through the Wyre Forest to the west this section did not run directly through any known archaeological sites.

#### 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, by C Jane Evans

#### 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. They were identified, quantified and dated to period. A *terminus post quem* date was produced for each stratified context, used for determining the broad date of site phases.

Artefacts from environmental samples were examined, but none were worthy of comment, and so they were not included in the quantifications or discussions of the finds assemblage.

No fabric-type series exists for pottery or ceramic building material from Wall Town, so a site-specific type series were devised. Fabrics were described following the methodology described for the National Roman Fabric Reference Collection (Tomber and Dore 1998, 5-7). These were cross-referenced, where possible, with published work from the region, such as Worcestershire (Hurst 1994; http://www.worcestershireceramics.org/), Wroxeter (Evans 2000) and Metchley Roman fort, Birmingham (Hancocks 2004, appendix 6). Forms and decoration were recorded, and evidence for use was sought, but not present. The pottery was quantified by sherd count, weight, and percentage of the rim surviving, the latter so that rim EVEs (Estimated Vessel Equivalent) could be calculated. All diagnostic forms were illustrated.

#### 2.4 Environmental remains, by Alan Clapham

#### 2.4.1 **Sampling policy**

The environmental sampling strategy conformed to standard Service practice (CAS 1995, appendix 4). Samples of 10 litres were taken from two contexts (214 and 230) from within Wall Town fort.

#### 2.4.2 **Method of analysis**

The samples were processed by flotation using a Siraf tank. The flot was collected on a 300µm sieve and the residue 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 plant remains identified using modern reference collections maintained by the Service,

and seed identification manual (Cappers et al 2006). Nomenclature for the plant remains follows the New Flora of the British Isles, 2nd edition (Stace 2001).

A magnet was also used to test for the presence of hammerscale, none was present.

# 3. Topographical and archaeological background

The route of the pipeline crosses a number of soil types and underlying geological groups. Within the west around Hollywaste covered reservoir the predominant soils are of the Eardiston 1 Soil Association (541 c), comprising well-drained coarse loamy soils over reddish sandstone, silty shale and siltstone. Around Wall Town the soils are of the Bromyard (571b) and Middleton (572b) soil associations, well-drained reddish fine silty soils with slowly permeable subsoil and slight seasonal waterlogging. These overlie reddish silty shale siltstones and sandstones. Towards Buttonoak the predominant soil association is Bardsey (713a), slowly permeable seasonally waterlogged stoneless clayey and fine loamy soils. These overlie inter-bedded sandstone and mudstone. To the east surrounding Trimpley reservoir the soil association is Rivington 2 (541g), well-drained coarse loamy soils and some fine loamy soils over sandstone and shale (Soil Survey of England and Wales 1983).

Western section: Hollywaste to Six Ashes (Shropshire)

Within the 500m wide investigation area either side of the pipeline the DBA identified three grade two listed buildings and five SMR records, including the site of a former castle first built in the mid 12th century. Towards the western limits of this length of pipeline four areas of crop-marks were identified representing ridge and furrow or enclosure ditches. The majority of this section follows an existing Hollywaste to Trimpley pipeline and therefore archaeological remains were likely to have been previously truncated or disturbed, although areas of higher potential were identified (Entec 2006).

Central Section: Six Ashes to Buttonoak (Shropshire)

The middle section of the pipeline ran between, mostly along the route of the B4363 thus limiting the potential for archaeological preservation. Within the 500m wide investigation area either side of the pipeline the DBA identified 10 sites, including crop-marks, prehistoric and Roman find spots and two grade two listed buildings. The Clun to Clee ridgeway is thought to run along part of the B4363 next to Bradley Farm, although no physical evidence for this Bronze Age track-way has ever been identified. Post-medieval activity is represented by a coal workings and a brick works. The most significant record within this stretch is that of the Roman fort at Wall Town (SMRN 001186) that is bisected by the B4363. Previous archaeological works here have included two excavations between 1960-64 (ESA 1617 and 5378), and two watching briefs on ground-works in the centre of the fort in 2001 and 2002 (ESA 5379 and 5377). These showed the fort was well preserved and that it had two phases. The earlier fort, probably late 1st century AD in date, was constructed of timber and then later remodelled in stone during the early to mid 2nd century AD. Three defensive ditches have been identified along the south of the fort, although these are not thought to be contemporary with each other.

Eastern section: Buttonoak to Trimpley reservoir (Worcestershire)

No previous archaeological excavations have been under taken within the 500m wide DBA study area either side of the pipeline. However, eight records exist in the HER, including a possible prehistoric round barrow on the eastern side of the river (WSM 09485) and a find of Romano-British coins at Hawksbatch (WSM 08154). Medieval activity includes a settlement, green and pound at Upper Arley (WSM 15112, 15113) and a medieval fish weir discovered on an island within the river (WSM 23802). Post-medieval activity includes a coalmine and tramway (WSM 23863) and a spoil heap from the construction of Elan Valley Aqueduct in c 1900.

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#### 4. Results

#### 4.1 Structural analysis

The trenches and features recorded are shown in Figures 1-5. The results of the structural analysis are presented in Appendix 1.

#### 4.1.1 Natural deposits

Natural deposits were seen within all the trenches monitored during the watching brief. Along much of the route this consisted of compact and cohesive light reddish brown sandy clays. Along most of the western length of the pipeline, between Hollywaste and Six Ashes, the natural contained less clay and frequently the underlying bedrock (pale red sandstone) was seen. Along this stretch of the pipeline the natural deposits and bedrock outcrops were approximately 0.20m below the ground surface. As the natural bedrock was so shallow it is thought to have created some of the crop-marks identified on aerial photographs (Entec 2006), as no archaeological remains were identified that relate to those anomalies. Across Wall Town the natural was up to 1.0m below the ground surface and through the Wyre Forest it was approximately 0.30m below the ground surface.

#### 4.1.2 The pipeline excluding Wall Town

Few archaeological remains were identified across the majority of the pipeline and no archaeological features were observed through the eastern section from Buttonoak to Trimpley. Along the western section between Hollywaste and Six Ashes the temporary depot at Bradley Farm contained two small areas of modern fire debris and numerous plastic land drains. Within field 23 (Figure 1) four stone land drains were identified at the base of a slope next to an area of modern burning.

#### 4.1.3 Wall Town

Numerous Roman deposits and features were identified in the trench through Wall Town, and these were the only Roman deposits observed along the whole pipeline. Within the limits of the visible earthworks and up to 68.00m south of the scheduled area, Roman ditches, walls and floors were identified (Figs 2-5). In most deposits here frequent Roman pottery and ceramic building material was recovered.

Southern defences (Figs 2 and 3)

Through the first 15.0m of the trench crossing the fort from the southwest there was a long spread of medium-sized sub-angular green sandstone blocks (203). This ran intermittently for 15.00m and was between 0.25-0.50m thick. It is thought that this represents demolition rubble of the rampart walls of the fort. To the south of the visible rampart two defensive ditches and two wide depressions crossed the pipe trench at right-angles, running in an approximate northwest to southeast direction. The two southern depressions (211 and 216), and probable re-cut (212), were separated by a gap of approximately 3.00m and had slightly concave sides angled at 30-50°. Both were filled with firm and cohesive reddish brown silty, sandy clays. As these fills (207, 209, 213 and 214) were so similar to the natural they were only identified by the ceramic building material and charcoal inclusions. Although wide, between 7.80-9.00m, the overall profile and depth of these features is not known, making it impossible to confirm whether they were the upper most profiles of multiple ditches or whether the edges have migrated due to re-cutting. Whether hand-dug defensive ditches or natural depressions they appear to have been purposefully backfilled and the outermost (211/212) capped with a 0.50m thick layer of clean re-deposited natural (205).

Approximately 19.00m north of cut 216, there were a further two ditches (222 and 224). The outer ditch (222) was up to 6.0m wide with flat sides angled at 40-50° and was filled with

reddish brown silty clay (217). Demolition rubble consisting of small to medium-sized angular and sub-angular green sandstone blocks (221) overlay this ditch. This is thought to be the collapsed remains of a wall that sat on the northern edge of this ditch, of which only the foundations survived (218, Plate 1). These were aligned in a west-north-west to east-south-east direction and were constructed of coursed green sandstone rubble bonded with red clay, 0.95m wide and 0.50m deep. As the stone was undressed the remains are likely to be the foundations of a wall that has been truncated or robbed.

Approximately 1.75m to the north there was a further ditch cut (224), the upper fill of which was a dark brown clayey silt (223). This had 45-50° angled flat sides, slightly stepped on the northern edge and was 9.50m wide and a minimum of 1.00m deep. Modern services and the depth of the pipe trench again masked the true profile and dimensions of this ditch. Immediately to the north there were further foundations (227) on a similar alignment to foundations 218. These were 1.15m wide, 0.40m deep and were constructed of mostly random medium-sized green sandstone rubble, although two blocks appeared to have been roughly dressed to have flat faces. To the immediate north a 1.80m wide and 0.70m deep robber cut (228) also suggests that the foundations were originally wider. As this robber cut was filled with small angular green sandstone blocks and friable yellow mortar (229) it also implies that the upper courses of the original wall were mortared.

#### *Interior of the fort (Figs 2,3,4 and 5)*

Within the fort there were two main layers, a buried dark brown soil (231 and 260) that to the south overlies a layer of dark grey sandy clay, containing frequent charcoal (230). The latter is between 0.25-0.40m thick and is visible up to 26.50m into the fort from the south. Three floors and eleven walls were also recorded, the majority of which were aligned approximately north-south (Table 1). All of these were found in the southwestern quadrant while no structures were identified within the pipe trench on the eastern side of the fort. Most walls appear to have cut through soil 231, although no cuts were identified for walls 234 and 235 as the soil had filled the spaces between the stones obscuring the edges of the cut.

All walls except 246 were truncated or robbed, 233 completely, leaving only the below ground foundations. The uppermost course of wall 246 (Plate 2), a single layer of rectangular dressed green sandstone blocks bonded with yellow mortar do, however, illustrate what may have been above ground originally. The majority of the foundations were constructed from loose angular green sandstone rubble, with a few containing dressed stones and very few were mortared. As the *in situ* foundations reflect below ground masonry and as few floors survived, it was not possible to establish whether the spaces between them were internal or external to any buildings.

In certain areas the characterization of the buildings was aided by the presence of possible internal walls. Right-angled corners were created between walls 243/244 and walls 248/250 (Figures 3). Between the latter there was a possible floor (252) constructed of red sandstone slabs (Fig 4, Plate 3). The two other partial floors 238 (Fig 5, Plate 4) and 258 were also constructed of red sandstone slabs and were sealed by layers 231 and 259 (re-deposited natural) respectively. It is not possible to say whether these floors were internal or external. Floor 259 was located between two very similarly constructed walls (254 and 256) 3.60m apart that were aligned with a current break in the southern defences (Fig 3, Plate 5).

	Context number	Width (m)	Depth (m)	Length (m)	Construction	Alignment
Walls	232	1.80	0.90	1.00	Robbed: angular green sandstone	N-S
					fragments.	
	234	0.97	0.65	1.00	Angular medium un-sorted green	N-S
					sandstone rubble.	
	235	1.70	0.70	1.00	Angular medium un-sorted green	N-S
					sandstone rubble.	

	236	1.20	0.75	1.00	Angular medium un-sorted green sandstone rubble.	N-S
	243	1.10	0.90+	1.35	Angular small and medium unsorted green sandstone rubble.	NW-SE
	244	1.05	0.90+	1.00	Angular small and medium unsorted green sandstone rubble.	N-S
	246	0.80	0.70	1.00	Medium rectangular dressed green sandstone blocks, bonded with yellow mortar. Overlying un-mortared coursed sandstone slab foundations.	NNW-SSE
	248	1.00	1.0	1.00	Unsorted medium green sandstone angular rubble bonded with yellow mortar.	N-S
	250	1.00	0.60	4.80	Unsorted medium green sandstone angular rubble bonded with yellow mortar.	WNW-ESE
	254	1.00	0.60	1.00	Medium coursed green sandstone rubble, not bonded but with yellow mortar on the top surface.	N-S
	256	1.20	0.70	1.00	Medium coursed green sandstone rubble, not bonded but with yellow mortar on the top surface.	N-S
Floors	238	1.00	0.05	2.40	Red sandstone slabs	
	252	0.65	0.05	2.00	Red sandstone slabs	
	258	0.60	0.05	0.80	Red sandstone slabs	

Table 1: Summary of the internal walls and floors within Wall Town

Throughout the eastern half of the fort the road stone (201) levelling layer sits directly upon the natural (204) indicating that the construction of the road has probably truncated the deposits through this area of the fort. Where the B4363 exits the fort there was a wide natural depression in the bedrock and overlying glacial clays. This was filled with a firm mid-dark brown silty clay (260) containing occasional fragments of ceramic building material similar to soil 231, which is extensive across the fort. The depth of layer 260, up to 1.20m, would suggest that it did not form naturally and may be a levelling deposit across this part of the site.

#### Eastern defences

There were two wall foundations (262 and 264) cut into layer 260, 1.15m apart and running approximately north-north-west to south-south-east. These walls were aligned with the eastern edge of the fort and on the top of the bank breaking from the west down to the east. The westerly wall (262) was 1.20m wide and 0.30m deep and the easterly wall (264) was 0.65m wide and 0.50m deep. Both foundations were constructed from un-bonded coursed greyish green stone blocks and slabs (Plate 6), the top course of which was covered with a greyish-blue clay. No further archaeological remains were identified to the east of these walls.

## 4.2 Artefact analysis, by C Jane Evans and Dennis Williams

#### Entire pipeline

The artefactual assemblage recovered is summarised in Table 2. Fifteen contexts produced Roman finds including pottery, ceramic building material, ironwork, fired clay and miscellaneous fragments of stone. Small quantities of post-medieval finds were also recovered, dating broadly from the 17th to 19th centuries. These are not discussed in detail below.

Material	Count	Weight (g)
Roman Pottery	192	2539
Roman tile	109	37424
Roman brick	11	2201
Roman brick/tile	109	4363
Roman fired clay	8	3318
Roman Iron	3	316
Roman? Iron	1	4
Roman slag?	1	14
Roman? Stone	10	176
Roman? Stone	6	419
Post med clay pipe	1	4
Post med glass	1	2
Post med pottery	16	277

Table 2: Quantification of the artefactual assemblage from the whole pipeline

# 4.2.1 Wall Town: Romano-British pottery, by C Jane Evans, with specialist identification by David Williams (amphora) and Steven Willis (samian)

All but a handful of sherds came from layers 230 and 231 (Table 3). Some deposits produced near-complete vessels: a substantial portion of a white ware flagon from layer 230 (Fig 6) and a number of sherds from a globular jar from layer 231 (Fig 6). The below average sherd weight for 231 is somewhat misleading; reflecting the subsequent fragmentation of what was a near-complete vessel when deposited. The high average sherd weights for fills 214 and 240 are biased, the former by a single sherd of amphora weighing 108g, and the latter by a single mortarium fragment. The pottery in general was fairly unabraded, suggesting that it had not lain around on the surface for any great length of time.

Context	Qty	% Qty	Wt. (g)	% Wt.	Rim %	%	Rim	Av. Wt.
---------	-----	-------	---------	-------	-------	---	-----	---------

						EVE	
207	2	1.0%	11	0.4%	0	0.0%	6
214	5	2.6%	131	5.2%	17	6.4%	26
217	2	1.0%	15	0.6%	0	0.0%	8
230	48	25.1%	1174	46.2%	118	44.7%	24
231	127	66.5%	1065	41.9%	129	48.9%	8
240	1	0.5%	47	1.9%	0	0.0%	47
259	4	2.1%	86	3.4%	0	0.0%	22
260	2	1.0%	10	0.4%	0	0.0%	5
TOTAL	191		2539		264		13

Table 3: Summary of the Wall Town pottery assemblage by context

#### **Dating**

The evidence from this small assemblage supports the broad chronology produced by Walker (1965) (Table 4), however, it does not confirm Walker's (*ibid*) interpretation that there was an earlier timber fort dating to the late 1st century AD and a later stone built fort dating to the early to mid 2nd century. The closest dating comes from the samian. A single sherd in South Gaulish ware (S01), dated to c AD 70-100, presumably relates to activity in the early fort, though the form could have been curated and used in to the 2nd century AD. This sherd, however, was associated with two sherds of BB1 (Black-burnished ware), indicating a TPQ of c AD 120 for the deposit (214), and a sherd of amphora dating broadly to the later first to mid 2nd century AD (Peacock and Williams 1986, 117-125). Two sherds of central Gaulish samian from layers 230 and 231 both dated to the Hadrianic period, c AD 120-140. Another, from a similar layer (260) was dated c AD 135-165. These presumably relate to the later stone fort (Walker 1965). This is consistent with the quantities of ceramic building material recovered from these deposits. The evidence from the coarse wares supported the broad date range, though individual forms could not necessarily be attributed to separate phases of the fort. There was no diagnostically pre-Flavian pottery c AD 69, and nothing that needed to date later than c AD 150.

Context	Date range
207	1st-2nd
214	late 1st-2nd (TPQ c AD 120)
217	late 1st-early 2nd
230	AD 110-150
231	AD 120-140
240	Roman
259	120+
259	1st-2nd
260	AD 135-165
260	1st-2nd

Table 4: Wall Town pottery dates by context

#### Fabrics and pottery supply

Sixteen fabrics were recorded (Table 5), quantified (Table 6), and the relative proportions of the main fabric groups illustrated (Fig. 6). It should be noted that this is a small assemblage, and proportions of individual fabrics may not be representative of the fort as a whole, particularly as substantial portions of a couple of individual vessels are included. The assemblage was dominated by oxidised coarse wares, particularly those assumed to be local products (Fabric O03-O06). Most common was a fine sandy fabric (Fabric O03), which occurred in a range of forms (Fig 6.1-4). A coarser version of this (Fabric O06) was represented by a dish (Fig 6.5). Two possible variants were identified with differing proportions of organic, sand and grog temper (Fabrics O04, O05). Both were represented by only a handful of sherds. A small quantity of Severn Valley ware was recorded, including the standard fabric (O01) and the 1st to 2nd century organic tempered variants (Fabrics O02 and R01). The source of these is uncertain. A source to the south, perhaps the Malvern kilns, in Worcestershire, seems most likely given the date of the assemblage, but Severn Valley ware was also produced at Wroxeter. The only identifiable form was a tankard (Fig 6.6). A single sherd of handmade Malvernian ware (Fabric N01) shows some trade contact with the Malvern area. This is found on most sites of this date in this region, civilian and military.

The site was clearly linked in to wider trade networks, given the presence of BB1 (Fabric B01) from southeast Dorset, and the imports described below (Fabrics A01, S01 and S02). The source of some fabrics was less certain. The range of inclusions in white ware fabric W01 is similar to fabrics produced at Wroxeter (Evans 2000, 249, CREAM) and the flagon (Fig. 6.7) is a type produced there, but Mancetter Hartshill is another possible source. The finer white ware (Fabric W02) could also come from one of these two sources; it may be a variant of Wroxeter fabric CREAMG (*ibid*, 250). The single mortarium fragment is also possibly a Wroxeter product (*ibid*, 250, MWWWW), but could also be a local product. Pottery workshops producing mortaria are suspected at other forts in the region (Hartley and Tomber 2006, 74).

With regard to imports, the site produced only five sherds of samian. The earliest vessel, a platter, came from the South Gaulish production centre at La Graufesenque. The other sherds all came from Lezoux in Central Gaul, and came from two decorated bowls and a cup. A single sherd of amphora, from the junction of the neck and shoulder, was identified by David Williams as a Dressel 7-11 or Beltrán II. This would have been used to transport fish sauce, and is a southern Spanish type, with a probable origin in the Cadiz region, in the Roman province of Baetica (Lagóstena 2006).

#### Samian catalogue (identifications by Steve Willis)

Context 214

Rim sherd (6g) from a Drag. 18 platter; diameter 70mm (17%). South Gaulish samian from La Graufesenque. Surface slip lost through abrasion. Flavian, c AD 70-100

Context 230

Body sherd (27g) from a Drag. 30 bowl. Central Gaulish samian from Lezoux. Hadrianic,  $\it c$  AD 120-140

Context 231

2 rim sherds (20g) from a drag. 33 cup; diameter 15mm (19%). Central Gaulish samian from Lezoux. Hadrianic, c AD 120-140

Context 260

Decorated body sherd (9g) from a Drag. 37 bowl. Central Gaulish samian from Lezoux. Ovolo not distinctive. AD 135-165

Fabric Name	Fabric code	NRFRC	Description
Oxidised fine sand	O03		Wheel made. Surfaces and margins yellowish red (5YR 5/8) to strong brown (7.5YR 5/8) and brown core (10YR 5/3). Soft, slightly rough with a finely irregular fracture. Inclusions of abundant silt-sized quartz, sparse rounded white quartz <0.5mm, sparse rounded grey and black clay pellets <1mm and sparse black and iron rich inclusions <0.5mm. The fabric appears very micaceous, though this could be the very fine quartz.
Oxidised, grog & organic	O04		Wheel made. Reddish yellow surfaces (5YR 6/8) and grey core (7.5YR 5/0). Soft, smooth with a finely irregular fracture. Inclusions similar to O03 but with sparse black? Charcoal and elongated voids.
Oxidised, sand & organic	O05		Variant of O03 and O04, oxidised reddish yellow throughout (5YR 6/8) with sparse elongated voids.
Oxidised, coarse sand	O06		Coarser variant. The type sherd has a laminated fracture. Reddish yellow throughout (5YR 6/6). Soft with a rough feel. Abundant rounded and sub-rounded white quartz <1mm.
Severn Valley ware	O01	SVW OX 2	Standard oxidised fabric, unsourced: T&D 149, Pl 122; Webster 1976, Rawes 1982, Hurst and Rees 1992, 202
Severn Valley ware	O02		Oxidised, organic tempered variant. Surfaces reddish yellow (7.5YR 6/6 to 5YR 6/8) with a grey core (7.5YR 5/0). Abundant organics visible as sub-angular black? Charcoal and elongated voids.
Severn Valley ware	R01		Reduced variant of O03, represented by a single small sherd. Grey (7.5YR 5/0) throughout
Malvernian group A, handmade	N01	MAL RE	T&D 147, plate 120; Peacock 1967
South-east Dorset BB1	B01	DOR BB 1	T&D 127, pl 100; Williams 1977; Seager Smith and Davies, 1993
Mortaria	M01		Wheel made. Core brownish yellow (10YR 6/6), reddish yellow margins (7.5YR 6/8), reddish yellow outer surface (7.5YR 6/6) and greyish brown inner surface (10YR 5/2). Hard, smooth, with finely iregular fracture. Abundant ill-sorted angular white quartz <1mm; moderate, ill-sorted, sub-rounded black inclusions <0.5m and occasional rock c 2mm. Trituration grits same angular white quartz and black (?slag/ironstone)
Reduced, fumed	R02		Wheel made. Light grey core (7.5YR 7/0) and very dark grey surfaces (7.5YR 3/0). Moderate sub-angular black inclusions <0.01mm and sparse rounded pink and white quartz <0.5mm. Soft, smooth with a finely irregular fracture.
Sandy white ware	W01		Wheel made. Light grey (10YR 7/2) throughout. Moderate, very fine white, sub-angular quartz <0.01 and sparse red and black inclusions. Soft, slightly powdery, with finely irregular fracture/
Pale oxidised ware	W02		Wheel made. Surfaces white (10YR 8/2) with reddish yellow margins (5YR 6/8) and pinkish grey core (5YR 7/2). Moderate fine organics <0.1mm, occasional red? Grog <1mm and white quartz <0.5mm
Amphorae	A01	CAD AM	Sandy fabric, light creamy-buff to yellowish throughout, with distinctive pieces of rounded red and brown iron ore scattered on the surfaces. Baetican amphora from Cadiz? Cf Tomber and Dore 1998, 87, pl 64; Dressel 7-11 or Beltrán II
Samian, SG	S01	LGF SA	South Gaulish, La Graufesanque; Tomber and Dore 1998, 28-9, pl 17
Samian, CG	S02	LEZ SA 2	Central Gaulish, Lezoux; Tomber and Dore 1998, 32-3, pl 21

Table 5: Wall Town pottery fabric descriptions

Fabric Name	Fabric code	Qty.	% Qty.	Wt. (g)	% Wt.	Rim %	% Rim EVE	Av. Wt.
Oxidised fine sand	O03	106	55.5%	797	31.4%	99	37.5%	8

Oxidised, grog/ organic	O04	2	1.0%	52	2.0%	0	0.0%	26
Oxidised, sand/ organic	O05	3	1.6%	21	0.8%	0	0.0%	7
Oxidised, coarse sand	O06	10	5.2%	222	8.7%	27	10.2%	22
Total local		121	63.4%	1092	43.0%	126	47.7%	
SVW, ox.	O01	8	4.2%	358	14.1%	6	2.3%	45
SVW oxidised organic	O02	5	2.6%	46	1.8%	0	0.0%	9
SV W reduced organic	R01	1	0.5%	1	0.0%	0	0.0%	1
Malvernian hand made	N01	1	0.5%	2	0.1%	0	0.0%	2
Black burnished ware	B01	3	1.6%	43	1.7%	0	0.0%	14
Total regional/traded		18	9.4%	450	17.7%	6	2.3%	
Mortaria	M01	1	0.5%	47	1.9%	0	0.0%	47
Reduced, fumed	R02	1	0.5%	7	0.3%	0	0.0%	7
Sandy white ware	W01	43	22.5%	763	30.1%	100	37.9%	18
Pale oxidised ware	W02	1	0.5%	10	0.4%	0	0.0%	10
Total uncertain source		46	24.1%	827	32.6%	100	37.9%	
Amphorae	A01	1	0.5%	108	4.3%	0	0.0%	108
Samian, SG	S01	1	0.5%	6	0.2%	17	6.4%	6
Samian, CG	S02	4	2.1%	56	2.2%	19	7.2%	14
Total imported		6	3.1%	170	6.7%	32	12.1%	
TOTAL		191		2539		264		13

Table 6: Wall Town pottery summary by fabric

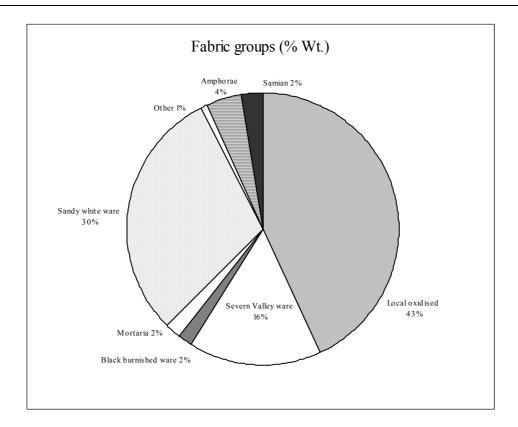


Figure 7: Wall Town pottery fabrics by % weight

#### Catalogue of illustrated forms (Fig 6, 1-7)

Fabric O03 Fine, micaceous sandy oxidised ware

- 1 Fragmentary, triangular rim from a developed, ring-necked flagon. Diameter 80mm, (8%). From context 231.
- Globular jar with a near upright grooved 'cornice' rim. A similar jar is published from Usk, dated to the Flavian or Flavian-Trajanic period (Webster 1993, 322, fig. 150.49). Other parallels come from Wroxeter, in military phase 4b dated to c AD 79-90 (Darling 2000, 211, fig 5.30, 60) and post-military, period 1 (Darling 2002, 194; Darling 2000, fig. 4.84 22, BK7.12). A similar form is published from Alcester from a context dated to c AD 100 to c AD 125 (Ferguson  $et\ al.\ 2001,\ fig.\ 49.96$ ). Diameter 120mm (67%). From context 231.
- Rim from a flanged bowl or dish. The flange is down-sloping, and the walls of the vessel flare out. Although flange rimmed bowls, in a variety of forms, are common on military sites, no exact parallels for this vessel are illustrated by Darling (1977) in her review of pottery from early military sites in western Britain, or published from the predominantly pre-Flavian fort at Metchley, Birmingham (Green 2001; Hancocks 2004). Two similar vessels are published from Wroxeter; one from Period 1, *c* AD 90-130 (Darling 2000, fig. 4.84, 15) and another from Portico Phase 2 (P2.2), *c* AD 150 (Evans 2000, fig. 4.70, D1.41) and another is illustrated from Verulamium, in an assemblage dated to *c* AD 105-30 (Wilson 1972, fig. 113.489). Diameter 210mm (12%). From context 230.
- 4 Concave lid with squared rim. Diameter 210mm (12%). From context 231.

#### Fabric O06 Coarse sandy oxidised ware

Flanged dish; slight groove on the flange. Not a particularly closely dated form. A similar vessel is illustrated from Metchley, from a mid 1st century context (Green 2001, fig 38, B19), but it is also similar to second century BB1 forms. Diameter 210mm (27%). From context 231.

### Fabric O01 Severn Valley ware

Tankard with double grooved rim, and gently splayed walls, similar to Webster E40, E41 (1976, fig 7), dated to the 2nd to early 3rd centuries. Diameter 150mm, (6%). From context 230.

#### Fabric W01 White ware

Developed, ring-necked flagon; pronounced, nearly triangular upper ring with shallow cupped mouth, less pronounced mouldings on neck. An early 2nd century date seems most likely. The angular rim is similar to Gillam type 3 (1970, 5, fig 1), dated by him to c AD 80-120, though the internal cup is more reminiscent of his type 5 (*ibid*, fig 2), dated to c AD 110-150. Webster (1993, 318) argues for an earlier appearance for such prominent upper rings, based on evidence from Usk. However, the best parallel for this vessel at Verulamium comes from deposits dated to c AD 105-30 (Wilson 1972, fig. 111.409). Similar forms are recorded from second century contexts at Wroxeter (Evans 2000, 199, fig. 4.50, type F4.6). Diameter 70mm (100%). From context 230.

#### Forms, function and status

This is not a typical Roman assemblage, based on the range of vessel classes (Fig 8). This must in part reflect the small sample recovered, but could also reflect the type of activity undertaken in this area of the fort. The latter would need to be tested with a larger sample. Jars, which dominate most assemblages to varying degrees, are not represented; apart from a couple of BB1 cook pot fragments. The emphasis is very much on drinking vessels and liquid containers, with some serving dishes. The proportion of amphorae, less than 1% by count, seems very low for a military site, based on data collated elsewhere (Evans 2001, fig. 11). The proportion of samian also seems low compared to other military sites (Willis 2005, table 23), particularly given the functional composition of the assemblage. Within the samian, however, decorated forms are well represented; two of the four vessels recorded. This is consistent with the evidence from other military sites, where decorated vessels represent on average 30% of the samian recovered (*ibid* 7.3.5).

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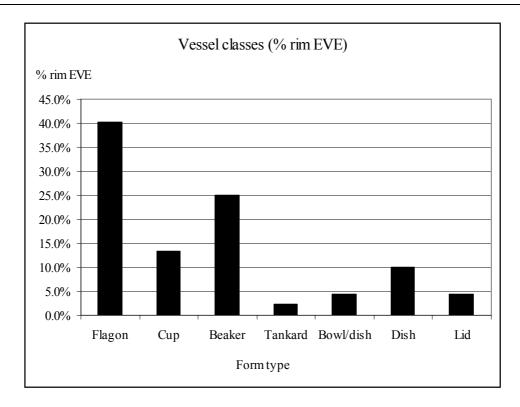


Figure 8: Wall Town vessel classes by % rim EVE

#### 4.2.2 Wall Town brick and tile, by Dennis Williams

A substantial amount of ceramic building material was recovered, as summarised in Table 7. This material mainly comprised brick and tile fragments, although a small number of fired clay fragments were also found. However, none of the fired clay could be identified in terms of its origin (e.g. hearth, oven, kiln or furnace).

Material	Туре	Total	Weight (g)
Brick	Roman	29	12918
Brick/tile	Roman	97	7817
Fired clay	Roman	8	3414
Tile	Roman	93	31223
TOTAL		231	55372

Table 7: Summary of the Wall Town ceramic building material assemblage

All the brick and tile came from Roman contexts, except for context 100, topsoil at Bradley Farm depot, which yielded a small amount of thin, hard-fired roof tile dating to the post-medieval or modern periods. As with the pottery, the majority came from layer 231, within Wall Town, accounting for 58% of the brick and tile finds (by weight), as shown in Table 8.

Context	Total	Weight (g)
100	6	242
202	14	1138
205	2	114
207	35	4193
208	7	338
209	15	3994
214	8	4832
217	19	1744
220	3	358
226	4	368
230	3	714
231	82	32517
240	2	752
260	30	2904
Unstratified	1	1406

Table 8: Quantification of the Wall Town ceramic building material by context

#### **Fabrics**

Practically all the brick and tile could be described in terms of three fabric types, as follows:

- 1. Oxidised, reddish-yellow matrix (Munsell 5YR 6/8). Sparse to common inclusions of rounded to sub-rounded (or occasional sub-angular) quartz, often ill-sorted but generally <0.5mm. Sparse, ill-sorted, sub-angular iron-rich inclusions <0.25mm, and often sparse, fine mica, generally <25 $\mu$ m in size. This fabric was usually hard and resistant to abrasion, although there were a few exceptions that were soft and easily abraded.
- 2. Oxidised, red matrix (2.5YR 5/6). Common, often ill-sorted, inclusions of subrounded (or occasional sub-angular) quartz, generally <1.0mm. Sparse, ill-sorted iron-rich inclusions, <1mm. Mica, as in fabric 1, sparse and fine, generally <25 $\mu$ m. This material was harder than fabric 1, with a darker surface colour (2.5YR 4/2-4/6). It is possible that a thin colour wash may have been may have been applied. However, there was no clear evidence of run marks that would often be associated with colour coating before firing. Furthermore, an enhanced reddish effect was present on some 'old' breaks, suggesting that a surface colour change had occurred as a result of a chemical reaction during burial, rather than as a result of a deliberate treatment. In a few cases, darker red and grey colours have been achieved, and the surface of one of these exhibited local vitrification of grains of sand on the surface.
- 3. Oxidised, light pinkish-brown matrix (5YR 7/6), usually changing to a buff colour at the surface (5YR 8/2-8/4). This fabric was usually soft and easily abraded, but had subrounded (or occasional sub-angular) quartz and iron-rich inclusions, similar to those in fabrics 1 and 2 above.

The relative abundances of the three fabrics, by weight, are shown in Figure 9.

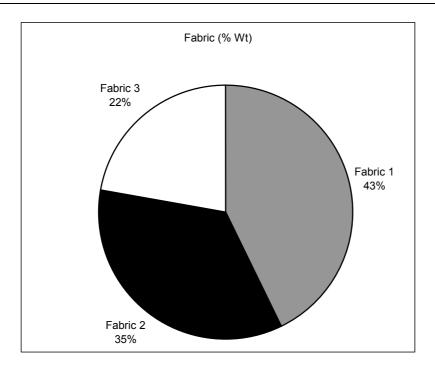


Figure 9: Weight % of Roman brick and tile fabrics from Wall Town

The assemblage included two fragments of undiagnostic brick/tile, each of which had a fully reduced, grey matrix; otherwise, there were no marked variations from the fabric types 1, 2 and 3 described above. The paler colouration of fabric 3 indicated the use of clays with lower iron content than those found in 1 and 2. There were some instances of poor mixing and kneading of clays used in both brick and tile, seen as voids, and clay streaks and pellets, respectively. The latter usually comprised buff or reddish material, some with abundant quartz inclusions.

Practically all the brick and tile fabrics contained quartz and iron-rich inclusions. None of the quartz was very angular, as might be expected if it had been deliberately prepared as a temper, suggesting that the inclusions were naturally occurring. The difference in hardness of fabrics 1 and 2 was likely to have occurred as a function of firing temperature, although it was noted that the density of quartz inclusions in fabric 1 was usually less than in fabric 2. However, given the moderate size of the present assemblage, this observation was, at best, only semi-quantitative. Examination of a much greater quantity of these ceramic building materials would be necessary in order to determine whether more sand was deliberately added to clays that were to be fired at higher temperatures, as a means of increasing resistance to thermal shock.

#### **Forms**

The Roman ceramic building material was sorted, where possible, into either brick or tile sherds. Some 15% of the combined total weight of these could not be separated, mainly because the sherd thicknesses fell in a range (approximately 25-40mm) within which brick and tile sizes overlap.

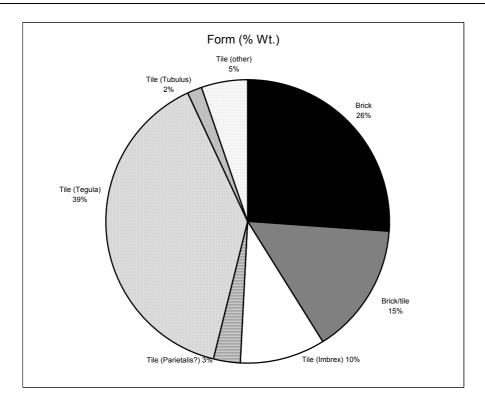


Figure 10: Weight % of Roman brick and tile, by form from Wall Town

Based on the evidence from this assemblage (Fig 11), fabrics 1 and 2 were used predominantly in roof tile production. The softer fabric 3 was the main brick material, which presumably could be produced at lower firing temperatures, while still being fit for purpose as an internal building material, not subject to abrasion by the elements.

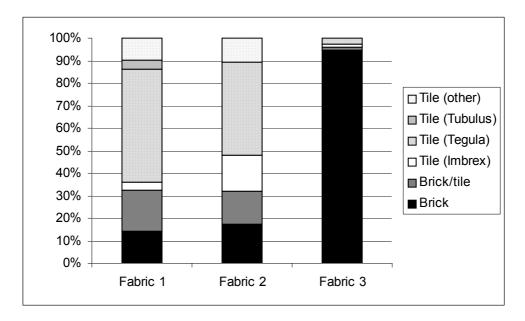


Figure 11: Weight % of brick and tile, by fabric type

#### **Brick**

None of the brick fragments had intact edges, so only their thicknesses could be measured, and this imposed a severe limitation on their further classification. In the absence of any

widths or lengths for the bricks, they have been tentatively identified as bessalis, pedalis or sesquipedalis forms, which were used for various applications in walls and floors (including heated hypocaust structures). This sorting has been done according to their 'best fit' to the brick thickness ranges given by Brodribb (1987).

#### Tile (tegulae and imbrices)

Among the tile fragments, tegulae were identified by their flanges or cutaways. On a pitched roof, the vertical flanges were butted together and capped by curved imbrex tiles, thus producing weatherproof joints. The corner cutaways then enabled lapped joints to be achieved between successive rows of tegulae.

#### Flanges

Most of the tegula fragments came from context 231, but others were also found in 207, 214, 230 and 260. The minimum and maximum tegula thicknesses were 12 and 38mm, respectively, with an overall mean value of 27mm. Minimum and maximum tegula flange external heights were 46 and 68mm, respectively, with a mean of 57mm. In his study of tegulae from a large number of British sites Brodribb (1987) concluded that the average depth of a flange was 50mm. However, he also noted that, as a rule, the average height of a tegula flange works out at double the thickness of the main body of the tile; the ratio of 2.1:1 in the present assemblage is therefore in good agreement with this observation.

The tegula flange thicknesses, measured at the flange base in each case, ranged between 23 and 46mm, with an overall mean of 35mm. Two complete tegula sides were recovered. One was 460mm long, while the other was 330mm, the latter at the lower end of the tegula size range in Britain (Brodribb 1987). Tegulae may also be characterised by their flange profiles, and types of cutaways. In this assemblage, each flange generally reached its maximum height at the external outer angle, but there are marked differences between cross-sectional shapes. Six broad categories were identified that are probably a consequence of hand-forming the top and internal flange surfaces, after using moulding and cutting techniques for producing the basic tegula shape (Warry 2006). Brodribb (1987) reported that single, finger-made grooves are to be commonly found on the tegula face, along side the lower internal angle. However, this feature was only found in approximately 25% of the examples in the Wall Town assemblage.

#### Cutaways

While flange shapes may be unreliable as a means of establishing a tegula typology, cutaways are more reproducible, particularly the lower ones which could be shaped as part of the initial moulding stage (Warry 2006). All the lower cutaways in the assemblage were type 1 as described by Brodribb (1987), comprising prism-shaped notches, with straight surfaces emerging from the outer sides of the flanges. In most cases, the cutaway surfaces were at approximately 45°, but there was one exception, from context 231, which was angled at 30° to the horizontal. The type 1 lower cutaway was also noted as being predominant among the tegulae found at Whitley Grange, Shropshire, as part of the Wroxeter Hinterland Project (Macey-Bracken 2007).

Lower cutaways have been classified in further detail by Warry (2006), following his extensive survey of the forms and dimensions of tegulae in UK museum collections. All examples in this assemblage were good matches to his Group B Type 6 category, similar to Brodribb's (1987) basic Type 1. This is not typical of assemblages from the South Midlands and Wales, where Warry has noted his Group C cutaway, incorporating a vertical face, to be the most common form. Warry (2006) studied the dating evidence for cutaway types on tegulae, concluding that Type B was used from the 1st to the late 2nd century, with weaker evidence for its continuation into the early 3rd century. This is consistent with the pottery evidence described above, and previous dating evidence for the stone fort.

Upper cutaways are much less distinctive than the lower ones. In the two instances where complete tegula sides survive, the upper cutaways appeared to have been produced by simply cutting out sections of the flange flush with the top of the main surface of the tile.

#### Marks

All the tile fragments were carefully examined for makers' stamps and signatures. Only part of one 'finger-swept' signature was found, on the unsanded underside of an undiagnostic form (36mm thick) from context 231, (some bricks and tiles were sanded, others not). Evidence of accidental damage prior to firing was provided by several fingertip marks on a tegula from context 231, and a hoof print, probably from a sheep or goat, also on a tegula from 231.

#### Box tiles (tubuli)

Only four box-tile fragments were positively identified, by their corners. These would have been used as part of a cavity wall structure, heated by ducted air. On three of these fragments, lattice patterns had been scored to provide a key for plaster, while the remaining one had a wavy combed pattern for the same purpose; the number of comb teeth was not known. These tiles were otherwise undiagnostic, in terms of form or fabric, and have therefore been listed under the generic category of tubuli. Two fragments from one tile had no corners and so could have been a parietalis (facing) wall tile, also scored to provide a surface key.

#### 4.2.3 Metal, by Dennis Williams

Metal finds were confined to a lynch-pin and a nail, from contexts (213) and (214), respectively. The former item, 140mm long, was Manning (1985) Type 1, with a crescentichead, straight shaft, and a loop on one side of the head. Owing to the corroded condition of this find, it was not possible to determine whether the loop was formed directly from the metal of the head (Type 1b), or was an insert that had been manufactured separately (Type 1c). The nail was bent, with an original length of approximately 48mm.

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#### 4.2.4 Post-Roman finds from the entire pipeline, by Dennis Williams

Small quantities of medieval, post-medieval and modern material were also recovered from the site (Table 9). These are discussed in brief below, only focusing upon the more significant items.

Material	Туре	Total	Weight (g)
Bone	Cattle	1	360
Bone	Undiagnostic	3	62
Brick/tile	Undiagnostic	1	20
Glass	Post-medieval	1	604
Metal	Undiagnostic	6	14
Pipe	Tobacco	1	6
Pottery	Medieval	1	2
Pottery	Post-medieval	12	262
Pottery	Post-med/modern	1	1
Slag/cinder	Undiagnostic	1	14
Stone	Undiagnostic	1	66
Tooth	Sheep	1	14
TOTAL	30	1425	

Table 9: Quantification of medieval, post-medieval and modern material

Pottery sherds were confined to a small range of common fabrics (Table 10). A single, small sherd of medieval pottery from context 2302 was in a glazed Malvernian fabric (69), dating to the 14th-16th century. Post-medieval pottery from contexts 100, 103, 260, 2302 and 2500 included glazed red and buff wares (fabrics 78 and 91 respectively). Red ware sherds included a small 17th century cup or mug, with a fine fabric and good quality glaze (inside and out). The other red wares had coarser fabrics, dateable only to a wider 17th-19th date range. Context 2500 yielded two stoneware sherds, of a similar date, and a single sherd of 19th-20th century china came from context 103.

Within context 240 a sherd of a very dark green glass bottle with straight, rolled sides was found. The crude, heavy form of this hand-blown vessel points to a date of manufacture not later than the beginning of the 18th century

A clay pipe bowl fragment from context 2302 bore a star-shaped stamp on the base of the heel, but no maker's initials. Although the diagnostic value of this find was reduced by the loss of its rim, it is indicative of a late 17th, or early 18th century, date of manufacture.

Context	Fabric no.	Fabric name	Total	Weight (g)
Wall To	wn			
100	91	Post-medieval buff wares	1	32
103	78	Post-medieval red wares	4	44
103	85	Modern china	1	1
260	78	Post-medieval red wares	3	54
Field 23				
2302	69	Oxidized glazed Malvernian ware	1	2
2302	91	Post-medieval buff wares	1	2
Field 25				
2500	78	Post-medieval red wares	1	110
2500	81	Stonewares	2	20
		TOTAL	14	265

Table 10: Quantification of medieval, post-medieval and modern pottery by fabric

#### 4.3 Environmental analysis, by Alan Clapham

The environmental evidence recovered is summarised in Tables 11 and 12 (Appendix 2).

The recovery of archaeobotanical and archaeozoological material from the two sampled contexts (214 and 230) was very limited. Table 10 gives a brief summary of the materials recovered. Small fragments of charcoal, many of which were too small to identify with confidence, dominated the samples. Occasional burnt large mammal bone fragments were also recovered, but these were again to small to identify. Few charred seeds were identified and the results are presented in Table 11. Apart from biological material a ferrous nail was found in context 214, and pot sherds and small fragments of worked stone were recovered from 230.

Only one charred cereal grain was recovered from these contexts, a hulled barley (*Hordeum vulgare*) from context 230. Other charred plant remains identified included henbane (*Hyoscyamus niger*) from 214 and four nutlets of dock (*Rumex* sp.), one seed of clover (*Trifolium* sp.) and a nutlet of spike-rush (*Eleocharis* sp.). Due to the paucity of the charred botanical material within the samples it is not possible to determine their origins and it is most likely that they represent part of the background flora of the site. However, charred plant remains are quite resilient and therefore may be residual in nature. The presence of henbane may suggest the presence of dung/manure heaps and the spike-rush nutlet may indicate a damper area. The lack of cereal chaff remains and cereal grains in general makes it impossible to deduce the economy of the site. The association of burnt large mammal bone fragments may suggest that the deposits could be general rubbish dumps. The presence of a ferrous nail in 214 and potsherds in 230 helps support this interpretation.

#### 4.3.1 Overview of environmental evidence

A very small amount of charred plant material was recovered from the two contexts processed, the dominant constituent of the assemblages being small charcoal fragments. The lack of charred crops or weeds may suggest that the assemblage represents a background flora. The presence of other material such as the burnt bone fragments and building rubble, potsherds and a ferrous nail suggests that the material may represent part of the general occupation debris.

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## 5. **Synthesis**

#### 5.1 Wall Town

Extensive Roman archaeological remains were identified as the works crossed through the scheduled monument at Wall Town. To the south of the visible southern rampart up to four defensive ditches were identified that had been previously investigated during excavations in 1960-61 (Walker 1965), approximately 25.0m to the east of the B4363 (Fig 3).

The 1960-61 excavations identified three defensive ditches. The 'inner' was interpreted as being contemporary with an earlier wooden fort (late 1st century AD) and the "middle" and 'outer' ditches, as labelled by Walker (1965) was thought to be contemporary with a later stone-built fort (early to mid 2nd century AD). A five-foot thick wall (context 19) fronting the inner rampart was thought to be contemporary with the 'middle' and 'outer' defensive ditches. All of these same features were identified within the 2007 pipe trench immediately south of the inner rampart.

The rampart wall (context 19, Walker 1965) is thought to be equivalent to foundations 226, and although partially robbed (228) confirms that the rampart was fronted with stone across the southern side of the fort. Walker's (1965) southern 'internal' and 'middle' defensive ditches are thought to equate to ditch 224, however as these ditches were cut by modern services and as only their upper profiles were seen in 2007 they were indistinguishable. The outer defensive ditch identified during the 1960-61 excavations equates to ditch 222.

Between the 'inner' (224) and 'outer' (222) defensive ditches, Walker (1965) identified a late 2nd century AD stone wall (context 36) cut into the top of a turf rampart. It is thought the foundations of this wall are equivalent to context 218 that were found within the pipe trench even though the turf rampart had been truncated beneath the B4363. These remains appeared more substantial than previously recorded and suggests that there was a second, outer, stone faced rampart belonging to the 2nd century AD. However, this outer wall (218) may not be contemporary with the inner rampart wall (226) and may belong to a different defensive arrangement. It is nevertheless likely to be contemporary with ditch 222 as it sat on its northern edge.

Further south within the pipeline two further possible defensive ditches were recorded (216 and 211/212), although their complete profiles were again not established. The innermost ditch (216) may have been partially identified during the Walker's excavations (1965), although it was thought to be natural tree rooting at the time. These ditches seem too wide and not classically V-shaped to be military defences (cf Webster 1979), although it is possible that re-cutting has moved the edges over time widening their upper profiles. Both were purposefully backfilled in the early 2nd century AD and the outer ditch (211/212) was capped with re-deposited natural. During previous watching briefs within the fort (Appleton-Fox 2001 and Kenney 2003) it was also noted that re-deposited natural clays were used during re-modelling prior to the construction of stone buildings. An 8.50m wide ditch recorded on the northern side of the fort (Appleton-Fox 2001) was also capped with a 0.50m thick layer of re-deposited natural clay, similar to ditch 211/212. This may suggest that this northerly ditch and ditches 216 and 211/212 are contemporary, forming part of the earlier forts defences that were purposefully backfilled and capped during the remodelling of the fort in the early 2nd century AD. This may also confirm Walker's (1965) interpretation that the earlier fort extended further south.

No defensive ditches were identified on the eastern side of the fort beneath the B4363, although two parallel walls (262 and 264) were aligned with the external edge of the eastern rampart. These imply that the stone fronted rampart may have extended around both the southern and eastern sides of the fort. The possibility that the B4363 exits the fort through the original eastern gate (Appleton-Fox 2001) however implies that these walls represent the remains of a gatehouse structure. The presence of two walls here, instead of the single

rampart wall as seen on the south of the fort appears to confirm this. If this were the original entrance, it would also explain the lack of defensive ditches in this area.

Across much of the fort interior there was a dark brown-grey cultivation soil (231) that seems to have been buried below the southern rampart, implying it had formed prior to and/or during the construction of Walker's (1965) stone phase. Pottery within this layer is dated between 120-140 AD. However it cannot provide a definitive date for the later forts construction as the soil it is likely to contain material from all phases. As most of the building foundations cut this deposit, it is thought there was a period of abandonment prior to their construction or that remodelling took considerable time, enough for the soil to form. This deposit had previously been identified during the 2001 and 2003 watching briefs and its presence on the southern side of the fort indicates that it was more than just a localised garden soil (Kenney 2003). The charcoal rich layer (230) buried below this soil may be contemporary with the occupation or destruction of Walker's (1965) early wooden fort and is dated to 110-140 AD. Even though both the 1960s excavations and the more recent watching briefs identified early wooden structures, the only internal structure thought to belong to this phase beneath the B4363 was a sandstone slab floor (238) buried below soil (231).

All of the internal walls were found within the southwest quadrant of the fort, mostly running in an approximate north-south direction. The position of the eastern gate means that the pipeline could have been aligned along the route of an internal road through the eastern half of the fort, hence this may explain why no structural remains were located there. If an internal road had run west from the eastern entrance, buildings are more likely to have been positioned further south, beyond the limits of the pipe trench, across the eastern half of the fort. Photographs of parch marks within the southeastern quadrant of the fort appear to show that two long rectangular buildings, probably barracks aligned north-south, are present east of wall 256 (Plates 7-10). Parch marks within the southwestern quadrant, although not as obvious, also suggest that some of the foundations within the pipe trench continue south. It is possible that these are also remains of barracks, suggesting that they occupy the entire southern half of the fort although this cannot be confirmed. The frequent Roman tile fragments and the lack of box-tiles within the ceramic assemblage from the southwestern quadrant suggest these were substantial yet basic structures.

It is thought an internal road running north-south through the southern half of the fort dissected these buildings. Although truncated beneath the B4363 it was identified as a result of a rapid interpretation of a LiDAR survey around Wall Town for *Grow With Wyre Landscape Partnership Project* (Mindykowski pers comm). This survey also identified a bank running south from the fort, which may be the continuation of the internal road, although at present both anomalies remain undated (Fig 7, Plate 7).

The character of the pottery assemblages from the 2003 watching brief (Kenney 2003) and the current analysis are however different. The former was dominated by jars (40%), tablewares, dishes and bowls. No drinking vessels were identified and specifically there was a lack of Severn Valley ware tankards. The current assemblage was dominated by drinking vessels and liquid containers and was devoid of any jars. The small quantity of Severn Valley ware recorded during this watching brief, including a tankard, partially redresses the previous lack of this ware, however, the size of the assemblage may be too small to be confident about these findings.

Summary of the dating evidence from the 2007 Wall Town fieldwork

The current pottery assemblage confirms the established date range of the fort, between the late 1st and mid 2nd century AD. The majority of the finds however came from the buried soil layers that contained material from both of the established phases and it remains unclear whether the finds, especially the rubble within soil 231 represented demolition and/or construction. It has therefore been difficult to effectively date the archaeological features.

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#### 5.2 **Rest of pipeline**

No significant archaeological deposits were identified that date to the post-medieval or modern periods. Those that were discovered included modern services, land drains and bonfire debris.

## 6. Significance and recommendations

With the exception of Wall Town the results suggest that there are no significant archaeological deposits of any date within the route of the pipeline or any settlement within its immediate vicinity. Here the archaeological remains have confirmed the summaries of the previous watching briefs and excavations at the site and verify that the site is particularly well preserved, even in places beneath the road. The associated pottery confirms the broadly accepted chronology of the site as well as providing some evidence to prove that the fort originally extended further south. The results also provide a tentative internal layout that may provide information for mitigation against any future ground works or excavations at the site. In summary the results have confirmed the importance of the site locally and nationally, validating scheduling. The limited 2007 investigation was, however, not able to answer specific questions identified as priorities by the West Midlands Regional Frameworks (White forthcoming), such as identifying the role of this fort within this location and establishing how it was linked to the military network in the Midlands.

If any further fieldwork is undertaken at Wall Town, it would be highly beneficial to develop the pottery fabric and form series for the fort. It would assist future studies if further work allowed a contingency for petrological analysis to be undertaken on the pottery and ceramic building material, to define the fabrics more accurately and identify provenance. Patterns of supply to the site should form a key aspect of future studies. Ceramic building material recovered as part of the Wroxeter Hinterland study was submitted for XRF analysis, with promising results (Cassidy 2007). This study was subsequently expanded to include pottery and ceramic building material from Worcestershire and Gloucestershire (Evans 2004). Samples from Wall Town would add useful comparative data, and should be considered for analysis should any such programme of geochemical analysis be resumed.

# 7. **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.

A watching brief was undertaken on behalf of Severn Trent Water and in liaison with Entec UK Ltd along the route of the rural trunk water pipeline between Hollywaste covered reservoir and Trimpley reservoir (NGR 377210 278945-364568 275792).

Most of the pipeline was devoid of any archaeological remains other than those associated with farming activities within the post-medieval and modern periods. Frequent archaeological remains were, however, identified as the pipeline crossed through a Roman fort at Wall Town. These confirmed that the fort was occupied between the late 1<sup>st</sup> century AD and the mid-2<sup>nd</sup> century AD. Two previously unidentified defensive ditches on the south of the fort confirm that an earlier layout, possibly late 1st century, extended further south than the later possibly 2nd century layout. During remodelling these ditches were purposefully backfilled and further defences constructed immediately to the north. These were more substantial and included a stone-faced rampart. This is may have continued around the entire fort, however walls found on the eastern edge of the fort may be the remains of an eastern gate.

Internally only a single sandstone slab floor was identified that belonged to an earlier fort, although an extensive charcoal rich layer may reflect this earlier forts occupation or destruction. Numerous wall foundations and floors were recorded that represent the later and final fort. The majority of the foundations were constructed of unbonded sandstone blocks that were aligned approximately north-south. These are thought to be the remains of barrack blocks that extend across the entire southern half of the fort. These appear to have been dissected by a road identified within a LiDAR survey. The latter has confirmed that a possible road, although undated, also extends south in the field next to the fort. In summary, the results of the watching brief have confirmed the importance of the site locally and nationally.

# 8. Acknowledgements

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#### 9. **Personnel**

Andrew Mann led the fieldwork and report preparation. The project manager responsible for the quality of the project was Derek Hurst. Fieldwork was undertaken by Andrew Mann and Adam Lee, finds analysis by C Jane Evans and Dennis Williams, environmental analysis by Alan Clapham, and illustration by Carolyn Hunt and Sarah Phear. LiDAR information provided by Adam Mindykowski.

## 10. **Bibliography**

Appleton-Fox, N, 2001 Wall Town Farm, Cleobury Mortimer, Shropshire, report on an archaeological watching brief, Marches Archaeology report

Brodribb, G 1987. Roman tile and brick. Alan Sutton Publishing, Gloucester.

Cappers, T R J, Bekker, R M, and Jans, J E A, 2006 *Digitale Zadenatlas van Nederland: Digital seed atlas of the Netherlands*, Groningen Archaeological Studies, **4**, Barkhuis Publishing and Groningen University Library: Groningen

CAS, 1995 (as amended) *Manual of Service practice: fieldwork recording manual*, County Archaeological Service, Hereford and Worcester County Council, report, **399** 

Cassidy, N, 2007 A geochemical characterisation of tile from the Wroxeter Hinterland area, in Gaffney, V L and White, R H, with Goodchild, H 2007, Wroxeter, the Cornovii, and the urban process. Final report on the Wroxeter Hinterland Project 1994-1997. Vol. 1, Researching the Hinterland, J Roman Archaeol, Sup Ser 68, 220-227

Darling, M J, 1977 Pottery from early military sites in western Britain, in J Dore and K Greene 1977 (eds), *Roman pottery studies in Britain and beyond*, BAR **S30**, Oxford, 57-100

Darling, M J, 2000 The period 1 pottery, in P Ellis (ed) *The Roman Baths and Macellum at Wroxeter. Excavations by Graham Webster 1955-85*, English Heritage Arch Rep **9**, 258-263

Darling, M J, 2002 Pottery in G Webster 2002, *The legionary fortress at Wroxeter:* excavations by Graham Webster 1955-85, English Heritage Arch Rep 19, 137-223

Entec UK Ltd, 2006 Trimpley to Hollywaste Rural Trunk Pipeline Written Scheme for Archaeological Investigation, unpublished document dated 10<sup>th</sup> November 2006

Evans, C J, 2004 Error analysis of XRF geochemistry on Roman pottery and tiles from the Severn Valley, Unpublished MA project, The University of Birmingham

Evans, J, 2000 Form Series and Fabric descriptions, in P Ellis (ed) *The Roman Baths and Macellum at Wroxeter. Excavations by Graham Webster 1955-85*, English Heritage Arch Rep **9**, 195-246, 246-257

Evans, J, 2001 Material approaches to the identification of different Romano-British site types, in S James and M Millett, *Britons and Romans: advancing an archaeological agenda*, CBA Res Rep **125**, 26-35

Ferguson, R with Ward, M and Evans J, 2001 Roman pottery (ALC 69 and ALC 72/2) in P Booth and J Evans 2001, *Roman Alcester: northern extramural area, 1969-1988 excavations*, CBA Res Rep **127**, 28-67

Gillam, J P, 1970 Types of Roman coarse pottery vessels in northern Britain, Newcastle upon Tyne

Green, S, 2001 Pottery, in A Jones, Roman Birmingham I, Metchly Roman forts excavations 1963-4, 1967-9 and 1997, *Trans Birmingham Warwickshire Archaeol Soc* **105**, 90-106

Hancocks, A, 2004 Romano-British pottery (Areas 7-8), in A Jones, Roman Birmingham 2, Metchley Roman forts excavations 1998-2000 and 2002. The eastern and southern annexes and other investigations, *Trans Birmingham Warwickshire Archaeol Soc* **108**, 47-67

Hartley, K and Tomber, R, 2006 A mortarium bibliography for Roman Britain, *J Roman Pottery Stud*, **13**, Oxbow Books

HEAS, 2006 Proposal for an archaeological watching brief on the Trimpley to Hollywaste rural trunk pipeline, Shropshire and Worcestershire, Historic Environment and Archaeology Service, Worcestershire County Council unpublished document dated 11 Nov 2006

Hurst, J D, 1994 (as amended) *Pottery fabrics. A multi-period series for the County of Hereford and Worcester*, County Archaeological Service, Hereford and Worcester County Council, report, **445** 

Hurst, J D, and Rees, H, 1992 Pottery fabrics; a multi-period series for the county of Hereford and Worcester, in S Woodiwiss (ed), *Iron Age and Roman salt production and the medieval town of Droitwich. CBA Res Rep* **81**, 200-209

IFA, 1999 Standard and guidance for an archaeological watching brief, Institute of Field Archaeologists

Kernney, J, 2003 Wall Town Farm, Cleobury Mortimer, Shropshire, report on an archaeological watching brief, Marches Archaeology report

Lagóstena, L, 2006 in D F Williams and S J Keay 2006, *Roman Amphorae: a digital resource*, http://ads.ahds.ac.uk/catalogue/archive/amphora ahrb 2005/index.cfm

Macey-Bracken, E 2007. 'Tile from Whitley Grange, Shropshire' in V L Gaffney and R H White with H Goodchild (ed), *Wroxeter, the Cornovii and the urban process, Vol. 1 Researching the hinterland* J Roman Arch, Portsmouth, Rhode Island

Manning, W H 1985. Catalogue of the Romano-British iron tools, fittings and weapons in the British Museum. British Museum Publications, London

Peacock, D P S 1967, 'Romano-British Pottery Production in the Malvern District of Worcestershire.' *Trans Worcestershire Archaeol Soc*, 3rd Ser. 1 (1965-7), 15-28

Peacock, D P S and Williams, D F, 1986 Amphorae and the Roman economy, an introductory guide, Longman Archaeology Series, London

Rawes, B, 1982, Gloucester Severn Valley Ware: a study of the Roman pottery forms, *Trans Bristol Gloucester Archaeol Soc*, 100, 33-46.

Seager Smith, R, and Davies, S M 1993, Black Burnished Ware Type Series. The Roman Pottery from Excavations at Greyhound Yard, Dorchester, Dorset. Wessex Archaeology. (Offprinted from P. J. Woodward, S. M. Davies, and A. H. Graham, 'Excavations at the Old Methodist Chapel and Greyhound Yard, Dorchester 1981-1984,' Dorset Natur Hist Archaeol Soc Monogr Ser 12)

Soil Survey of England and Wales, 1983 Midland and Western England, sheet 3, scale 1:250,000 + Legend for the 1:250,000 Soil Map of England and Wales (A brief explanation of the constituent soil associations)

Stace, C, 2001 (2<sup>nd</sup> Edition) New Flora of the British Isles, Cambridge University Press

Tomber, R and Dore, J 1998, *The National Roman Fabric Reference Collection. A handbook.* MoLAS Monogr **2** 

VCH I, Page, W (ed), 1913 Victoria History of the County of Worcestershire, I

Walker, C I, 1965 Excavation at the Roman fort at Walltown Farm, Shropshire, 1960-1961, *Trans Shropshire Archaeol Soc* **58** (pt 1), 8-18

Warry, P 2006. Tegulae: manufacture, typology and use in Roman Britain (BAR British Series 41), Archaeopress, Oxford

Webster, G 1979 The Roman imperial army of the first and second centuries AD, London: Adam and Charles Black

Webster, P, V, 1976 Severn Valley Ware: A Preliminary Study. *Trans Bristol Gloucestershire Archaeol Soc* **94**, 18-46

Webster, P, V, 1993 The post-fortress coarsewares, in W H Manning, Report on the excavations at Usk 1965-1976, 227-364. Cardiff

White, R, forthcoming A clash of cultures? The Romano-British period in the West Midlands, Oxbow Books

White, R, Cassidy, N, Ixer, R, Macey-Bracken, E and Wright, M, 2007. Report on building materials from the Wroxeter Hinterland Project, in V L Gaffney and R H White with H Goodchild (ed), *Wroxeter, the Cornovii and the urban process, Vol. 1 Researching the hinterland* J Roman Arch, Portsmouth, Rhode Island, 203-227

Williams, D F, 1977, The Romano-British Black-burnished Industry: An Essay on Characterization by Heavy Mineral Analysis. In D P S Peacock (ed.) 1977, *Pottery and early commerce: characterization and trade in Roman and later ceramics*, 163-220

Willis, S, 2005 Samian pottery, a resource for the study of Roman Britain and beyond: the results of the English heritage funded samian project. An E-monograph, Internet Archaeology, 17

Wilson, M G, 1972 The other pottery, in S Frere 1972, *Verulamium excavations 1*, Soc Antiq Res Rep **28**, Oxford, 263-370

# 11. Abbreviations

DBA: Desk Based Assessment

HER: Historic Environment Record

SM: Scheduled Monument (English Heritage designated)

SMRN: Site and Monument Record Number (Shropshire County Council designated)

VCH: Victoria County History

Worcestershire County Council	Historic Environment and Archaeology Service
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Watching brief along the Hollywaste to Trimpley rural trunk pipeline
Plates

# Appendix 1 Context descriptions

# **Bradley Farm depot**

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
100	Topsoil	Mid-brown silty sand, soft and friable. Contains frequent roots and occasional pottery fragments.	0.00-0.20m
101	Subsoil	Mid-light brown silty sand, soft and friable. Contains frequent roots and occasional small rounded stones.	0.20-0.30m
102	Natural	Mid orange-brown clayey sand, very compact and cohesive. Contains frequent iron panning and frequent plough scares	0.30m+
103	Burning layer	Sub-circular area of burning, laying directly upon the natural that has become reddened through heat exposure. Contains frequent charcoal flecks, clinker and ash. Cut by land drains 104. 3.0m wide and 4.00m long.	0.30-0.32m
104	Land drains	Eleven modern land drains, using yellow perforated plastic pipes not recorded individually. Aligned NNE-SSW.	0.30m+

# Field 23

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2300	Topsoil	Mid-brown silty sand, soft and friable. Contains frequent roots and occasional pottery fragments.	0.00-0.30m
2301	Natural	Mid red-brown sandy clay, very compact and cohesive. Contains frequent iron panning and frequent modern plough scares.	0.30m+
2302	Land drains	Four intercutting land drains at base of slope. Formed from light blue-grey mudstone slabs. Aligned E-W, not recorded individually. Approximately 0.20m wide and 0.20m deep.	0.30-0.50m

# Field 25

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2500	Topsoil	Mid-brown silty sand, soft and friable. Contains frequent roots and occasional pottery fragments.	0.00-0.30m
2501	Subsoil	Light brown-yellow sandy clay, contains frequent roots and occasional small rounded stones.	0.30-0.50m
2502	Natural	Mid red-brown sandy clay, very compact and cohesive. Occasional laminated sandstone outcrops. Contains frequent iron panning and roots.	0.50m+

# Wall Town

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
200	Topsoil	Tarmac road surface running through Wall Town	0.00-0.20m
201	Subsoil	Small-medium grey angular stone. Loose and friable. Levelling layer across Wall Town.	0.20-0.70
202	Layer	Dark red/brown silty clay. Very firm and cohesive. Possible levelling layer for road or remodelling of fort.	0.70-1.15m
203	Layer	Small-large angular green sandstone blocks and fragments. Firm and cohesive. Probably demolition rubble.	1.15-1.50m
204	Natural	Firm mid red-pink sandy clay. Occasional light green sandy mottles (degraded sandstone). Occasional red sandstone fragments.	1.15-1.70+m
205	Fill	Mid red-brown sandy clay. Compact and Cohesive. Occasional ceramic building materials fragments. Redeposited natural. Fill of ditch 211 and 212.	0.50m-1.00m
206	Layer	Mid dark brown-red silty clay. Soft and malleable. Moderate ceramic building material fragments.	0.90-1.05m
207	Fill	Mid brown grey clayey silt. Moderately compact and cohesive. Moderate ceramic building materials. Fill of ditch 211-212.	1.00-1.15m
208	Fill	Mid brown orange sandy clay. Moderately compact and cohesive. Moderate ceramic building materials. Fill of ditch 211-212.	1.15-1.45
209	Fill	Mid dark brown clayey silt. Compact and cohesive.	1.40-1.60

Context Classification Description Depth below ground surface (b.g.s) – top and bottom of deposits Frequent to moderate ceramic building materials. Small charcoal flecks. Fill of ditch 211-212. Mid brown-red silty sandy clay. Compact and cohesive. 210 Fill 1 00-1 60m Moderate ceramic building material fragments. Occasional charcoal flecks. Fill of ditch 211-212. 211 Cut Ditch cut. Linear running east-west across trench. 40-50° 0.75-1.50m slightly concave sides, 4.05m wide, not bottomed. Cuts natural 204. 212 Cut 1.00-1.50m Re-cut of 211. Linear running across trench. Approx 35-45° angled sides, 7.75m wide, not bottomed. Cuts natural 204 and ditch 211. 213 Fill 1.00-1.30m Dark brown-red clayey silt. Soft and malleable. Moderate ceramic building material fragments. Fill of linear 216. 214 Fill Mid brown grey clayey silt. Soft and malleable. 1.00-1.40m Moderate charcoal flecks. Fill of ditch 216. 215 Fill Mid brown clayey silt. Soft and malleable. Moderate 1.20-1.60m ceramic building material fragments. Fill of ditch 216. 216 Cut Ditch cut running at right angles to trench. Shallow 30° 0.80-1.50m slightly concave northern edge and a 45° concave southern edge. Not bottomed. Cuts natural 204. Fill Mid dark brown clayey silt. Soft and malleable. Sterile. 1.00-1.60m 217 Fill of ditch 222. Wall Foundation for wall. Blue-green coursed sandstone 0.90-1.40m 218 foundations rubble. Bonded with red silty clay. Running approximately NE-SW Slabs approx 10cm-19cm thick. 0.95m wide and 0.50m deep. 219 Foundation cut for wall. 0.95m wide and 0.50m deep. Cut 0.90-1.40m Vertical sides and a flat base. Cuts Natural 204. 220 Fill Backfill of 219. Mid dark brown silty clay. Moderate 1.30-1.50m compaction and cohesive. Moderate small ceramic building material fragments. 221 Small-large angular green sandstone blocks and 1.00-1.15m Layer fragments. Probably demolition rubble. Overlies fill 217. 222 Ditch cut at right angles to the trench. With 45° flat sides, 1.00-1.50m Cut northern edge butting wall 218. 5.90m wide, not bottomed. Cutting natural 204. 223 Fill 0.90-1.60m Mid dark brown silty clay. Soft and malleable. Very sterile. Fill of ditch 224, similar to 217.

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
224	Cut	Ditch cut at right angles to trench. Southern edge hidden by modern services and concrete. North edge is slightly stepped, mostly a 50° slope and flat. Immediately south of wall 227. Cuts natural, not bottomed.	0.90-1.60m
225	Cut	Foundation cut for 227 with vertical sides and a flat base. 1.20 wide. 0.40 deep. Cuts 204.	
226	Fill	Backfill of 225. Mid-dark brown silty clay. Moderately compact and cohesive.	0.60-1.00m
227	Wall foundations	Green sandstone wall. Made from undressed and dressed stones, running approximately NE-SW. Possible that dressed stone ran of south edge with rubble inside. Northern dressed edge removed by robber cut 228.	0.60-1.00m
228	Cut	Robber cut of wall 227, with near vertical sides and slightly concave base. 1.80m wide and 0.75m deep.	0.60-1.30m
229	Fill	Fill of robber cut 228. Mid brown clayey silt, compact and cohesive. Frequent green small angular sandstone fragments and frequent yellow mortar.	0.60-1.30m
230	Layer	Mid grey-brown silty clay. Compact but friable. Frequent charcoal flecks. Moderate ceramic building material fragments.	1.10-1.40m
231	Layer	Mid-dark brown-grey silty clay. Very compact and cohesive. Occasional small angular green sandstone blocks, charcoal flecks and ceramic building material fragments.	0.60-1.10m
232	Cut	Robber cut for wall, with vertical sides and a flat base. Cuts natural 204. 1.80m wide and 0.80m deep.	0.65-1.50m
233	Fill	Fill of robber cut 232. Dark brown-red clayey sand. Frequent small-medium broken angular sandstone blocks and yellow mortar.	0.60-1.50m
234	Wall foundations	Green sandstone wall foundations. Running N-S. They do not appear to be within a foundation cut. Medium to large angular blocks. 0.75 wide and 0.60m deep.	0.60-1.20
235	Wall foundations	Green sandstone wall foundations. Running N-S. Stones do not appear to be within a foundation cut. Medium to large green sandstone blocks not bounded and not dressed. Approx 1m wide and 0.70 deep.	0.60-1.40m
236	Wall foundations	Green sandstone wall foundations within cut 237. Running N-S. Small to medium green sandstone blocks not bounded and not dressed. Approx 1.20m wide and 0.75m deep.	0.60-1.35m

Context	Classification	Description  Depth below grousurface (b.g.s) – top a bottom of deposits	
237	Cut	Foundation cut for 236. With vertical sides and a flat base. 1.20m wide and 0.75m deep, cuts natural 204 and layer 231.	0.60-1.35m
238	Floor	Flat red sandstone slab floor. Approx 0.05m thick. 0.90-1.00m	
239	Layer	Small-large angular green sandstone blocks and fragments. Firm and cohesive. Probably demolition rubble.	0.60-0.90m
240	Fill	Fill of pit 241. Dark brown clayey silt. Frequent charcoal flecks, clinker and ash waste. Modern dump waste.	1.05-1.30m
241	Cut	Shallow pit cut, probably heavily truncated burning rubbish pit. Cuts layer 231. 3.80m wide.	1.05-1.30m
242	Cut	Cut for wall foundations 243. With vertical sides, base not seen. Cuts natural 204 and layer 231. 1.10m wide and 1.10m deep.	0.60-1.70m
243	Wall foundations	Wall foundations aligned NW-SE. Possible corner of building with wall 244. Unsorted and unbonded small to medium angular green sandstone rubble. 1.10m wide and 1.10m deep.	0.60-1.70m
244	Wall foundations	Wall foundations aligned N-S. Possible corner of building with wall 243. Unsorted and unbonded small to medium angular green sandstone rubble. 1.10m wide and 1.10m deep.	0.60-1.70m
245	Cut	Cut for wall foundations 244. With vertical sides, base not seen. Cuts natural 204 and layer 231. 1.10m wide and 1.10m deep.	0.60-1.70m
246	Wall	Wall within cut 247. Wall made from squared and rectangular dressed green sandstone blocks, up to 40.0x20.0x20.0m in size. 0.80m thick and 0.60m deep. Bonded with yellow sand mortar. The foundation consisted of unmortared green sandstone slabs.	0.60-1.20
247	Cut	Foundation cut for wall 246, with vertical sides and flat base. 0.80m wide and 0.60m deep. Cuts natural 204 and layer 231.	0.60-1.20m
248	Wall foundations	Medium to large angular green sandstone undressed blocks. Bonded together with yellow sandy mortar. This wall measured 1.0m wide and 1.0m deep. Cut by wall 250.	0.45-1.50m
249	Cut	Foundation cut of wall 248, with vertical sides and a concave base. 1.0m wide and 1.0m deep. Cuts natural 204 and layer 231.	0.45-1.50m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
250	Wall foundations	Medium to large angular green sandstone undressed blocks. Bonded together with yellow sandy mortar. This wall measured 1.0m wide and 0.50m deep. Cuts wall 248.	0.45-0.95m
251	Cut	Foundation cut of wall 250, with concave sides angled at 45° with a slightly concave base. 1.0m wide and 0.50m deep. Cuts natural 204, layer 231 and wall 248.	1.45-0.95m
253	Cut	Foundation cut of wall 254, with vertical sides and a flat base. 1.0m wide and 0.55m deep. Cuts natural 204 and layer 231.	0.25-0.75m
254	Wall foundations	Medium to large angular green sandstone undressed blocks. Bonded together with yellow sandy mortar. This wall measured 1.0m wide and 0.50m deep.	0.25-0.75m
255	Cut	Foundation cut of wall 254, with vertical sides and a flat base. 1.15m wide and 0.75m deep. Cuts natural 204.	0.35-1.10m
256	Wall	Medium to large angular green sandstone undressed blocks. Bonded together with yellow sandy mortar. This wall measured 1.15m wide and 0.75m deep.	0.35-1.10m
257	Layer	Small-large angular green sandstone blocks and fragments. Firm and cohesive. Probably demolition rubble of wall 256.	0.35-0.70m
258	Floor	Remains of floor between wall 254 and 256. Most robbed? Small flat sandstone slabs 0.60m wide. Lying directly natural 204. Butts 254.	0.50-0.55m
259	Fill	Redeposited natural overlying floor 258. Firm and cohesive red silty clay. Occasional small charcoal flecks, 0.20m thick.	0.30-0.50m
260	Layer	Thick deposit similar to 231. Mid-dark grey-brown silty clay. Soft and friable. Moderate small ceramic building material fragments. Up to 1.20m thick.	0.50-1.70m
261	Cut	Shallow cut for wall 262, probably truncated. With 45° flat sides and a flat base. 1.70m wide and 0.35m deep. Cuts natural 204 and layer 260.	0.50-0.85m
262	Wall	Wall running NNW-SSE. Constructed from coursed greyish green sandstone blocks and slabs. Bonded with red clay. Approx 1.70m wide. 0.35 deep.	0.50-0.85m
263	Cut	Foundation cut of wall 264, with vertical sides and a flat base. 0.80m wide and 0.50m deep. Cuts natural 204 and layer 260.	0.50-1.00m

Depth below ground surface (b.g.s) – top and Context Classification Description bottom of deposits Wall 264 Wall running NNW-SSE. Constructed from coursed 0.50-1.00m greyish green sandstone blocks and slabs. Bonded with red clay. 0.80m wide and 0.50m deep. 265 Small-large angular green sandstone blocks and 0.50 - 0.70 mLayer fragments. Firm and cohesive. Probably demolition rubble lying on layer 260. Fill 266 Mixed deposit. Firm mid orange grey brown sandy silt. 0.60-1.40m Frequent large pieces of limestone. Occasional ceramic building materials. Patches of redeposit natural - red sandy silt. 267 Fill Firm Dark grey brown sandy clay silt. Moderate medium 1.30-1.70m large stones and occasional charcoal flecks.

# **Appendix 2 Environmental Tables**

Context	Sample	large mammal	charcoa 1	charred plant	Comment
214	1	+	+++	+	Fe nail
230	2	++	+++	+	some pot sherds

Table 10: Wall Town; environmental summary of biological remains found within the flots and residues

Latin name	Common name	Habitat	214	230
Hordeum vulgare grain (hulled)	barley	F		1
Rumex sp	dock	ABCD		4
Trifolium sp	clover	ABD		1
Hyoscyamus niger	henbane	AB	1	
Eleocharis sp	spike-rush	Е		1

Table 11:Wall Town; charred plant remains recovered

Key to Tables 1 & 2	
Habitat	Quantity
A= cultivated ground	+=1-10
B= disturbed ground	++ = 11- 50
C= woodlands, hedgerows, scrub etc	+++ = 51 -100
D = grasslands, meadows and heathland	++++ = 101+
E = aquatic/wet habitats	
F = cultivar	

# **Appendix 3 Technical information**

# The archive

The archive consists of:

10	Fieldwork progress records AS2
5	Photographic records AS3
288	Digital photographs
1	Drawing number catalogues AS4
2	Context number catalogues AS5
1	Sample records AS17
67	Abbreviated context records AS40
14	Scale drawings
3	Box of finds

The project archive is intended to be placed at:

Shropshire County Museum Service Shropshire County Council Wenlock Lodge Acton Scott Church Stretton Shropshire, SY6 6QN

Tel. Church Stretton (01694) 781306

# **Summary of data for Worcestershire HER**

# WSM 38540

# P2995

Methods of retrieval	Yes/No
Hand retrieval	N
Bulk sample	N
Spot sample	N
Auger	N
Monolith	N
Observed	N