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DYFED ARCHAEOLOGICAL TRUST LTD



FOUL SEWER REPLACEMENT

at

PUMPSAINT

DYFED

ARCHAEOLOGICAL WATCHING BRIEF

FEBRUARY 1996

PROJECT RECORD 32472

Commissioned by: Dinefwr Borough Council

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SUMMARY

In response to deterioration of the existing Pumpsaint foul sewer pipe, Dwr Cymru commissioned Dinefwr Borough Council to replace it. The council in turn commissioned TRJ to undertake the engineering work. On the advice of the National Trust, Dinefwr Borough Council chose to undertake an archaeological watching brief during the replacement works. Consequently, Dyfed Archaeological Trust Field Operations were identified as the contractor. A deep slot trench to take the new pipe was excavated in contiguous sections, with those of interest being left open for detailed archaeological recording prior to the instalment of the box frames.

The southern route from the Roman fort, *Luentinum*, at Pumpsaint was not detected during the excavations and its exact alignment remains unclear. However, possible second phase infill of first phase defence ditches of the Roman fort were noted. These deposits were detected within the exposed section of the truncated spur alongside the present Pumpsaint village. If these deposits represent the Roman fort defences this changes our understanding of the layout of the fort, previously thought not to extend this far south (fig.1). A previously unknown vaulted stone culvert was detected on two separate occasions, (fig.1). Its alignment and the nature of its infill deposits encourage its association with the Post Medieval corn mill, Felin Dolau Cothi.

PRN 32471

ACKNOWLEDGEMENTS

The report was prepared by B. Allen, Project Officer, Dyfed Archaeological Trust Field Operations. The fieldwork was carried out by B. Allen and K. Murphy. The author is grateful to the on-site staff of TRJ for all their help during the watching brief and to Dinefwr Borough Council for supporting the project.

1. INTRODUCTION

1.1 Project Commission

An archaeological watching brief was recommended by the National Trust to Dinefwr Borough Council, who in turn commissioned Dyfed Archaeological Trust to undertake the work.

1.2 Scope of Project

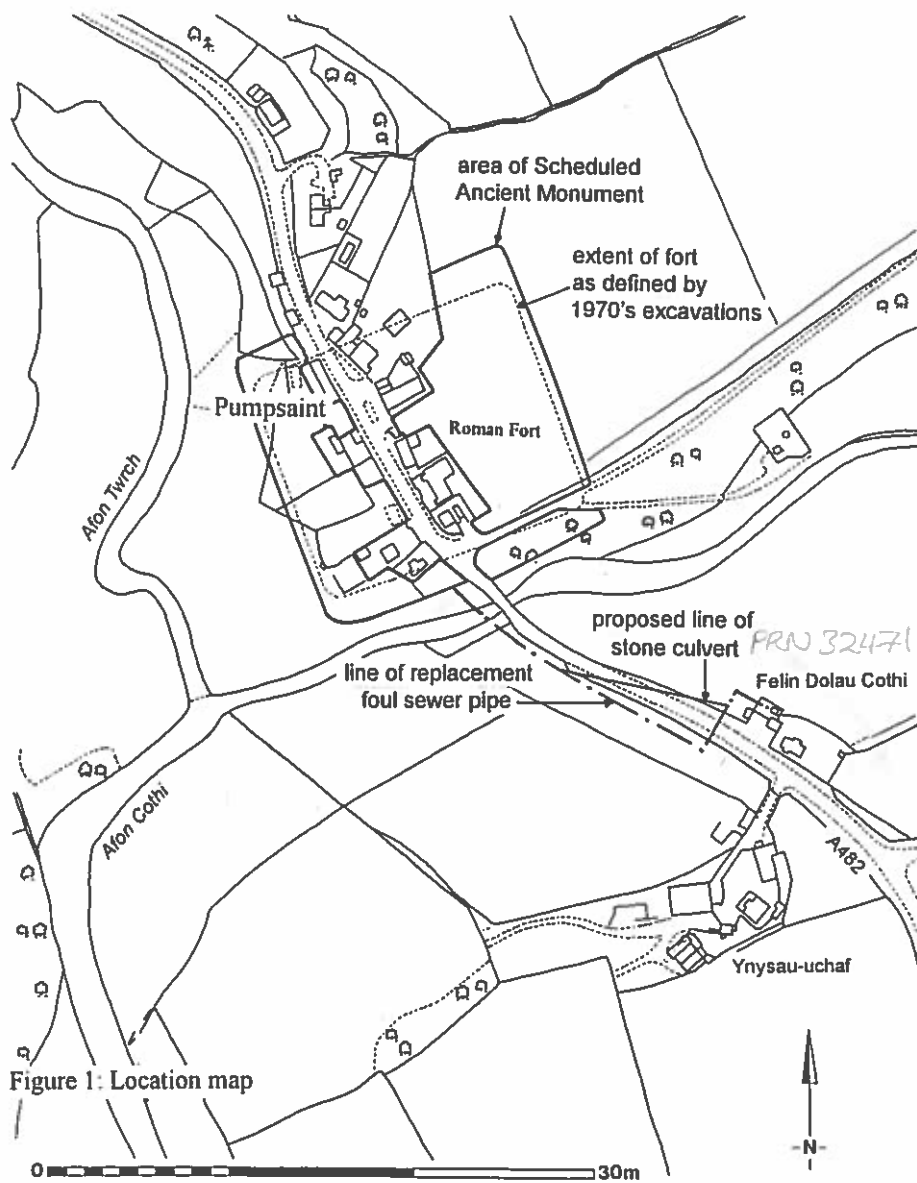
The watching brief aimed to monitor all exposed sections and record any archaeological features uncovered during excavation and to produce a report.

1.3 The Project Archive

The project archive for this watching brief is limited to 28 context sheets, one location map, one composite section drawing and 24 photographs, and will be retained by Dyfed Archaeological Trust Field Services (Site no 32472).

2. THE SITE

The replacement foul sewer pipeline is located south-east of Pumpsaint village, running approximately parallel to the A482 (NGR SN 657404). The pipeline crosses the Afon Cothi and its associated flood plain and relict river terraces (fig. 1). The majority of deposits encountered during the excavation consisted of abundant river gravels with underlying silty clay alluvium. The water table was at the interface of the river gravels and the impervious silty clay alluvium throughout the trench.



3. RESULTS OF FIELDWORK

3.1 Methodology

The excavation involved the cutting of a machine trench, approximately 260m in length, on average 2m wide and 2 to 3m deep, undertaken by TRJ, the main work being carried out over a seven week period. The depth of the narrow machine-cut trenches restricted access but both sections were examined throughout the work. The south-west facing section proved the most informative and each section was recorded whilst exposed. Spoil and areas of stripped topsoil were regularly scanned for archaeological evidence.

3.2 Stratigraphic Sequence

The natural stratigraphic sequence on site followed the same alluvial pattern throughout. This series included a combination of buff and red/brown sandy clay loams (002) of varying thickness, underlying the topsoil (001). The boundary between these loams and the underlying river gravels (003) was distinct throughout. The river gravels varied from rounded to sub-angular, comprising predominantly of Silurian Shale, reflecting the local solid geology. There was no apparent grading of these gravels, however there was a tendency for an increase in size towards the base of this deposit. The depth of these gravels was on average 1.20m and a distinct iron pan formation was evident through the centre of this deposit. A distinct boundary was noted between the gravels and the underlying homogenous blue/grey silty clay (004). On average, an approximate 1m depth of this deposit was exposed throughout excavation but was never bottomed.

3.3 Archaeological features.

Changes within the stratigraphy were noted at the far north-west end of the site. The earliest evidence for human activity, recorded in the south-east facing section, comprised a partially observed cut feature approximately 2.5m deep and 2.0m wide, the upper sides and top of which had been truncated by later cuts. The base of this feature was not reached by the excavations

but it was apparent that it cut the river gravel deposit (003). The infill (023) of this cut feature (028) comprised blue/grey silty clay, heavily leached and containing abundant river gravel. This cut feature and its fill had been truncated to the north-east by the old foul sewer pipe trench and in the south-west end of the trench by a U-shaped cut (025), approximately 1.5m wide and 1.2m deep. The fill of this later feature comprised friable red/brown sandy loam (024) containing mixed angular and subangular stone of varying size. No archaeological material was recovered from the deposits throughout the section.

Figure 1 illustrates the probable route of a stone culvert, using the two locations it was breached during the recent excavations, on either side of the A482. Figure 2 taken from the south-west facing section, south-west of the A482 illustrates the stratigraphic sequence associated with the construction of the culvert and later alterations corresponding to the laying of the modern storm drain. Natural alluvial deposits, contexts (002, 003 and 004), were clearly cut by a substantial feature (cuts 013, 018 and 021) interpreted as the construction trench for the stone culvert. This trench had been dug down to the top of the impervious silty clay, onto which the drystone barrel-vaulted culvert of shale slabs with internal facing had been built. The round-bottomed interface at the base of the culvert may have been the result of intentional excavation, or fluvial erosion during its active life. The presence of clasts of blue/grey silty clay in the mixed backfill which buried the culvert suggests the former. The impervious nature of the silty clay (004) appears to have been utilised as the base of the drain as no lining was observed. The large shale slabs present in the basal infill (019) represent subsequent collapse of the vaulting. The matrix of this infill was highly organic, containing fragments of oak planking. Considering the state of wood preservation it is seen as relatively modern in date. A distinct change to the overlying fill (016) was recorded. This deposit once again contained large shale slabs of similar nature to the stone culvert but was an inorganic silty clay. The overlying fill (010) comprised very friable sandy gritty loam with subangular shale (60mm average length) and distinct tip lines of grit and angular gravel. The modern storm drain (015), 0.35m in diameter, was laid at the north-east end upon these tip lines. The fill (010) is interpreted as the foundation and backfill for this drain. Further disturbance of the original stone culvert was likely but not evident.

4. CONCLUSIONS

4.1 History

The present village of Pumpsaint lies upon a natural spur, 10m above the flood plain at the base of the slopes of Allt Dolaucothi. It is also situated within the confluence of the Afon Cothi and the Afon Twrch. It would appear from previous excavations within Pumpsaint that the Romans first recognised and utilised this commanding position. A Roman fort, *Luentinum*, was established soon after their campaign within this area approximately 75AD. The fort served a dual purpose; providing protection for both the nearby Dolau Cothi gold mines and the military route from Llandovery, *Alabum* through to Llanio, *Bremia*. The majority of excavations of the fort took place under the direction of G.D.B. Jones in the 1970's, although subsequent work has been undertaken in response to further developments in the last two decades. There is evidence of two main phases of construction of *Luentinum*. The first phase, c.75AD, involved the construction of the auxiliary fort, the supposed outline of which is illustrated in fig. 1. The second phase at c.120AD involved contraction of the perimeter defences and slight reorganisation, reducing *Luentinum* to fortlet status. The fortlet appears to have been abandoned c.140AD. The reduction followed by abandonment is a familiar pattern of forts in the area in response to re-employment of troops for the construction of Hadrian's Wall and the Antonine Wall respectively.

The Roman gold mines, Ogofau, are believed to have first been exploited in the prehistoric period. However, during Roman occupation extensive and elaborate mining operations took place. Many of these relict systems can still be seen today. Mining continued after the military withdrawal and occasional working has occurred in the last two centuries but nothing on such a scale. The Roman road leading from the fort heading north to Llanio is well defined, whereas the location of the southern route remains uncertain.

Dark Age and medieval occupational evidence is scarce, having possibly been destroyed by the development of the present layout of Pumpsaint village, most of which occurred in the nineteenth century (Page & Sambrook, 1995).

4.2 Interpretation

The extent of the Roman defences on the south-east side have been determined by a single trench excavated (Jones and Little, 1973). A substantial cut was recorded during the watching brief in the south-east facing section at the far north-east end of the site. The infill (024) of this feature (025) does not resemble any of the deposits seen elsewhere on the site or those described by Burnham and Burnham (1986) in a naturally exposed section some 30m away, north of the A482. However, it does appear to have characteristics in common with previously excavated deposits associated with the second phase of construction, where first phase defences were deliberately backfilled to provide a foundation for the second phase stone ramparts (Jones and Little, 1973). If the deposits exposed during the watching brief relate to second phase alterations to the defences, then this large feature could represent more extensive first phase defences than had previously been supposed.

Cartographic evidence (Tithe Map, 1841) exists for a post-medieval mill with the same place-name as the extant buildings at Felin Dolau Cothi (see fig. 1), but no remains of this complex were detected during the watching brief. A leat is shown to run from the Afon Cothi in the North-east to the corn mill in the south-west. However, the recently discovered stone culvert is not marked on any of the maps studied. The alignment of the culvert and the state of preservation of the wood found within the organic deposit (019) suggest that this feature was associated with the post-medieval mill.

In conclusion, the watching brief has proved useful, both in enlarging our understanding of the possible extent of phase 1 Roman defences at the fort of *Luentinum* and in providing excavation evidence for the workings of the post-medieval mill previously only known from cartographic evidence. However, no evidence for the location of the southern route of the Roman road was detected.

5. CATALOGUE OF WATCHING BRIEF ARCHIVE

The project archive indexed according to the National Monument Record (NMR) categories is currently held by DAT Field Operations, Llandeilo. It is intended that the archive will be incorporated into a larger archive of all projects carried out in the Pumpsaint area. The archive will be available for consultation by relevant bodies after incorporation.

The archive is held as Site No 32472.

Contents of archive

A. Copies of report

B. Notes made during fieldwork

C. Site photographs (monochrome and colour slide, 35mm)

D. Site records.

L. Project brief

M. Correspondence, excluding matters of a confidential or financial nature

There is no material for categories E, F, G, H, I, J, K and N.

6. REFERENCES

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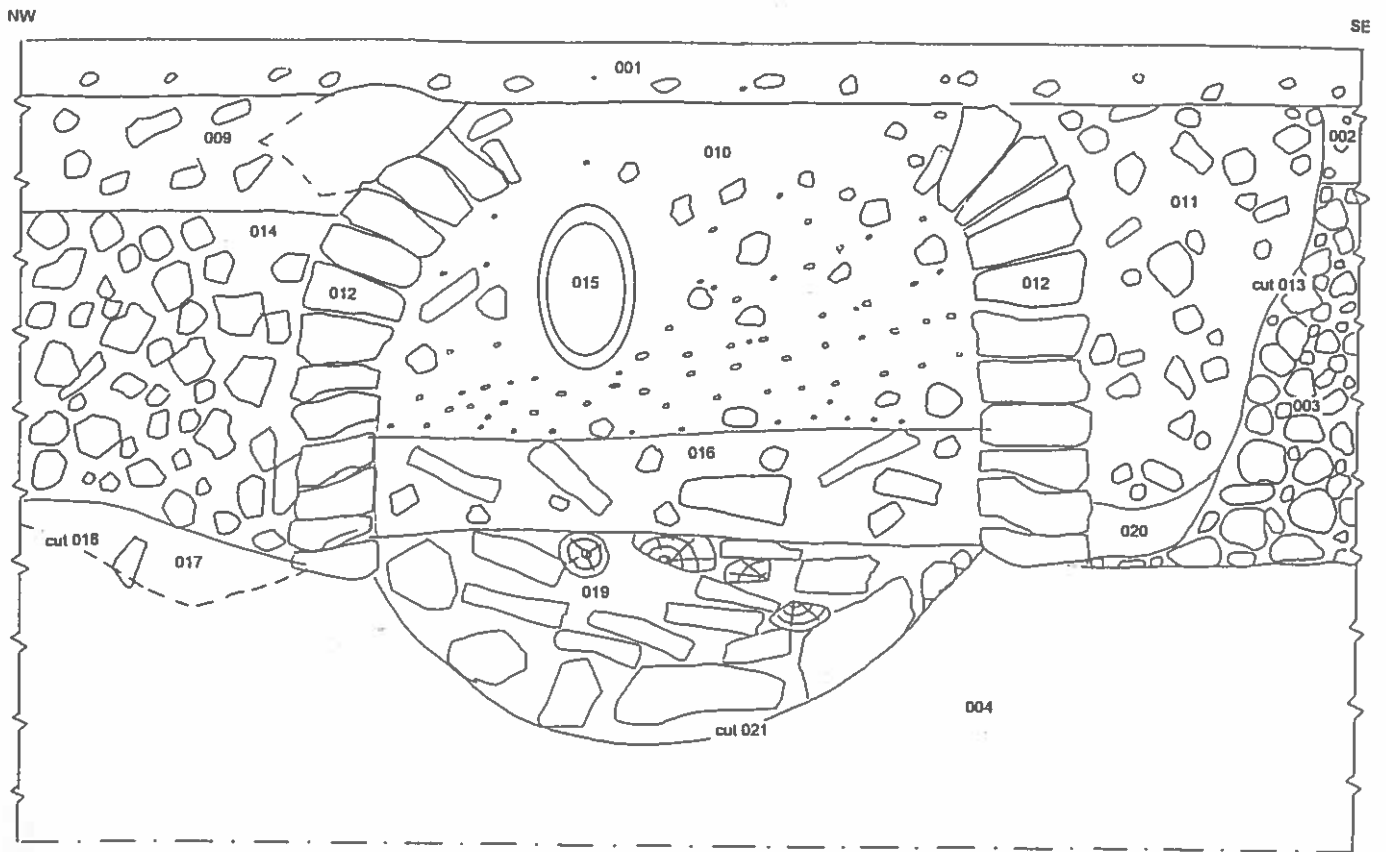






Figure 2: south-west facing section of stone culvert - PRN 32471

0 1m

- | | |
|---|---|
|  wood |  stone |
|  limit of excavation |  storm drain |