

Merthyr Labour Exchange, Merthyr Tydfil: Archaeological Excavation and building recording

December 2020

A report for Wales and West
Housing
by Johnny Crawford BSc MA MCIfA

GGAT report no. 2020/081
Project no. P2003

National Grid Reference
SO 05049 06657



The Glamorgan-Gwent Archaeological Trust Ltd
Heathfield House Heathfield Swansea SA1 6EL

Contents	Page
Summary	4
Crynodeb	5
Acknowledgements.....	6
Copyright notice.....	6
Abbreviations.....	6
1. Introduction	7
1.1 Project background	7
1.2 Location and topography	8
1.3 General historical and archaeological background	8
1.4 Site specific archaeological background.....	10
2. Methodology	13
3. Results	15
4. Finds	18
5. Discussion and Conclusion	54
6. Bibliography	62
Appendix I. Context Inventory	64
Appendix II. Index of Figures	74
Appendix III. Plates	90
Appendix IV. Building recording	105
Appendix V: retaining wall 014 recording	132

Figures

Figure 1. Location of the site (shown in red) showing the sub-division of the site into relevant Zones (indicated).	74
Figure 2. Plan showing location of detailed plans, sections and elevations shown in figures 4-15c	75
Figure 3. Convention list	76
Figure 4. South west facing section through Roman deposit 035 (see Figure 2 for location)	77
Figure 5. South facing section through Roman deposit 075 (see Figure 1 for location)	78
Figure 6. South facing section through Roman deposit 078 (see Figure 2 for location)	78
Figure 7. Plan of Roman surface 019 showing location of section Figures 8, 9 and 10 (see Figure 2 for location).	79
Figure 8. South east facing section through Roman surface 019 (see Figures 2 and 7 for location)	80
Figure 9. South west facing section through Roman surface 019 (see Figures 2 and 7 for location)	80
Figure 10. South east facing section across surface 019 (see Figure 2 for location)	81
Figure 11. South east facing section through Roman drain 016 (see Figure 2 for location)	82
Figure 12. Figure 12. Cobbled surface area 036/037 representing the remains of probable turnstiles for the football ground (see Figure 2 for location)	83
Figure 13. Cobble and cinder path area 021 and 041 representing the remains of a probable turnstile area for the football ground (see Figure 2 for location)	84

Figure 14. Plan of Post-medieval drain 012 and modern French drain 007 (see Figure 2 for location)	85
Figure 15. Representative elevations a, b and c of retaining wall (see Figure 2 for location).....	86
Figure 16. Roman pottery, catalogue numbers 1 - 20 (shown at 50% actual size).....	87
Figure 17. Catalogue of Roman small finds Figures 17 to 20.	89

Plates

Plate 1. General view of the nature of the ground prior to commencement of the excavation in January 2016. View to south west.....	90
Plate 2. Development area stripped of topsoil and beginning to reveal features of interest, view to south west.....	90
Plate 3. Feature 035 consisted of an ephemeral deposit of material rich in Roman finds, including coins, pottery and brooches. Scale divisions 0.5m, view to south/south west.	91
Plate 4. Deposit 075. This deposit is probably the same as 035, which had been noted in the same area the previous year. Both deposits were rich in Roman finds. Scale divisions 0.5m, view to north.	91
Plate 5. Metalled surface 019 showing ceramic building material remains. Scale division 0.5m.....	92
Plate 6. Possible kerbing located either side of a metalled area 019. This feature was ephemeral and little more was discerned on further excavation.	92
Plate 7. South west facing section through metalling 019 showing the ephemeral nature of the construction. Scale divisions 0.5m.	93
Plate 8. Surface 113 was a possible Roman trackway found close to metalling 019 and is likely to have been the same deposit. Scale division 0.5m, view to north.	93
Plate 9. Cut 106 and fill 107, located close to the Post medieval structure 111. View to north east, scale divisions 0.5m.....	94
Plate 10. Closer view of south facing section through deposit 107, contained within cut 106. Scale division 0.5m.....	95
Plate 11. Fill of feature 017, a deposit of ironstone, clays and stone that included Roman ceramics. This was possibly the fill of a drainage ditch.	96
Plate 12. Contextual view of deposit 017 within the bank. Scale divisions 0.5m, view to north.....	96
Plate 13. Foundation 020, belonging to a probable Post-medieval turnstile. The structure was inset with a number of upright wooden posts to support a superstructure. Scale divisions 0.5m (see Plate 11).....	97
Plate 14. The remains of wooden posts that probably once supported the superstructure of the turnstile. Scale divisions 0.5m.....	97
Plate 15. South facing section of Post-medieval structure 111. Scale divisions 0.5m	98
Plate 16. Closer view of structure 111. This appeared to have been a chamber and was possibly similar in function to chamber 010.	98
Plate 17. Post-medieval chamber 010 located in Zone 1 of Area A. View to south, scale division 0.5m.....	99
Plate 18. General view of the retaining wall 014 separating Areas D and Area A, view to south east. Scale divisions 0.5m	99

Plate 19. General view of a typical section of retaining wall 014 separating Area D and Area A showing method of laying the stone. Scale divisions 0.5m...	100
Plate 20. 017 Body sherd, Dr.29 or 37, fabric LG, forelimbs of running animal, possibly a rabbit, deer or hound. AD43-110.....	101
Plate 21. 035 Body sherd, Dr.37, fabric LG, wreath below plant motif terminating in poppyheads. AD70-110.....	101
Plate 22. 035 Body sherd, Dr.37, fabric LG, basal wreath. AD70-110.....	102
Plate 23. 075 Body sherd, Dr.29 or 37, fabric LG, band or wreath of chevrons below motif of indeterminate type. AD43-110.....	102
Plate 24. 107 Body sherd, Dr.37, fabric LG, band of chevrons below plant or animal motif. AD70-110.....	103
Plate 25. 107 Body sherd, Dr.37, fabric LMV, basal band of rosettes, style of Donnaucus (Stanfield and Simpson 1958, pl. 46, no. 547). AD100-120..	103
Plate 26. Unstratified Rim sherd, Dr.37, fabric LG, running hound below indistinct ovolo. AD70-110	104
Plate 27. General view of surviving gatepost, View to north east.....	133

Tables

Table 1. Fabric proportions by count, %count, weight %weight, EVE and %EVE	19
Table 2. Assemblage composition by sherd count, %count, EVE and %EVE	21
Table 3. Roman pottery by context.....	29
Table 4. Summary quantification of samian wares (MV minimum number of vessels, based on rim; EVE estimated vessel equivalent, based on rim)	33
Table 5. Samian ware forms by fabric. Quantification by vessel count, based on all sherds	33
Table 6. Samian ware forms by fabric. Quantification by estimated rim equivalents (EVE), based on rims	34
Table 7. Quantification of samian ware by context (MV minimum number of vessels, based on rim; EVE estimated vessel equivalent, based on rim; MSW mean sherd weight)	34
Table 8. Roman glass by context.....	36
Table 9. Brick depths; thickness in mm on top line, number of examples on lower line.	39
Table 10. Roman brick by context	40
Table 11. Tegula, imbrex and flat tile by context	40
Table 12. Undiagnostic brick and tile by context	41
Table 13. Post-Roman pottery by context	43
Table 14. Post-Roman brick by context.....	43
Table 15. Post-Roman glass by context	44
Table 16. Clay tobacco pipes by context.....	44
Table 17. Items of stone by context.....	45
Table 18. Baked clay by context.....	46
Table 19. Slag by context	46
Table 20. Burnt bone by context	46
Table 21. Burnt material by context	46
Table 22. Iron objects and possible objects by context	51
Table 23. Iron nails by context	51
Table 24. Iron objects and possible objects by context	52
Table 25. Iron nails by context	53

Summary

A programme of archaeological investigation was carried out on the site of the former Labour Exchange, Pen y Darren Road, Merthyr Tydfil in connection with a housing development undertaken by the client. The works included a building recording of the former Labour Exchange itself together with archaeological evaluation, excavation and watching briefs on an adjacent land parcel. The work revealed evidence for occupation during the Roman period and limited evidence for use during the late Post-medieval period.

The Roman evidence is linked to occupation of the known fort at Penydarren, which is situated directly above the site. Although no structural evidence was found, several concentrations of Roman artefacts were noted, as was an area of metalling that may have been a trackway. The artefacts included pottery, iron objects (mostly nails) and brick. Several coins and the remains of three brooches were discovered, although preservation conditions had not been kind to them.

Specialist analysis of the finds dates them to the establishment of the fort around AD 74/5 as part of the final Roman campaign into Wales. There is no evidence of Roman occupation beyond AD 130, which confirms the findings of previous work on the site.

No more than one phase of Roman activity could be discerned and the assemblage is consistent with one deposited either in a single event or as part of a series of events within a short timespan. A possible bias towards the presence of storage vessels and the presence of brick that may have been derived from the closest known building (a granary) suggests that the material may have been deposited as a clearance event on decommissioning of the fort in the Hadrianic period.

No evidence for any defences was found during the work and there was no evidence either for a substantial road or a gateway leading from the eastern side of the fort.

Post-medieval evidence for the site was restricted to the foundation remains of a turnstile for the early 20th century football ground and two masonry chambers that were possibly for water management.

The archaeological work was carried out to the professional standards laid down in the Chartered Institute for Archaeologists' Standard and Guidance for Archaeological Excavation (2014 updated 2020) and the Standard and Guidance for Archaeological Watching Brief.

A copy of the report and archive index will be deposited with the National Monuments Record, RCAHMW, Aberystwyth and the Regional HER curated by the Glamorgan-Gwent Archaeological Trust, Curatorial Division, Swansea.

Crynodeb

Cynhaliwyd rhaglen o ymchwilio archaeolegol ar safle'r hen Gyfnewidfa Lafur, Ffordd Penydarren, Merthyr Tudful mewn cysylltiad â datblygiad tai y mae'r cleient yn ymgymryd ag ef. Roedd y gwaith yn cynnwys cofnodi adeilad yr hen Gyfnewidfa Lafur ei hun, ynghyd â gwerthusiad archaeolegol, cloddiad a briffiau gwyllo ar barsel o dir cyfagos. Datgelodd y gwaith dystiolaeth o feddiannaeth yn ystod y cyfnod Rhufeinig, a thystiolaeth gyfyngedig o ddefnydd yn ystod y cyfnod ôl-ganoloesol hwyr.

Mae'r dystiolaeth Rufeinig yn gysylltiedig â meddiannaeth o'r gaer hysbys ym Mhenydarren, sydd wedi'i lleoli'n union uwchben y safle. Er na ddarganfuwyd tystiolaeth adeileddol, nodwyd sawl crynodiad o arteffactau Rhufeinig, ynghyd ag ardal o fetel, a oedd, o bosibl, yn drac. Roedd yr arteffactau'n cynnwys crochenwaith, gwrthrychau haearn (hoelion yn bennaf) a brics. Darganfuwyd sawl darn o arian ac olion tair broetsh, er nad oedd yr amodau cadwraeth wedi bod o'u plaid.

Mae dadansoddiad arbenigol o'r darganfyddiadau yn eu dyddio i gyfnod sefydlu'r gaer, tua OC 74/5, yn rhan o'r ymgyrch Rufeinig olaf i Gymru. Nid oes tystiolaeth o feddiannaeth Rufeinig y tu hwnt i OC 130, sy'n cadarnhau'r canfyddiadau o waith blaenorol ar y safle.

Ni lwyddwyd i ganfod mwy nag un cam o weithgarwch Rhufeinig, ac mae'r casgliad yn gyson ag un a ddyddodwyd naill ai mewn un digwyddiad neu'n rhan o gyfres o ddigwyddiadau o fewn cyfnod byr. Mae gogwydd posibl tuag at bresenoldeb llestri storio a brics, a allai fod wedi deillio o'r adeilad hysbys agosaf (sef ysgubor), yn awgrymu y gallai'r defnydd fod wedi'i ddyddodi yn rhan o ddigwyddiad clirio adeg datgomiynu'r gaer yng nghyfnod yr Ymerawdwr Hadrian.

Ni ddarganfuwyd tystiolaeth o unrhyw amddiffynfeydd yn ystod y gwaith, ac nid oedd yna dystiolaeth chwaith o ffordd na phorth sylweddol yn arwain o ochr ddwyreiniol y gaer.

Mae'r dystiolaeth ôl-ganoloesol ar gyfer y safle wedi'i chyfyngu i olion cwt ci posibl a oedd yn gysylltiedig â thrac rasio cŵn ar ddechrau'r 20fed ganrif, a dwy siambr gwaith maen a oedd, o bosibl, yn rhan o waith rheoli dŵr.

Gwnaed y gwaith archaeolegol yn unol â'r safonau proffesiynol a bennir yng nghyhoeddiadau Sefydliad Siartredig yr Archaeolegwyr, sef Standard and guidance for archaeological excavation (2014 diweddarwyd 2020) a Standard and guidance for an archaeological watching brief.

Bydd copi o'r adroddiad a mynegai'r archif yn cael eu hadneuo yng Nghofnod Henebion Cenedlaethol Cymru, CBHC, Aberystwyth, ynghyd â'r CAH Rhanbarthol sydd dan guraduriaeth Ymddiriedolaeth Archaeolegol Morgannwg-Gwent, Yr Adran Guradurol, Abertawe.

Acknowledgements

The project was managed by Richard Lewis MCIfA, and latterly by Martin Tuck MCIfA (Project Manager). Martin Tuck, Dr Graham Eyre-Morgan, Tom Davies, James Toseland, Jon Burton, Issica Baron, Johnny Crawford, Rhodri Kemp and Sophie-Lewis Jones undertook the fieldwork. Johnny Crawford compiled the report. The illustrations were prepared by Paul Jones PCIfA (Senior Illustrator). Enormous thanks are due to Joyce Compton who undertook the finds analysis for her knowledge, skill and good humour, and also to Ed Biddulph for his assessment of the samian. Thanks are also due to Marcus Blayney of Wales and West Housing and his predecessor Johann Horton

Copyright notice

The copyright of this report is held by Glamorgan-Gwent Archaeological Trust Ltd; GGAT has granted an exclusive licence to Wales and West and their agents to use and reproduce the material it contains. Ordnance Survey mapping is reproduced under licence (AL100005976), unless otherwise noted. Annotations are GGAT copyright.

Abbreviations

GGAT – Glamorgan Gwent Archaeological Trust

HER – Historic Environment Record (held at GGAT)

NGR – National Grid Reference

NMR – National Monuments Record (held at RCAHMW)

NMW – National Museum of Wales

NPRN – National Primary Record Number (in NMR e.g. 419036)

OS – Ordnance Survey

PRN – Primary Record Number (in HER e.g. 02999w)

RCAHMW – Royal Commission on the Ancient and Historic Monuments of Wales

1. Introduction

1.1 Project background

- 1.1.1 Wales and West Housing Association Ltd intended to construct twenty four dwellings on a site occupied by the former Merthyr labour Exchange, Penydarren Road, Merthyr Tydfil. The scheme involved the demolition of the majority of the Labour Exchange to assist provision of dwellings (Planning App no. P/14/0294) as well as off street parking, landscaping and associated works (Planning App no. P/14/0295) on the land formerly occupied by the Labour Exchange and an adjacent area of ground.
- 1.1.2 As part of the development the majority of the Labour Exchange was demolished. However, the historic frontage of the Labour Exchange was retained to enhance the heritage resource of the surrounding area. Prior to demolition a Level 2 historic building survey was undertaken, the results of which are contained at Appendix IV.
- 1.1.3 The current development area is located adjacent to the site of Penydarren Roman fort (PRN **00823m**, NPRN **301352**), where during the mid-18th and early-20th century, substantial archaeological remains were discovered a short distance to the north. These remains consisted of both military remains from the fort and structural remains from the presumed *vici*.
- 1.1.4 Consequently, due to the potential of encountering buried archaeological remains Wales and West Housing Association Ltd commissioned GGAT Projects to carry out an archaeological field evaluation to inform the planning process on the archaeological resource of the development area. The evaluation (Hart and James-Martin 2014) consisted of the excavation of five trenches. Three contained Post-medieval features including truncated garden walls, cobbled surfaces and buried ground surfaces. One trench contained the postulated Roman defensive ditch of the adjacent fort. A small finds assemblage was retained, the majority of which comprised Post-medieval and modern glass and ceramics, clay pipe fragments and four fragments of Roman brick and a fragment of Roman amphora handle.

- 1.1.5 Due to the possibility of encountering further Roman remains, a condition was attached to the planning consent, which required the preparation of an archaeological Written Scheme of Investigation (WSI), to provide a framework for further archaeological works. GGAT Projects were commissioned by Wales and West Housing Ltd to compile the WSI (James-Martin 2014). The scheme allowed for a staged programme of works including a Level 3 building survey (English Heritage 2016) of the upstanding remains of the Labour Exchange (Area C), the archaeological excavation of the majority of the development area (Area A) and an archaeological watching brief on any ground intrusion works associated with the development. A further recommendation for geophysical survey was not pursued as consultation with the surveyor indicated the area was unsuitable for such a technique. The results of the programme form the bulk of the current report.

1.2 Location and topography

- 1.2.1 The development is situated at NGR SO 05049 06657 (Figure 1). The land on which the Labour Exchange site was located rises rapidly from Penydarren Road at the south east to Park Terrace to the north west, before flattening out onto a plateau which then rises more gradually to the north. In the late 18th century, the area immediately to the west of the development was terraced and re-landscaped for the construction of Penydarren House and Park, now demolished, with the site now being occupied by Merthyr Town Football club. The remainder of the surrounding area consists of housing ranging in age from the Victorian to the late 20th century.
- 1.2.2 The superficial geology of the area is made up of Devensian Till over sedimentary bedrock and sandstone of the South Wales Lower Coal Measures (BGS 2020).

1.3 General historical and archaeological background

- 1.3.1 Prior to the arrival of the ironmasters, several of whom migrated from Sussex as early as the 17th century (Merthyr Teachers Centre Group 1981), activity in the region was closely linked to agriculture, *i.e.* lime burning, corn-milling and leather tanning. Merthyr Tydfil had no established industrial tradition. The reliance on dairy farming continued into the 17th and 18th centuries; it is known

for instance that during the period 1688 - 1725 farmers in the Merthyr Tydfil area each on average owned fifteen cows (Merthyr Teachers Centre Group 1981). Merthyr Tydfil underwent a radical transformation in the second half of the 18th century. In 1696, it is described as 'a village of about 40 houses' and a population of 110 inhabitants has been conjectured; by 1801, the population of Merthyr Tydfil (including Dowlais) had increased to 7700 (Merthyr Teachers Centre Group 1981).

1.3.2 Despite the lack of industrial skills in the region, the Taff Valley represented an ideal setting for the establishment of an iron industry, due to the availability of iron ore, coal, timber, limestone, and waterpower, all in convenient proximity. Thanks to improved means of production in the late-18th century, iron had become more readily available and more affordable. At the same time, the wider context of near constant wars, the increased use of iron tools and implements in domestic and agricultural contexts, and the spread in iron use in construction, all resulted in an upsurge in the demand for iron. This represented a very lucrative market, which lured potential investors into shedding vast sums of money into the iron industry. The ironworks of northern Glamorganshire and Monmouthshire were large-scale enterprises from the beginning, where outside capital was essential. Large-scale expenditure on transport was necessary if the venture was to be successful (Hart and James 2013) with much investment going initially into canals, and then later railways; the Penydarren tramroad, opened in 1804 and famous as the first line to use a locomotive to pull a load originally ran immediately south east of the development site.

1.3.3 The first iron furnaces and forges were erected near the head of the Taff Valley between 1759 and 1765. By the early 1780s, there were four ironworks in operation in Merthyr Tydfil: Dowlais, Plymouth, Cyfarthfa, and Penydarren. Dowlais Ironworks started as probably the first coke-powered ironworks in south Wales in 1759. Plymouth opened in 1763, Cyfarthfa in 1765, and Penydarren in 1784. Ynys Fach Ironworks was conceived as a subsidiary works to Cyfarthfa, and opened in 1801. Other subsidiary ironworks to open in the early-19th century were Ivor by the Dowlais works and Dyffryn by the Plymouth works; along with further forges in Pentrebach, a part of Plymouth Ironworks (Hart and James 2013). Penydarren, located almost in the centre of

both Dowlais and Merthyr, would have benefitted hugely from all the separate concerns.

1.4 Site specific archaeological background

- 1.4.1 The first evidence for Roman occupation at Penydarren (PRN **00823m**, NPRN **301352**) occurred in 1786, when Roman bricks and a portion of a tessellated pavement were found during construction of Penydarren House (Figure 1). Explorations between 1902 and 1905 revealed the remains of a hypocausted building and a granary. The site was tentatively identified as a fort, although the evidence for defences was absent until rescue excavations in 1957 located the northeast corner of a probable fort and identified a single phase in the defences and two in the interior. The fort is located at 215m OD on a spur projecting from the hillside on the eastern side of the Taf valley. It is orientated north-northeast – south-southwest. Since only one corner of the defences has been discovered, its size is conjectural, but has been estimated as 2.3 hectares (5.75 acres). Insufficient is known of the internal buildings to establish the layout, but it is likely that the excavated granary was adjacent of the east gate (Evans 2010).
- 1.4.2 The rampart consisted of a clay and turf bank 8.25m wide, standing to a maximum height of 1.6m above a stone base. A stone-lined posthole was noted in the corner, presumably part of a tower. There was no evidence that the rampart had ever been faced by a stone wall. There were two ditches, 3.96m and 3.05m wide respectively, separated by a berm of 2.74m, but neither was completely excavated. A small section of what was believed to be the *via sagularis* dating to the second phase was found within the eastern rampart, and there were traces of two ovens in the *intervallum* (Evans 2010).
- 1.4.3 The granary, of mortared rubble, had external buttresses on all three excavated sides, and internal sleeper walls. A stone-lined well (PRN **00825m**) was also discovered close to the projected centre of the fort. Construction trenches for at least one timber building of unknown plan dating to the first phase were found inside the northeast corner, replaced in the second phase by a building represented by a slight masonry foundation. Another fragment of stone wall

bonded with clay found in 1905 may also belong to a building (PRN **00834m**) (Evans 2010).

- 1.4.4 The bath-house (PRN **00835m**) lay at the southern end of the spur and is believed to lie outside the fort. It has been badly robbed and the plan is not clearly intelligible. Three hypocausts were discovered. Close to the baths, and probably also outside the fort were the remains of two adjoining rooms of a masonry building, separated by a short space from a paved floor, but it is impossible to tell whether these represented two buildings or a single building with a courtyard, perhaps a mansio (PRN **00824m**). The cemeteries, represented by casual finds of pots, some complete and others containing fragments of bone, lay about 200m to the north and northwest of the fort (Evans 2010).
- 1.4.5 The pottery is consistent with a Flavian foundation, with occupation continuing to cAD 140. It was not possible to be precise about when the second phase of building in the interior occurred within this timespan (Evans 2010).
- 1.4.6 Later the development area formed part of Penydarren Park (NPRN **415115**), which was laid out on part of the estate gardens of Penydarren House (NPRN **19696**), the very first of the ironmaster's mansions built in Merthyr. The house itself had been constructed in 1786 by the owner of the Penydarren Ironworks. During the nineteenth century, largely because of the absence of recreational facilities in the town, Penydarren Park was used for the everyday leisure of the working people of Merthyr.
- 1.4.7 Towards the end of the 19th century the park was developed into a sporting arena and used primarily as a running and cycling track (as depicted on the second edition Ordnance Survey map of 1904). However in the early-20th century the stadium was turned into a ground for rugby football and association football complete with banked terracing and grandstands (as depicted on the third edition Ordnance Survey map of 1919). The site was home to Merthyr Tydfil's Northern Union (Rugby League) side from 1907-1910 and subsequently Merthyr Town FC. In the 1930s, the stadium was also used for greyhound racing and this necessitated the construction of a running track around the outside of the field. Today, the stadium retains much of its earlier

appearance with open terracing along the northern and eastern sides of the ground and two grandstands (one behind the western goal; the other along the southern touchline) (NMR **415115**; Halford 2014, 6).

- 1.4.8 The Labour Exchange, along with the Masonic Hall, is thought to have been built by 1931 and probably started after 1911 when the construction of the YMCA building started. The Labour Exchange was made famous by a visit from King Edward VIII when touring Merthyr Tydfil in 1936 (Davies 2009).

1.4.9 *Recent archaeological work*

- 1.4.10 In the summer of 2013 an archaeological watching-brief (Halford 2014) was conducted on the installation of an artificial pitch at Merthyr Town Football Club. No archaeological significant features or structures were encountered during the excavation. However, a small assemblage of pottery was recovered from Test Pit 2, including rims from two different Greyware everted rim jars. The dates of this small assemblage were consistent with the Flavian foundation to the fort with occupation continuing to approximately AD 140. Additional work consisted of an archaeological watching brief conducted on the demolition of the Striker Bars of Merthyr Tydfil football club in early October 2014 (Bellamy unpublished). While the removal of foundations did not encounter any Roman archaeology, a small sondage excavated to investigate deeper stratigraphy encountered the upper surface of the Roman layer at a depth of 1.8m below the current ground surface. On inspection this deposit appeared to be a demolition layer consisting of Roman brick and tile.

- 1.4.11 An evaluation was also conducted in advance of the current development (Hart and James-Martin 2014), and consisted of the excavation of five trenches. Three contained Post-medieval features including truncated garden walls, cobbled surfaces and buried ground surfaces. One trench was thought to contain the probable Roman defensive ditch of the adjacent fort although the evidence for this is somewhat circumstantial. A small finds assemblage was retained, the majority of which comprised Post-medieval and modern glass and ceramics, clay pipe fragments and four fragments of Roman brick and a fragment of Roman amphora handle.

2. Methodology

The main excavation work was undertaken in early 2016. This consisted of the machine removal of soil to reveal archaeological deposits within Area A as per the project design (Dunning 2015). The entirety of Area A was subject to the archaeological excavation with the exception of a steep section of bank which protruded from the football ground (Area B). Area B was to have been reduced during the main construction phase under archaeological watching brief conditions; unfortunately, significant instability of the slope precluded this from being accomplished and a decision was taken to abandon further development attempts in both Areas A and B.

Major landscaping was required following the failure of a soil nailing technique to adequately stabilise the bank and the remainder of the archaeological work consisted of a watching brief on these landscaping measures. The intermittent nature of groundworks to stabilise the bank meant that the archaeological programme was equally fragmented, with work being separated by periods of months and years. Fieldwork was completed in January 2020.

No samples suitable for environmental sampling were encountered during the work.

A full written, drawn and photographic record was made of all archaeological contexts, in accordance with the GGAT *Manual of Excavation Recording Techniques*. The intermittent nature of the work resulted in a number of gaps between the context indexing, with void context numbers introduced to ensure there was no duplication in the sequence (Appendix I). All significant contexts were photographed using digital cameras with no less than a 10mp resolution. Drawings (plans and sections) were produced at appropriate 1:10 and 1:20 scales.

Access to the former Labour Exchange building was restricted due primarily to safety issues with asbestos contamination. Following consultation with the LPA regarding safety concerns, it was agreed that the survey recording level could be to Level 2 standard rather than the specified Level 3 (Eyre-Morgan, see Appendix IV). The results of the survey are contained at Appendix IV.

An archive of archaeological records relating to the fieldwork (including artefacts and ecofacts subject to the agreement of the site owners; excepting those that may be subject to the *Treasure Act* (1996) and/or *Treasure Order* (2002)) and an archive of records relating to the preparation of the reports has been prepared to the specifications in ICON's guidelines and *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales* (National Panel for Archaeological Archives in Wales 2017).

After an appropriate period has elapsed, copies of the report and archive index will be deposited with the regional Historic Environment Record (HER). A copy of the report and archive index will also be deposited with the National Monuments Record, RCAHMW, Aberystwyth.

3. Results

Archaeological investigation of the site took a number of forms including evaluation but the following results focus on the evidence gained from the excavation in January 2016 and subsequent watching brief, which was intermittent until January 2020.

The division of the site into separate zones was made for ease of reference prior to commencement of the excavation, and this zoning has been retained for the purpose of the report (Figure 1). The area for excavation was severely constrained by the sloping nature of the ground which left little room for machine manoeuvre and storage of soils (Plate 1). Adverse weather also played a major part in the three week excavation period and excavated subsoils quickly turned to slurry when wet. Difficult soil conditions and poor weather were a feature of the excavation in 1957 and, indeed, the soil condition in particular, was the main reason that further works in the steeper areas were abandoned during current development.

The site, where safe to do so, was machine stripped of topsoil and reduced to natural where possible (Plate 2). Two trenches were also excavated, one in Zone 1 and the other in Zone 3, to prove/disprove the expected line of the Penydarren Roman defences. No indication of the defensive structures were uncovered within the excavated area. This would indicate that any defensive alignment is likely to be nearer the flatter ground of the football field and not cut into the sloping bank. The suggested RCAHMS alignment (1976) may be closer to correct if it continues as projected onward from the 1957 excavation.

Roman ceramic material was found in three distinct areas. In Zone 3 of Area A, an area (035) of approximately 2m by 2m size by 0.3m depth yielded an abundance of Roman ceramics, metalwork and some glass (Plate 3). A coin and two other copper alloy finds were also recovered from this irregularly shaped depression in the natural clay. No structures were observed and the irregular shape of the area suggested dumping perhaps when the fort was in use or later when the fort was abandoned. A subsequent deposit (075, Plate 4, Figure 2) was located in 2017 close to the site of 035 and it is probable that both these deposits are related, but examined a year apart.

The second area (019) located in Zone 2 of Area A, had remains in the form of a metallised surface (Plate 5 Figure 3) with two lines of boulders interpreted as edging or a kerb (Plate 6). This surface contained Roman brick and tile in its surface and, as a result, it is postulated to be of Roman date. As this feature appeared to slope gently downhill across the contours was conjectured to be the remains of a path set on the valley side outside of the fort. However, on sectioning, the feature proved to be ephemeral (Plate 7) and it is possible that it may have been a somewhat basic route that followed a diagonal or zigzag route given the gradient. Subsequent work undertaken the following year as part of a general watching brief noted a further area of possible Roman metalling (075-079, Plate 8) but the precise nature and even orientation of the feature remains speculative. These features were close to a deposit of Roman material that was found in 2017; this deposit (107, Plates 9 and 10) appeared to form the fill of a depression or shallow ditch (106) of uncertain orientation but which nevertheless was rich in Roman finds. It is unclear if there was a relationship between metallised surface 019 and the deposit but there is a possibility that these all formed part of a general occupation layer.

The remaining area (017) was enigmatic and had undergone successive earthworks, all likely associated with drainage. This area was at the south end, the lowest end of the site in Zone 1 in Area A. The earliest deposits 1.5m in overall depth were a series of clay fills, one of which contained large ironstone blocks, all filling a ditch (Plates 11 and 12). Roman ceramics and charcoal lumps were recovered from these fills. The remains of a probable Roman drainage ditch (016) were noted running north west to south east. The lowest fill of the ditch (015) contained a small quantity of Roman pottery and it is likely that the feature is Roman, although this could not be proven conclusively. It was likely that during the Evaluation, Trench 3, which was located adjacent to this area, cut through part of this ditch.

Overlying and cutting through the same area were further ditches and drainage features of Post-medieval date (011, 012 and 007). This area is the lowest part of the site and it appeared generally that drainage measures were naturally directed this way over successive periods. That situation may well have extended back to the Roman period, and it may be that there was a relationship between drainage within the site and the

location of bath houses on the plateau above, although this is speculative. It is an interesting observation that the same area continues to be the focus for drainage measures.

Two Post-medieval structures were also recorded towards the north side of the site (Zone 3). One (020) a paved area of stone setts with a series of timber uprights (Plates 13, 14 and Figure 4) and the other structural feature (021), the foundation of a wall and an associated cinder pathway. These were initially believed to have been possible dog kennels as the former athletics track was allegedly used as a dog racing track from the 1930s to the 1960s but in fact are almost certainly the remains of turnstiles for the football ground, built between 1912 and 1915.

A further Post-medieval stone built structure (111) was subsequently discovered within Zone 2 of Area A (Plates 15 and 16) but the structure was damaged and little could be discerned about the original form or function. This feature was possibly a chamber for water management, as a similar one (010, Plate 17) had been discovered within Zone 1 of Area A the previous year.

Areas B and E were devoid of archaeological finds although the retaining wall associated with the former route towards the football club located at the southern edge of Area D was recorded prior to removal (Appendix V, Plates 18-19 and Figure 5).

4. Finds

Given the ephemeral nature of the features and lack of structural evidence from the site, the finds recovered assume a greater significance in telling the story of Roman and later occupation. All specialist reporting was undertaken by Joyce Compton unless otherwise indicated.

Roman pottery

Introduction and Methodology

Roman pottery amounting to 1618 sherds, weighing just under 20kg, has been recorded by sherd count and weight, in grams, by context and pottery type, and the data entered onto Excel spreadsheets for ease of manipulation. The spreadsheets form part of the archive. Most sherds are abraded with powdery surfaces, mainly due to adverse soil conditions, but the assemblage is not overly fragmented (average sherd weight 12.3g). Unfortunately, the poor surface condition has masked much of the detail, especially decoration, but also any potential surface treatments such as mica-dusting. This technique is very common on 1st and early 2nd century flanged bowls, but only one example (from context 035; No.11 below) has retained any evidence. Much of the red ware has blackened external surfaces, especially rim edges, but there are only four examples of more-severely burnt sherds. Sooting was observed on just one vessel, a BB1 jar from context 075 (No.22 below).

The pottery was recorded by fabric group and vessel form, where possible, using relevant fabric and form typologies, for instance, those in Gillam (1976) and Holbrook and Bidwell (1991). The fabrics were identified using a x10 hand lens, where necessary, and were recorded mainly by generic fabric group. Vessel forms were fully quantified by estimated vessel equivalence (EVE), providing a total of 18.45 EVE for the whole assemblage. Any sherds of intrinsic interest were also recorded, for instance, pierced or trimmed sherds and those with stamps or graffiti.

Assemblage characteristics

Pottery supply

The range and proportion of the recorded fabrics are shown in the table below. The assemblage is dominated by unsourced grey wares, mainly from jars, which account for

a third by weight of the total pottery recovered. Unsourced red and buff wares, including mortaria, account for a further third by weight. Regional wares are represented by BB1, forming 7% of the total by weight. Continental imports comprise samian, North Gaulish mortaria, Central Gaulish colour-coated ware and Pompeian red ware, all in small amounts, along with South Spanish Dressel 20 amphorae which are well represented at 23% by weight.

Pottery type	Count	Weight	EVE	% count	% weight	% EVE
Amphora	69	4555	0.95	4.27	22.84	5.15
BB1	128	1390	1.64	7.91	6.97	8.89
Buff ware, inc mortaria	16	982	0.38	0.99	4.93	2.06
Central Gaulish colour-coated	14	34	0.22	0.87	0.17	1.19
Grey ware	822	6367	8.47	50.80	31.93	45.91
Fine ware, unsourced	39	399	0.78	2.41	2.00	4.23
Pompeian red ware	2	195	0	0.12	0.98	0
Red ware, unsourced	442	4445	4.12	27.32	22.29	22.49
Red ware mortaria	11	824	0.24	0.68	4.13	1.30
Samian	75	750	1.62	4.64	3.76	8.78
Total	1618	19941	18.42	100	100	100

Table 1. Fabric proportions by count, %count, weight %weight, EVE and %EVE

Assemblage composition

A range of vessel classes was recorded, the proportions of which are shown in the table below. Coarse ware jars dominate the assemblage at 54.3% of the total EVE. The majority of the jars (72% by EVE) are in local grey wares, with a small percentage in BB1 and the fewest numbers in red ware. Bowls also have a strong showing, at 23% of the total EVE. More than half of the bowls are in red ware, with a further quarter in reduced fabrics. Samian bowls account for 16% by EVE. Dishes form a low proportion of the total at just over 3% by EVE, with samian dishes being the most numerous. There are three dishes in grey ware and a single example in BB1.

Mortaria from several sources were recorded, but account for only 3% of the total EVE. Approximately half of the vessels are likely to be locally-made red ware. Some in red fabric with large white angular grits are identified as probable Usk-Kingsholm types, dating to the second half of the 1st century (Hartley 1993, 394). There is a single example of a mortarium from the Verulamium industry. Continental imports comprise vessels from northern France, specifically Pas de Calais, and perhaps Gallia Belgica. The sources for the mortaria match those for the 1957 collection (Webster 1991, 180).

Cups and beakers are present in small numbers (3.7% and 3.1% by EVE, respectively). Cups, mainly represented by the carinated form Dr.27, are restricted to samian ware. Beakers appear in several fabrics, including local red and grey wares. Of interest is a roughcast beaker in Central Gaulish colour-coated ware (Fig.00, no.25). Sherds are present in three contexts but quite possibly are from the same beaker. Also present is a lead-glazed beaker (context 110, Fig.00, no.24), though with very little of the glaze remaining. Flagons are few, recorded in just three contexts, although undiagnostic body sherds may be present among the mass of the red wares. There is a probable flagon in BB1, comprising a neck/shoulder sherd in context 035 and an unstratified bifid handle. A range of BB1 flagon types is illustrated by Wallace and Webster (1989, figs 1 and 2) and given a broad mid 1st to late 2nd century date.

Lids are more common at almost 5% by EVE and appear in both red and grey wares. Context 075 produced a lid in Pompeian red ware (Fabric 2; Peacock 1977, 153). The rim is missing but would have had a slightly-upturned beaded edge (as Peacock 1977, fig.3, no.6). Fabric 2 is thought to have a source in the Mediterranean area (Peacock 1977, 153) with a date range of AD40-80. Interestingly, there is also the base from a Pompeian red ware platter in context 019 (Plate 00), although from a different source, probably Belgium (Peacock 1977, 156). The sherd is slipped internally and has been identified as Peacock's Fabric 7 (1977, 155, fig.3, no.15). Dating for this fabric is more tentative, perhaps AD70 to mid 2nd century, although continental examples continue into the early 3rd century (Peacock 1977, 159).

The amphora assemblage is fairly substantial, mostly consisting of body sherds, but rim sherds occur in two contexts (035 and 107) and there is a handle in 019. All of the

amphora sherds derive from Dressel 20 olive oil containers; at least four vessels are represented, forming just over 5% of the total by EVE. No stamps, graffiti or any other surface markings were noted.

Vessel class	Count	% count	EVE	% EVE
Platter	1	0.29	0	0
Dish	9	2.60	0.61	3.31
Bowl	74	21.39	4.19	22.71
Mortarium	25	7.23	0.54	2.93
Cup	8	2.31	0.68	3.69
Jar	123	35.55	10.02	54.31
Beaker	19	5.49	0.58	3.14
Flagon	4	1.16	0	0
Lid	14	4.06	0.88	4.77
Amphora	69	19.94	0.95	5.15
Total	346	100	18.45	100

Table 2. Assemblage composition by sherd count, %count, EVE and %EVE

Modified sherds

Perhaps in part due to the poor condition of the pottery, no modified sherds or any with surface markings were recorded, apart from half a counter in context 107. The counter is in coarse red fabric with a blackened upper surface and, when complete, had a diameter of 30mm, thickness 3mm.

The samian

Seventy-five sherds (750g, 1.62 EVE) of Gaulish samian were recorded. The assemblage is in a poor and abraded condition overall (average sherd weight 10g). The bulk of the assemblage is South Gaulish (La Graufesenque (LG); 90% by weight, 97% by EVE). Central Gaulish samian, principally Les Martres de Veyre (LMV), is also present (9% by weight, 3% by EVE).

The ratio of decorated samian to plain is approximately three to two, with sherds from the hemispherical bowl Dr.37 comprising the majority of the decorated pieces (18 examples; 48.7% by count). This bowl form was introduced during the Flavian period;

the earlier bowl, Dr.29, is absent. Plain cups and dishes are present in roughly equal amounts (approximately 19% each by count). There are more Dr.27 cups (6 examples) than Dr.33 (1 example). The pre-Flavian cup Dr.24/25 is entirely absent. The mid-1st century dish type Dr.15/17 is also absent and there are two each of mid-to-late 1st century dishes Dr.18, 18R and 18/31. There is a single example of the Flavian dish Dr.36. It may be interesting to note that three Dr.42 cups, perhaps from a single consignment of pottery, were identified in the 1957 assemblage (Simpson 1991, 179) but the form is not apparent in the current group. There are no stamped vessels and no modified sherds were apparent.

Measured by EVE, the picture changes slightly, perhaps indicating that the cups are less fragmentary than the rest of the samian. Bowls, specifically Dr.37, and cups appear to be present in more or less equal numbers at 42.7% and 40.9%, respectively. In contrast, dishes form a low proportion at 16.5% by EVE. Whichever measure is used, it can clearly be seen that the samian assemblage is dominated by decorated Dr.37 bowls of Flavian date.

A more detailed assessment of the samian is found below.

Dating evidence

Fourteen contexts produced Roman pottery, along with a quantity of unstratified material. Ten contexts contained small groups of less than thirty sherds each, thereby providing the poorest dating evidence. Two contexts (075 and 113) had more than 100 sherds each and two more (035 and 107) contain very large groups of more than 300 sherds. Thus the pottery in these four contexts is the most informative. The recorded deposits appear to be from separate site features with no complex stratigraphy, but the pottery in each context is very similar. A search for cross-context joins, however, proved fruitless. Nevertheless, it is possible that sherds from the same vessels occur in contexts 035, 075 and 107.

The construction of the fort at Penyardarren has been established at c.AD75, with occupation continuing into the Hadrianic period, perhaps to AD130/40 (Heywood 1991, 178; Burnham and Davies 2010, 275). The current assemblage fits entirely within

that date range. Three of the latest pieces are all from context 107; a samian bowl (Cat. No.6, Plate 00), a BB1 dish (Cat. No.4, Fig.00) and a BB1 jar (Cat. No.23, Fig.00). A further 'late' piece occurs in context 106, and is a small sherd from a BB1 jar approximating to Gillam's no.2 (1976, fig.1) dated mid 2nd century.

Catalogue (Figure 6)

Since there is little differentiation between contexts, the catalogue is arranged by form, following the order in Table 2 (above)

1. 107 Dish or platter, grey ware
2. 035 Dish with stepped upright rim, grey ware (as Webster 1991, no.55)
3. 035 Shallow dish or bowl, buff ware, plain rim
4. 107 Dish rim, BB1 (as Gillam 1976, no.54), early to mid 2nd century
5. 035 Flanged bowl, red ware, plain curved-over flange, late 1st century
6. 075 Flanged bowl, red ware, plain flat rim, late 1st to early 2nd century
7. 075 Flanged bowl, grey ware, plain flat rim, late 1st to early 2nd century
8. 107 Flanged bowl, red ware, plain flat rim, late 1st to early 2nd century
9. 107 Flanged bowl, red ware, reeded rim, late 1st to early 2nd century
10. 107 Flanged bowl, red ware, reeded rim, late 1st to early 2nd century
11. 107 Flanged bowl, red ware, reeded rim, remains of mica-dusting in the grooves, late 1st to early 2nd century
12. 107 Flanged and carinated bowl, red ware, reeded rim, late 1st to early 2nd century
13. 107 Flanged and carinated bowl, red ware, plain flat rim, drag marks internally, late 1st to early 2nd century
14. 035 Flanged and carinated bowl, fine brown fabric, black surfaces, plain flat rim, decorated on girth with combed wavy lines, late 1st to early 2nd century
15. 107 Tazza, red ware, reeded rim with 'pie-crust' rim edge and mid-girth cordon
16. 113 Mortarium, red ware, large white grits, Usk-Kingsholm type (as Hartley 1993, fig.188, no.5), mid to late 1st century
17. 107 Mortarium, buff fabric, Verulamium, probably late 1st to early 2nd century
18. 107 Jar with upright beaded rim, grey ware, mid to late 1st century
19. 107 Jar with sharply everted rim and offset, red ware, mid to late 1st century
20. 035 Necked jar, grey ware, late 1st to mid 2nd century
21. 035 Necked jar, grey ware, late 1st to mid 2nd century

22. 075 Jar, BB1, decorated on body with groups of oblique and vertical burnished lines (Holbrook and Bidwell 1991, type 21), late 1st century
23. 107 Jar, BB1, with wavy line beneath rim (Holbrook and Bidwell 1991, type 23), early to mid 2nd century
24. 110 Beaker with everted rim and spots of lead glaze remaining, red ware. A globular beaker of Marsh's Usk/Caerleon Group (Marsh 1978, fig.8.10, type 5), late 1st to early 2nd century
25. 035 Beaker, Central Gaulish colour-coated ware, clay-pellet roughcast decoration on body (as Greene 1979, fig.18, no.2), late 1st century
26. 107 Lid with stepped rim, red ware
27. 107 Dressel 20 amphora, as Martin-Kilcher no.18 (Peacock and Williams 1986, fig.65), late 1st century
28. 035 Dressel 20 amphora, as Martin-Kilcher no.20 (Peacock and Williams 1986, fig.65), late 1st to early 2nd century
29. 035 Dressel 20 amphora, as Martin-Kilcher no.21 (Peacock and Williams 1986, fig.65), late 1st to early 2nd century

Discussion

The Roman pottery from the Labour Exchange site may not be a substantial assemblage but some conclusions can be drawn. Jars in grey ware form the highest proportion, at more than 70% by EVE, and late 1st to mid 2nd century necked jars are the most popular type within this category. Conversely, mid-late 1st century everted-rim jars are more popular in red ware. The majority of the bowls are in red ware, and flanged and carinated vessels, with or without reeded rims, are the most numerous. These date from the mid 1st through to the early 2nd century. Many of the red ware vessels are blackened externally and over the rim. This may be as a result of firing conditions, rather than through use in cooking, and the lack of blackening on the grey ware vessels may show preferred use as storage containers, for instance, for these.

A preponderance of reduced fabrics was noted for the pottery excavated in 1957 (Webster 1991, 180) and there is a similar range of vessel types, especially among those described from the 1902-5 excavations (Webster 1991, 184-8; figs 9-11). It should be noted that the 1957 pottery is a much smaller collection, and the current assemblage

perhaps compares better with that from 1902-5. For instance, there is an absence of BB1 in the 1957 collection (Webster 1991, 180), whereas BB1 jars form 15% by EVE in the current collection and c. 9% by count in that from 1902-5. Three-quarters of the 1902-5 dishes are in BB1, however, compared with just one in the current assemblage.

A vessel type which appears to be absent from previous collections is the tazza, which is a carinated bowl with a pedestal foot. The bowl is decorated at rim, carination and sometimes around the foot with so-called 'pie-crust' edging. There are perhaps four examples in the current collection, two each in contexts 107 and 113, one of which is illustrated (Figure 6, no.15). These vessels are occasionally found in burials, and a religious function as incense-burners is very often assigned to them. Interiors can show evidence of burning, perhaps supporting this view, although use at table as chafing-dishes is also a possibility. There is no evidence of internal burning on the current examples, although one of the tazza from 113 is blackened under the rim.

The incidence of fine wares, including samian, in the current assemblage is low, in line with the findings from 1957 (Webster 1991, 188). There is a lead-glazed rim sherd in context 110 (Figure 6, no.24), which is a globular beaker of Marsh's Usk/Caerleon group (Marsh 1978, fig.8.10), dated late 1st to early 2nd century. Much of the green-brown glaze has disappeared but survives in the groove between rim and body. A cup or beaker, also from the Usk/Caerleon group, is illustrated by Webster (1991, no.62) and is shown at the lower left in the final plate in James (1906, fig.13). The caption erroneously describes the figure as "Roman glass from Penydarren House" but the handwriting at the foot of the plate states "Fragments of Coloured Glazed Ware", and the plate shows three further examples.

Central Gaulish sherds were recovered from three contexts, and are likely to derive from the same roughcast beaker (Figure 6, no.25). The beaker is in a fine, buff fabric with a brown colour-coat, essentially a pre-Flavian type but which continues into the Flavian period (Greene 1979, 44, fn 2*) and its form matches a Flavian or later beaker from Kirkbride (Greene 1979, fig.18, no.2). A further imported fine ware, detailed above, is Pompeian red ware, found in two contexts (Plate 00). Pompeian red ware comes from a variety of sources, listed by Peacock (1977, 149-156). The lid from

context 075 is in Fabric 2, from the Mediterranean region, but the base sherd from 019 is in Fabric 7, probably from Belgium. Peacock illustrates the range of forms found in the various fabrics (1977, fig.3). A vessel from the 1902-5 excavations, illustrated by Webster (1991, fig.11, no.54), is also highly likely to be a Pompeian red ware Fabric 7 platter, as the illustration matches the platter shown in Peacock (1977, fig.3, no.15) and Webster's description (1991, 187) compares well with that given by Peacock for Fabric 7.

The samian forms a low proportion by weight at 3.8% of the total, and accounts for just under 9% of the total EVE. These figures are on the low side for a military site (Willis 2004, 7.2.2), although there are relatively few comparative examples. However, the number of decorated forms comprises 39.6% of the total, and this proportion of decorated to plain wares is towards the top end of the range given by Willis (2004, 7.3.5; Table 35) for military sites.

Conclusion

Webster has noted (1991, 180) that coarse pottery from local sources dominates the assemblage and there is a remarkable lack of fine pottery, especially imported wares. Dressel 20 amphorae, samian and mortaria from northern Gaul appear to be the exceptions, but even these are only present in relatively small amounts. Other imported fine wares appear as single vessels, for instance the Cologne beaker (Webster 1991, fig.9, no.28), the Central Gaulish beaker (Fig.00, no.25), the Pompeian red ware, and the mottled ware dish shown at the top of figure 13 in James (1906). The latter example, in particular, is very rare in Britain and it may be postulated that, rather than being regarded as part of the wide-ranging trade in Roman ceramics, these pieces arrived individually as personal possessions.

As noted above in the dating evidence section, the chronology of the current collection fits entirely within the date range given. There is more evidence for occupation into the first quarter of the 2nd century than for the 1957 material, and the pottery matches more closely that from the 1902-5 excavations, where pieces of early Hadrianic date were noted (Webster 1991, 188).

Acknowledgements

Thanks are due to Johnny Crawford for facilitating the work and for answering queries. The samian was identified and listed in detail by Edward Biddulph of Oxford Archaeology, to whom grateful thanks are extended. A spreadsheet with full details by form and fabric is lodged in the archive. The illustrations were compiled with expertise and good humour by Paul Jones, considering the difficulties posed by some pieces.

Archive table

Site No	Context	Count	Weight (g)	Description
868	u/s	2	22	BB1
868	u/s	35	245	Grey ware
868	u/s	19	105	Red ware
868	u/s	10	65	Samian
868	u/s	1	32	Amphora
868	u/s	3	83	Mortarium
868	003	1	5	Red ware
868	005	1	4	Samian
868	015	1	7	Samian
868	017	5	80	Samian
868	017	1	7	Red ware
868	017	3	13	Grey ware
868	017	1	45	Mortarium
868	018	2	20	Samian
868	018	1	3	Red ware
868	019	4	39	Samian
868	019	1	96	Pompeian red ware
868	019	1	10	Red ware
868	019	1	96	Mortarium
868	019	14	1105	Amphora
868	035	18	182	Samian

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Site No	Context	Count	Weight (g)	Description
868	035	9	21	Central Gaulish colour-coated ware
868	035	18	228	BB1
868	035	63	601	Red ware
868	035	181	1310	Grey ware
868	035	35	392	Flanged bowl, all same vessel
868	035	13	786	Amphora
868	035	3	170	Mortarium
868	075	10	81	Samian
868	075	1	99	Pompeian red ware
868	075	65	524	Red ware
868	075	2	43	Mortarium
868	075	32	554	BB1
868	075	77	673	Grey ware
868	076	1	16	Red ware
868	078	1	3	Red ware
868	106	3	39	BB1
868	106	14	29	Red ware
868	106	5	39	Grey ware
868	106	1	10	Amphora
868	107	3	12	Central Gaulish colour-coated ware
868	107	20	245	Samian
868	107	44	422	BB1
868	107	217	2572	Red ware
868	107	482	3816	Grey ware
868	107	38	2472	Amphora
868	107	8	1026	Mortarium
868	110	1	2	Lead-glazed fine ware
868	110	2	4	Red ware
868	110	11	47	Grey ware
868	113	4	26	Samian

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Site No	Context	Count	Weight (g)	Description
868	113	2	1	Central Gaulish colour-coated ware
868	113	61	616	Red ware
868	113	29	124	BB1
868	113	28	227	Grey ware
868	113	7	298	Mortarium
868	113	2	149	Amphora
	Total	1618	19941	

Table 3. Roman pottery by context

Samian ware

By Edward Biddulph

Some 74 sherds of samian ware, weighing 742g, were recovered from the excavation. The following fabrics were recorded (National Roman Fabric Reference Collection codes (Tomber and Dore 1998) in brackets):

LG – South Gaulish samian ware, La Graufesenque (LGF SA)

LMV – Central Gaulish samian ware, Les Martres-de-Veyres (LMV SA)

LEZ – Central Gaulish samian ware, Lezoux (LEZ SA 2)

SAM – Samian wares of indeterminate source

The assemblage is dominated by samian from La Graufesenque (LG; Table 4). Decorated bowl forms Drag. 30 and Drag. 37, cup forms Drag. 27 and Drag. 33, and dish forms Drag. 18, Drag. 18R and Drag. 36 were identified based on an examination of all sherds (Table 5). The decorated forms, particularly Drag. 37, are well represented, accounting for 52% of vessels from La Graufesenque, based on all sherds. However, measured by estimated vessel equivalents (EVE), decorated forms are marginally less well represented than cups, accounting for 42% by EVE, compared with 44% for cups, mainly Drag. 27 (Table 6). The discrepancy in values between the two methods of quantification may be attributed, at least in part, to the fact that decorated body sherds can be more readily attributed to form than plain sherds.

Other fabrics are poorly represented and confined to pottery from the Central Gaulish workshops of Les Martres-de-Veyres (LMV) and Lezoux (LEZ). Pottery from the former includes two Drag. 18/31 dishes and a Drag. 37 bowl. A decorated bowl of uncertain type was recorded in Lezoux fabric.

None of the pottery needs date before c. AD 50. The earliest dish form is Drag. 18, which was introduced from that date. The absence of Drag. 15/17 dishes, which reached Britain from c AD 43, points to limited or no deposition of samian at the site during in the Claudian period. Indeed, the main period of samian importation to the site is likely to have been after c. AD 70. This is suggested by the fact that the main

decorated form is the Drag. 37, which was introduced during the Flavian period. Notably, Drag. 29 decorated bowls, which arrived in Britain after c. AD 43, are absent. Samian continued to reach the site during the first quarter of the 2nd century AD, as indicated by the presence of pottery from Les Martres-de-Veyre. The single decorated vessel from Lezoux points to very limited samian supply between c AD 120 and 200. There is no samian pottery that must date to the first half of the 3rd century. The chronological trend seen here is consistent with the pattern observed by Dr Grace Simpson (1991, 178-9) on a previously excavated samian assemblage from Penydarren. Dr Simpson reported that the pottery 'defines the beginning of the site with Frontinus [AD 74-78] rather than Agricola [AD 78-84],' and that there was nothing later than Trajan/Hadrian. It is interesting to note that three Drag. 42 cups dishes, perhaps from a single consignment of pottery, were identified in that assemblage. The form was not seen in the present group.

A key measure of determining site-type from the samian assemblage is the proportion of samian that is decorated (Willis 2005, section 7.3.5). The overall frequency of decorated vessels from the Labour Exchange site is 48%, as measured by vessel count (based on all sherds), or 41% by EVE. This places the site above the average for military sites and extra-mural occupation at military sites (Willis 2005, table 42), which typically saw the highest proportions of decorated vessels. Excluding the 2nd-century samian, the proportion of decorated vessels (52% by vessel count, or 42% by EVE) is comparable to values for Flavian assemblages from the forts at Tiverton in Devon and Strageath in Perthshire (Willis 2005, table 35).

The condition of the assemblage is poor. Surfaces are abraded and powdery, with few sherds retaining their slips and decoration being very worn. The mean sherd weight (weight divided by sherd count) of 10g and average rim percentage (EVE divided by minimum number of vessels) of 9% or 0.09 EVE is characteristic of a highly fragmented group of pottery. Apart from unstratified pottery, the largest groups of samian were recovered from context 035, a deposit under a buried topsoil, and context 107, a fill of ditch 108 (Table 7). These groups had higher than average mean sherd weights, as did the pottery from context 017, a deposit cut by a Post-medieval drainage

ditch. In general, the pottery was consistent with an assemblage that had undergone multiple episodes of disturbance and redeposition.

Catalogue of decorated samian (Appendix III Plates 18 to 25)

1. Context 017. Body sherd, Drag. 29 or 37, fabric LG. Forelimbs of running animal, possibly a rabbit, deer or hound. AD 43-110.
2. Context 035. Body sherd, Drag. 37, fabric LG. Wreath below plant motif terminating in poppyheads. AD 70-110.
3. Context 035. Body sherd, Drag. 37, fabric LG. Basal wreath. AD 70-110.
4. Context 075. Body sherd, Drag. 29 or 37, fabric LG. Band or wreath of chevrons below motif of indeterminate type. AD 43-110.
5. Context 107. Body sherd, Drag. 37, fabric LG. Band of chevrons below plant or animal motif. AD 70-110.
6. Context 107. Body sherd, Drag. 37, fabric LMV. Basal band of rosettes. Style of Donnaucus (Stanfield and Simpson 1958, pl. 46, no. 547). AD 100-120
7. Unstratified. Rim sherd, Drag. 37, fabric LG. Running hound below indistinct ovolo. AD 70-110.

Fabric	No. sherds	Weight (g)	MV	EVE
LEZ	1	7		
LG	66	669	19	1.65
LMV	4	62	1	0.05
SAM	3	4		
Total	74	742	20	1.7

Table 4. Summary quantification of samian wares (MV minimum number of vessels, based on rim; EVE estimated vessel equivalent, based on rim)

Form	LEZ	LG	LMV	SAM	Total
Bowl (decorated)	1	7			8
Cup		2			2
Dish		2			2
Dish/bowl		5	1		6
Drag18		2			2
Drag18/31			2		2
Drag18R		2			2
Drag27		6			6
Drag29or37		3			3
Drag30		1			1
Drag30or37		1			1
Drag33		1			1
Drag36		1			1
Drag37		17	1		18
Indeterminate		6		1	7
Total	1	56	4	1	62

Table 5. Samian ware forms by fabric. Quantification by vessel count, based on all sherds

Form	LEZ	LG	LMV	SAM	Total EVE
Cup		0.06			0.06
Drag18		0.11			0.11
Drag18/31			0.05		0.05
Drag18R		0.06			0.06
Drag27		0.51			0.51
Drag30or37		0.05			0.05
Drag33		0.16			0.16
Drag36		0.05			0.05
Drag37		0.65			0.65
Grand Total	0	1.65	0.05	0	1.7

Table 6. Samian ware forms by fabric. Quantification by estimated rim equivalents (EVE), based on rims

Context	Description	No. sherds	Weight (g)	MSW	MV	EVE	Mean EVE
0	Unstratified	10	53	5.3	2	0.16	0.08
005	Trench for modern piping	1	4	4	0	0	0
015	Fill of drainage ditch	1	6	6	0	0	0
017	Deposit	5	80	16	1	0.06	0.06
018	Finds number for u/s material associated with 017	2	19	9.5	1	0.06	0.06
019	Metalled surface	4	39	9.8	1	0.11	0.11
035	Deposit	17	181	10.6	6	0.32	0.05
075	Fill of possible trackway	10	79	7.9	3	0.16	0.05
107	Fill of ditch 108	20	245	12.3	5	0.67	0.13
113	Metalled surface	4	26	6.5	1	0.16	0.16

Table 7. Quantification of samian ware by context (MV minimum number of vessels, based on rim; EVE estimated vessel equivalent, based on rim; MSW mean sherd weight)

Roman glass

Introduction and Methodology

The Roman glass is a small assemblage of twelve sherds, weighing 84g, recovered from three contexts (035, 075 and 107), with one sherd unstratified. All of the glass has been recorded by sherd count and weight, in grams, by context and type, and the data entered onto an Excel spreadsheet for ease of manipulation. The spreadsheet forms part of the archive (Table 8).

Description

Almost all of the assemblage comprises plain body sherds in natural blue-green glass. The exceptions are two pale green sherds, the crimped tail from a ribbon handle and a base sherd from a pillar-moulded bowl. The latter is a mid to late 1st century form (Price and Cottam 1998, 44; fig.7). The jug handle is probably from a type dated late 1st to mid 2nd century (e.g. Price and Cottam 1998, 155; fig.68). The remainder cannot be closely dated within the Roman period. The glass assemblage is almost equally divided between sherds from vessels (5/25g) and those from prismatic bottles (7/59g).

Vessel glass

1. 107 Pillar-moulded bowl, base sherd, blue-green, faint ribs springing from central point, polished externally, matt internal surface. Mid to late 1st century. Not illustrated.
2. 107 Jug body sherd/handle attachment, crimped tail of ribbon handle, blue-green. Late 1st to mid 2nd century (Figure 7).
3. Unstratified Curved body sherd, pale green, many bubbles, surface scratches. Not illustrated.
4. 035 Curved body sherd, pale green, tiny bubbles, surface scratches. Not illustrated.
5. 107 Body sherd, blue-green. Not certainly Roman. Not illustrated.

Bottle glass

Apart from a single large sherd in context 107, the bottle glass comprises very small sherds. There is nothing diagnostic and so none is illustrated.

6. 035 Bottle body sherds, blue-green
7. 075 Bottle body sherd, blue-green
8. 107 Bottle body sherd, blue-green, elongated bubbles

Discussion

This is a small assemblage, differing slightly from those previously excavated due to the presence of vessel glass. As far as can be ascertained, only glass from bottles and windows has been recorded up to now (James 1906; Heywood 1991). From the 1902-5 excavations, James (1906, 208) describes the glass finds, which include the neck of a cinerary urn and several handle portions. Also noted are sherds of window glass, having a dull surface on one side. Nash-Williams (1954, 73) confirms the details of the assemblage; “fragments of glass bottles and pieces of window glass”. He also notes the presence of gaming counters (Nash-Williams 1954, 73; James 1906, 206). Charlesworth (1991, 188-9) describes thirteen pieces of bottle glass, one of window, and three melon beads for the assemblage excavated in 1957. The datable bottle glass was given a date range of AD70-130 (Charlesworth 1991, 188), which could easily be applied to the current assemblage.

The assemblage is too small for further meaningful comment, other than to reiterate the presence of five vessel sherds, probably from five different vessels, and the lack of beads or gaming counters.

Archive table

Site No	Context	Count	Weight (g)	Description
868	u/s	1	5	Vessel b/s, pale green, many bubbles
868	035	5	13	Bottle b/s, blue-green
868	035	1	2	Vessel b/s, pale green
868	075	1	4	Bottle b/s, blue-green
868	107	1	42	Bottle b/s, blue-green, elongated bubbles
868	107	1	9	Jug b/s, blue-green, crimped tail of ribbon handle
868	107	1	6	Base sherd, pillar-moulded bowl, blue-green
868	107	1	3	Vessel b/s, blue-green
		12	84	

Table 8. Roman glass by context

Roman brick and tile

Introduction and Methodology

There are 304 fragments of Roman brick and tile with a total weight of just over 35kg. The assemblage has been recorded by count and weight, in grams, by context and type, and the data entered onto an Excel spreadsheet for ease of manipulation. The spreadsheet forms part of the archive (Tables 10-12). There is a high degree of fragmentation (average sherd weight 115g) and very few pieces retain any surfaces. Diagnostic features are scarce, therefore, and assemblage types were mostly identified by measuring each piece's thickness, where possible. The measurements, and any surface markings such as 'signatures', are fully noted on the spreadsheet. Fabric analysis was not carried out, but variations in fabric colour, etc., are also noted on the spreadsheet. The poor standard of manufacture of most of the assemblage is remarkable, however, with voids and folding in the fabric, and poorly mixed clays, evident throughout. The brick and tile is described by type below.

Roman brick

For this assemblage, brick is defined as having a thickness of more than 30mm, and forms just over half of the assemblage by weight. There are forty-five fragments, weighing more than 18kg, and no fragment is large enough to be able to determine the original size of any of the bricks. Only two pieces have one straight edge each, and three of the unstratified fragments join to form a corner. Almost all of the identified brick is in red fabric, but one piece in 035 is buff with a pink core. Measuring the brick thicknesses produced an average of 54.2mm, with outliers of 34mm and 35mm at the lower end, and 74mm and 89mm at the upper. No surface markings were observed, apart from the unstratified corner piece which has a large void in the surface. This may have been caused by the loss of a pebble present in the clay when the brick was fired.

Tegula, imbrex and flat tile

Roofing tiles, tegula and imbrex, are normally identified by their diagnostic characteristics. Tegula are large, rectangular, flat tiles, with a flange at each long edge. Sometimes these tiles have cut-outs, thought to help with fitting the tiles together, others have nail-holes, and many have so-called signatures, arcs made by the finger-tips in the wet clay. These are usually positioned on the upper surface at the shorter edges of the

tile. Imbrex are curved tiles, pressed over a former, while malleable, to form arched tiles which fit over the parallel flanges of side-by-side tegula, resulting in a watertight roof.

Very little roofing tile could be identified within the assemblage. Five pieces of tegula (weight 1164g) and six pieces of imbrex (weight 505g) were recorded. In addition, there are eight pieces of flat tile (weight 1333g), all with thicknesses (average 26mm) similar to those of the tegula fragments. These flat tile pieces may well derive from tegula, or perhaps from box-flue tiles, but full identification is not possible. The tegula fragment from context 019 has a cut-out flange and a piece of flat tile from 035 has part of a 'signature' on the upper surface. The combined weight of the tegula, imbrex and flat fragments amounts to just 8.6% of the total weight of the brick and tile assemblage. A large part of the tegula and imbrex assemblage was made with pale-firing clay.

Undiagnostic brick and tile

This category forms a large proportion (almost 40% by weight) of the total brick and tile, due to the fragmentation and poor condition of the assemblage. The average sherd weight is 57g compared with a higher value for the bricks (409g). The majority of fragments, however, are likely to be derived from bricks, since most are in the same poor quality fabrics as the brick assemblage. There are more fragments in pale-firing clay among the undiagnostic brick and tile than elsewhere in the assemblage, perhaps indicating that the buff-coloured component was fired to a lower temperature and thus more friable. No markings were evident, apart from a fragment in context 075 which has an incised line.

Discussion

The fragmentary and abraded nature of the assemblage precludes detailed analysis. Nevertheless some comments can be made, for instance, regarding the poor standard of manufacture. A number of fragments show voids and fold-marks where the clay has been roughly pressed into the moulds. Others show distinct colour changes in the fabric in the form of stripes and swirls, probably due to inadequate mixing of different clay components. It appears likely that the bricks were made locally, perhaps with minimum supervision. There is none of the standardisation which is to be seen in 2nd century,

and later, brick and tile production. It is also possible that the pale-firing fragments were made from the local fire-clay seams much utilised during 18th and 19th century ironworking.

Brick and tile was noted during the 1902-5 excavations (James 1906). Indeed, Roman tile was found during the building of Penydarren House in 1786 (James 1906, 193). In 1902, James uncovered a hypocaust with pillars made from 8” bricks piled one upon another (1906, 195). A second hypocaust used 9” square bricks in the pillars (James 1906, 198). These are Brodribb’s *bessalis*, nominally 8” square and with an average depth of 43mm (Brodribb 1987, 34). James also found large bricks measuring 2ft square which, when complete, would fit corner to corner on the centres of the brick pillars (James 1906, 195). Broken box-flue tiles and roofing tiles were also found in some numbers (James 1906, 196, 197). A quantity of large bricks was also found in the granary, one of which was 20” square and 3½” thick (James 1906, 203). The *bipedalis* is nominally 2ft square with an average depth of 60mm (Brodribb 1987, 42), and is the largest of all Roman bricks. *Bipedales* were used to bridge the gaps between hypocaust pillars and also perhaps in the vaulted roofs of bath-houses to prevent steam rotting the rafters (Brodribb 1987, 41). Unfortunately, the 1906 report does not provide information on precise quantities of bricks, roofing tiles or box-flue tiles.

While it is not possible to equate the current assemblage’s brick fragments with particular types, it is interesting to note that a quarter of the measured bricks fall into the 55-65mm thickness range of a *bipedalis* (Table 9). Whether any of the brick and tile could be derived from the nearby buildings excavated in 1902-5 is impossible to ascertain. Interestingly, there is no mention of brick and tile in the report on the 1957 excavations (Heywood 1991).

Archive tables

Depth mm	34	36	42	43	46	47	48	50	51	52	53	54	55	57	60	62	64	65	66	69	74	89
Quantity	1	1	2	1	2	1	2	6	1	5	1	1	1	2	3	2	2	1	2	1	1	1

Table 9. Brick depths; thickness in mm on top line, number of examples on lower line

Site No	Context	Count	Weight (g)	Description
868	u/s	3	862	Joining fragments, friable and abraded, void in upper surface
868	u/s	3	3600	Fragments, one with straight edge
868	003	1	1189	Fragment, one edge, knife trimmed
868	019	9	2715	Fragments, poorly mixed clay
868	035	5	1771	Fragments, one in buff clay with pink core
868	075	4	547	Fragments, poorly mixed clay
868	107	17	7730	Fragments
	Total	42	18414	

Table 10. Roman brick by context

Site No	Context	Count	Weight (g)	Description
868	u/s	3	671	Tegula fragments, two joining
868	u/s	3	177	Imbrex fragments
868	u/s	2	790	Flat tile fragments
868	019	1	354	Tegula, with cutout flange
868	019	2	137	Flat tile fragments
868	035	2	316	Flat tile fragments, one with signature
868	075	2	250	Joining imbrex fragments, pale-firing clay
868	107	1	139	Tegula flange, pale-firing clay
868	107	1	78	Imbrex, pale-firing clay
868	110	2	90	Joining flat tile fragments
	Total	19	3002	

Table 11. Tegula, imbrex and flat tile by context

Site No	Context	Count	Weight (g)	Description
868	u/s	43	2590	Fragments, abraded, poorly mixed clay, some pale-firing
868	003	3	92	Fragments
868	015	2	45	Fragments
868	017	2	49	Fragments
868	018	1	12	Fragment
868	019	44	3832	Fragments, poorly mixed clay, some with one flat surface
868	035	20	640	Fragments
868	075	10	483	Fragments, poorly mixed clay, some pale-firing, some with one flat surface, one with incised line
868	076	1	3	Fragment
868	106	5	287	Fragments, two pale-firing
868	107	88	4605	Fragments, abraded, some pale-firing, some may be baked clay
868	110	1	2	Fragment
868	113	13	647	Fragments, poor condition, one is modern, one may be baked clay
868	Layer above 113	7	385	Fragments, abraded, poorly mixed clay, some pale-firing
	Total	240	13672	

Table 12. Undiagnostic brick and tile by context

Post-Roman finds, other than metalwork

Introduction and Methodology

Small amounts of post-Roman material have been recorded by count and weight, in grams, by context and type, and the data entered onto an Excel spreadsheet for ease of manipulation. The spreadsheet forms part of the archive. The finds are described by type below.

Post-medieval and modern pottery

A small assemblage of pottery (16 sherds, weighing 650g) comprises mainly local red earthenware of broad 17th to 19th century date (Table 13). Vessel types include large pans, most with internal brown glaze. An unstratified sherd, perhaps from a jug has external slip-trail decoration over brown glaze. Context 113 produced joining base and body sherds from a flowerpot. Unstratified modern white earthenware includes rim and base sherds from a Mocha ware jug, with the imperial crest partly surviving, and sherds from a striped basin. A stoneware bottle sherd is printed in black with 'Hansard', a well-known mineral-water manufacturer based in Castle Street, Merthyr, at the close of the 19th century. A second sherd of modern stoneware came from context 012, representing part of the neck and shoulder of a large container, across which stamped ownership and makers' marks partly survive. The maker was Hawley, of Temple Back, Bristol, operating towards the end of the 19th century; the contents appear to have been vinegar.

Modern brick

Seven pieces (204g) of modern brick, and possible drainpipe fragments, were recorded (Table 14). Two pieces are unstratified, but most of the assemblage (5/162g), including three joining sherds perhaps from a pipe, came from context 107.

Post-medieval and modern glass

This glass assemblage is entirely unstratified, comprising a tiny colourless window sherd, blue-green neck sherds (12g) from two different bottles and an opaque, bright-blue globular bead (Table 15). A large number of early 20th century Hansard brand mineral water bottles were noted on site but do not form part of the assessment as they were left on site.

Clay tobacco pipes

There are four clay pipe fragments (Table 16). Three plain stem fragments (7g) are unstratified; a bowl fragment (2g), from context 110, has moulded leaf decoration and is probably Victorian.

Conclusion

Almost all of the post-Roman finds are unstratified, although some appear to be intrusive, for instance in context 107. The majority are likely to be Victorian, rather than earlier. The brick fragments, however, are very recent.

Archive tables

Site No	Context	Count	Weight (g)	Description
868	u/s	5	58	Rim and base sherds, mocha ware jug, with part of imperial crest; stoneware bottle, printed 'Hansard'; joining rim and b/s, basin
868	u/s	6	381	Base and b/s, local red earthenware
868	012	1	162	Modern stoneware, neck/shoulder, large container
868	015	1	6	b/s, local red earthenware
868	113	3	43	Joining base and b/s, flowerpot
		16	650	

Table 13. Post-Roman pottery by context

Site No	Context	Count	Weight (g)	Description
868	u/s	2	42	Modern fragments, both with one surface
868	107	5	162	Modern fragments and ?drainpipe sherds
		7	204	

Table 14. Post-Roman brick by context

Site No	Context	Count	Weight (g)	Description
868	u/s	1	1	Globular bead, opaque bright blue
868	u/s	2	12	Blue-green bottle neck sherds
868	u/s	1	2	Colourless window sherd
		4	15	

Table 15. Post-Roman glass by context

Site No	Context	Count	Weight (g)	Description
868	u/s	3	7	Stem fragments
868	110	1	2	Bowl fragment with moulded leaf decoration
		4	9	

Table 16. Clay tobacco pipes by context

Un-datable material

Introduction and Methodology

All of the undatable finds (baked clay, slag, stone and burnt material) have been recorded by count and weight, in grams, by context and type, and the data entered onto an Excel spreadsheet for ease of manipulation. The spreadsheet forms part of the archive. The finds are described by type below.

Items of stone (Table 17)

A single piece of worked flint (2g) was found unstratified.

A tabular piece of sandstone (51g), also unstratified, may have been used as a whetstone. Two small natural pebbles were collected from context 113, thought to have been sling-shot. Use in this way is impossible to prove.

Baked clay (Table 18)

Five contexts produced baked clay, amounting to 42 fragments, weighing 462g. All of the fragments are friable and buff-coloured, and their poor condition masks any diagnostic details which may have been present. There is no indication, therefore, whether the fragments are derived from building materials, such as daub, or are just accidentally-fired pieces. Those from context 035, in particular, are similar in fabric to Roman mortaria found in the same context.

Slag (Table 19)

Nine pieces of slag, weight 525g, were recorded. More than 80%, by weight, came from context 035, and these fragments are the usual weakly magnetic waste products of iron production. A more interesting piece was found unstratified; this is a piece of tap slag, weight 71g, with part of the furnace lining attached. Two pieces of red-coloured cinder, one each from contexts 018 and 107, may be less ancient than the remainder of the slag assemblage. Unfortunately, this cannot be substantiated due to the empirically un-datable nature of such waste products.

Burnt bone (Table 20)

Six small fragments (5g) of burnt bone were recovered. The only recognisable piece (unstratified) is a part of a phalanx, which could be human. A specialist in human bone would be able to confirm this identification, if required.

Other burnt material (Table 21)

A tiny piece of coke was found in context 110. Four similar fragments (67g) of burnt material, from contexts 018 and 019, appear to be organic in nature, perhaps burnt wood. They also appear to be part-vitrified, and may once have been coated with pitch, or similar.

Archive tables

Site No	Context	Count	Weight (g)	Description
868	u/s	1	2	Worked flint
868	u/s	1	51	Possible whetstone
868	113	2	37	Natural pebbles

Table 17. Items of stone by context

Site No	Context	Count	Weight (g)	Description
868	019	1	6	Fragment, could be pottery
868	035	21	185	Friable fragments, some may be pottery which has lost its surfaces, one is white
868	075	3	28	Fragments

868	106	1	3	Fragment
868	107	16	240	Friable fragments
	Total	42	462	

Table 18. Baked clay by context

Site No	Context	Count	Weight (g)	Description
868	u/s	1	71	Tap slag
868	018	1	13	Cinder, non-magnetic
868	035	5	433	Weakly magnetic
868	107	2	8	Cinder, non-magnetic; piece, magnetic
	Total	9	525	

Table 19. Slag by context

Site No	Context	Count	Weight (g)	Description
868	u/s	1	1	Part of a phalanx, could be human
868	035	3	2	
868	113	2	2	
	Total	6	5	

Table 20. Burnt bone by context

Site No	Context	Count	Weight (g)	Description
868	018	3	64	?Organic, part-vitrified
868	019	1	3	?Organic, part-vitrified
868	110	1	2	Coke
	Total	5	69	

Table 21. Burnt material by context

Items of metalwork

Introduction and Methodology

A variety of metal finds types are described by type below. All of the finds have been recorded by sherd count and weight, in grams, by context and type, and the data entered onto an Excel spreadsheet for ease of manipulation. The spreadsheet forms part of the archive. The majority of the finds are of Roman date but there are also several modern items, some intrusive in their contexts. None of the metalwork has been conserved and the ironwork has been described without the benefit of x-rays.

Roman finds

Copper alloy

There are nine copper alloy items in the assemblage, three of which are coins or possible coins. There are two near-complete brooches and a third represented by two joining fragments. Two small undiagnostic copper alloy fragments were recovered from context 018 and a piece of copper rod in an iron sheath came from context 017. The latter may be modern. A corroded piece of iron from context 107 has a fragment of copper alloy embedded within it.

N.B. Two coins were given the same Find Number though in this case, context numbers have been given precedence over Small Finds numbers.

Coins

At least three coins are present, but are in such poor condition that identification as coins is uncertain and details regarding emperor or issue are impossible to determine. It is possible that the undiagnostic fragments described above are also from coins.

1. 005 Possible coin, complete, dia.24mm, coated with iron corrosion products
2. 035 SF001a Coin, incomplete, dia.23mm
3. 078 SF001b Coin, incomplete, dia.c.32mm (as or dupondius)

Brooches

Three brooches were identified, all incomplete and all in very poor condition.

Figure 8

4. 113 T-shaped bow brooch, section of damage to the top right-hand edge, the spring and cross-bar are missing; the head of the bow carries two longitudinal enamelled panels within raised borders, unfortunately much of the enamel is now lost. There are two lentoid mouldings below, of which only one remains; a second pair, set at an opposing angle to the first, appears at the waist of the brooch, which terminates in an off-centre knob with transverse mouldings above. A small part of the catchplate is extant. A near-identical, more complete, T-shaped brooch comes from Usk (Webster 1995, fig.27, no.61). These brooches belong to a series originating from native brooches in the 1st century and continue into the 2nd (Webster 1995, 60).

5. 035 SF003 Joining bow brooch fragments, probably from a Dolphin-type brooch, the hinge and lower bow are missing. The fragments are in poor condition but there are comma-shaped cells, which may once have held enamel, on either side of a longitudinal groove. ?late 1st to early 2nd century

6. 035 SF002 Umbonate plate brooch, the hollow dome has two rows of enamelled triangular cells surrounding a central recess. The surface is obscured by dirt and corrosion products so the colours of the enamelling cannot be determined. Most of the border has broken off along the groove which separates the dome from the border, but part of the hinge survives on the remaining section. A parallel from Usk has blue enamel in most of the cells (Webster 1995, fig.27, no.68) and is dated to the 2nd century.

Items of lead

Nineteen pieces of lead, seventeen of which (134g) are small, amorphous fragments and dribbles, were recorded across six contexts. Two objects (Figure 9) were identified and are probable weights, now in poor condition.

7. 019 SF006 Plano-convex weight with off-centre perforation, dimensions approx. 21x18mm, thickness 10mm, hole dia. 5mm, weight 20g

8. 035 Domed weight, height 9mm, dia, c.14mm, weight 11g; when complete may have represented ½ Roman ounce (*semuncia*)

Iron objects and nails (Tables 22-25)

These are present in some numbers; the majority are likely to be nails and fragments of nails, with almost 600 examples recorded. Approximately two-thirds of the iron assemblage came from context 107 and these are in the poorest and most fragmented condition. Thirty-seven objects and probable objects, identified without the benefit of x-ray but apparently not nails, have been listed below. It is highly likely that further fragments, or small objects, remain with the nails. Obviously-modern ironwork is described below, but further pieces of probable recent date are represented by sheet fragments, part of a knife and a small cog from context 018, and an unstratified blade. Some of the objects from 107 which are not empirically datable, such as the bar fragment, may also be modern.

The most recognisable object, although heavily corroded, is a heavy knife or cleaver, with socketed tang, from context 035. This has recently snapped about halfway along the blade, providing a view into the blade's construction. The blade appears to have been pile-forged, where the hot iron blank is folded over so that the fold forms the back of the blade and the two edges are forged together to form the cutting edge. Where the blade is folded over, a weak spot or channel can occur and this can be forced open during the corrosion process (Fell 2006, 7). The knife from 035 has been illustrated showing the void which has occurred along the fold of the blade (see Fig.00, no.9). The closest blade parallel from Usk is no.18 (Manning 1995, fig.59) described as a Type 5 heavy knife or cleaver. This, too, has a socketed tang, said to denote a cleaver (Manning 1995, 212), but Manning suggests that it is light enough to have been a butcher's knife rather than a true cleaver. The Penydarren blade is likely, therefore, to have been a butcher's knife also. It should perhaps be noted that the Usk knife came from a Flavian pit (Manning 1995, 212).

Figure 10

9. 035 Near-complete knife/cleaver blade with socketed tang, now in two pieces, length c.200mm, length along blade edge c.115mm, maximum width of blade c.60mm

Post-Roman metal finds

A 1966 Elizabeth II shilling came from context 018, and a flat circular copper-alloy button was found unstratified. The latter has checkerboard-type decoration on the upper surface and the shank/loop is missing. Two obviously-modern iron objects, comprising a boot-heel and a staple, were recovered from context 107. As stated above, further modern objects may also be present in context 107.

Discussion

This is a varied collection of mainly Roman items of metalwork. The poor condition of the ironwork unfortunately precludes close identification for most of the assemblage and identification of the coins is also hampered by lack of surface detail. Apart from the few modern items, however, the datable finds span the later 1st through to the early/mid 2nd centuries. Previous metal finds are few, and recorded from the 1902-5 excavations only, but are comparable with the current collection. Two coins were noted, one a Republican denarius, the second a bronze of either Vespasian or Titus (James 1906, 204). Other finds comprise a bronze bow brooch of late 1st or early 2nd century date, a bronze bolt or key and three lead weights (James 1906, 207).

Archive tables

Site No	Context	Count	Weight (g)	Description
868	u/s	1	311	Possible blade, probably modern
868	005	2	46	Curved object; folded sheet
868	018	1	37	Part of a knife
868	018	10	12	Rod-like object; sheet fragments; all probably modern
868	018	1	1	SF005, small cog, probably modern
868	035	2	244	Knife/cleaver, almost complete
868	035	6	620	Flat objects and possible objects
868	106	1	76	Curved strip
868	107	1	315	Bar fragment, extremely dense, possibly modern
868	107	12	774	Possible objects, heavily corroded, one with CuA embedded, one possibly a horseshoe

Site No	Context	Count	Weight (g)	Description
	Total	37	2436	

Table 22. Iron objects and possible objects by context

Site No	Context	Count	Weight (g)	Description
868	u/s	4	22	Two have recognisable heads
868	019	9	160	One is very large, five have recognisable heads, two are clenched, one is welded to a stone
868	035	103	1730	Nails and possible objects, one with grey ware b/s attached, many with stones attached
868	035	1	11	Lead attached, bagged with lead items
868	075	6	53	Nails and fragments
868	106	21	118	Nails and fragments
868	107	389	4084	Nails and fragments (and possible objects) some complete, most fragmented and heavily corroded, quite a few attached to stones, one attached to potsherd
868	110	4	8	Complete tack/small nail; fragments, one with small stone adhering
868	113	52	516	Fragments and possible objects, some with stones attached
868	layer above 113	5	24	Fragments
	Total	594	6726	

Table 23. Iron nails by context

Site No	Context	Count	Weight (g)	Description
---------	---------	-------	------------	-------------

868	u/s	1	311	Possible blade, probably modern
868	005	2	46	Curved object; folded sheet
868	018	1	37	Part of a knife
868	018	10	12	Rod-like object; sheet fragments; all probably modern
868	018	1	1	SF005, small cog, probably modern
868	035	2	244	Knife/cleaver, almost complete
868	035	6	620	Flat objects and possible objects
868	106	1	76	Curved strip
868	107	1	315	Bar fragment, extremely dense, possibly modern
868	107	12	774	Possible objects, heavily corroded, one with CuA embedded, one possibly a horseshoe
	Total	37	2436	

Table 24. Iron objects and possible objects by context

Site No	Context	Count	Weight (g)	Description
868	u/s	4	22	Two have recognisable heads
868	019	9	160	One is very large, five have recognisable heads, two are clenched, one is welded to a stone
868	035	103	1730	Nails and possible objects, one with grey ware b/s attached, many with stones attached
868	035	1	11	Lead attached, bagged with lead items
868	075	6	53	Nails and fragments
868	106	21	118	Nails and fragments
868	107	389	4084	Nails and fragments (and possible objects) some complete, most fragmented and heavily corroded, quite a few attached to stones, one attached to potsherd
868	110	4	8	Complete tack/small nail; fragments, one with small stone adhering

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Site No	Context	Count	Weight (g)	Description
868	113	52	516	Fragments and possible objects, some with stones attached
868	layer above 113	5	24	Fragments
	Total	594	6726	

Table 25. Iron nails by context

5. Discussion and Conclusion

The excavation site was located on the south eastern slope of a promontory overlooking the conjunction of the Taff valley and the valley containing the Nant Morlais, a tributary of the Taff. Even obscured by modern development, the promontory offers a commanding view and is a suitable location from which traffic wishing to move either up and down the Taff valley or laterally along the Nant Morlais valley could be monitored. This location would be attractive for settlement from an early date, with settlement patterns being dictated largely by topography and geology.

Evidence for utilisation of the site following the departure of the Romans is limited to the Post-medieval period. The steepness of the slope is likely to have prevented significant development, even during the expansions that accompanied the Industrial Revolution. Further, the proximity of Penydarren Park and the probable inclusion of the site within the park's boundary would also have hindered development. The possible remains of a cobbled surface associated with turnstiles for the old football ground were noted, as were the remains of a somewhat ephemeral small structure of uncertain purpose (Group 111). Neither of these features alter the little that is known about usage of the site following the departure of the Romans. As a result, the remainder of the discussion will focus on the Roman utilisation of the site.

The geology of the surrounding area comprises deposits of the Upper (Pennant), Lower and Middle Coal Measures, which include Shales, Sandstone and reserves of coal and ironstone; partially overlain in places by deposits of Boulder Clay. This latter deposit in particular was observed in abundance on the site and was a major cause of the difficulties faced by the development. The deposits of the Lower Coal Measures were particularly important to the later industrial development of the area. The Lower Coal Measures contain ironstone deposits comprising bands of ironstone nodules (Blandford 1981) but the extent of prehistoric and Roman exploitation of the mineral resource is unclear and it is quite likely that traces of early exploitation were destroyed by 18th and 19th century activity. Several pieces of iron slag were recovered during the work but the quantity in no way indicates large scale industrial activity.

While limited pollen analysis has been carried out on archaeological sites in the Merthyr Tydfil area, these have concentrated on the analysis of material associated with the Bronze Age, and later periods. Pollen analysis from the Bronze Age sites to the west of

Merthyr Tydfil indicates a contemporary environment of heathland, with an open tree cover dominated by oak. Evidence suggests that by the end of the Bronze Age, the upland areas of the Merthyr were typically covered by extensive blanket peat (Casledine 1990). It is evident, though, that the area retained its extensively forested nature throughout the medieval and early post medieval period, until at least the beginning of the 18th century. Early Ordnance Survey mapping and written descriptions by visitors attest to the presence of large swathes of woodland in the area and the general character of the area would appear to have originated during the Late Neolithic (2,500 BC). It is during this period that inroads into the extensive tree cover of the region were first made, and, by the end of the Late Bronze Age (1,300 BC), the now familiar open landscape of the open common or mountain with its generally poor degraded soils, would have been established. The character of this moorland remains recognisable despite wholesale transformation during the industrial period, and is the scene that is likely to have greeted the Romans on their arrival to the area.

The evidence for Roman activity in the area is slight and, at present, is confined generally to the fort at Penydarren or roadways (the road from Gelligaer to Brecon). This picture is almost certainly incomplete, however. Anecdotal evidence based on finds recovery by metal detectorists suggests that possibly early Roman activity has been identified near Gurnos, Merthyr Tydfil and at Vaynor, although nothing has been published to date (Pers Comm. Eyre-Morgan 2020). It is likely that settlement and associated agriculture in the area was continuous, with occupation spanning both the Iron Age and the Roman period. A native cattle-based pastoral economy, which probably dictated a dispersed and mobile settlement pattern is considered, by analogy, to have been characteristic of the period and is unlikely to have altered much following the arrival and subsequent departure of the Romans.

The date for the arrival for the Romans at Penydarren is traditionally associated with the campaign of Julius Frontinus in AD 74/75. This campaign is regarded as the last phase in a protracted series of military interventions of mixed success in southern Wales, ostensibly to pacify the natives, known to the Romans as the Silures. The actual details of the campaign are very limited, being entirely dependent on archaeological information. A series of forts was constructed around this time, including Penydarren, Neath, Gelligaer, and Brecon that corroborate the documentary references to the campaign but the precise nature of that final phase remains elusive. Frontinus was an

experienced strategist and is known to have written several books on military operations after his experiences in Britain. Unfortunately, the one composed shortly after his return to Rome, *The Art of War* is lost, whilst the other, his *Strategemata*, contains no references to Britain. It is highly likely, however, that he would have used his personal experience to help inform his writings and one stratagem in particular appears to be relevant to the sudden change in the nature of Roman operations against the Silures.

“When the Germans, in accordance with their usual custom, kept emerging from woodland-pastures and unsuspected hiding-places to attack our men, and then finding a safe refuge in the depths of the forest, the Emperor Caesar Domitianus Augustus, by advancing the frontier of the empire along a stretch of one hundred and twenty miles, not only changed the nature of the war, but brought his enemies beneath his sway, by uncovering their hiding-places.” (Frontinus *Strategemata* Book 1 III para. 10)

Whilst speculative, this example might serve as the strategic imperative behind Frontinus’s campaign. Previous operations appear to have been hampered by the ability of the Silures to retreat into uplands and forest, playing to their supposed strengths as guerrilla style fighters. So rather than compete at a disadvantage, Frontinus may have simply ‘advanced the frontier’ and absorbed their hiding places into Roman territory.

Whatever the actual imperative and course of the campaign, based on analysis of the pottery, Penydarren appears to have been founded as part of that final phase of military operations under Frontinus. Unfortunately, there was little cohesion to the few identified archaeological features noted for the current report. Nothing structural dated to the Roman period was identified with the exception of possible metalling for a trackway. Indeed, only a single phase of Roman activity is discernible from the current results, and this was probably tied to decommissioning of the site. Several probable Roman ditches were identified but these too were relatively minor, representing perhaps nothing more than minor drainage features. Of more significance has been the pottery assemblage.

The steep topography of the bank that forms the south eastern boundary of the fort is likely to have been present during the Roman period and was probably utilised as part of the fort’s defences on this side. No evidence for defensive ditches associated with the Roman fort was noted during the excavation or subsequent watching brief covered

by this report. The presumed defensive ditches identified in 1957 do not appear to have extended into the current area, which is something of a puzzle. It is possible that the bank was considered sufficient of an obstacle by the Romans so as not to require an extension of the ditches observed by Heywood. An example of such an arrangement is the fort at Vindolanda on Hadrian's Wall, where the eastern side is apparently without ditches as it is protected by a steep bank.

The presence of a possible metalled surface is indicative of a trackway down the side of the hill but it was neither substantial nor extensive enough to provide an indicator of direction or extent. Given the steep nature of the ground, it is possible that the metaling served simply as a minor route that traversed or zigzagged down the slope although this is speculation. No evidence linking the trackway to the postulated east gate of the fort could be found and the actual nature of the metalling must remain elusive.

Contrary to some sources, there is no evidence that the fort was ever rebuilt in stone. Indeed, the only known buildings associated with the fort are the bathhouse complex and adjacent masonry buildings located to the west of the current site, and the granary, which was located almost immediately north of the area covered in the current report. James was convinced that the south west portion of the granary had been carried away by workmen constructing the sports ground in 1904 and that consequently, the full dimensions of the granary could not be ascertained. There is a possibility therefore that that some of this removed material was re-deposited in the current development area during the 1904 ground reduction, and this possibility, although slight, should not be discounted.

In contrast to the brick and tile, of which 35kg was present, there was a complete lack of structural stone associated with any of the deposits that contained Roman deposits. The single exception were the two linear stone features 042 and 043 which may represent the kerbing for a pathway, though again, this is speculative. The ceramic material, however, must have been derived from actual structures located on the plateau above the slope. The granary reportedly contained a quantity of large bricks between the transverse walls (James 1906) and on balance, the brick and tile probably originated from that structure. Interestingly, the 1957 excavation apparently located no brick or tile, suggesting that the distribution of demolition material from structures was limited and that there were probably few buildings to begin with. Also interesting to note is that

the ratio of brick to tile recovered does suggest that tiled roofs were limited in number, being confined perhaps to the bathhouse complex or the granary alone. There are very limited known structures and the majority of the fort may well have been of timber construction with an alternative form of roofing.

The features noted containing Roman material were difficult to interpret. It is possible that they originated as drainage features and were then subsequently utilised for the disposal of refuse from the fort but several appeared to be simply depressions rather than trenches proper. Given the absence of structural evidence, much of the following discussion leans heavily on the artefactual evidence.

Most finds were derived from the fills of two features that were interpreted as minor ditches or depressions (035 and 107). Both were associated with a crudely metalled surface but it is possible that they were, in fact, part of the same original occupation layer. These fills contained Roman ceramics, together with brick, tile and metal objects. The condition of the material was generally poor and whilst there is some slightly conflicting evidence regarding whether or not the material had been subject to and re-deposition, the fact that sherds of the same vessel were spread across multiple contexts suggests deposition as a single event. It is possible that the steep sided bank was simply used as a waste disposal area either during the late occupation or on the abandonment of the site, with the features being the vestigial remains of waste pits or minor drainage features utilised for waste. There were strong similarities between some of the contexts. Deposits 035 and 075 in particular are likely to be the same context, examined approximately one year apart. Similarly 107 and metalled area 109 were in close physical proximity. It is possible therefore, that instead of being a number of separate features, the Roman occupation layer was effectively a single deposit separated by differential erosion of the bank and examined at different times. This is partially borne out by the results of the pottery analysis that concluded that it was possible that there were sherds of the same vessel distributed through several different contexts and that there were marked similarities between the artefacts recovered from apparently separate features.

Some general conclusions can be drawn from the Roman pottery from the Labour Exchange. Jars in grey ware form the highest proportion with late 1st to mid-2nd century necked jars being the most popular type within this category. The dominance

of such vessels is unsurprising as it may be assumed that a static garrison would have more need and opportunity for storage of foodstuff. There is probably insufficient evidence to make any firm conclusions about food preparation practices. However, the presence of a cleaver, together with the dominance of storage vessels, suggests the assemblage may derive from a kitchen or storage type of area. The relative absence of Black Burnished ware 1 (BB1) dishes compared to jars when considered against the pottery from 1902-5 is also of note and is again suggestive of an assemblage derived from a storage area. It is of note that the granary was located above the current site and might reasonably be expected to contain all manner of provisions. The relative absence of mortaria further suggests that the assemblage is reflective less of food preparation and consumption. It is true, however that plates and bowls might have been regarded more as a personal item and that consequently, these may have been looked after more carefully, and perhaps even have been taken away by the users when they left the fort, resulting in a skewed deposition pattern.

Of further interest is the observation that the greyware may show preferential use as storage vessels, whereas the redware appears heat affected. Whilst this may be related to firing, the blackening may equally relate to use as cooking vessels. Minor apparent changes in popularity of redware pottery form between the mid to late 1st century and late 1st to early 2nd centuries could reflect changing fashion, sources of supply, a change of garrison or elements of all three.

A vessel type which appears to be absent from previous collections is the tazza, which is a carinated bowl with a pedestal foot. These vessels are occasionally found in burials, and a religious function as incense-burners is very often assigned to them. Interiors can show evidence of burning, perhaps supporting this view, although use at table as chafing-dishes is also a possibility. The form is not common and outside of London and the major centres, there is a strong correlation between their presence and the military (Seager-Smith 2008). There is no evidence of internal burning on the current examples, although one of the tazza from 113 is blackened under the rim. The presence of four such vessels in what is a relatively small assemblage and with no prior discovery is possibly unusual but might be explained if an assumption is made that, regardless of function, they were normally kept in storage. Again, a logical candidate for location is the granary and it is even possible that, much like the mess silver of the much later British Army, more elaborate pieces were held in common, stored centrally and brought

out for special occasions. Amphora was also well represented, all of which was of the Dressel 20 type used for storing olive oil. Again, these are items that might reasonably be found in a storage setting.

The incidence of fine wares, including samian, in the current assemblage is low, in line with the findings from 1957 (Webster 1991, 188). There is a suggestion therefore that these items were more of a personal item, rather than having been part of a more widely traded product. Alternatively, assuming the assemblage is derived from a common area, there is less of a likelihood of individual possessions being present. Evidence of definite personal items included several coins, brooches and a cleaver. Whilst the coins were in too poor a state of preservation to be identified, the brooches date to the late 1st to 2nd centuries, supporting the pottery dating. These are likely to be present as a result of casual loss rather than deliberate deposition. The cleaver is of note as such an item may well conceivably be kept in an area associated with food preparation rather than food consumption, lending further support to the idea of the bulk of the assemblage having originated in the granary area.

As noted above in the dating evidence section, the chronology of the current collection fits entirely within the date range given. There is more evidence for occupation into the first quarter of the 2nd century than for the 1957 material, and the pottery matches more closely that from the 1902-5 excavations, where pieces of early Hadrianic date were noted (Webster 1991, 188).

The Roman pottery originates from a date range of mid 1st to the end of the first quarter of the 2nd century, supporting the previous theory that the fort was abandoned during the Hadrianic period. Classical sources indicate that Britain was in the throes of rebellion between at the time of Hadrian's accession, with the date of military conflict generally placed from AD 119 to 121. Hadrian's subsequent visit to Britain in AD 122 in the aftermath of the suppression appears to have spurred the process of general re-organisation and consolidation of the military forces in Britain at this time though in reality there is likely to have been a trend towards gradual military disengagement in South Wales for some time (Burnham and Davies, 2010 p53). There is currently no evidence so far of occupation within Penyardarren beyond the Hadrianic period and given that none of the archaeological work undertaken over the last century has identified material later than the first quarter of the 2nd century, this belief is unlikely to change.

The current assemblage consists of material that spans the entirety of the known period of Roman occupation of the site, perhaps 40 years or so. There is a clear bias towards storage rather than consumption, which, if the material has been deposited over the course of occupation may have been less pronounced. There are indications which suggest that the material was deposited if not as a result of a single event, then possibly as a result of a series of linked events. Whilst the theory that the assemblage was derived from the granary on decommissioning is somewhat speculative, the presence of brick indicates that it is likely to have been derived from one of the few known buildings, the closest of which is the granary, directly above the site.

The work carried out at the Labour Exchange has provided further confirmation for the presence of late 1st/early 2nd century Roman occupation at the Penydarren site. The nature of that occupation, however, remains surprisingly elusive. Indeed the greater part of the general layout including the defensive circuit is postulated rather than proven. Water management on the site was likely to have been as important (and as problematic) in the Roman period as today, and probably the surveyors knew that before siting the fort if the bathhouse located to the north west of the site was always intended. It is possible that the water management regime developed as part of the current development echoes that of the Romans, especially in the south west corner of the site. However, only very limited evidence for earlier drainage features was noted, despite the excavators being convinced of the presence, somewhere, of Roman drains. Whilst there is still no reason not to think Penydarren was military in nature, nothing has been conclusively proven and there is a very strong case for seizing every opportunity for further archaeological work within and around the conjectural boundary of the fort, should the opportunity arise.

6. Bibliography

- Arthur, P, 1978, 'The lead glazed wares of Roman Britain' in Arthur, P and Marsh, G (eds), *Early Fine Wares in Roman Britain*, BAR **57**, 293-355
- Bellamy C, *Merthyr Town Football Club, Phase 2: archaeological watching-brief*, Unpublished GGAT Report
- Brodribb, G, 1987, *Roman brick and tile*, Alan Sutton (Gloucester)
- Burnham, B, and Davies, J, (eds) 2010 *Roman Frontiers in Wales and the Marches*, CBHC/RCHAMW, Aberystwyth
- Charlesworth, D, 1991, 'The Glass', in Heywood 'The Roman Fort at Penydarren, Glamorgan', *BBCS*, **38**, 167-90
- Davies A N, 2009, *Merthyr Tydfil town centre conservation area*
- Dunning, R, 2015, *Labour Exchange, Merthyr Tydfil: archaeological excavation and building survey project design* **GGAT Report No. 2015/076**
- Evans E M, 2010, 'Penydarren', in Burnham BC and Davies JL (eds) *Roman frontiers in Wales and The Marches*, 275
- Fell, V, 2006, *Metallographic examination of an Iron Age knife from Limes Farm, Landbeach, Cambridgeshire*, English Heritage Res. Rep. 15/2006
- Gillam, J P, 1976, 'Coarse fumed ware in North Britain and beyond', *Glasgow Archaeol. J.* **4**, 57-80
- Greene, K, 1979, *Report on the Excavations at Usk, 1965-76: The Pre-Flavian Fine Wares*, Univ. Wales Press
- Halford, C, 2014, *Merthyr Town football club, Penydarren Park, Merthyr Tydfil: archaeological watching-brief*, GGAT Report no: **2014/012**
- Hart, R and James C, 2013, *Merthyr Learning Quarter, Merthyr Tydfil: post-excavation assessment*, GGAT Report no: **2013/040**
- Hart, R and James-Martin, C, 2014, *Labour Exchange, Merthyr Tydfil: archaeological field evaluation*, GGAT Report no. **2014/083**
- Hartley, K, 1993, 'The Mortaria', in Manning 1993, 387-437
- Heywood, B, 1991, 'The Roman Fort at Penydarren, Glamorgan', *BBCS*, **38**, 167-90
- Holbrook, N, and Bidwell, P.T., 1991, *Roman Finds from Exeter*, Exeter Archaeol. Rep **4**
- James, F T, 1906, 'Roman Remains: Penydarren Park, Merthyr Tydfil', *Arch Camb.*, **vi**, 193-208

James-Martin, C, *Labour Exchange, Merthyr Tydfil: archaeological written scheme of investigation*, GGAT Report no. 2014/088

Manning, WM, 1993, *Report on the Excavations at Usk, 1965-76: The Roman Pottery*, Univ. Wales Press

Merthyr Teachers Centre Group, 1981, *Merthyr Tydfil – A Valley Community*, Cowbridge

Nash-Williams, V, 1954, *The Roman Frontier in Wales*, Univ. Wales Press

Peacock, D, 1977, 'Pompeian Red Ware' in Peacock (ed.), *Pottery and Early Commerce: characterisation and trade in Roman and later ceramics*, Academic Press, London, 147-62

Peacock, D, and Williams, D.F., 1986, *Amphorae and the Roman economy*, Longman, London

Price, J, and Cottam, S, 1998, *Romano-British Glass Vessels: A Handbook*, Council for British Archaeology Practical Handbook in Archaeology 14

Seager-Smith, R, 2008, *Suburban life in Roman Durnovaria: additional specialist report Finds pottery*, Wessex Archaeology

Simpson, G, 1991 The samian ware, in *The Roman fort at Penydarren, Glamorgan* B Heywood, B, BBCS 1991, 178-9

Stanfield, J A, and Simpson, G, 1958, *Central Gaulish potters*, Oxford University Press, Oxford

Tomber, R, and Dore, J, 1998 *The National Roman fabric reference collection: a handbook*, Museum of London Archaeology Service Monograph, London

Wallace, C, and Webster, P, 1989, 'Jugs and Lids in Black Burnished ware', *J. Roman Pottery Stud.* 2, 88-91

Webster, J, 1995, 'Brooches', in, Manning 1995, *Report on the Excavations at Usk, 1965-76: The Roman Small Finds*, Univ. Wales Press, 60-96

Webster, P, 1991, 'The Coarse Pottery', in Heywood 1991 *The Roman fort at Penydarren, Glamorgan* BBCS 1991, 180-8

Websites

British Geological Survey Interactive Map <http://www.bgs.ac.uk/> (Accessed July 2020)

Willis, S, 2004 '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 (<http://doi.org/10.11141/ia.17.1>, accessed 03/10/2020)

Appendix I. Context Inventory

Table 1: Context Inventory

Context	Form	Period	Dimensions	Depth	Description
001	Deposit	Modern/present ground cover	Site wide	0-0.6m	Existing ground topsoil. Dense brambles and tree roots. Stumps present following clearance. Modern rubbish littering the site. Depth changes - deepest at base of bank
002	Deposit	Modern	variable depth up to 1m		Clay used to form bank to football ground that lies immediately to north. Possibly derived from creating the flat playing field - levelling off. Depth diminishes the further away from the bank bottom.
003	Deposit			0.5m	Deposit of loam sealed by clay - original now buried topsoil. Trend of deposit is to slope downhill NW to SE following the hillside.
004	Deposit			Up to 3m	Clay, mottled grey underlying buried topsoil.
005	Cut for trench	Modern	length 25m	approximately 0.5m	Trench for modern piping. Connects to chambers, one SE corner of site and the other set on the slope of the bank to the football field - approximately 2m vertically in distance from the top of the bank.
006	Deposit	Modern			Gravel backfilling of trench. Surrounding plastic drainage pipe.
007	Cut for trench	Post-med	length>3.3m, width 0.3m	0.3m	Drain, straight cut sloping downhill from N to S following the hillslope. Shallow drain - more like a grip or 'French' drain. Terminated with no chamber. Didn't appear to have been truncated. Drainage heading to corner of site. All drains heading to same corner lowest part of site!

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
008	Deposit	Post-med			Sub rounded and angular stone 0.15m x 0.15m to 80mm sub rounded and with isolated slag lumps forming a 'French' drain. Stone random deposition within trench [007]. Black staining on many stones. Possible shale also present. Stone, shale, slag suggestive of industrial site materials used to fill trench.
009	Cut for trench	Post-med	Length>6m, Width 0.3m to 1.1m		Drain cut. .3m wide box drain leading to a chamber, 1.1m wide cut. Drain as expected cutting across the contours. Direction NW to SE. The narrowest part of the trench central to the wider chamber cut.
010	Structure	Post-med	length 2.7m, width 1m	0.87m	Coursed stone line chamber, one stone wide on N,W and E side approximately 0.15m wide with a wider S end about 0.3m wide. Inner face neatly built to near vertical elevations. No mortar present. Dimensions of inner chamber 0.7m wide, 2.2m long edging stone squared 0.15m by 0.1m average but some larger. 60mm wide opening in NW elevation from 011 at approximately 0.1m below surviving uppermost course. No sign of capping to chamber. Grey Sandstone. Single red brick in coursing stamped 'Beaufort brick Co'. No stone base just clay and small stone backfill. No mortar present. 8 courses high.
011	Structure	Post-med	length >3m width 0.3m		Drain channel leading to chamber [010] comprised of two edging stones capped by a larger flat stone. Channels between stone 60mm minimum. No basal stone.
012	Deposit	Post-med/modern			Chamber completely filled with sub rounded and angular stone and silt. Isolated red brick, ceramics and glass. Toilet white/cream ceramic also in

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
					chamber. Possibility of the chamber as WC but unlikely no proper water source, toilet backfill.
013	Deposit	Post-med			Backfill of clay and stone between stone edging of chamber and the cut for the chamber. Prominent on the NE side of the chamber less so on all three other sides.
014	Structure	Post-med	See DWG's 003,004,005 for measurements	Highest point 2.6m	Retaining wall holding up bank. Coursing is visible in some areas but other areas have had repairs and are irregular. There are also 'weep holes' visible at intervals along the bottom. Largest stone measures 0.59 x 0.14 x 0.21m, smallest stone measures 40mm x 60mm. Incorporates 5 Cyfarthfa bricks. A sample three sections were drawn indicated below . For measurements see plans. Weepholes - one course deep (0.12m deep 50-60mm wide) random insertions of yellow brick, some with vitrification. Stone not dressed. Occasional stringing courses of thinner stone to bring back to level. Top finished with vertical coping stones of sandstone. No positive signs of repair however mortar on bend better preserved than elsewhere - possibly protected by undergrowth - tree above it. Brick used on bend-? Easier to get around. Pillar/column 705mm square stretcher bond red brick topped with rusticated sandstone single coping stone. Facing stone 0.3m deep. Core of smaller rubble (un-mortared) stone sub rounded and angular 0.15 x 0.15 x 0.1m. Mortar hard dark grey with coal and cinder lumps and flecks. Occasional lime flecks and lumps.

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
015	Deposit	?Roman			Fine silty clay - fill of drainage ditch 016. Roman finds within fill arising from adjacent feature 017
016	Cut for ditch	Post- med		0.7m	Essentially v-shaped ditch with a gentle curve the south side finishing in a 'soft' point curves upwards slightly to north, then flattens out in a curve. Width top 1.6m, width base 0.1m.
017	Deposit	Roman	length 3.6m in section	>0.3m	Well mixed deposit of 'fired' clays containing Roman ceramics. Moderate rounded stone (0.3 x 0.1m) to 50mm size. Isolated charcoal flecks. Deposit becoming greyer in colour toward base. 048, 047 likely same as 017
018	Area number for finds				Area number for finds associated with 017 deposit. U/S but likely related to this feature.
019	Structure	Roman			Surface of stone, all laid flat, butting in places on slope of bank. Deposit dips from north to south across the contour. Two clear kerbs at right angles to the general line of the steeper parts of the slope.
020	Structure	Post med	5.95m x 2.1m		Group number for cobbled path/garden feature. Cobbles rectangular approximately 100mm x 200mm. Timber posts approximately 120mm x 120mm. Possible foundation for a dog kennel. Later interpreted as turnstile foundations.
021	Structure	Post-med	0.2m (width) 5.2m(length)	0.15m(single course)	Single course of masonry bonded with dark grey/black mortar with fine white flecks. Only appears to be faced on one side. Possible retaining wall - natural deposit behind. Fair face to south - back irregular. Stone size 0.2 to 0.3m angular sandstone

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
022	Deposit	Post-med		upto 0.25	Soft fine sandy clay with few stones- fill. Possibly came in with post-med period. This part of the site heavily cut by drainage measures all of which disturbed original ground and deposits. See dwg 006 for change
023	Cut	Post med	0.3m (width)	0.8m	Very unusual shape cut. Sloping on both sides the same way but irregular sides. Looks more likely that something rammed in and later removed giving irregular sides. At base narrows to 0.1m
024	Fill of cut 023	Post-med			Mix of dark and light clays with occasional small stone and flecks of 017 clays
025	Edge of deposit 017 - possible cut	?Roman		>0.4m	Cut seen one side only gentle break of slope approximately 45 degree cut. - cut not likely following further excavation.
026	Fill	?Roman		>0.4m	Silty clay with occasional charcoal flecks. Possible that this is a Roman surface prior to cut 025 and fill 017. If so doesn't explain angle of slope mirroring?? 025. Perhaps original cut line before 026 and 027.
027	Ditch fill	Roman			Clay ditch fill probably a mix of deposits 048 / 049
028	Coal and cinder fill	Post med	0.3m diameter	10-20mm	Patch of coal flecks and cinder. Fill at base of topsoil
029	Ditch fill - upper fill	Post-med		0.3m	Uppermost of two fill within cut 016 ditch. Probably filled in after ditch out of use as the contrast between 015 and 029 is distinct.
030	Fill - clay deposit	Post-med		0.4m	Stone free clay with moderate charcoal
031	Structure	Modern	3.3m(width)	50mm	Path shown on plans leading to football ground
032	Deposit	Modern		100mm	Stone chippings 30mm ?? Subbase foundation for tarmac 031
033	Deposit	Natural		80mm	Soft clay subsoil with rootlets and occasional small angular stones and pebbles. Transitional colouring picking up from deposit above and below.

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
034	Deposit	Natural		>2.8m	Soft clay containing boulders (0.2-0.3m) and angular stone all randomly distributed throughout. No lenses visible, no charcoal present, no variation in colour no rooting/bioturbation
035	Deposit	Roman	not seen	0.7m	Roman deposit underlying buried soil and overlying natural. Contains large amount of Roman pottery, iron nails, charcoal, brick/tile. Edges irregular and unexcavated to south and east. North continues under bank (seen in section) unexcavated. Area l limited excavation. Matrix is a dirty natural
036	Structure	Post-med	5.95m(length) 0.9m(width)	90mm	Path/surface made up of rectangular blocks 110 x 230 x 90mm, contains a timber post along north edge- possible support for handrail. Cobbles laid on a matrix of slag/coal waste. Un-mortared soil matrix between stones. Some white granite/quartz cobbles.
037	Structure	Post-med	5.95m(length) 1.0m(width)	90mm	Path/surface same construction as [036] some red brick used as edging.
038	Negative feature	Post med	2.5m(length) 0.2m(width)	90mm	Engineered gap between [036] and [037] possible this was a drain although may be re-modelled at SE end. Edges formed by rectangular cobbles.
039	Cut for wall	Post-med	5.2m(length) 0.4m(width)	0.2m	Cut for construction of wall 021 observed on uphill side only. The slope may have warranted that it was only needed on one side to create a terrace.
040	Deposit	Post med		0.2m	Rubble fill of angular stone mixed with silty clay. Backfill of trench 039. Stone 0.15m to 0.1m at all angles of repose.
041	Deposit	Post-med	10m+(length) 1.6m(width)	0.15m	Spread of angular and sub-angular sandstone (0.15 to 80mm) in an irregular pattern but with its top fairly flat laid as path. Between stone red brown gritty cinders/ash from boiler likely. No clay.

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
042	Structure	Roman	1.4m long by 0.25m wide		Row of four stones forming a line which may represent the eastern edge of kerbing to deposit 019. Separated from linear 043 by 1.2m.
043	Structure	Roman	1.6m long by 0.3m wide		Row of 6 stones forming a line which may be the western edge of kerbing to deposit 019. Separated from linear 042 by 1.2m
044	Deposit	Roman	1.6m E/W 0.9m N/S		Soft yellow brown clay with frequent small angular stone (0.1m pebbles) all well mixed. Appears later than 019 but not proven
045	Void				
046	Deposit	Roman			Clay - soft with frequent large (0.2/0.35m) angular, sub angular and sub rounded stone at all angles of repose making up pathway.
047	Deposit	?Roman			Well mixed deposit of 'fired' clays containing Roman ceramics. Moderate rounded stone (0.3 x 0.1m) to 50mm size. Isolated charcoal flecks. Deposit becoming greyer in colour toward base. 048, 047 likely same as 017
048	Deposit	Roman		0.3m+	Soft sandy clay with small stone, well mixed deposit of different colours. Deposit dips to north
049	Deposit	Roman		0.25m+	Stiff sandy clay with small sub rounded stone and charcoal flecks. Deposit dips to north.
050	Deposit	Roman		0.15m	Gritty sandy clay slightly sticky. Deposit horizontal then dips to north approximately 45 degrees
051	Deposit	Roman		0.1m	Hard grey orange clay -mixed with Fe. Isolated charcoal flecks. Stone angular 0.1m size and lesser. Horizontally deposited.
052	Deposit	Roman		50mm	Soft grey clay with frequent charcoal flecks. Could be a lens within the fills and not a distinctive deposit as such. Horizontal deposit.

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
053	Deposit	Roman		0.25m	Brown clay loam with occasional charcoal and moderate small stone. Fairly horizontal deposit interface 20mm+
054	Deposit	Roman		0.2m	Soft clay loam with occasional charcoal flecks and small stone. Single large ironstone lump in context. Deposit dipping to north.
055	Deposit	Roman		0.3m max	Hard clay with frequent ironstone and Fe leaching with occasional flecks of charcoal and isolated coal lumps. Deposit dipping to north
056-75	Not used				
075	Deposit	Roman	6m (approx.. across section)	0.4m (max in section)	Feature seen in section cut [077] containing fills 075 and 076. Contains Roman pottery/charcoal/Fe
076	Deposit	Roman	1.7m (across in section)	0.2m	Feature seen in section cut [077] containing fills 075 and 076. Contains Roman pottery/charcoal/Fe
077	Cut	Roman	6m (approximately across in section)	0.4m (max)	Feature seen in section cut [077] containing fills 075 and 076. Contains Roman pottery/charcoal/Fe
078	Deposit	Roman	2.2m (length) truncated to N	0.5m (max) slot 0.32m	Fill of 079 Roman deposit possible beam slot/drain. Roman Cu alloy coin from this deposit.
079	Cut	Roman	2.2m (length) truncated to N	0.5m (max) slot 0.32m	Cut for beam slot/drain seen in section Soil nailing Row 4 WB. Considered unlikely to be such Post-excavation.
080-100	Not used				

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
101	Deposit		1.9m wide	0.8m deep	Mid brown soft clay contained in structure 102 with frequent angular and sub-angular stone rubble
102	Structure	Post-medieval	0.85m high, 0.25m wide	0.15 – 0.9m	A drystone wall forming the northeast terminus of Structure 111, which contained deposits 101, 104 and 105. Some of the bricks were coated in what appeared to be furnace waste, which displayed evidence of vitrification. The constituent stones were roughly dressed to form rectangular blocks. It survived to seven courses in height, and only 0.12m (a single block) wide, although it seems to have originally been two blocks wide (c.0.25m). No remains of mortar bonding were visible.
103	Structure	Post-medieval	0.7m high, 0.23m wide	0.6 – 0.86m	A drystone wall, similar in character to 102, forming the southwest terminus of structure 111. As with 102, some of the stones were coated with vitrified slag or furnace waste. The wall was more fragmented than 102 and had largely collapsed when the surrounding material was removed by machine. Approximately five courses were discerned, forming 0.7m high and 0.23m wide.
104	Deposit	Post-medieval	0.26m deep	0.83 – 0.9m	Rubble deposit beneath 101 and above 105. Mainly square or rectangular blocks of stone. May be identical to 10, was recorded separately due to rubble overburden disguising the relationship.
105	Deposit	Post-medieval	0.07m thick, 1.9m wide	0.9 – 1m n.b.	Dark brown silty clay deposit forming a possible interior floor to structure 111.
106	Deposit	?Natural	General	0.3 – 0.6m	Yellow brown coloured sandy clay deposit found beneath structure 111.

Merthyr Labour Exchange, Merthyr Tydfil: archaeological excavation and building recording

Context	Form	Period	Dimensions	Depth	Description
107	Deposit	Roman	0.3m wide at base, 1.5m wide at top.	0.3 – 0.6m	Fill of ditch 108. Very frequent Roman pottery encountered throughout the deposit.
108	Deposit	Roman	0.3m wide at base, 1.5m wide at top. 0.75m deep	c.0.6 – 0.9m	Cut for a ditch which is filled by deposit 107. Further excavation revealed that the cut was flatter than initially supposed and may have been created as a foundation trench for a metalled surface.
109	Cut	Post-medieval	Not recorded	c.0.6 – 0.9m	Cut for north east of structure 102. Filled with deposit 110
110	Deposit	Post-medieval	0.05m wide	0.3 – 1m n.b.	Fill contained by cut 109
111	Group	Post-medieval		0.2m – 0.9m	Group number for structure comprising 1-2 to 105
112	Not used				
113	Deposit			0.2 – 0.65m	Metalled surface incorporating Roman pottery

n.b. = not bottomed

Appendix II. Index of Figures



Figure 1. Location of the site (shown in red) showing the sub-division of the site into relevant zones (indicated).

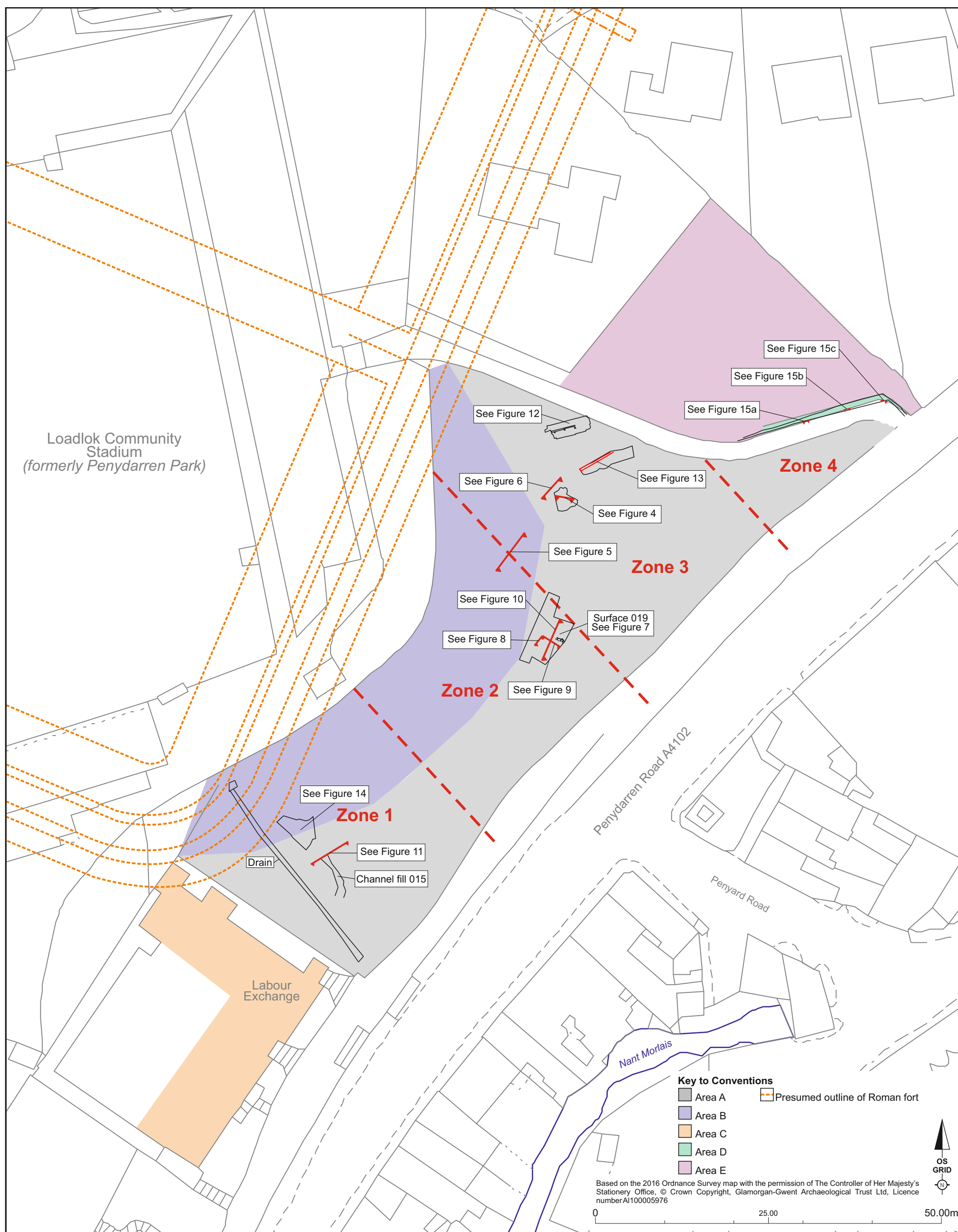


Figure 2. Plan showing location of detailed plans, sections and elevations shown in figures 4-15c.

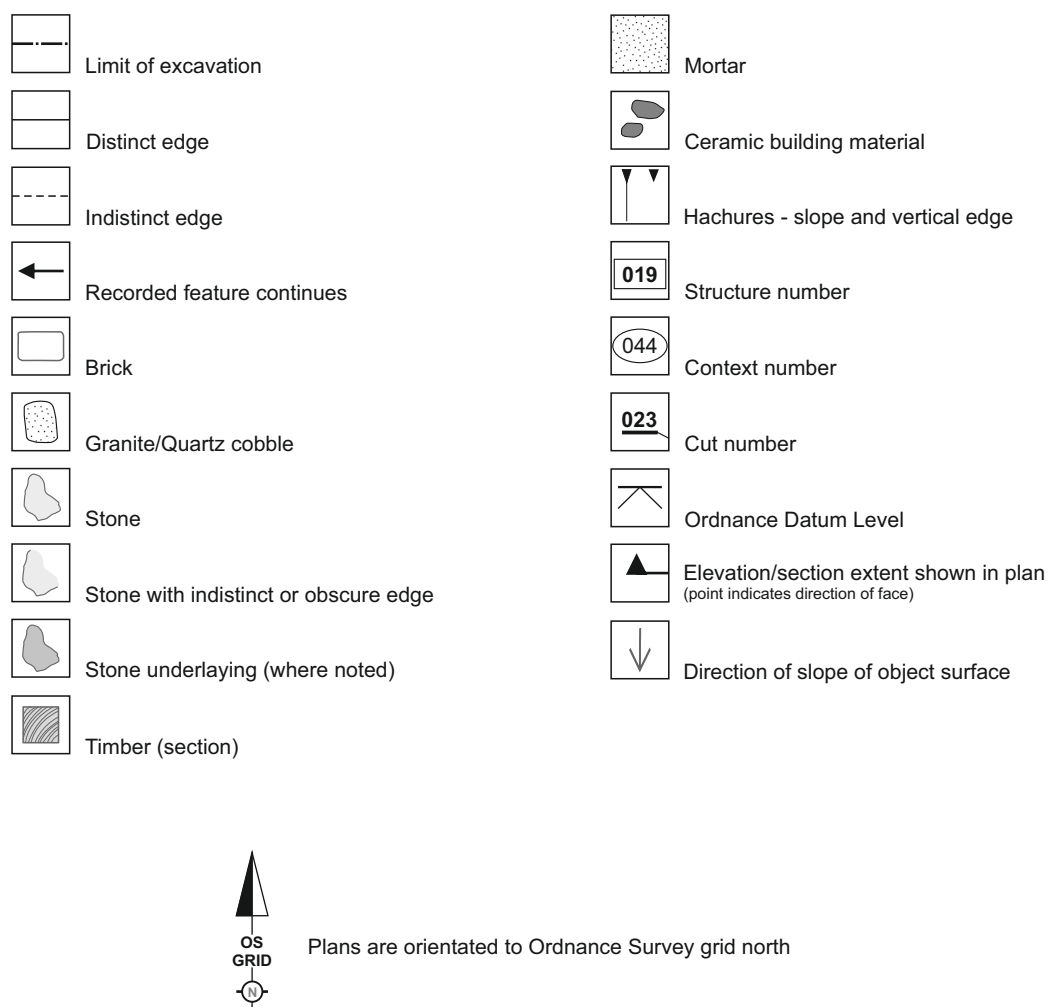


Figure 3. Convention list.

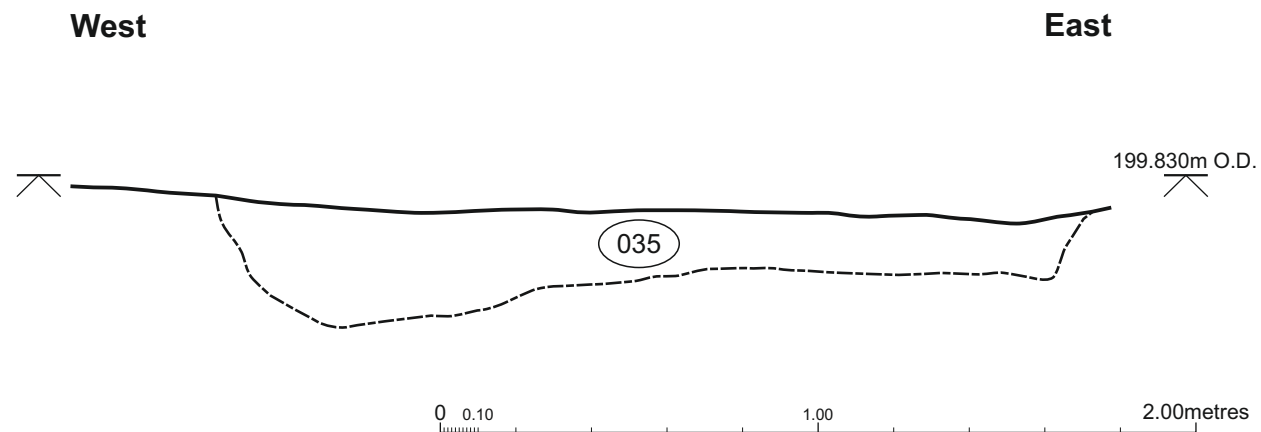


Figure 4. South west facing section through Roman deposit 035 (see Figure 2 for location).

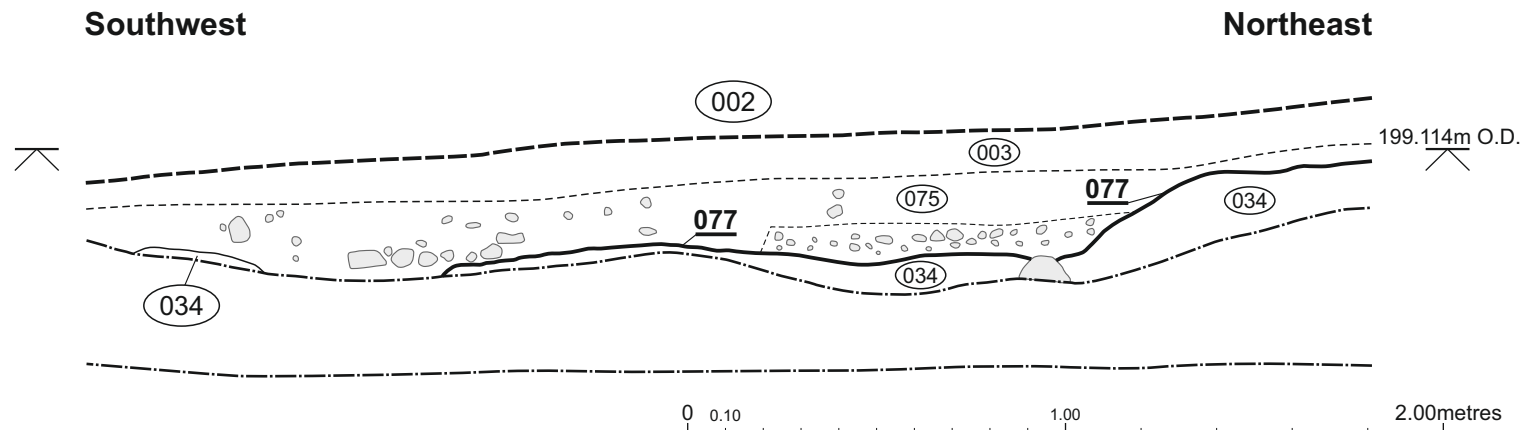


Figure 5. South facing section through Roman deposit 075 (see Figure 2 for location).

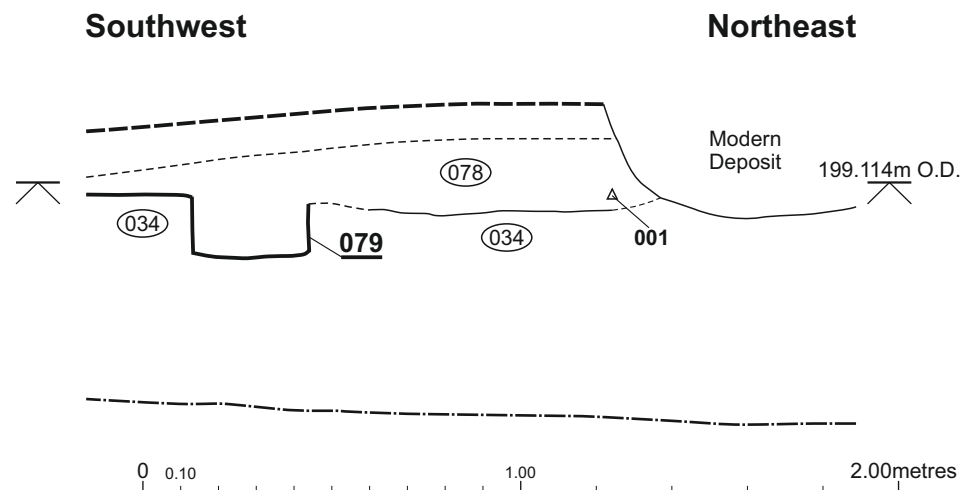


Figure 6. South facing section through Roman deposit 078 (see Figure 2 for location).



Figure 7. Plan of Roman surface 019 showing location of section Figures 8 and 9 (see Figure 2 for location).

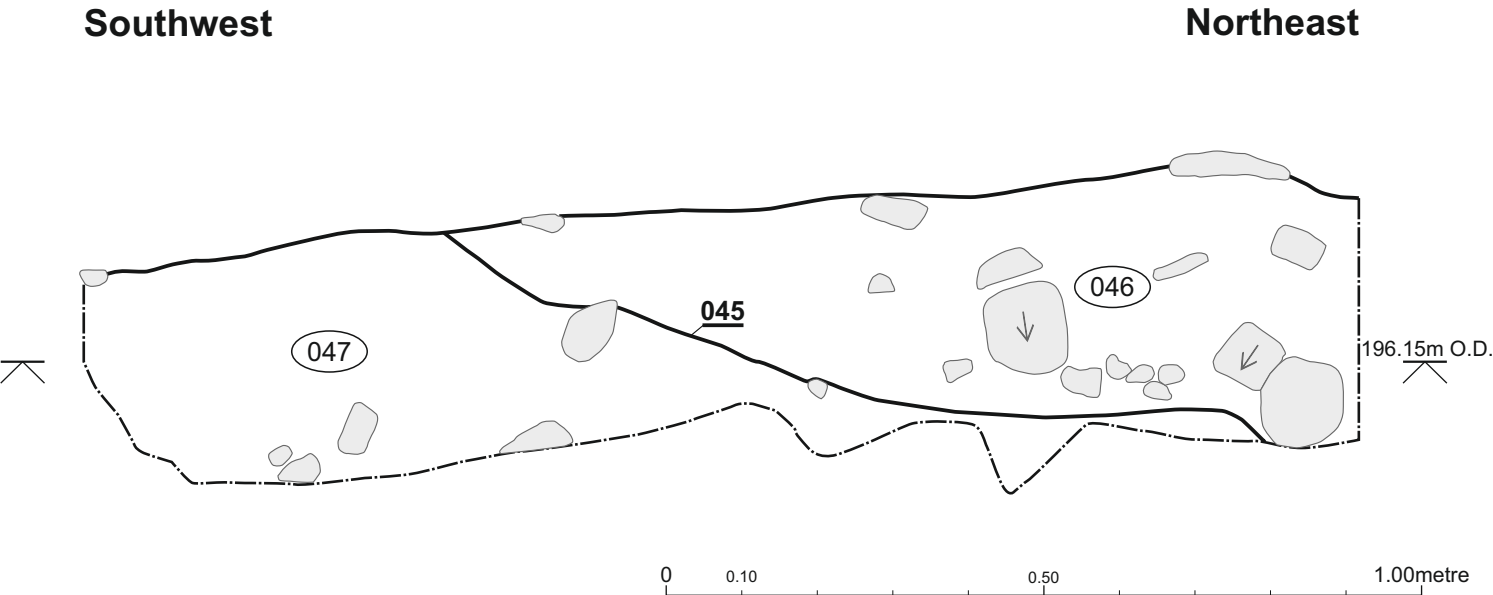


Figure 8. South east facing section through Roman surface 019 (see Figures 2 and 7 for location).

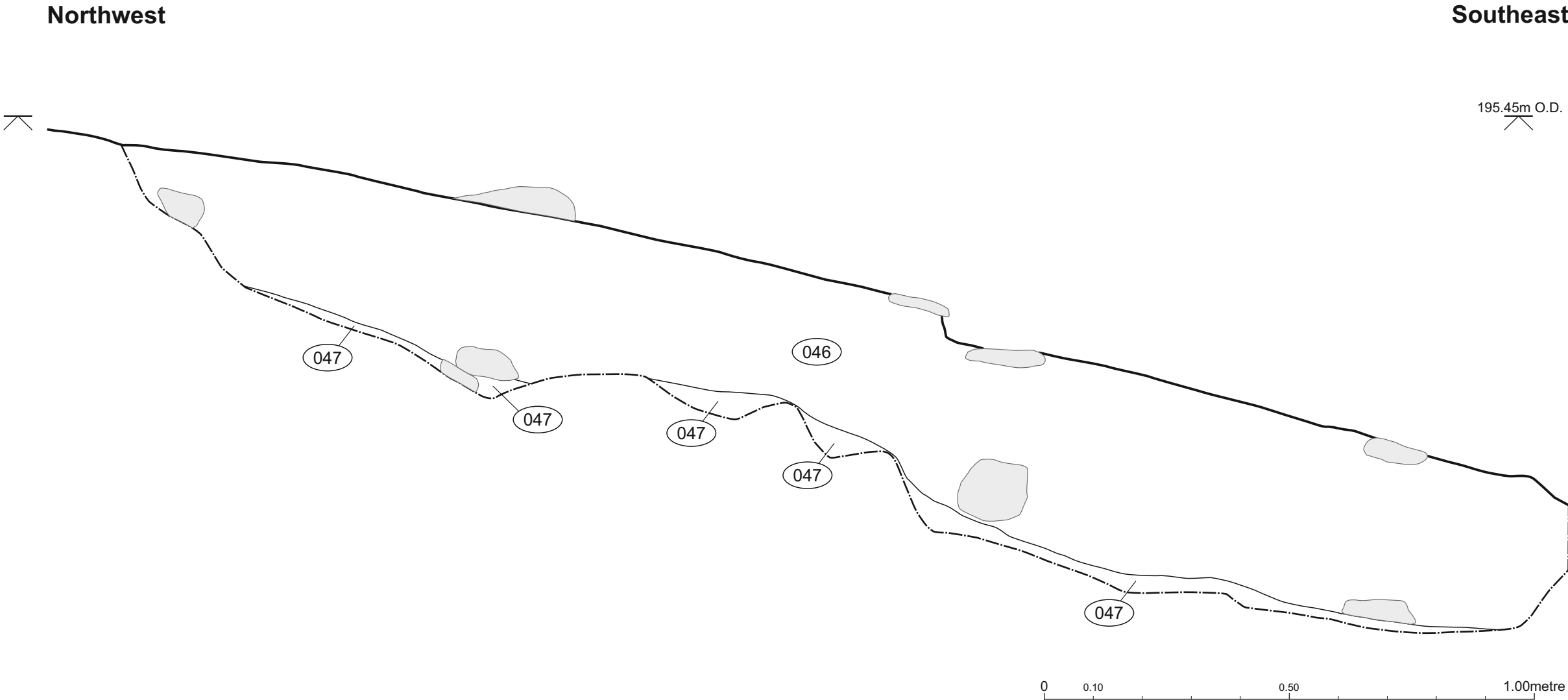


Figure 9. South west facing section through Roman surface 019 (see Figures 2 and 7 for location).



Figure 10. South east facing section across surface 019 (see Figure 2 for location).

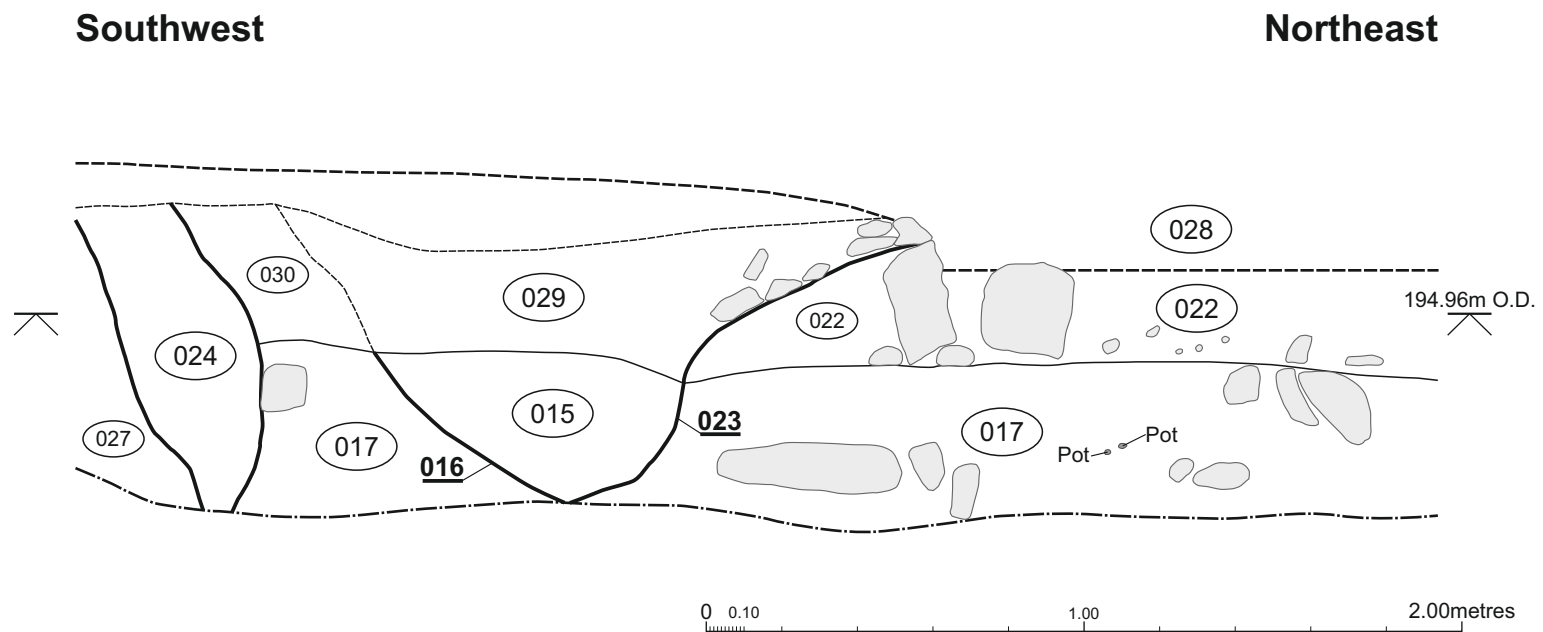


Figure 11. Southeast facing section through Roman drain 016 (see Figure 2 for location).



Figure 12. Cobbled surface area 036/037 representing the remains of probable turnstiles for the football ground (see Figure 2 for location).

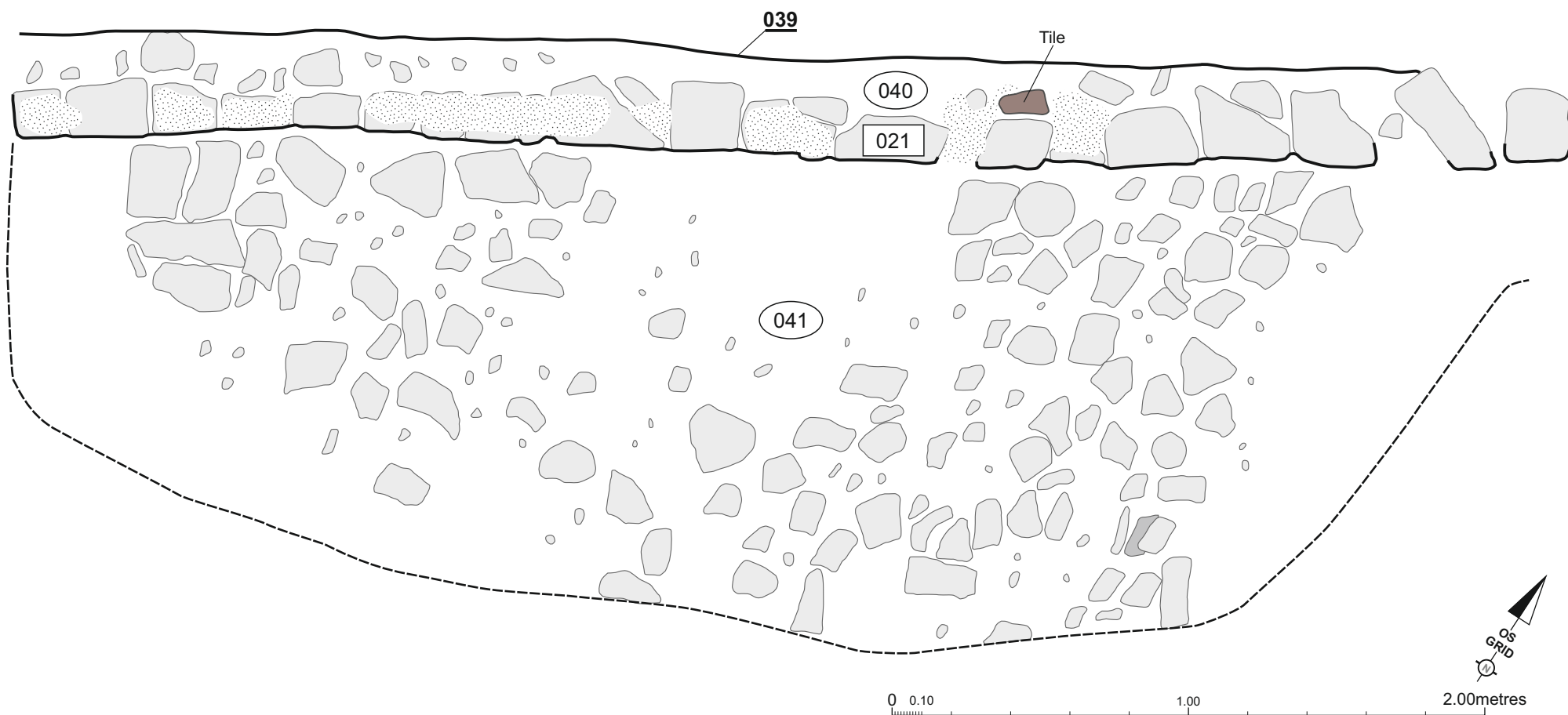


Figure 13. Cobble and cinder path area 021 and 041 representing the remains of a probable turnstile area for the football ground (see Figure 2 for location).

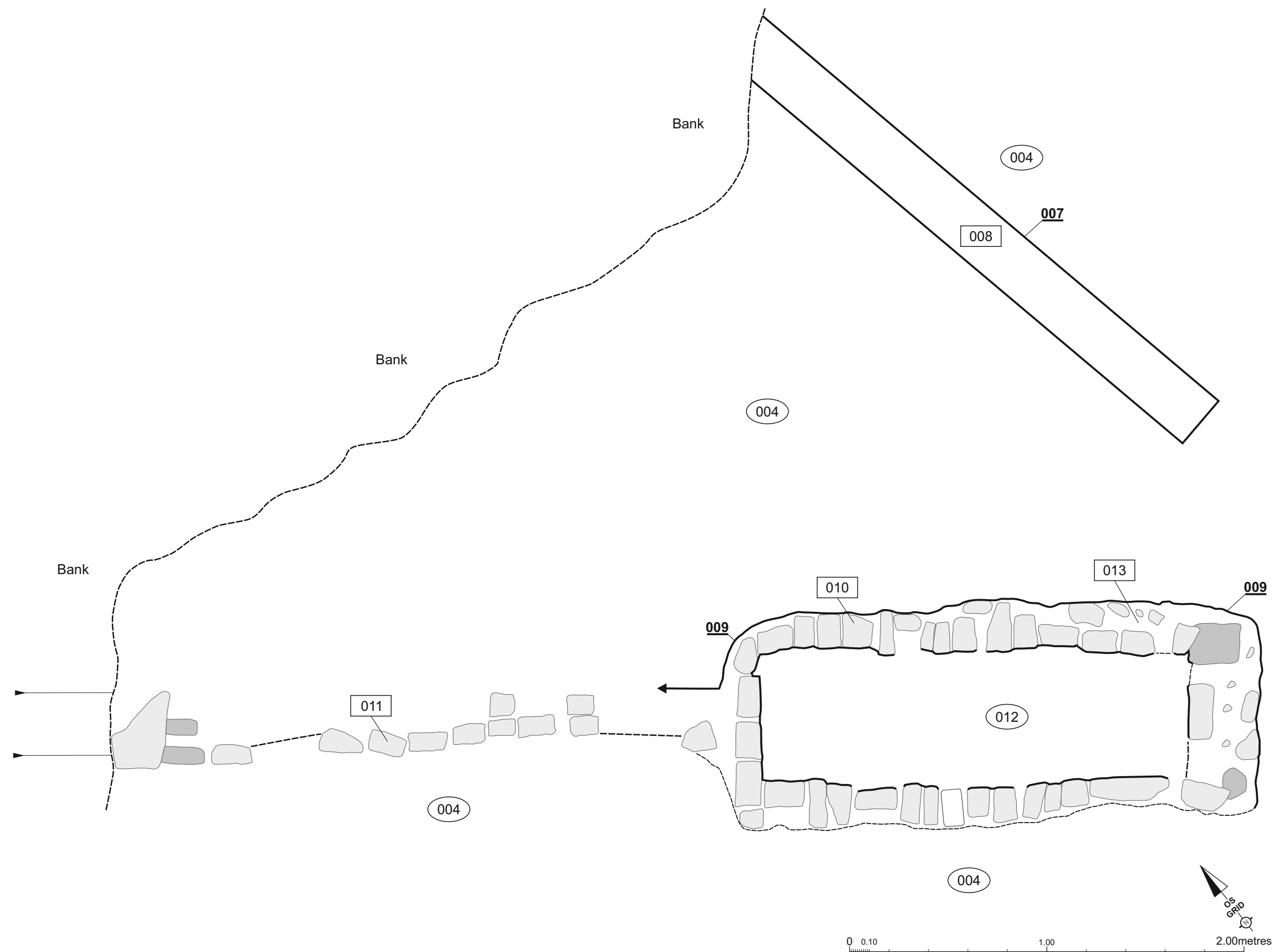


Figure 14. Plan of Post-medieval drain 012 and modern French drain 007 (see Figure 2 for location).

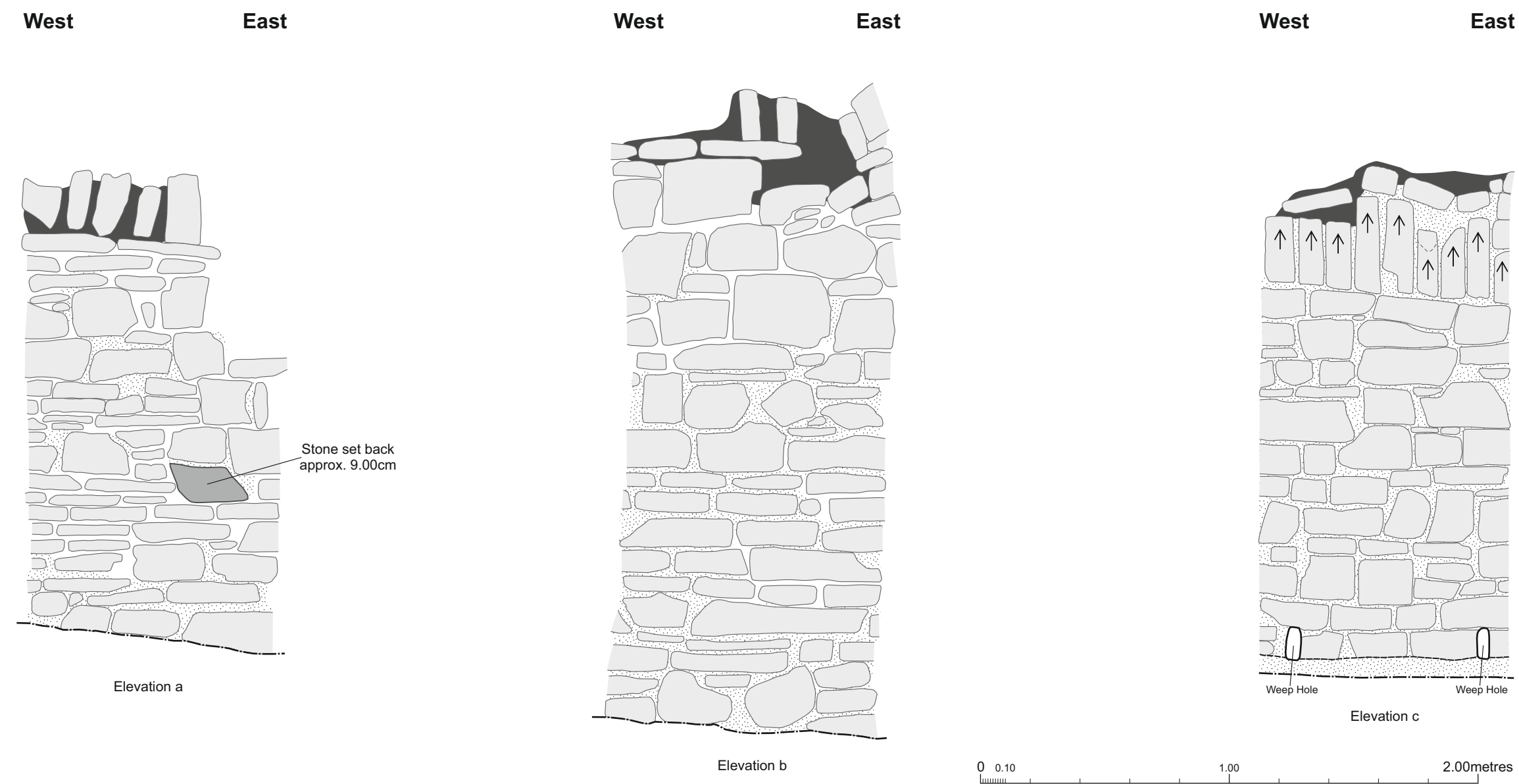


Figure 15. Representative elevations a, b and c of retaining wall (see Figure 2 for location).

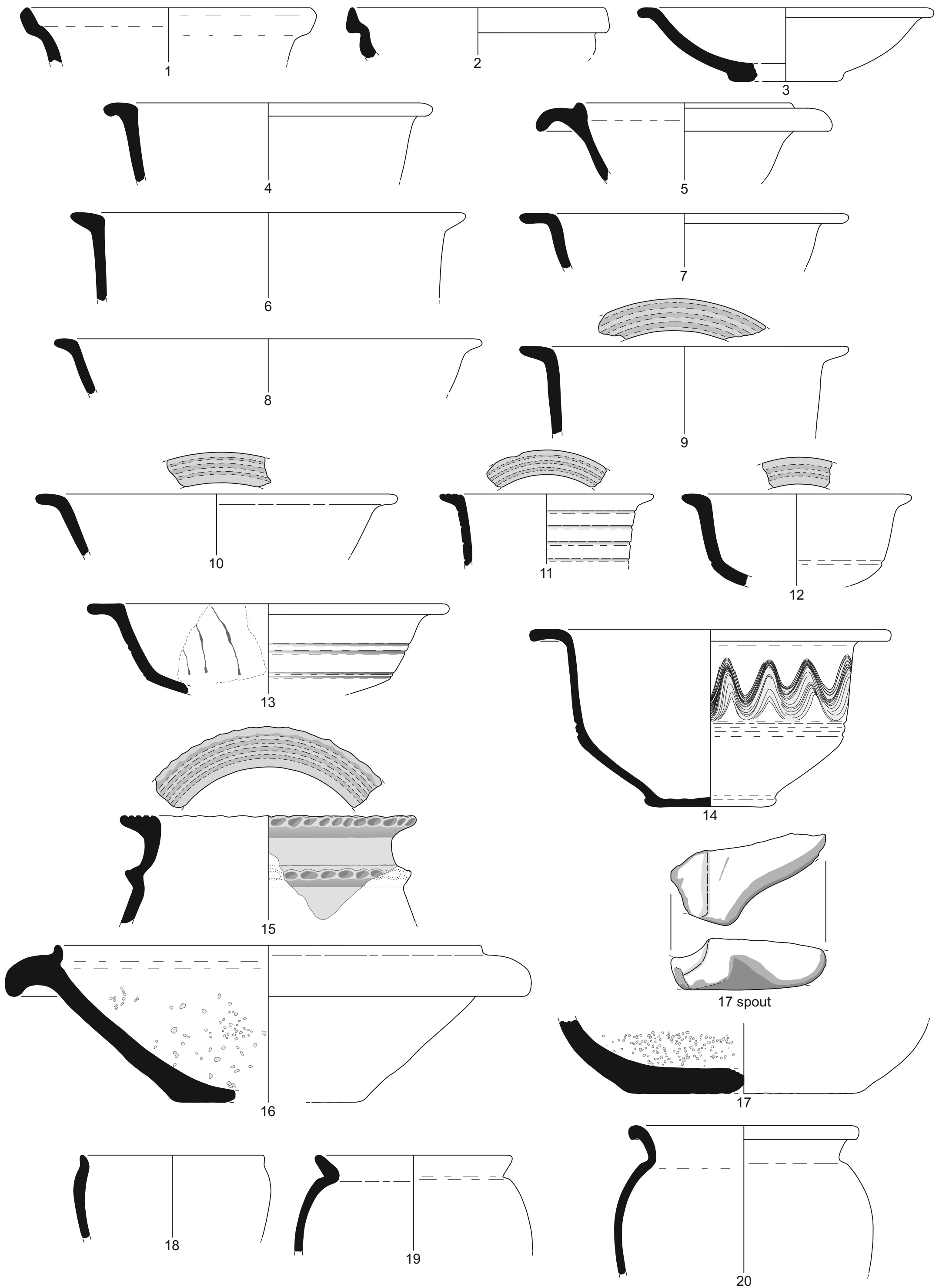


Figure 16. Roman pottery, catalogue numbers 1 - 20 (shown at 50% actual size).

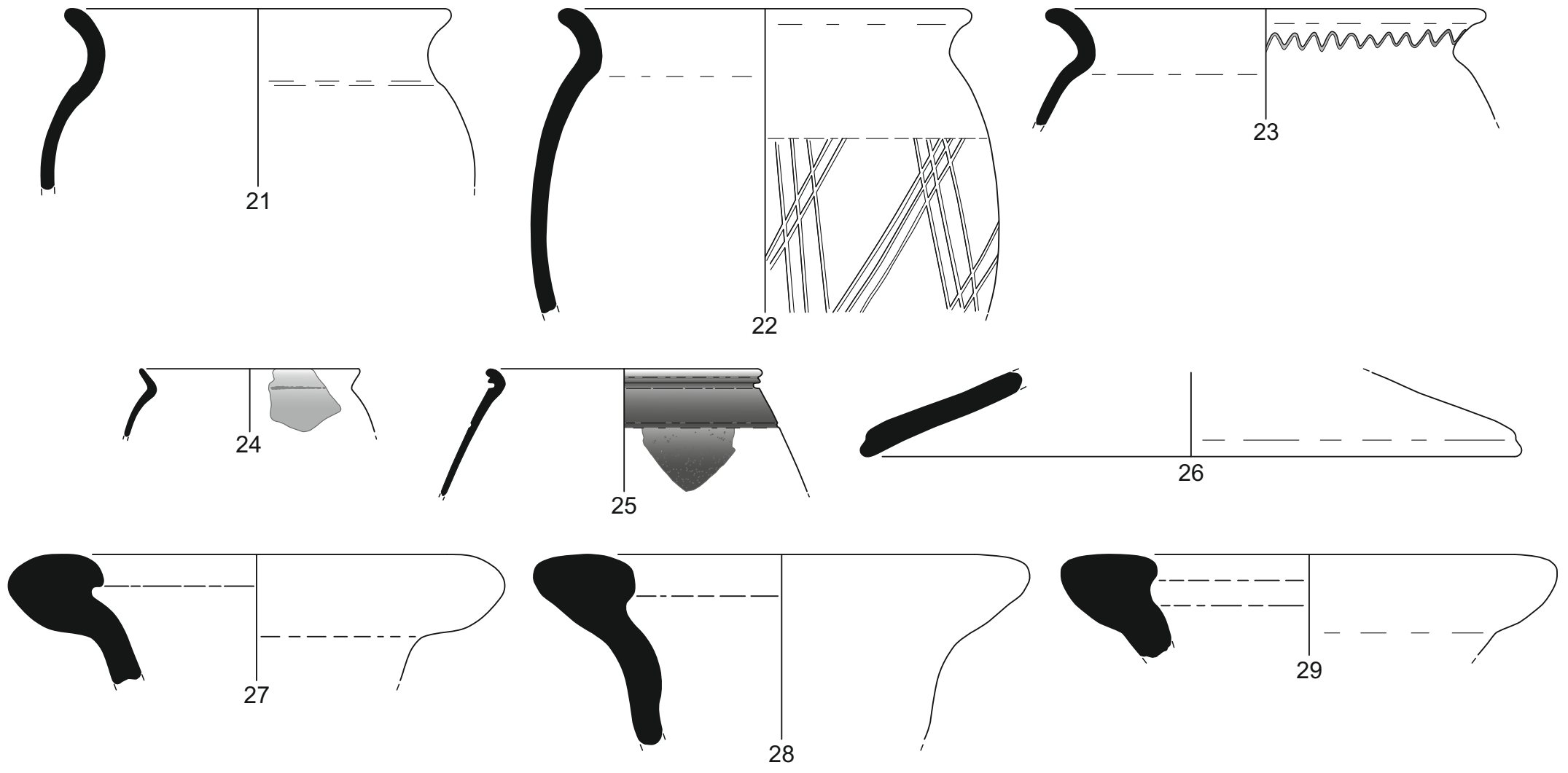


Figure 16. Roman pottery, catalogue numbers 21 - 29 (shown at 50% actual size).

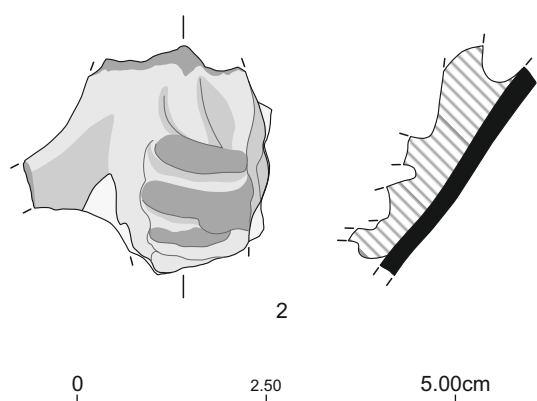


Figure 17. Roman vessel glass: catalogue number 2 (scale as shown).

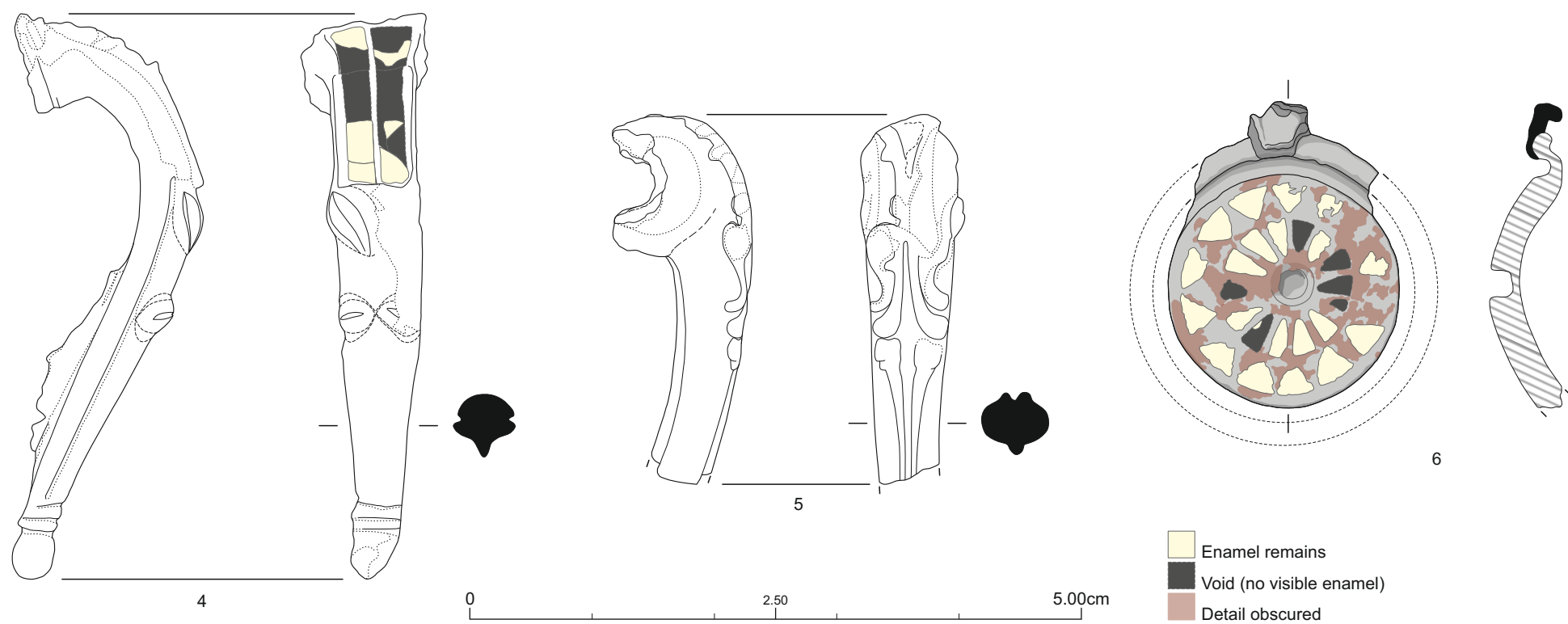


Figure 18. Roman brooches: catalogue numbers 4, 5 and 6 (scale as shown).

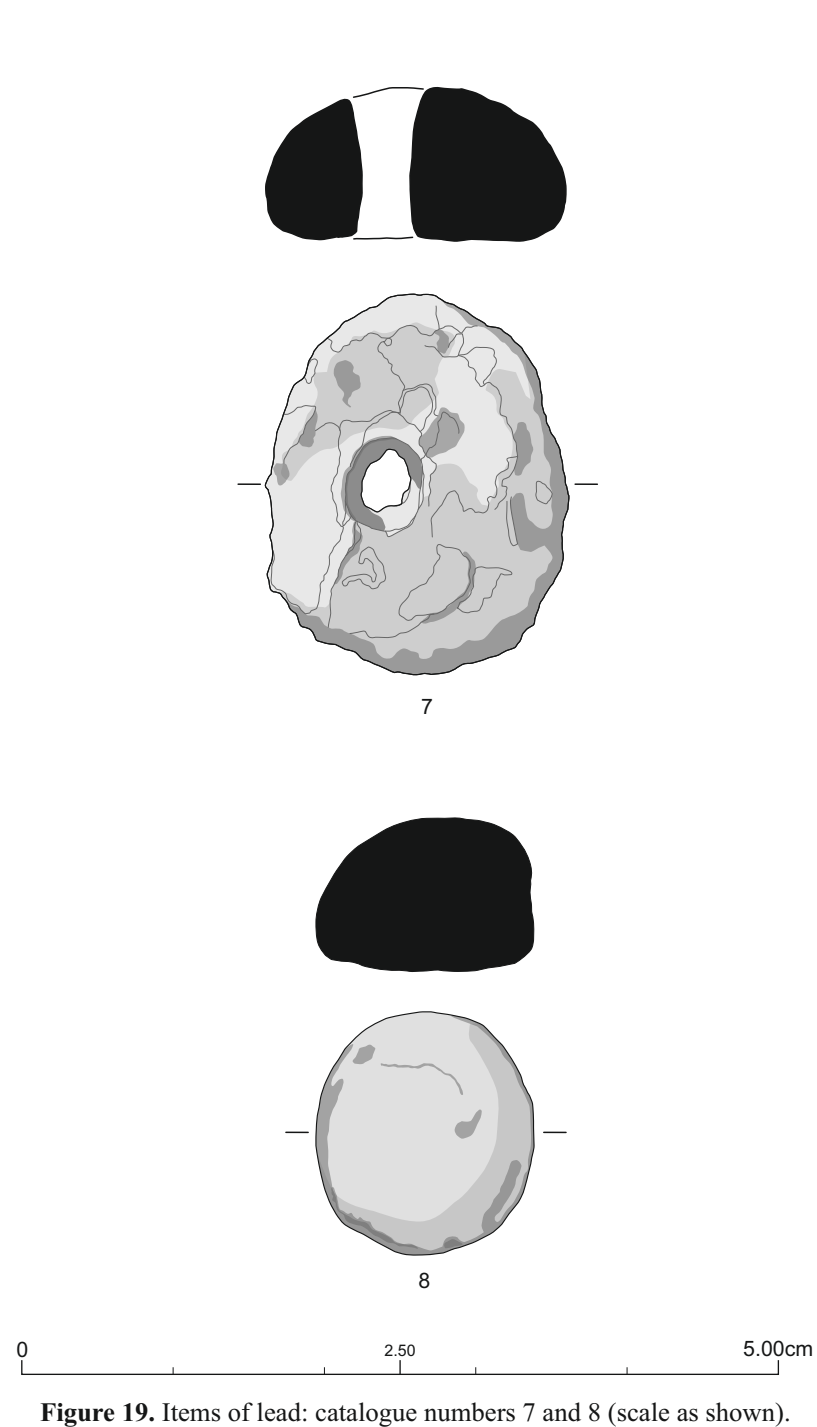


Figure 19. Items of lead: catalogue numbers 7 and 8 (scale as shown).

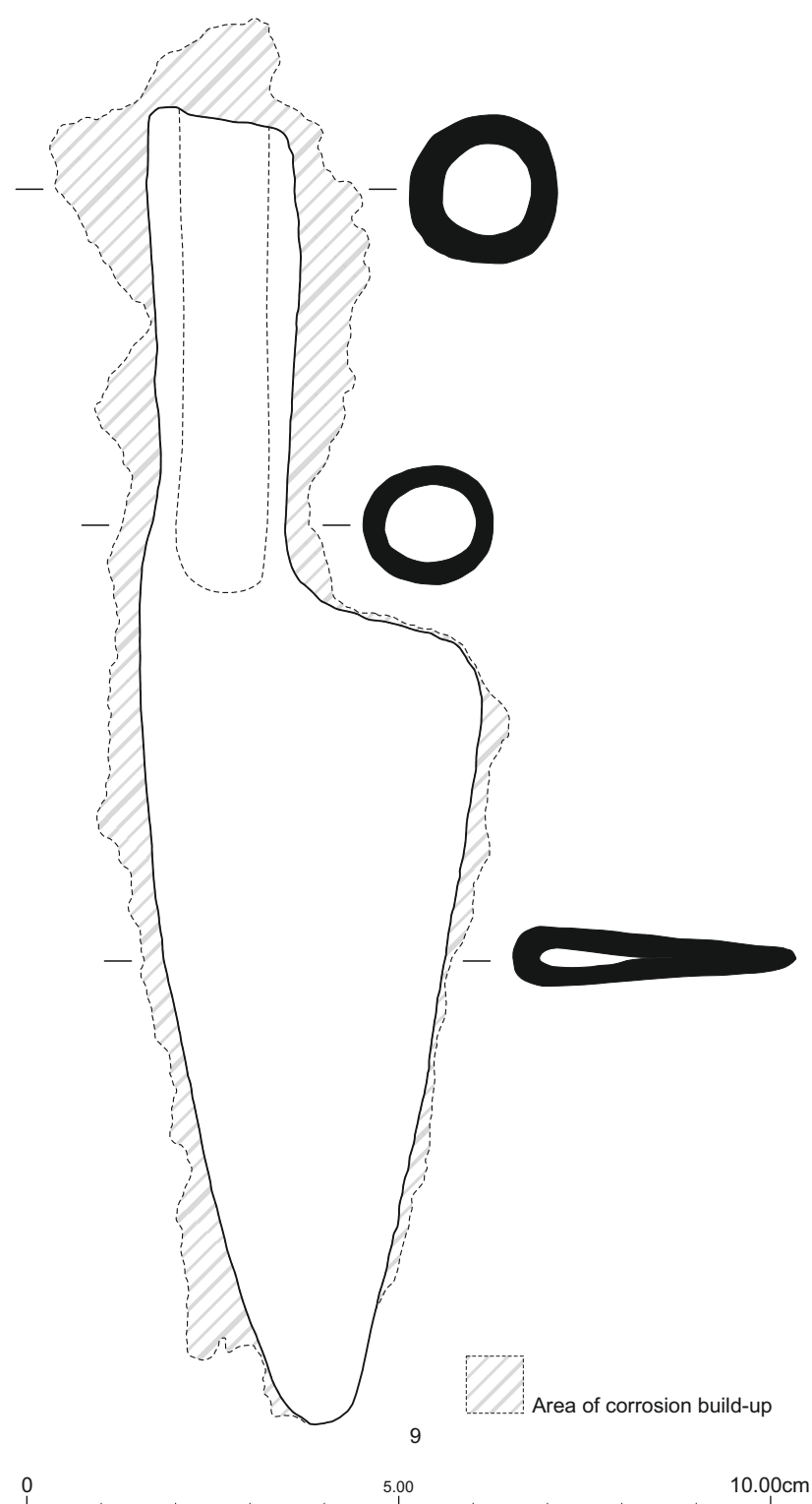


Figure 20. Objects of iron: catalogue number 9 (scale as shown).

Appendix III. Plates



Plate 1. General view of the nature of the ground prior to commencement of the excavation in January 2016. View to south west.



Plate 2. Development area stripped of topsoil and beginning to reveal features of interest, view to south west.



Plate 3. Feature 035 consisted of an ephemeral deposit of material rich in Roman finds, including coins, pottery and brooches. Scale divisions 0.5m, view to south/south west.



Plate 4. Deposit 075. This deposit is probably the same as 035, which had been noted in the same area the previous year. Both deposits were rich in Roman finds. Scale divisions 0.5m, view to north.



Plate 5. Metalled surface 019 showing ceramic building material remains. Scale division 0.5m



Plate 6. Possible kerbing located either side of a metalled area 019. This feature was ephemeral and little more was discerned on further excavation.



Plate 7. South west facing section through metalling 019 showing the ephemeral nature of the construction. Scale divisions 0.5m.



Plate 8. Surface 113 was a possible Roman trackway found close to metalling 019 and is likely to have been the same deposit. Scale division 0.5m, view to north.



Plate 9. Cut 106 and fill 107, located close to the Post medieval structure 111. View to north east, scale divisions 0.5m



Plate 10. Closer view of south facing section through deposit 107, contained within cut 106. Scale division 0.5m.



Plate 11. Fill of feature 017, a deposit of ironstone, clays and stone that included Roman ceramics. This was possibly the fill of a drainage ditch.



Plate 12. Contextual view of deposit 017 within the bank. Scale divisions 0.5m, view to north.



Plate 13. Foundation 020, belonging to a probable Post-medieval turnstile. The structure was inset with a number of upright wooden posts to support a superstructure. Scale divisions 0.5m (see Plate 11)



Plate 14. The remains of wooden posts that probably once supported the superstructure of the turnstile.
Scale divisions 0.5m



Plate 15. South facing section of Post-medieval structure 111. Scale divisions 0.5m



Plate 16. Closer view of structure 111. This appeared to have been a chamber and was possibly similar in function to chamber 010.



Plate 17. Post-medieval chamber 010 located in Zone 1 of Area A. View to south, scale division 0.5m



Plate 18. General view of the retaining wall 014 separating Areas D and Area A, view to south east. Scale divisions 0.5m



Plate 19. General view of a typical section of retaining wall 014 separating Area D and Area A showing method of laying the stone. Scale divisions 0.5m

Samian Catalogue Plates



Plate 20. 017 Body sherd, Dr.29 or 37, fabric LG, forelimbs of running animal, possibly a rabbit, deer or hound. AD43-110



Plate 21. 035 Body sherd, Dr.37, fabric LG, wreath below plant motif terminating in poppyheads. AD70-110



Plate 22. 035 Body sherd, Dr.37, fabric LG, basal wreath. AD70-110



Plate 23. 075 Body sherd, Dr.29 or 37, fabric LG, band or wreath of chevrons below motif of indeterminate type. AD43-110



Plate 24. 107 Body sherd, Dr.37, fabric LG, band of chevrons below plant or animal motif. AD70-110



Plate 25. 107 Body sherd, Dr.37, fabric LMV, basal band of rosettes, style of Donnaucus (Stanfield and Simpson 1958, pl. 46, no. 547). AD100-120



Plate 26. Unstratified Rim sherd, Dr.37, fabric LG, running hound below indistinct ovolo. AD70-110

Appendix IV. Building recording

Merthyr Labour Exchange, Pen-y-Darren Road, Merthyr Tydfil: Level II Archaeological Building (Photographic) Recording by Dr Graham Eyre-Morgan

Summary

Wales and West Housing Association Ltd have submitted a planning application for the construction of twenty four dwellings, including off street parking, landscaping and associated works (Planning App no. P/14/0295) at the site of the former Merthyr Labour Exchange and on adjacent land to the rear of the Pen-Y-Darren Road promenade. Planning permission was granted with the following condition:

'No demolition works shall be undertaken until the implementation of an appropriate programme of building recording and analysis has been agreed with the Local Planning Authority, to be carried out by a specialist acceptable to the Local Planning Authority and in accordance with an agreed written specification and timescale for completion and submission.'

Reason: As the building is of architectural and cultural significance the specified records are required to mitigate the impact of the development.

Level 2 building survey was therefore carried out to comply with the condition placed on the development by the Local Planning Authority.

The survey has provided a record of the Labour Exchange and former Mission church building prior to its demolition. However, the recording was limited and restricted due to the sifting and removal of asbestos from the site. In addition, no clearance of the site had occurred and it was estimated that the original Church building housed forty tons of rubble (to be sifted for asbestos contamination) comprising mainly collapsed roofing. The frontages of both Church and later Labour Exchange were enclosed within scaffolding and associated safety netting behind a hoarding type fence that proved inaccessible. The interior of the Labour Exchange building

had suffered much from arson damage which rendered the building unsafe for entry. Some rooms had also been closed off due to potential asbestos contamination.

A copy of the report and archive index will be deposited with the National Monuments Record, RCAHMS, Aberystwyth and the Regional HER curated by the Glamorgan-Gwent Archaeological Trust, Curatorial Division, Swansea. The archaeological works were carried out to the professional standards laid down by the Chartered Institute for Archaeologists.

1. Introduction

6.1.1 Wales and West Housing Association Ltd has submitted a planning application for the construction of twenty four dwellings, including off street parking, landscaping and associated works (Planning App no. P/14/0295). As part of the proposed development the majority of the former Labour Exchange will be demolished. However, it is the intention of Wales and West Housing to retain the earlier detailed stone-built frontage that had been incorporated into the former Labour Exchange to enhance the heritage resource of the surrounding area. Research suggests that stone-built frontage was originally part of an early 20th century Church.

6.1.2 Remains of the early 20th century Church (possibly built c. 1911) could be observed within part of the building that had been later converted and extended into the Merthyr Labour Exchange (thought to be opened c.1931).

6.1.3 It was initially proposed that a Level 3 building survey of the upstanding remains of the Labour Exchange structure (Area C) would be undertaken, on the condition that this would be increased to Level 4 should any remains of the earlier church structure survive (English Heritage 2006, updated 2016). Unfortunately the building suffered an arson attack that caused vast amounts of structural damage and roof collapse. The site was deemed

unsafe and, following the discovery of asbestos in the debris, the recording of the building was reduced to a Level 2 photographic survey.

6.1.4 The survey was not conducted on the southeast-facing façade of the Exchange building, as this will be both preserved in situ, and fully recorded during the requisite conservation work.

The photographic survey was undertaken on the 5th and 6th April 2016. Conditions dictated that the photographic record was completed on day one and written description and measurements were recorded where possible on day two.

1.2 Site description

The Labour Exchange building sits to the north of the junction between Pen-Y-Darren Road, Pont Morlias Road West and the High Street. The building is set back above the road junction on a terrace excavated into the hillside below Pen-Y-Darren Park at the far west end of the Pen-Y-Darren promenade (Figure 1).

The bedrock geology of the area is the South Wales Lower Coal Measures Formation that includes mudstone, siltstone and sandstone. The superficial deposits comprise Devensian till (BGS 2015).

1.3 Historical and Archaeological Background

Little is known about when the 20th century church opened or why it closed. It has been suggested that it was built c.1911 as a Presbyterian Forward Movement Mission Church that was used as a Church school building. Photographic evidence (**Plate. 1**) confirms the denomination of the Church and confirms it was still in use in 1926. Map evidence suggests it was in existence by the publication of the 3rd edition of the Ordnance Survey map covering the area, which was released in 1922 following revision of the mapping undertaken in 1914-15. No earlier map evidence reveals the church or any other building at its location. This suggests that the church was in existence for a maximum of less than 20 years.



Plate 1. The Church in 1926 before its development in the Labour Exchange

It has been considered that the Labour Exchange had been built along with the Masonic Hall, and is thought to have been built and in use by 1931. The Labour Exchange was made famous by a visit from King Edward VIII when touring Merthyr Tydfil in 1936 (**Plate. 2**).



Plate. 2 King Edward VIII at the Merthyr Labour Exchange in 1936

2. Methodology

The building recording was conducted to Level 2 standard in accordance with English Heritage's '*Understanding Historic Buildings: A Guide to Good Recording Practice* (2006 updated 2016) and the *Chartered Institute for Archaeologist's Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures* 1996 (revised 2001, 2008, last updated 22/11/13).

A Level 2 record will typically consist of: written, photographic and, where possible, drawn records. Photographs were taken using a 16MP digital camera. 2m and 1m scales were used as appropriate throughout the survey.

3. The Survey

3.1 The Entrance way

The survey began at the ornate entrance set to the side of the south-east frontage of the church building. The entrance was accessed by a set of stone steps that broadened out from the entrance by following the curve of the modern brick built wall. The wall was capped with centre-ridged concrete coping that continued around the front garden area. The garden area sloped up to the building from the promenade road that fronted both chapel and labour exchange. The promenade was terraced into the steep hillside sloping down from Pen-Y-Darren Park, the promenade road ran above and parallel to Penydarren Road. The steps into the church were cut from pennant sandstone and laid in two sets of five separated by a 0.9m wide standing area. Each of the steps in the first set measured 0.255m deep by 0.175m high while those in the second set measured 0.29m deep by 0.16m high. This entrance way (**Plates 1, 2, 3 and 4**) is replicated at the south-west side of the church frontage (not accessible), revealed in **Plates 1 and 2**.

The south-east entrance way (**Plates 1, 2, 3 and 4**) was framed with decorative false Roman-Tuscan style columns (each column was 0.87m long by 0.2m diameter) with simple base capitals and entablatures. These columns flanked either side of the gateway that was capped with a decorative arch, providing a neo-classical appearance. Set within the entrance was a simple but attractive wrought iron gate. This entrance was mirrored on the south-western side of the building. The entrances originally had six panelled and top-arched doors during its period as a Church (**Plate 1**.)

The entrance ways at either end were flat roofed (formerly with ornate sandstone-moulded balustrade). The exterior of these entrances was constructed from dressed sandstone facing

(**Plates 6 and 7**) with a rough sandstone and brick walling behind it that had been faced with plaster and painted (**Plate 5**). The internal reception/covered area within these two entrances measured 2.26m high by 2.13m wide by 1.84m deep and was exited by means of a plain non-doored/gated opening on its north facing side (**Plate 5**).



Plate 3. The right side entrance



Plate 4. Close detail of
Column



Plate 5. Internal aspect from right side entrance way



Plate 6. Detail of faced walling at the entrance



Plate 7. Detail of east entrance walling following demolition of retaining wall

3.2 East Wall of the Church Building

Looking north from the entrance way towards the rear of the building (**Plates 8 and 9**) was a large amount of debris that hindered access and the ability to fully record the northeast wall of the church. It should be noted that a large amount of asbestos roof debris was also stored to the rear of this area (**Plate 10**).

The original northeast side wall to the church (**Plates 8 and 9**) recorded a height of 4m by a length of 18.5m. This was further extended by a modern extension to the rear during its conversion to part of the Labour Exchange, giving a total length of 26.9m. Set within the original wall were four windows and a doorway.

The windows had a red brick decoration with shallow-curved segmental arched headers (**Plates 9 and 11**) supported by crenulated-style surrounds and sloping concrete-cast sills. The sills were set into a triple red brick Flemish bond string line that ran as decoration along the exterior wall. Breaking the spaces between each window were four red-brick buttresses, two bricks wide and built in a Flemish bond style. Each buttress ran from floor to the ornate brick cornice that comprised a moulded red brick underlying an angled brick beneath a double brick row, all of which sat above a single line of bricks that linked each window and buttress. The bricks were set in a dark grey mortar. The base of the exterior wall was beaded with moulded red brick. The outer face of the wall comprised a cream-painted concrete render that was highlighted by the framing red brickwork. The doorway into the chapel (**Plates 12 and 13**) was 1.1m wide by 3.25m high to base of the concrete lintel. It was obvious that much alteration had been undertaken on the doorway which would have originally matched both header shape and brick decoration of the windows. The doorway had also suffered as a result of recent fire damage, but had a pull down drop vent window light above the door with curved frame matching the walls' window frames, possibly original. The opposite wall had mirrored the same layout but the doorway (**Plate 15**) had been extensively altered with a steel panelled security door below a steel grille covering the remains of a window (**Plate 16**). This doorway gave access into the west entrance of the church and later the 1930s Labour Exchange building.



Plate 8. The exterior wall to the Labour Exchange/Chapel and perimeter retaining walls
(north and east)



Plate 9. East wall of church looking south towards entrance



Plate 10. Asbestos storage to side of the east side walls



Plate 11. Close up of window exterior set into east wall of church



Plate 12. Close up of burnt out entrance doorway (east side) into Church hall



Plate 13. Close up of doorway (east side interior) in Church hall

3.3 The West Wall of the Church

Access to examine and record this wall was greatly restricted by the many tons of debris and rubble that abutted it (**Plate 14**). This wall acted as the east wall of the Labour Exchange building. From restricted observation it was obvious that wall had originally mirrored the east wall of the church.



Plate 14. Showing mass of rubble abutting west wall of church building



Plate 15. Close up of doorway (west interior) into Church hall with burnt original doorframe



Plate 15. Window with steel grille, the brick header to the original west doorway

3.3 The Interior of the Church

The inside of the east wall of the Church displayed a rough stone wall held by a dark grey mortar. The walls had been sealed with a rough mortar base before being plastered and painted: only fragments of this mortar sealant and painted plaster remained (**Plate 17**). This was again

mirrored on the Church's southwest wall though all windows on the southwest had been closed-in (**Plate 18**) during the Church's redevelopment and reuse as part of the Merthyr Labour Exchange building. The brick-arched header and brick-decorated sides were similar to the exterior; however, it was evident that the windows brickwork had been plastered over.



Plate 17. Internal aspect of window structure east side of church hall with Corbel bracket



Plate 18. Filled in window on west side of church hall

It is uncertain whether the Church interior had been fully plastered or if this was representative of the redevelopment of the Church into the Labour Exchange. Set into the interior side walls were a set of corbel/bracket piers. Each corbel/bracket was set midway between the window

placements (**Plate 17**) and just lower than the bottom of the window header arch. It remains uncertain what the corbels/brackets were supporting. The corbels/brackets had a rustic ornate base, cylindrical shafted body and Tuscan-style capital. Due to the level of redevelopment that had occurred and the subsequent fire damage and roof collapse within the interior of the church building it was difficult to imagine its original layout, features and design.



Plate 19. Detailing Corbel bracket set in east wall of the church hall

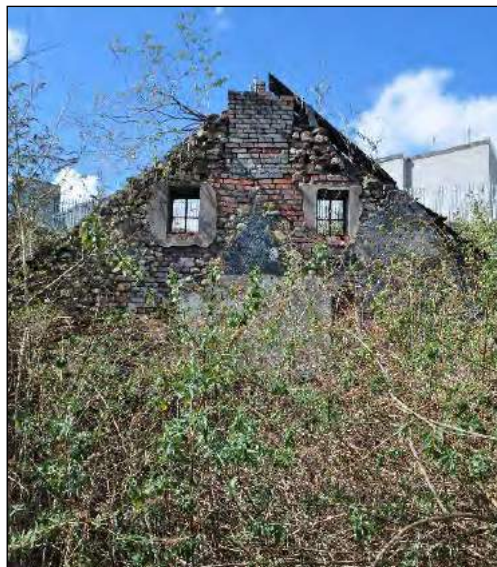


Plate 20. The internal side of rear wall looking north displaying upper windows and central chimney breast

3.4 The Rear Church Wall

From the windows set high in the rear (north) end wall of the Church, it is possible that either an attic room (no remains of floor beams or their settings were visible) was set in the roof or the windows may have just been an extra source of light into the Church hall. The wall was stone-built with a brick chimney stack running centrally up the spine of the rear wall and between the attic windows (**Plate 20**) before splitting both to the left and right. These likely led down to two independent fire places and therefore two separate rooms at the rear of the building. Access to the rear wall was impossible due to the large amount of debris in front of it.

3.5 The Frontage

Set within the front of the building were three individual rooms, each accessed from central doorways (**Plate 21**). All were 4m in length but room 1 was 2.90m wide, room 2 was 4.3m wide and room 3 was 2.15m wide. It is probable that these three rooms relate to the redevelopment of the church into the Merthyr Labour Exchange or possibly a redevelopment of the Labour Exchange at a later date. The walls that divided and enclosed the rooms were constructed from a single modern brick and plastered on both inner and outer faces. Within each room was low-level tongue-and-groove panelling (**Plates 22 and 23**) that stood 0.8m above the 0.18m wide skirting board and was capped with a broad dado rail c.0.18m wide: much of the panelling was destroyed or missing. The flooring that had survived and remained visible within the rooms and the hall was made of herringbone-pattern parquet oak blocks (**Plate 24**). The remains of a cross beam sat across the front wall to the rooms with scant remains of roof slats suggesting a ceiling and possibly an upper floor, lit by the central upper windows in the front of the building.



Plate 21. Rooms built into the rear of the front wall of the church looking south

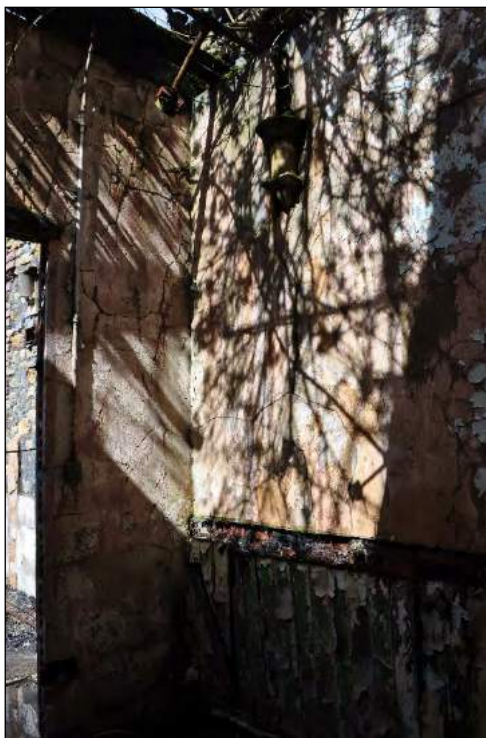


Plate 22. Interior of centre room with tongue and groove panelling



Plate 23. Room 1, displaying detail of walling with remnant original stone walling



Plate 24. Parquet oak block flooring

3.6 The Roof

Little remained of the roof to the former church – most of it was massed as debris following its collapse within the former church hall. It was evident from the debris that the roof had been constructed with Welsh slate. The remains of the burnt ceiling rafters (**Plate 25 and 26**) could be seen sitting at the top of the side walls. No evidence for ceiling joists could be observed within the side walls of the hall.



Plate 25. Remains of the burnt ceiling rafters set into the east wall

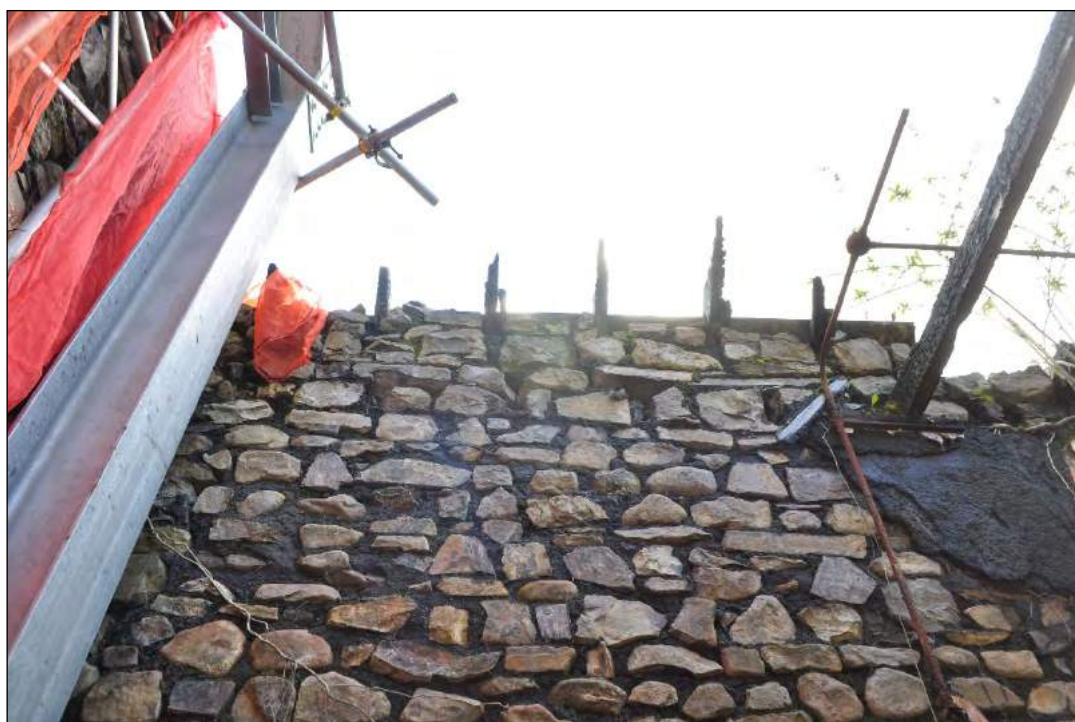


Plate 26. Remains of the burnt ceiling rafters on the front western side of church hall



Plate 27. Showing debris and overburden associated with east side church and retaining walls



Plate 28. East side retaining wall

3.7 The Retaining Wall

The retaining wall which enclosed the Church building and later the Labour Exchange closely protected the Church building on two of its sides (north and West (rear)) from the embankment the building had been terraced into. The walling was constructed out of roughly dressed pennant stone blocks, as shown in **Plates 27 and 28**. A vast amount of self-setting foliage could be seen growing through the rear and side walls, including a substantial amount of Japanese Knotweed. The wall was capped with half-round ceramic copings. The side wall inclined from a height of 1.5m near the side entrance to the rear wall which was c. 6m high. The walling was a feature contemporary with the original church.

3.8 The Labour Exchange Building

The survey of the Labour Exchange Building was greatly reduced as a result of limited safe access, lack of adequate lighting, floor debris (**Plate 33 and 34**) and asbestos removal happening at the time of recording. However, a primary photographic record was still undertaken where possible using the camera flash to illuminate the rooms within the building, as agreed at the time of recording with the Archaeological Curator at GGAT.

The building was a typical inter-war public building (**Plate 29**) with basic architectural design made palatable by its incorporation of the former chapel. The Labour Exchange was modified and altered during the 1950s. A cellar/boiler room was discovered underlying the northern side of the building but was deemed too unsafe to enter. A separate element of cellarage – a possible document store – was revealed to the west of the building during excavation of the site.



Plate 29. The Labour Exchange Building that extended and incorporated former mission church



Plate 30. Internal aspect of church west ornate entrance now within the Labour Exchange Building



Plate 31. Western doorway into church hall from former ornate entrance (**Plate 30**)



Plate 32. Concrete ceiling with burnt out fittings the first room accessed within the Labour Exchange fronting the road looking south (the clock had survived the fire)



Plate 33. Show the level of debris within rooms looking west towards exterior wall of building



Plate 34. End room west end of Labour Exchange with lath and plaster ceiling unlike concrete panel ceiling in previous rooms



Plate 35. Fire damage to ceiling in Labour Exchange building



Plate 36. Large meeting room to rear of Labour Exchange



Plate 37. Rear (north side) of Labour Exchange



Plate 38. Rear (north side) of Labour Exchange showing level of overburden and debris

Appendix V: retaining wall 014 recording

The wall was located on the eastern side of the site, and consisted of a masonry structure aligned broadly south east to north west. It functioned as a retaining wall to hold back the upper part of the slope to the north and acted as a boundary for a tarmacked pathway up towards the football ground. Although one gate-post survived, the opposite side was missing and neither was there any sign of another wall on the other side of the path, although one is depicted on mapping. This retaining wall was clearly of Post-medieval construction, consisting of roughly coursed local stone featuring a brick built pillar for a gate at the south eastern terminus (the opposite side was missing). Coursing was visible in some areas but other areas presented an irregular appearance. 'Weep holes' were visible at intervals along the bottom, these bring one course deep (0.12m deep 50-60mm wide). The largest stone in the wall measured 0.59 x 0.14 x 0.21m, the smallest 40mm x 60mm. The wall incorporated bricks stamped with 'Cyfarthfa' as well as random insertions of yellow brick, some with vitrification. The stone consisted primarily of undressed local blocks with occasional stringing courses of thinner stone to bring back to level. The top of the wall was finished with vertical coping stones of sandstone, though much of this was missing or damaged. There were no positive signs of repair; however, mortar on the bend was better preserved than elsewhere having possibly been protected by undergrowth (a tree had been located above it). The gate pillar measures 705mm square and was a stretcher bond red brick topped feature with rusticated sandstone single coping stone. The pillar retained two iron hinges for mounting gates.

Cartographic sources show that the wall was constructed between 1912 and 1915 and appears to coincide with the change of use from the Penydarren Athletic Track to a football ground. As Merthyr Town Football Club was originally founded in 1909, this change of use and the appearance of the turnstiles is entirely plausible. The map shows the retaining wall as forming the northern boundary of a triangular enclosure to the north of Penydarren Road. The western side of this enclosure appears to contain a series of stalls that cross the enclosure wall and which may actually be turnstiles for admittance into the eastern side of the football ground. The remains of these turnstiles are visible as stone foundation 020, which were initially interpreted as a dog kennels.



Plate 27. General view of surviving gatepost, View to north east



Plate 1. General photograph of the wall in the area of elevation drawing Figure 15a



Plate 2. General photograph of the wall in the area of elevation drawing Figure 15b



Plate 3. General photograph of the wall in the area of elevation drawing Figure 15c



**Glamorgan-Gwent
Archaeological Trust Ltd
(Projects Department)**



QUALITY CONTROL

Report Title: Merthyr Labour Exchange, Merthyr Tydfil:
Archaeological Excavation and building recording

Report Date: December 2020

Report Number: 2020/081

Report prepared by: Johnny Crawford

Position: Project Manager
Date: 07/12/2020

Illustrations prepared by: Paul Jones

Position: Senior Illustrator
Date: 04/12/2020

Illustrations checked and authorised by: Paul Jones

Position: Senior Illustrator
Date: 07/12/20

Report checked by: Martin Tuck

Position: Senior Project Manager

Date: 08/12/20

Report checked and authorised by: Johnny Crawford

Position: Senior Project Manager

Date: 08/12/20

As part of our desire to provide a quality service we would welcome any comments you may wish to make on the content or presentation of this report.



The Glamorgan-Gwent Archaeological Trust Ltd
Heathfield House Heathfield Swansea SA1 6EL

 Swansea (01792) 655208

 www.ggat.org.uk

 projects@ggat.org.uk

Registered Office as above. Registered in Wales No.1276976. Company limited by Guarantee without Share Capital.
Registered Charity No. 505609.