

# Mud Hole Roman Villa, Boxford, West Berkshire

*The Results of the 2019 Excavation*



for  
The Boxford History Project

CA Project: AN0091  
CA Report: AN0091-01

October 2020



# MUD HOLE ROMAN VILLA, BOXFORD, WEST BERKSHIRE

## The Results of the 2019 Excavation

CA Project: AN0091

CA Report: AN0091-01



Document Control Grid						
Revision	Date	Author	Checked by	Status	Reasons for revision	Approved by
A	23-02-20	Matt Nichol		Internal review		
B	24-02-20	Richard Massey				
C	06-04-20	Karen Walker	kew	Internal Review	QA	
D	23-10-20	Andrew Mudd	DC	Revised external	Content error	
E	3-11-20	Andrew Mudd	DC	Revised external	Content error	

*This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.*

**CONTENTS**

SUMMARY .....	1
1. INTRODUCTION.....	2
2. ARCHAEOLOGICAL BACKGROUND.....	6
3. AIMS AND OBJECTIVES.....	12
4. METHODOLOGY.....	13
5. RESULTS OF EXCAVATION (FIGS 3–24) .....	16
Period 1: (Late Roman) AD 300-420 .....	17
Period 2: (Late Roman) AD 300-420 .....	24
Period 3: (Post-Roman) AD 420-500.....	33
6. THE FINDS .....	35
7. BIOLOGICAL MATERIAL.....	39
8. THE MOSAIC.....	41
9. DISCUSSION.....	72
10. STORAGE AND CURATION.....	75
11. ACKNOWLEDGEMENTS .....	75
12. REFERENCES.....	77
APPENDIX A: CONTEXT DESCRIPTIONS .....	86
APPENDIX B: POTTERY .....	93
APPENDIX C: GLASS.....	100
APPENDIX D: METAL ITEMS.....	102
APPENDIX E: THE COINS .....	107
APPENDIX F: CERAMIC BUILDING MATERIAL .....	110
APPENDIX G: WORKED STONE .....	112
APPENDIX H: WALL PLASTER AND MORTAR.....	115
APPENDIX I: THE ANIMAL BONE.....	118
APPENDIX J: PLANT MACROFOSSILS.....	124
APPENDIX K: MOLLUSCS .....	127
APPENDIX L: WOOD CHARCOAL .....	129
APPENDIX M: OASIS REPORT FORM .....	132

**LIST OF ILLUSTRATIONS**

Figure 1	Site location plan
Figure 2	Aerial photograph of open day at the Mud Hole villa, August, 2019
Figure 3	Trench plan, showing archaeological features from 2017 excavation; Trenches 1, 2 and 3
Figure 4	Vertical drone photograph, showing archaeological features from 2017 excavation; Trenches 1, 2 and 3
Figure 5	Section and photograph, Trench 3, 2017 excavation season
Figure 6	Trench plan showing archaeological features from 2017 and 2019 excavations; Trench 1 (2017) and Trenches 1 and 2 (2019)
Figure 7	Trenches 1 and 2: Vertical drone photograph, showing archaeological features from 2019 excavation
Figure 8	Trenches 1 and 2: plan, showing archaeological features from 2019 excavation and three phases of building construction
Figure 9	Photograph: Trench 1, looking north-west (1m scales)
Figure 10	Trench 1: section and photograph; walls (1008 and 1011), and chalk foundation (1023)
Figure 11	Trench 1: section and photograph; foundation trench cut (1029), wall (1011) and land drain (1031)
Figure 12	Photograph: Trench 2, looking north-east (1m scale)
Figure 13	Trench 2: section and photograph; foundation trench cut (2052) and wall (2029)
Figure 14	Trench 1: section and photograph: wall (1004) and gully (1033)
Figure 15	Trench 2: section and photograph; wall (2029) and associated external deposits
Figure 16	Trench 2: section and photograph; wall (2016)
Figure 17	Trench 2: section and photograph; wall (2048), buttress (2017), gully (2043) and land drain (2045), looking north-west (1m scale)
Figure 18	Trench 2: section and photograph; foundation trench cut (2037), wall (2048) and land drain (2010), looking west (1m scale)
Figure 19	Trench 2: Photograph: buttresses 2017 and 2047, looking west (scale 0.4m)
Figure 20	Trench 2: Photograph: wall (2016), doorway and mosaic (2040), looking south-west (1m scale)
Figure 21	Trench 2: Photograph: the mosaic (2040)
Figure 22	Trench 2: Photograph: <i>in situ</i> wall plaster 2054 (RA 4530 at base of wall (2016) (1m scale)
Figure 23	Trench 2: Ironwork hoard RA 421 (2031) and wall (2029) (0.2m scale)
Figure 24	Trench 2: Aerial drone shot of the mosaic (David Shepherd)
Figure 25	Key drawing to the mosaic (Lindsey Bedford)



- Figure 26 The Bellerophon Panel (David Shepherd)
- Figure 27 An interpretive reconstruction of the Bellerophon Panel (Anthony Beeson)
- Figure 28 The Court Panel (Chris Forsey)
- Figure 29 An interpretive reconstruction of the Court Panel (Anthony Beeson)
- Figure 30 Myrtilus (Anthony Beeson)
- Figure 31 Myrtilus exchanging lynch-pins (Anthony Beeson)
- Figure 32 The Chariot Race (Chris Forsey)
- Figure 33 Interpretive reconstruction of the Chariot Race and Inscription (Anthony Beeson)
- Figure 34 Oenomaus and the Racing Chariot (Anthony Beeson)
- Figure 35 The Cumae sarcophagus in the National Archaeological Museum, Naples (Anthony Beeson)
- Figure 36 The Tipasa sarcophagus, Tipasa Museum (Marigold Norbye)
- Figure 37 Pelops at the winning-post (Anthony Beeson)
- Figure 38 An interpretive reconstruction of Pelops (Anthony Beeson)
- Figure 39 The south-eastern Telamon (Anthony Beeson)
- Figure 40 The north-eastern Telamon (Anthony Beeson)
- Figure 41 The north-western Telamon (Anthony Beeson)
- Figure 42 The south-western Telamon (Anthony Beeson)
- Figure 43 The Walking Telamones mosaic. Greek Cross Room mosaic, Vatican (Steve Clark)
- Figure 44 The Telamon fountain from Avenches (Marigold Norbye)
- Figure 45 The eastern amorino (Anthony Beeson)
- Figure 46 The northern amorino (Anthony Beeson)
- Figure 47 The western amorino (Anthony Beeson)
- Figure 48 Hercules and the Centaur (Anthony Beeson)
- Figure 49 The Hercules sarcophagus, formerly at Hever Castle (Warburg Institute Library)
- Figure 50 The Cantharus (Anthony Beeson)
- Figure 51 The north-western corner of the mosaic (David Shepherd)
- Figure 52 Alcathous of Elis (Anthony Beeson)
- Figure 53 The Cithaeronian Lion (Anthony Beeson)
- Figure 54 Arion and Adrastus (Anthony Beeson)
- Figure 55 Interpretive reconstruction of Arion and Adrastus (Anthony Beeson)
- Figure 56 The Foal Tamer from Egnazia, Egnazia site museum (Robert Field)
- Figure 57 Mud Hole villa: section through the mosaic foundation (Anthony Beeson)
- Figure 58 Digital reconstruction of the Mud Hole villa, looking east (David Brown, Lyons, Sleeman and Hoare, Architects)
- Figure 59 Excavation Team photograph, August, 2019

## Figures in Appendices

Figure I1: Mean proportion of bones by carcass part. Quantities given in Table 15 (Appendix I)

## LIST OF TABLES

Table 1	Quantification of finds
Table 2	Quantification of Biological Material
Table 3	Context Descriptions
Table 4	Pottery totals by ware type
Table 5	Pottery totals by context type
Table 6	Pottery by context number (weight in grammes)
Table 7	Glass: Summary Quantification
Table 8	Summary table of metal items by material and functional grouping
Table 9	Breakdown of the ceramic building material assemblage
Table 10	Provenance of ceramic building material assemblage
Table 11	Quantification of stone roof tile and CBM from Trenches 1 and 2 (kg)
Table 12	Mortar and Plaster Summary by provenance
Table 13	Mortar and Plaster: breakdown by material class
Table 14	Mortar and Plaster: summary by fabric and attributes
Table 15	Condition and taphonomic factors affecting the hand-collected assemblage identified to taxa and/or element
Table 16	Species representation by anatomical element in order of expected preservation (epiphysis count)
Table 17	Late Roman species representation (NISP)
Table 18	Comparisons of the species representation from Boxford with that of other higher-status villa sites
Table 19	Fusion data for the other domesticates
Table 20	Pig mandibles wear-stages
Table 21	Charred plant identifications
Table 22	Mollusc shell quantifications
Table 23	Wood charcoal identifications

## SUMMARY

<b>Project Name:</b>	Mud Hole Roman Villa
<b>Location:</b>	Boxford, West Berkshire
<b>NGR:</b>	444130 171920
<b>Type:</b>	Excavation
<b>Date:</b>	19 August to 05 September, 2019
<b>Accession Number:</b>	n/a
<b>Site Code:</b>	MHV 19

A community archaeological excavation was undertaken at Mud Hole Villa, Boxford, West Berkshire, by members of the Boxford History Project (BHP), under the supervision of Cotswold Archaeology (CA), in August and September, 2019. This work continued the villa excavation of the 2017 season. Two trenches were machine-excavated, and four phases of activity were identified.

The 2019 excavation further exposed and characterised the villa building, and revealed the full extent of the mosaic, which was initially discovered during the 2017 investigations. Period 1 features comprised the early to mid-fourth century core of the villa building, with Period 2 constituting a series of subsequent modifications and additions, including buttresses. Period 3 represented a phase of decline, abandonment and robbing activity, possibly in the post-Roman period, with Period 4 represented by early modern land drains. Recovered finds indicate a limited period of construction and occupation which was confined to the fourth century and possibly later. The centre of the villa in Trench 1 (Trench 2 during the 2017 excavation) was also investigated, but no further intact floors were found. Evidence suggested that a tiled floor had probably been robbed. Several layers of rammed chalk floors, and a crudely-constructed post pad, appeared to be associated with the latest phase of occupation. There was evidence of domestic refuse dumped against the external walls of the building, and the front corridor appeared to have been robbed out prior to the final demise of the villa.

An unusual deposit of iron door and window fittings, hidden within a hollow in the eastern external wall, appeared to reflect late robbing activity. A stone column fragment and a further group of iron fittings were found beneath an adjacent doorway. The back wall of the core villa building in Trench 1 also appeared to have been modified or robbed of useful building material.

The mosaic in Trench 2 was fully revealed. It displayed localised evidence of burning and damage, possibly resulting from the collapse of surrounding walls, but survived in substantially intact condition. As was apparent from the 2017 excavation, the mosaic is of outstanding interest, both in terms of its rare mythological subject matter, and as an example of Romano-British artistic expression. A particularly rare mosaic inscription provided the probable names of the villa owner, Caepio, and his wife, Fortunata.

## 1. INTRODUCTION

- 1.1 Since 2013, Cotswold Archaeology (CA) has supervised a number of excavations on behalf of the Boxford History Project (BHP). This community project has investigated three closely-linked Roman sites, located around Boxford, in West Berkshire. These included the 4th-century villa building with mosaic, attached bath suite and ancillary barn, at Mud Hole, Boxford, excavated in 2017 and 2019 (NGR: 444130 171920; Fig. 1). The mosaic floor discovered at the Mud Hole villa, despite damage resulting from a narrow trench dug for a Victorian land drain, survived in remarkably good condition, and was of outstanding interest. However, due to both financial and time constraints, the mosaic was not fully exposed in 2017. Levels of interest remained very high following the 2017 season at Mud Hole, and fundraising by BHP permitted a further season of investigation in 2019.
- 1.2 In August and September, 2019, CA supervised and assisted in a further community excavation at the Mud Hole site, at the request of BHP. The excavation was carried out in accordance with a Written Scheme of Investigation (WSI) produced by CA (CA 2019), and approved by BHP and the landowner, Alastair Storey OBE.
- 1.3 The 2019 season of archaeological work represented the final stage of an ambitious community programme of archaeological investigation and survey undertaken between 2012 and 2017. Previous work, in 2013 and 2015, at Hoar Hill, Boxford, located approximately 1.4km south-west of the Mud Hole site (Fig. 1), confirmed the existence of an extensive Roman villa with an associated bath house (Bedford and Clark 2017, 56-62). Excavations in 2016, at Wyfield Manor Farm, located approximately 800m north-west of Mud Hole (Fig. 1), recorded a substantial Romano-British farmstead, including a well-preserved corn dryer and other features (Bedford and Clark 2018). The Mud Hole villa site was surveyed by gradiometry in 2014 and in 2017, the later survey being followed by the first phase of excavation (Bedford and Clark 2015c; 2019). Much of the background information on the villa and its setting (below) is drawn from research related to this earlier evaluation excavation. Collectively, these sites suggest a well-developed and prosperous settlement landscape in the later Roman period.
- 1.4 The fieldwork was undertaken in accordance with the specifications and standards stated in *Standard and Guidance: Archaeological Excavation* (CIfA 2014); the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide*, and accompanying *PPN3: Archaeological Excavation* (Historic England 2015). Site visits were made by CA Chief Executive Neil Holbrook, on 29 August, and by Sarah Orr, Senior Archaeologist at West Berkshire Council (WBC), on 30 August, 2019. A public open day was held on 31 August, 2019 (Fig. 2), and various project sponsors also visited the site on

September 4th, 2019. A private publication, titled *The Boxford Mosaic: a unique survivor from the Roman age*, was subsequently produced at the request of BHP (Beeson, Nichol and Appleton 2019). This has summarised the results of the 2019 excavation season, including a detailed interpretation of the mosaic.



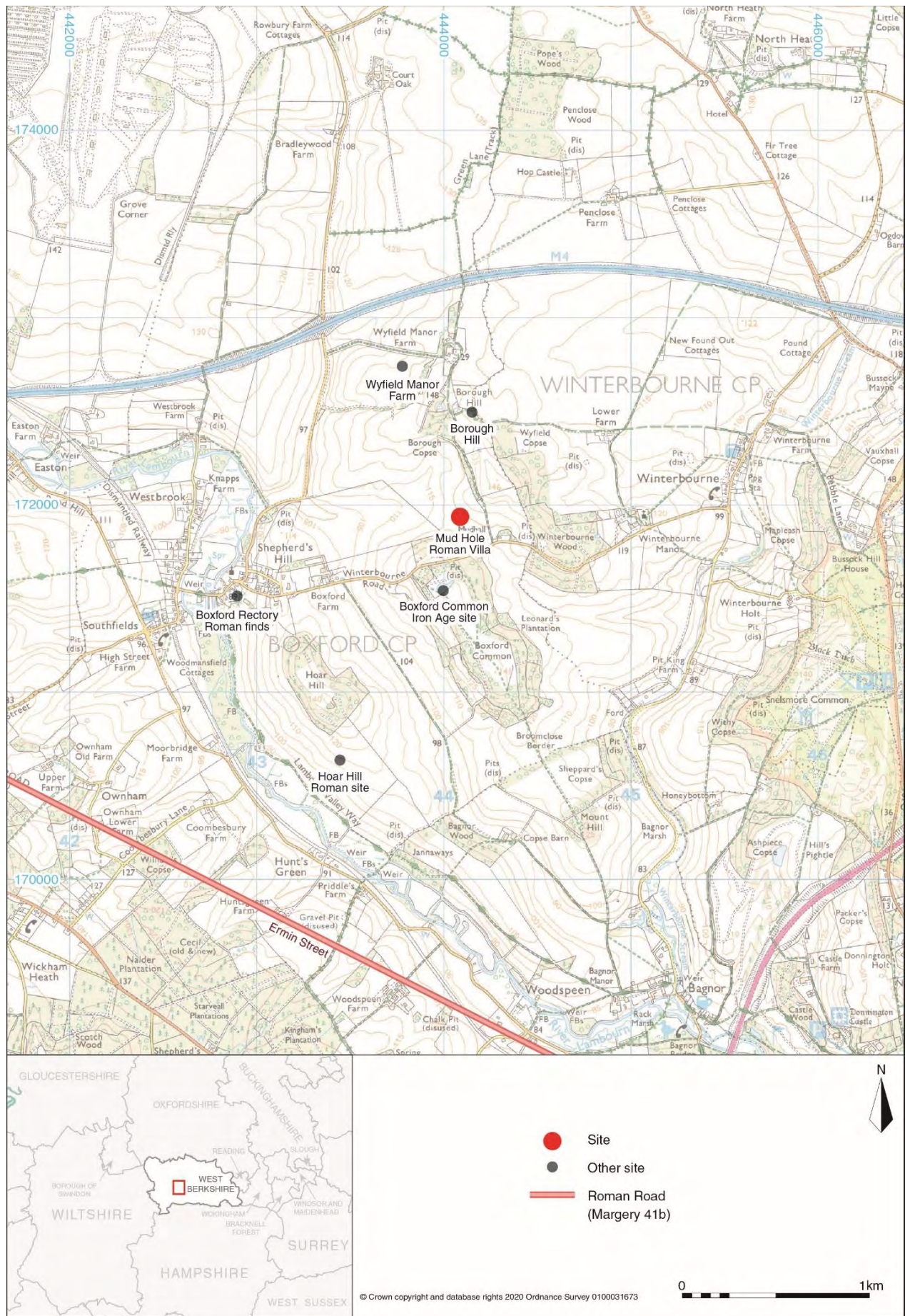


Fig. 1: Site location plan



### ***The Site***

- 1.5 As outlined by Bedford and Clark (2019, paras 1.2.1, 1.3.5), Mud Hole Villa is situated within an arable field approximately 1.25km north-east of the village of Boxford, West Berkshire. It lies within a natural, three-sided bowl representing the head of a dry valley, which extends south-eastwards in the direction of the Winterbourne stream. The site is located on gently sloping ground, at an elevation of between 125m and 128m above Ordnance Datum (OD) and enjoys good visibility to the north-west and south-east (Fig. 1).
- 1.6 The 1812 Ordnance Survey (OS) drawing (British Library ref. OSD 159 no. 9, not illustrated) depicts the site as largely situated within a self-contained area of rough pasture, or possibly woodland, adjoining Wyfield Common. The 1819 Boxford enclosure map depicts the site as a field of just under 13 acres, called 'Reynolds' (BRO Q/RDC/71A-B; not illustrated). The northern hedgerow of this field appears to have been removed on the 1880 first-edition OS map, leaving the entire site open (Bedford and Clark 2019, para. 1.3.5).

### ***Geology***

- 1.7 The site falls largely within an area of bedrock geology described by the British Geological Survey as clay, silts and sands of the Lambeth Group; sedimentary deposits formed between 59.2 and 47.8 million years ago, during the Palaeogene period. In addition, superficial head deposits overlie the Seaford Chalk Formation bedrock, which forms the base of the dry valley to the south-east of the site (BGS 2019).



**Fig. 2: Aerial photograph: Open day at Mud Hole Roman Villa, August 2019**

## **2. ARCHAEOLOGICAL BACKGROUND**

- 2.1 The remains of a Roman villa were discovered at the Mud Hole site in c. 1870-1, during the course of 19th-century field drainage works. This discovery was reported by Palmer (1871, 208), who described the remains of a 'very large villa,' which extended 'across a valley in the rear of Boxford Hill'. Initial excavations traced 'the foundations of some walls on the western side,' and noted the fact that 'rooms [were] partially opened to view'. There is no record of any further investigation at the Mud Hole site after this time. As reported by Bedford and Clarke (2019, para. 1.3.2) the field at Mud Hole was also marked as the site of a 'villa', with an outline building plan depicted, on the first-edition 25-inch OS map of 1880 (surveyed in 1878). Peake drew on Palmer's earlier report in his descriptions of the site (1931, 101, 181), and also listed Roman finds made elsewhere in Boxford and surrounding parishes. These included pottery and coins found at Boxford Rectory, approximately 1km to the west (Fig. 1).
- 2.2 A surface scatter of tile and brick was reported following the ploughing of the field in the 1960s (West Berkshire Historic Environment Record (WBHER) MWB 4261). More recently, finds were recorded by metal detectorists, including two anvils, lead weights and a copper alloy spatula handle in the form of a bust of Minerva (Portable Antiquities Scheme (PAS) ref BERK-2DF483).

- 2.3 The farmstead site at Wyfield Farm (Bedford and Clark 2018; Fig. 1) and the villa at Hoar Hill (Bedford and Clark 2017; Fig. 1) are respectively located 800m to the north-west and 1.4km to the south-west of the current site. Early or Middle Iron Age hearths and/or pits have been recorded at Boxford Common, some 400m to the south-west, and finds of Iron Age pottery were made at Borough Hill, some 600m to the north, where earlier suggestions of a hillfort were subsequently discounted (Ward Perkins 1944, 170; Peake 1931, 68).
- 2.4 In the early medieval period, the Boxford Charters of AD 958 and 968 describe a 'heath' at the eastern boundary of the parish, with a feature described as *lindēne*, or 'flax valley', possibly representing the dry valley leading south-eastwards from the site (Gelling 1976, 669-70 cited in Bedford and Clark 2019 para. 1.3.5). Early enclosure maps and later OS mapping located the Mud Hole site within a 13-acre field referred to as 'Reynolds', which apparently remained as rough grazing until the late 19th-century discovery of the villa.

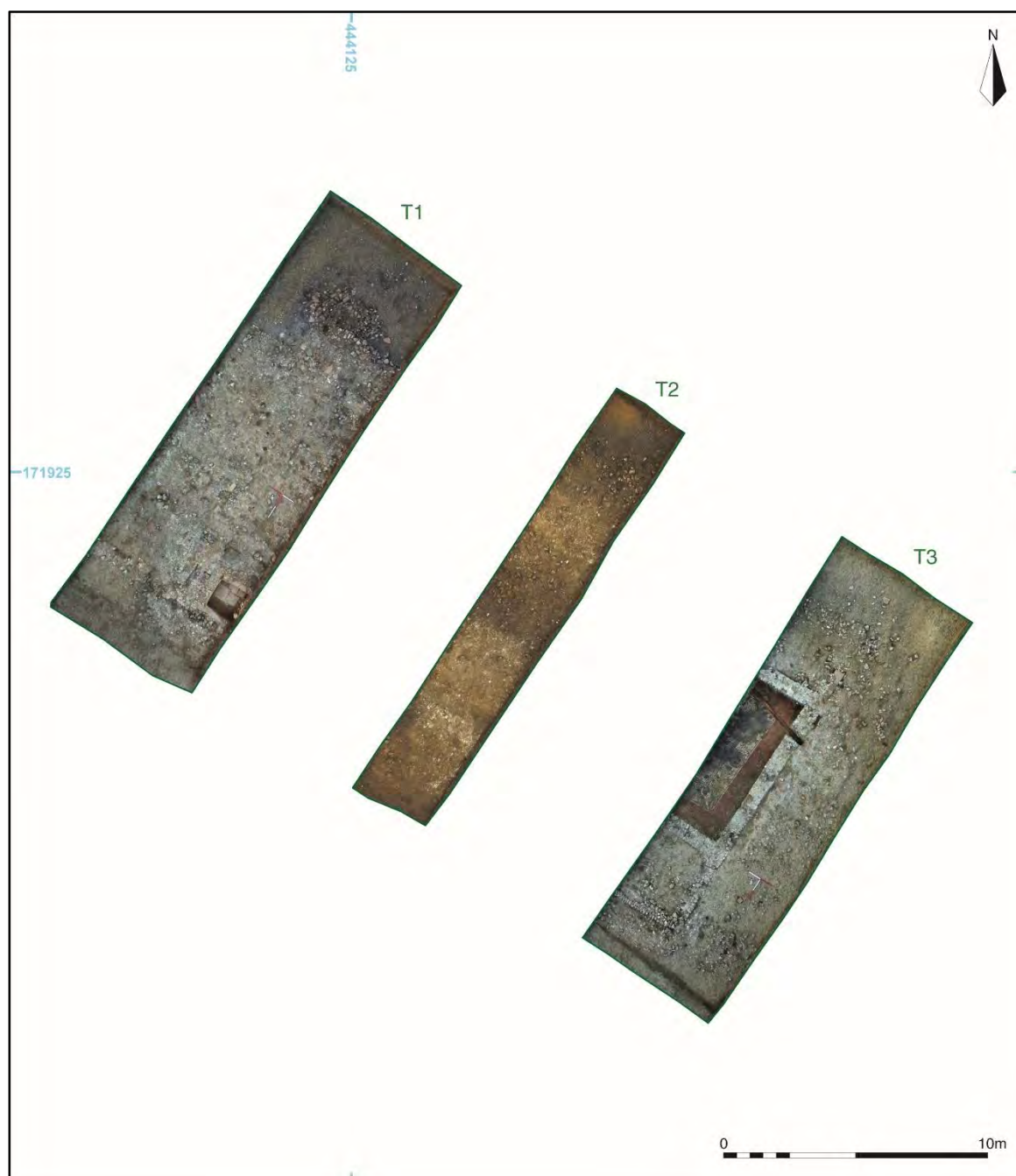
### ***Previous Survey and Investigations at Mud Hole***

- 2.5 In 2014, the Berkshire Archaeology Research Group (BARG) and BHP carried out gradiometer and resistivity surveys of the site, covering areas of 3ha and 1.12ha respectively (Bedford and Clark 2015c). These surveys revealed clear evidence of two buildings with regular, rectangular plans, together with a possibly associated courtyard, which were set on lower slopes on either side of the dry valley. Both structures were aligned north-west/south-east. Other features suggested that the villa complex comprised two or more building ranges, set within a large rectilinear ditched enclosure. A mapping exercise of surface finds of Roman building material, including flint, sarsen and ceramic building material (CBM), was also conducted, which demonstrated clear spatial associations between the recorded concentrations of building materials.
- 2.6 In 2017, the area of the principal villa building (ie. Trenches 1, 2 and 3; Figs. 3 and 4) was re-surveyed by higher-resolution gradiometry, together with a higher-resolution resistivity survey (Bedford and Clark 2019). These surveys revealed four principal wall-lines running along the long axis of the villa building, which were originally thought to represent two outer corridors and a wider internal space (Fig. 3).
- 2.7 The 2017 gradiometer survey also confirmed weaker negative responses, which ran on a north-east/south-west alignment, and suggested internal room divisions. One area of highly-magnetised response also suggested an area of burning, possibly associated with a hypocaust. The existence of a second building range was confirmed during the 2017 excavation, in Trench 4. This building displayed a north-west/south-east alignment, with associated areas of building debris.

2.8 The 2017 excavation targeted features detected by geophysical survey, within nine trenches (Trenches 1 to 9), (Bedford and Clark 2019, 33, fig. 13). Trenches 1, 2 and 3 were respectively positioned across the north-western, centre and south-eastern sections of the projected villa building (Figs. 3 and 4). The trenches indicated a rectilinear building plan, which measured approximately 26m by 13.5m, with additional constructional elements, including a front corridor or 'portico' (Figs. 6 and 58), thus characterising the building as a corridor villa. The solid walls were entirely constructed of flint courses, set in lime mortar. The north-western section of the villa (Trench 1) appeared to have comprised a later bath-suite, with a possible associated stokehole to the rear of the building, with evidence of a hypocaust and a well-preserved cold plunge-pool constructed within the western end of the front corridor. The trench located across the centre of the building (Trench 2) was carefully machine-stripped of overlying plough soil and hand-cleaned at this time, but was not further investigated, except for the recording and mapping of *in situ* deposits and of the wall-lines identified. At the south-eastern end of the building, in Trench 3, a figured mosaic featuring inscriptions was discovered, which was clearly of exceptional significance. The level of preservation of the exposed part of the mosaic was remarkable in view of the overlying depth of plough penetration, and the subject matter depicted appeared to be without parallel in Romano-British art (Figs. 8 and 21).



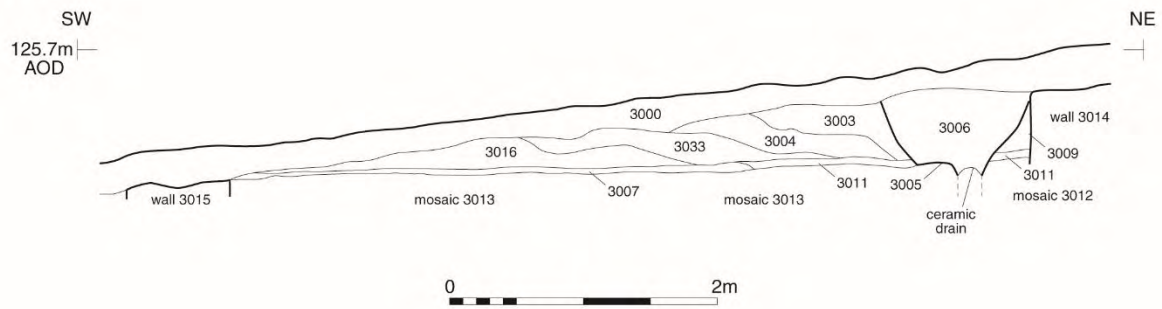
**Fig. 3: Trench plan, showing archaeological features from 2017 excavation; Trenches 1, 2 and 3**



**Fig. 4: Vertical drone photography, showing archaeological features from 2017 excavation; Trenches 1, 2 and 3**



## Section 3.1



Section of the deposits above mosaic 3012/3013 in the core villa building (scale 1:40) (2017 excavation season)



Fig. 5: Section and photograph, Trench 3, 2017 excavation season

- 2.9 The 2017 excavation suggested that the smaller rectilinear-plan structure in Trench 4 was an agricultural building, perhaps a barn of a type well attested elsewhere within the region (Bedford and Clark 2019, 68-90). The lack of any substantial domestic or industrial finds in this location further suggested that this structure may have been a stable block. Possible evidence for a later modification of its roof, involving a change from *tegula* and *imbrex* tiling to suggested thatching, was also noted. A thick deposit of ceramic roof tile was found *outside* the walls of this building, but was scarcer within its interior, which might be expected had the building simply fallen out of use and eventually collapsed. The barn was located 80m south-west of the principal villa building, and immediately to the south-east of

the remains of a substantial foundation found in Trench 5, which was interpreted as a southern gateway entrance (Bedford and Clark 2019).

- 2.10 The finds assemblage recovered during the 2017 excavation season was indicative of a well-appointed Roman building, and included both window glass and painted wall plaster. The pottery dated almost entirely to the later Roman period, and a small group of dateable coins covered a limited period (AD 335-402), although a smaller number of poorly preserved coins indicate a possible slightly earlier foundation date. Limited evidence for metalworking at this site included the metal-detector finds of two iron anvils (Bedford and Clark 2019, 225).

### 3. AIMS AND OBJECTIVES

- 3.1 The principal objective of the 2019 programme was to complete the exposure and recording of the mosaic floor. Beyond this, a flexible strategy was adopted, to target key remaining research priorities where possible. The objectives of the archaeological work were therefore to:

- expose and fully record the mosaic;
- examine how the mosaic fitted into the structural sequence of the villa; and
- examine sealed deposits or key stratigraphic relationships, to provide better understanding of dating and structural sequences.

- 3.2 The specific aims of the work were to:

- reveal and record the mosaic in its entirety, and to ensure that its condition was assessed, to identify future conservation priorities;
- better establish the construction sequence, or determine the initial date of construction of the villa;
- investigate the central part of the villa building, to better establish how the two suggested corridors functioned, the possible existence of further intact (mosaic) floors, and to record a detailed ground-plan; and
- sample and analyse environmental remains, where appropriate, to create a better understanding of past land-use and economy.

- 3.3 The aims and objectives of excavation were in accordance with those outlined in the Roman-period research agenda of the Regional Research Framework, the *Solent-Thames Archaeological Research Framework* (Hey and Hind (eds.) 2014), and include the following:

- 12.6.4 - evidence needs to be collated for major changes in settlement and occupation across the diverse landscapes of the region, between the Late Iron Age and the early medieval periods;
- 12.6.5 - the relationship of such changes to the development and decline of 'villas' and associated reorganisation of the rural landscape should be investigated; and
- 12.8 - Ceremony, ritual and religion. While not listed as a specific aim of the Research Framework, the iconography of the mosaic clearly has implications for aspects of villa-based ritual and pagan belief during the later 4th century AD (Fulford 2014, 181-2).

#### 4. METHODOLOGY

- 4.1 In accordance with the approved Written Scheme of Investigation (CA 2019), two trenches (Trenches 1 and 2) were excavated in 2019, which collectively measured 160 square metres in area (Fig. 6).
- Trench 1 measured 18.8m x 3.3m (62.04m<sup>2</sup>); and
  - Trench 2 measured 13m x 7.5m (97.5 m<sup>2</sup>).
- 4.2 Trenches 2 and 3 of the 2017 excavation season were re-numbered during the 2019 excavation, to ensure that all contexts, features and deposits recorded during each season of work were recorded separately and could therefore be compared. Trench 3 (2017 excavation season), which was located across the south-eastern end of the villa, in order to uncover the full extent of the mosaic floor, was re-numbered as Trench 2 in 2019 (Figs. 3 and 6). Features in Trench 2 (2017 season) were only recorded *in situ* in 2017. This trench was re-numbered as Trench 1, and further excavated in 2019 (Figs. 3 and 6).
- 4.3 For the purpose of further analysis and future reporting, comparative records of the archaeological features recorded in Trenches 1 and 2 in 2019 with those recorded in re-numbered Trenches 2 and 3 of the 2017 excavation, were amalgamated and prefixed accordingly, to aid ease of interpretation. For example, the context numbers assigned for Wall 2048 / 3014 became Wall A, and so forth.
- 4.4 The excavated areas in 2019 (Trenches 1 and 2) were set out on OS National Grid (NGR) coordinates, using Leica GPS. The final completed survey was recorded using Leica GPS, in accordance with CA Technical Manual 4 *Survey Manual* (Fig. 6).



**Fig. 6: Trench plan, showing archaeological features from 2017 and 2019 excavations: Trench 1 (2017) and Trenches 1 and 2 (2019)**

- 4.5 Fieldwork commenced with the removal, under continuous archaeological supervision, of topsoil and subsoils from the excavation areas. This was undertaken by a mechanical excavator with a toothless grading bucket, until either archaeological deposits / features or natural geology were identified, whichever was encountered first. The generated spoil was monitored in order to recover artefacts, including systematic sweeping with a metal detector. All archaeological features were recorded in plan, using Leica GPS. The hand-cleaning of stripped surfaces was undertaken to better define identified archaeological features and deposits. All excavated deposits / features were planned and recorded in accordance with CA Technical Manual 1: *Fieldwork Recording Manual*. Photographs (digital colour) were taken, as appropriate. The photographic record included high-resolution photogrammetric imaging of the exposed mosaic.

- 4.6 Within Trench 2 (Trench 3 in 2017), the backfilled material within areas previously investigated was removed by hand, before reaching the protective layer of sieved soil which had been deposited immediately above the mosaic in 2017, or, to the top of deposits not previously investigated. All artefacts within the backfill were discarded at source, with the exception of any small finds (metal objects, glass, etc.) which were retained, but recorded as unstratified finds. The 2019 excavation of a previously uninvestigated area, i.e. the western part of Trench 2, commenced only when the level of the previously investigated backfilled sieved soil had been reached.
- 4.7 All finds and samples were bagged separately and related to the context record. All artefacts were recovered and retained in accordance with CA Technical Manual 3 *Treatment of Finds Immediately after Excavation*. Deposits were assessed for their palaeo-environmental potential and sampled, in accordance with CA Technical Manual 2: *The Taking and Processing of Environmental and Other Samples from Archaeological Sites*.
- 4.8 Throughout the course of excavation, an iterative strategy was guided by preliminary assessments by appropriate specialists during the course of fieldwork. Where appropriate, this informed strategies and methodologies, particularly in relation to the research objectives set out in Section 3, above. In particular:
- CA instituted a programme of volumetric analysis, which permitted the quantities of artefacts and ecofacts recovered from cut features (ditches; pits) and deposits (layers) to be related to the volume from which they have been recovered (e.g. X kg pottery per m<sup>3</sup>);
  - While there are no universally accepted sample sizes for finds recovered, CA took the view that a sample of more than 20 sherds of pottery should be sufficient to conclusively date major features. Where hand-sampling produced a small quantity of finds, the careful scanning of excavated spoil was adopted; and
  - CA recovered assemblages of animal bones in excess of 100 NISP per principal site phase.

## 5. RESULTS OF EXCAVATION (FIGS 3–24)

- 5.1 Two trenches (Trenches 1 and 2) were machine-excavated (see Figs. 3, 6, 7, 8, 9 and 12). Archaeological features, deposits and artefacts were identified in both trenches.
- 5.2 Trenches 2 and 3 from the 2017 excavation season were re-numbered as Trenches 1 and 2 respectively during the 2019 excavation,(Figs. 3 to 8).
- 5.3 This section provides an overview of the excavation results from Trenches 1 and 2. Detailed summaries of the contexts, finds, environmental samples (palaeo-environmental evidence) and biological material are to be found in Appendices A-L of this report.

### **Site Phasing**

- 5.4 Four distinct phases (Periods 1 to 4) of activity were identified in Trenches 1 and 2 during the 2019 excavation. These were principally associated with the Late Roman period of the 4th and possibly early 5th centuries AD. Any distinction between Periods 1 and 2 was based purely on the stratigraphic relationships between structural elements (Fig. 8), rather than dateable finds. On the basis of dateable finds, a *terminus post quem* of c. AD 300 is suggested for the initial Phase 1 construction of the core villa walls:

- Period 1: (Late Roman) c.AD 300-420;
- Period 2: (Late Roman) c. AD 300-420;
- Period 3: (Post-Roman) c. AD 420-500; and
- Period 4: (Modern) AD 1801-2000.

### **Soils and Superficial Geology**

- 5.5 Trenches 1 and 2 both retained a topsoil cover, comprising dark-grey/brown silty clay of approximately 0.2 - 0.3m depth. The topsoil overlay a subsoil which was principally located to the north within both trenches, i.e. on the north side of the villa building; a subsoil horizon of 0.1 - 0.2m depth was encountered (Figs. 10 and 11). This appeared to represent colluvial erosion (hillwash) from sloping terrain located further to the north-east.
- 5.6 A geological horizon was identified, whose composition, where exposed, was similar in both Trenches 1 and 2. The exposed geological horizons comprised deposits of compact, orange/brown Lambeth Group sandy clay. Removal of archaeological deposits within both trenches immediately to the north of the villa, revealed evidence of a substantial terrace, which appeared to have been cut into the south-west facing slope to create a level building platform (Fig. 18).



### *Land drains*

- 5.7 The trench of a 19th-century (Period 4) ceramic land drain ran across Trenches 1 and 2, and cut the archaeological features found within each (Figs. 6, 8, 17 and 18).

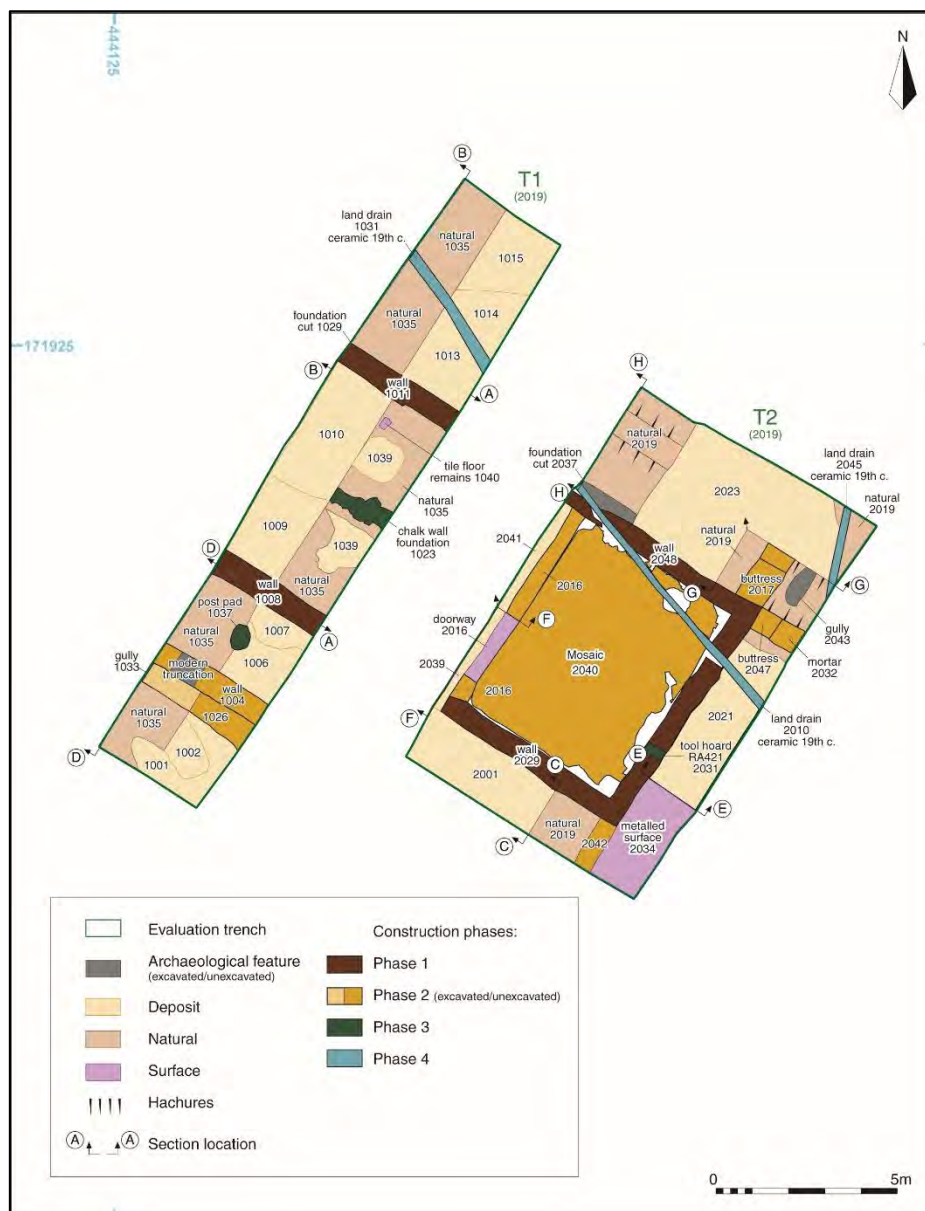
### **Period 1: (Late Roman) AD 300-420**

#### ***Trench 1***

- 5.8 The earliest structural features (Period 1) recorded in Trench 1 comprised Wall 1008 and foundation trench 1029, containing Wall 1011. Both walls were associated with the earliest core villa building, and are likely to have been contemporary, and continuous with Walls 2029 and 2048, found in Trench 2 (Fig. 8).



**Fig. 7: Trenches 1 and 2: vertical drone photograph, showing archaeological features from the 2019 excavation**



**Fig. 8: Trenches 1 and 2: plan showing archaeological features from 2019 excavation, and three phases of building construction**

#### *Walls 1008 and 1011 (Figs. 6, 7, 8 and 10)*

- 5.9 Walls 1008 and 1011 were aligned north-west / south-east, similar to the alignment of Walls 2029 and 2048 (Period 1) recorded in Trench 2. Wall 1008 formed the front elevation of the core villa building, and Wall 1011 the rear, with an internal width of 6m between the two. Walls 1008 and 1011 both measured 0.6m in width, with Wall 1008 surviving to a height of 0.16m and Wall 1011 a height of up to 0.9m, similar to that of Wall 2048 in Trench 2. The walls were constructed of roughly-hewn flint, bonded with lime mortar throughout, with both sides carefully faced with dressed flints. Good preservation was observed on the north-east face of Wall 1011, where well-finished, flush mortar pointing between the flint courses was observed. An impressed hobnail footprint was also found on top of the north-western end of Wall 1008. The footprint had set hard within the upper



surviving course of mortar bedding, with no imprints of flints from the course above. A foundation trench, 1029, containing a deliberate backfill deposit of brown/yellow clay silt, 1030, was recorded on the north side of Wall 1011. Excavation of this feature revealed three stepped courses of flint construction, confirming that the footing of Wall 1011 was wider at greater depth, although the base of the construction trench of this wall was not reached.



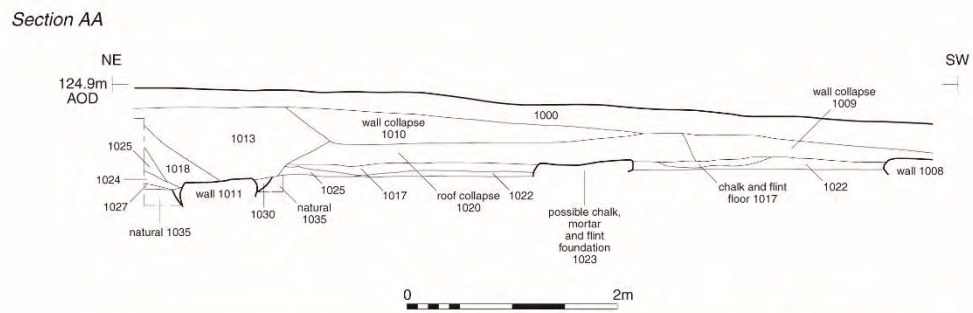
**Fig. 9: Photograph: Trench 1, looking north-west (1m scales)**

*Deposits / later activity associated with Wall 1008 (Figs. 7, 10 and 14)*

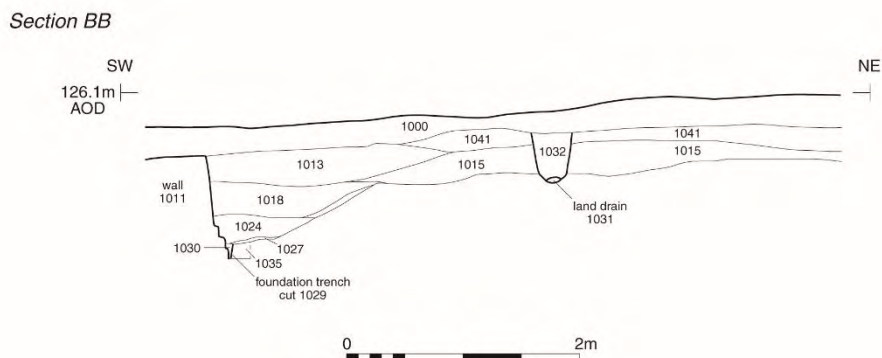
- 5.10 Wall 1008 was butted by deposits 1007 and 1022, which possibly represented occupation layers, and respectively comprised brown/grey silty clay, grey/brown sandy silt and grey/black sandy silt. These were covered by wall collapse deposit 1009, and topsoil layer 1000. No foundation trench cut was identified.

*Deposits / later activity associated with Wall 1011 (Figs. 7, 10 and 11)*

- 5.11 Wall 1011 was constructed within foundation trench 1029, which cut natural 1035, and was butted by trench backfill deposit 1030. The wall may have been modified in Period 3, as suggested by the presence of deposits 1024, 1017, 1018 and 1013, which were located on both sides of the wall. These deposits, ranging from yellow/white chalk (1017) to grey/brown clay silt (1013), butted or covered the wall, and appeared to indicate an area of later disturbance, or perhaps robbing.



**Fig. 10: Trench 1: section and photograph; walls (1008 and 1011), and chalk foundation (1023)**



**Fig. 11: Trench 1: section and photograph: foundation trench cut (1029), wall (1011) and land drain (1031)**

### ***Trench 2***

- 5.12 The earliest structural features (Period 1) recorded in Trench 2 comprised Walls D and H (2029) and foundation trench 2037, which contained Wall F (2048) (Fig. 8). These walls were associated with the earliest core villa building, and are likely to be contemporary, and continuous with Walls 1008 and 1011 in Trench 1 (Fig. 8).

#### ***Walls 2029 and 2048 (Figs. 7, 8, 15 and 17)***

- 5.13 Walls 2029 and 2048 were L-shaped in plan, aligned north-west / south-east, and ran on the same alignment as Walls 1008 and 1011 (Period 1), in Trench 1. The easternmost limit of these walls appeared to define the front, rear and eastern end of the core villa building, which displayed an internal width measuring 6m north-west / south-east. The walls were cut by Period 4 land drain 2010 (Figs. 8 and 18). Walls 2029 and 2048 both measured up to 0.6m in width, with Wall 2029 surviving to an exposed height of 0.67m, and Wall 2048 a height of up to 0.8m, similar to that of Wall 1011 in Trench 1. The walls were constructed



of roughly-hewn flint, and bonded with lime mortar throughout, with both sides faced with dressed flints. Good preservation was evident on the north-eastern face of Wall 2048, similar to that of Wall 1011 in Trench 1, where a well-finished, flush mortar pointing between flint courses was observed. A construction trench, 2037, containing a deposit of deliberate backfill material, comprising grey/brown silty clay, 2038, was recorded on the northern side of Wall 2048. This feature cut the underlying terraced clay natural, 2019. Excavation of the foundation trench exposed three wider, stepped flint courses at the base of wall 2048, although the base of this foundation trench cut, or of wall 2048, was not fully established.



**Fig. 12: Photograph: Trench 2, looking north-east (1m scale)**

*Deposits / later activity associated with Wall 2029 (Figs. 8, 13, 15)*

- 5.14 Wall 2029 was contained within foundation trench 2052, which cut natural substrate 2019, and was abutted by trench backfill 2053, which was identified to the south-west, within the front corridor of the villa building. The foundation trench appeared to cut internal deposits 2009, 2007, and possibly 2001, within the front corridor. This evidence suggests that Wall 2029 may have been modified or repaired after the corridor had fallen out of use. Internally, within the room containing the mosaic, Wall 2029 was abutted by the mosaic foundation deposits, 2056 and 2055 (not illustrated, but see Fig. 57), and by the mosaic (2040) itself. Above these contexts, and also abutting the wall, layer 2015, of grey/brown clay silt, and a deposit of collapsed roof tiles, 2003, were identified. This was sealed by a silting deposit, 2014, of yellow/brown silt, containing redeposited tile and flint. These deposits (not illustrated) corresponded closely with those recorded during the 2017



excavation (Bedford and Clark 2019; Fig. 4). Wall 2029 was also abutted externally to the south-east by an area of gravel metalling, 2034, a possible occupation layer 2033, demolition / dumped deposits 2027 and 2022, and a wall collapse deposit, 2021. To the north-west, Wall 2029 appeared to terminate within Trench 2, suggesting that this defined a front entrance-way leading into the corridor on this side of the villa range. The wall in this location was abutted by internal deposits 2039 and 2025, and covered by topsoil 2000. The wall was cut by a nineteenth-century ceramic land drain, 2010, at its eastern end (Fig. 18).

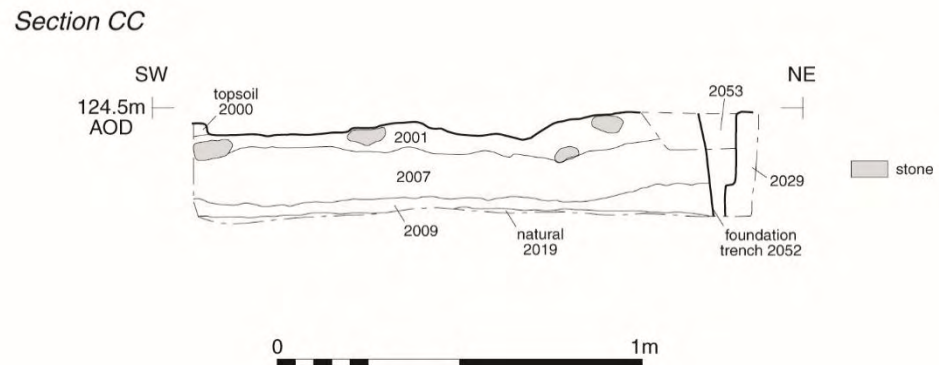


Fig. 13: Trench 2: section and photograph; foundation trench cut (2052) and wall (2029)

*Deposits / later activity associated with Wall 2048 (Figs. 8, 17 and 18)*

- 5.15 Wall 2048 was contained within foundation trench 2037, which cut natural substrate 2019 and was abutted by trench backfill deposit 2038, which was identified externally to the

north-west. The wall was also abutted externally to the north-west by occupation layer 2036, deposit 2028, dumped deposit 2020, deposit 2024, dumped deposit 2013 and wall collapse deposit 2004. Occupation layer 2036 comprised yellow/brown clay silt, and deposit 2028, a friable, grey/brown sandy silt. Approximately half-way along its north-west / south-east aligned length, the wall displayed tentative evidence of a flat base, possibly associated with a window-ledge, which had also been truncated by the later land drain. To the north-east, Wall 2048 was abutted by the later additions of buttresses 2017 and 2047, which were presumably built to support the subsiding corner of this wall at some time during Period 2 (Figs 17 and 19). The evident instability of the north-eastern corner of the villa building may also explain why the mosaic floor, 2040, had also been affected by gradual slumping around its north-eastern corner. This may reflect the presence of a small underlying natural sinkhole, or doline, or possibly an earlier pit. Both the wall and buttresses were abutted by a possible occupation layer, 2050, of yellow/brown clay silt, chalky layer 2049 and wall collapse layer 2023, and were covered by topsoil 2000. Layer 2049, comprising yellow/white chalk/lime mortar mixed with clay silt, may represent the degraded remains of external wall repairs executed in a chalky cob material.

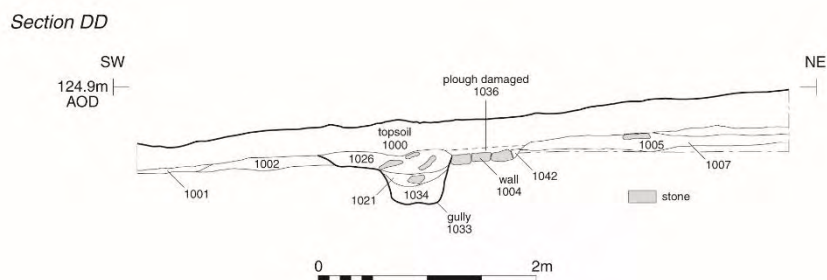
## **Period 2: (Late Roman) AD 300-420**

### ***Trench 1***

- 5.16 The Period 2 structural features recorded in Trench 1 comprised gully 1033 and the foundation trench 1036, containing Wall 1004 (Fig. 8).

#### *Wall 1004* (Figs. 6, 8 and 14)

- 5.17 Wall 1004 was aligned north-west / south-east, and appeared to be on a similar alignment to the partial remains of a wall discovered during the 2017 excavation season (Bedford and Clark 2019; Figs. 3 and 4). Wall 1004 was poorly constructed, with irregular flint coursing, and was bonded with a weak lime mortar, mixed with clay. This suggested that this wall had limited loadbearing capacity, and may therefore have represented a later corridor wall, which had been added to the front elevation of the villa building during a later phase. In Trench 1, the projected corridor displayed an internal width, between core villa Wall 1008 and corridor Wall 1004, of approximately 2m. Wall 1004 measured 0.55m in width, with a surviving height of up to 0.3m, but was crudely faced on both sides. A foundation trench 1036, containing yellow/brown sandy silt fill 1042, was exposed on the north-eastern side of wall 1004, the removal of which confirmed a single, crudely-constructed course of wall. To the south-east of the wall, gully 1033 (Period 2) was also recorded. Wall 1004 is likely to represent the same feature as Wall 2042, recorded in Trench 2.



**Fig. 14: section and photograph, wall (1004) and gully (1033)**

*Gully 1033 (Figs. 7, 8, 9 and 14)*

- 5.18 Gully 1033 was found to run parallel with, and to the south-west of, Wall 1004, in Trench 1. The gully displayed steep sides and a flat base, and measured 0.66m in width, with a depth of 0.38m. It contained three fills; the earliest, 1034, of clayey silt, was followed by two tertiary backfill deposits, 1021 and 1026 respectively. The gully may have been contemporary with corridor Wall 1004, or later, and may have functioned as a drainage channel. The gully was covered by topsoil, 1000.

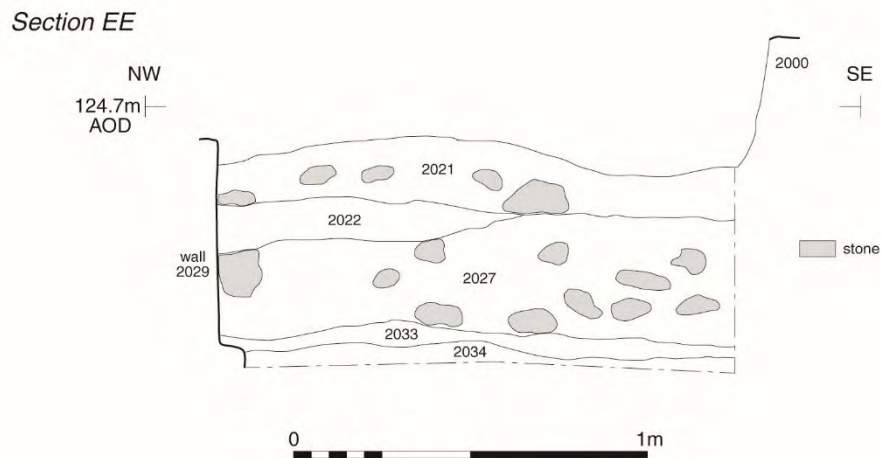
*Deposits / later activity associated with Wall 1004 (Figs. 8, 9, 13, 14 and 16)*

- 5.19 Wall 1004 was contained within construction trench 1036, which cut natural substrate 1035 and was abutted by trench backfill 1042, of yellow/brown sandy silt, which was identified to the north-west, within the front corridor. The wall had been heavily truncated by cultivation, and appeared to be covered by dark-brown/grey silty clay occupation layer 1005 within the corridor, although it was uncertain whether gully 1033, located externally to the south-west, actually cut Wall 1004. The wall was covered by topsoil layer 1000.



## Trench 2

- 5.20 Period 2 structural features recorded in Trench 2 comprised Walls 2016, 2042 and 2048, buttresses 2017 and 2047 and the mosaic, 2040 (Figs. 7 and 8).

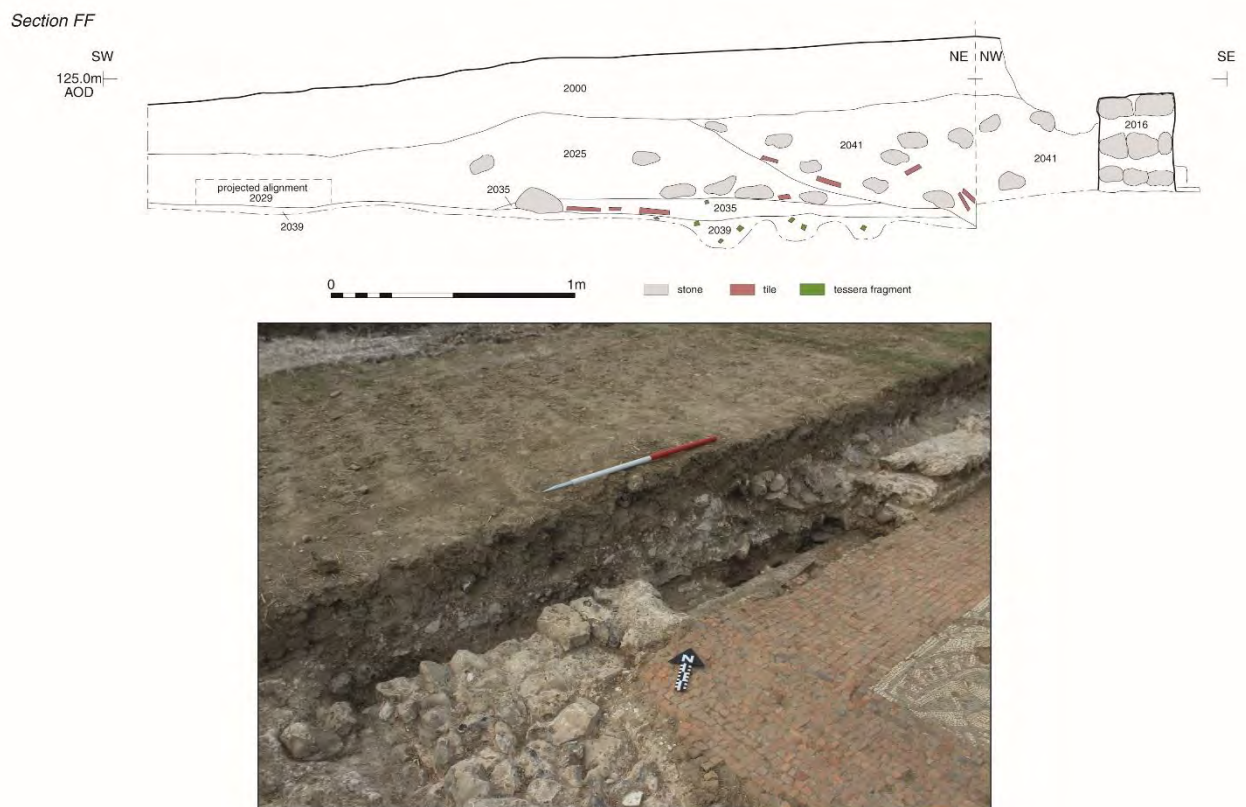


**Fig. 15: Trench 2: section and photograph: wall (2029) and associated external deposits**

### Wall 2016 (Figs. 6, 7, 8 and 16)

- 5.21 Wall 2016 was aligned north-east / south-west, and abutted Wall 2048, to the north-east and Wall 2029 to the south-west. The wall may have functioned as an internal, loadbearing structure, and accommodated an opening measuring 2m in width, which was located adjacent to Wall 2029. This opening appeared to represent a doorway leading into the mosaic room, 2040. This was the only confirmed evidence of an entrance into this room.

The projected doorway within Wall 2016 displayed a reveal of approximately five flint courses, within which a sill block, presumably robbed out, appeared to have been located. The base of the doorway comprised flat, compact mortar bedding, which displayed two slightly raised areas at either side; these may represent the bases for two flanking stone columns or timber posts. A stone column-base fragment (Hayward, this report, Appendix G), and a small hoard of iron door fittings were found in the vicinity of this opening (McSloy, this report Appendix D; Fig. 23). Wall 2016 measured up to 0.41m in width, and survived to a height of 0.31m. It was constructed of roughly-hewn flints, bonded with lime mortar throughout, with both sides faced with dressed flints.

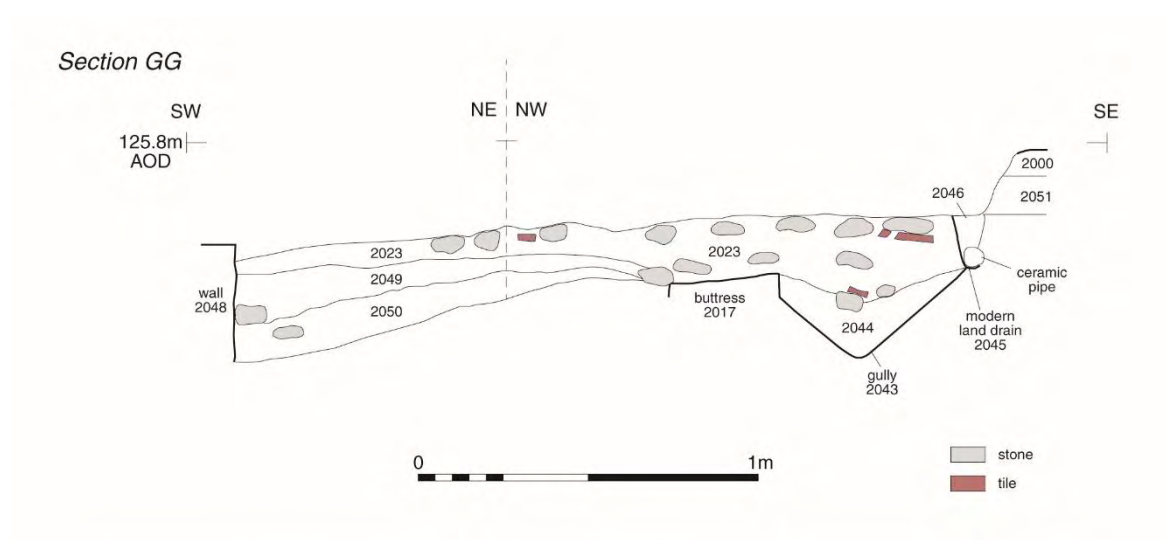


**Fig. 16: Trench 2: section and photograph; wall (2016)**

### Wall 2042

- 5.22 Wall 2042 was aligned north-east / south-west, and abutted wall 2029 at its north-easterly extent. This wall probably defined a front corridor, and abutted the front (i.e. western) core villa Wall 2029 (Figs. 6 and 8). Wall 2042 measured up to 0.47m in width, and survived to a height of up to 0.49m. It was constructed of roughly-hewn flint, bonded with lime mortar throughout, with both sides faced with worked flint.





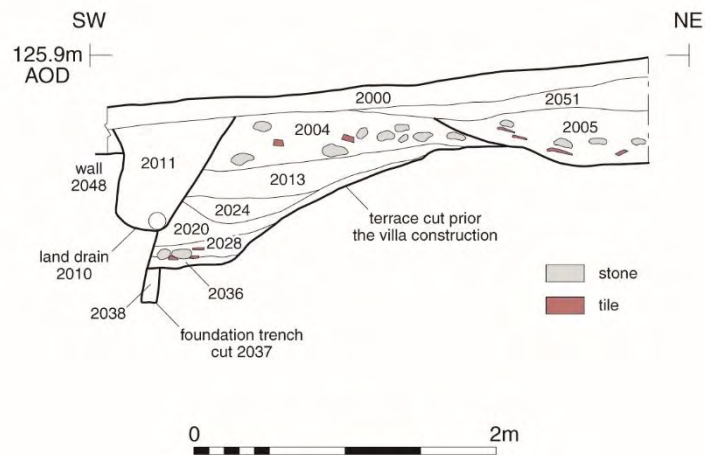
**Fig. 17: Trench 2: section and photograph; wall (2048), buttress (2017, gully 2043 and land drain (2045), looking north-west (1m scale)**

*Buttress 2017* (Figs. 6, 7, 8, 17 and 19)

- 5.23 Buttress 2017 was rectilinear in plan, aligned north-east / south-west, and abutted Wall 2048. The buttress was constructed of regular flint courses and three tile bonding-courses, all of which were bonded with lime mortar. Buttress 2017 measured up to 0.8m in width, with an exposed length of 1.6m and a surviving height of up to 0.66m. This buttress was similar to adjacent buttress 2047, except for the number of tile-courses employed, suggesting that the two buttresses may not have been constructed at the same time.



Section HH



**Fig. 18: Trench 2: section and photograph; foundation trench cut (2037), wall (2048) and land drain (2010), looking west (1m scale)**

*Buttress 2047* (Figs. 6, 8 and 19)

- 5.24 Adjacent buttress 2047 was similar in construction to buttress 2017, and was broadly rectilinear in plan, aligned south-east / north-west, and similarly abutted Wall 2048. This buttress was constructed of regular, mortared flint courses, with two surviving tile bonding-courses. It was located directly perpendicular to buttress 2017, at the north-eastern corner of the villa building, and displayed similar proportions, of up to 0.6m in width and a

surviving height of up to 0.64m. The buttress appeared to be constructed upon a solid mortar and flint foundation, 2032, which extended further to the south-east (Fig. 19).



**Fig. 19: Photograph: Buttresses 2017 and 2047, looking west (scale 0.4m)**

#### *Mosaic 2040 (Figs. 6, 8, 12 and 21)*

- 5.25 Mosaic 2040 was located within the eastern room within the core villa building, and measured 6m north-east / south-west and 5m north-west / south-east. It was remarkably well-preserved, albeit with some evidence of burning. A nineteenth-century ceramic land drain cut across the tessellated border at the north-eastern corner of the mosaic (Figs. 8 and 21). This intrusion revealed a cross-section of the mosaic bedding layers, from which a sample was taken (see Fig. 57). This cross-section was also observed within the possible but unconfirmed doorway identified within Wall 2016 (Fig. 20). The mosaic tesserae were of five basic colours, derived from a range of different sources in southern Britain, including indurated chalk and Kimmeridge dolostone from Dorset (Beeson, this report, Section 8; Hayward, Appendix G). The red tessellated border comprised cut tile fragments. Burning had discoloured parts of the mosaic, suggesting possible evidence of post-Roman squatter occupation or, more probably, destruction of the villa by fire. Several linear scorch-marks were evident across the mosaic, suggesting the effect of fallen burning roof-beams. In addition, the floor surface bore several impressions of flint nodules, which presumably resulted from the collapse of adjoining walls. The tessellated mosaic border was abutted at the base of Wall 2016 by surviving wall plaster (Fig. 22).





**Fig. 20: Trench 2: Photograph: Wall 2016; doorway and mosaic 2040, looking south-east (1m scale)**

*Deposits associated with Wall 2016 (Figs. 6, 8, 16 and 20)*

- 5.26 Wall 2016 was abutted to the north-west by occupation layers 2039 and 2035, and by wall collapse layers 2025 and 2041. To the south-east, within the mosaic room, Wall 2016 was associated with a deposit of fallen wall plaster, 2054 (RA. 453).

*Deposits associated with Wall 2042*

- 5.27 Wall 2042 was surrounded externally to the south-east by a gravel surface, 2034, in manner similar to that associated with Wall 2029. To the north-west within the corridor, Wall 2042 was abutted by internal deposits 2009, 2007 and 2001, of yellow/grey and grey/brown clay silt.

*Deposits / later activity associated with Buttress 2017 (Figs. 6, 8, and 17, section FF)*

- 5.28 Buttress 2017 was abutted by fill 2044, from later gully 2043, and by wall-collapse deposit 2023, of grey/brown clay silt, which contained fragmented wall-plaster, CBM and construction flints.





Fig. 21: Trench 2: Photograph: The Mosaic (2040)



Fig. 22: Trench 2: Photograph: *in situ* wall plaster 2054 (RA 453) at the base of wall (2016)

*Deposits / later activity associated with Buttress 2047 (Figs. 6 and 8)*

- 5.29 Buttress 2047 was abutted by wall-collapse deposits 2021 and 2023, and covered by topsoil 2000.

*Deposits / later activity associated with Mosaic 2040*

- 5.30 Mosaic 2040 was completely covered by a sequence of destruction layers, beginning with a mid-grey/brown clayey silt layer 2015, of up to 0.08m depth. This was followed by two successive roof tile deposits 2008, and 2012 (not illustrated), representing the final collapse of the roof, and two destruction layers, 2006 and 2002 (not illustrated), resulting from subsequent episodes of wall collapse. These deposits corresponded closely with the deposit sequence recorded during the 2017 excavation (Bedford and Clark 2019; Fig. 5).

**Period 3: (Post-Roman) AD 420-500***Trench 1*

- 5.31 Period 3 structural features recorded in Trench 1 comprised a possible chalk wall foundation, 1023, and a post-pad 1037 (Figs. 6 and 8).

*Chalk Wall Foundation 1023 (Figs. 6, 8 and 10)*

- 5.32 Chalk wall foundation 1023 was irregular in plan, aligned north-west / south-east, and constructed of compacted chalk. It measured 1.7m in length and 0.94m in width, with a thickness of 0.08m. The wall foundation rested upon natural clay, 1035, and was located centrally within the central room of the core villa building, and may have provided a solid base to support weakening central roof timbers at a late stage of occupation.

*Post-pad 1037 (Figs. 6 and 8)*

- 5.33 Post-pad 1037 was broadly oval in plan, aligned north / south, and comprised a cluster of broken *imbrex* roof tile fragments, bonded with chalk and clay. The feature measured 0.65m in length and 0.56m in width, with a height of 0.06m. It was constructed on natural clay 1035, but may have been constructed at a very late stage, when valuable building materials, including floor tiles, had already been robbed. The post-pad was located centrally within the corridor, and may have provided a solid base for a timber post, perhaps to support weakened roof timbers.

*Deposits / later activity associated with Chalk Wall Foundation 1023 (Fig. 10, section BB)*

- 5.34 Chalk wall foundation 1023 was abutted by a charcoal-rich occupation layer 1022, later chalk floor 1017, a deposit of roof tiles, 1020, and a wall-collapse deposit, 1010.

*Deposits / later activity associated with Post-pad 1037*

- 5.35 Post-pad 1037 was abutted by a compact, trampled layer, 1006, of brown/grey clay silt, which possibly represented a late occupation deposit, and was covered by topsoil 1000.



### *Trench 2*

- 5.36 Period 3 structural features recorded in Trench 2 comprised a recess within Wall 2029 which contained a deposit of iron objects, principally comprising door fittings (RA. 421), contained within its fill, 2031 (Appendix D; Figs. 8 and 23). These appear to represent items salvaged following the abandonment or destruction of the villa, which were presumably intended to be recovered.

#### *Deposit of iron door and window fittings (RA. 421), fill 2031 (Wall 2029) (Figs. 6, 8 and 23)*

- 5.37 The deposit of iron objects (RA. 421) was found within fill 2031 and confined within a small recess within Wall 2029 (Fig. 23). These items are described in detail in Appendix D of this report. This deposit was located within Wall 2029, on the south-eastern side of mosaic 2040, and covered by topsoil 2000. The recess measured 0.58m in length, with a width of 0.2m and depth of 0.1m, and the iron objects appeared to have been deliberately placed within the recess.



Fig. 23: Trench 2: Photograph: ironwork hoard RA 421 (fill 2031; wall (2029) (0.2m scale)

### **Period 4: (Modern) AD 1801-2000**

#### *Trenches 1 and 2 (Figs. 6, 8, 11 and 18)*

- 5.38 A ceramic land drain 1031, of nineteenth-century date, was located to the north-east in Trench 1, and cut deposits 1013 and 1014. The cut of the land drain displayed steep sides, and contained a series of closely-abutting ceramic pipes. It ran on the same alignment as land drain 2010, identified in Trench 2; both were aligned north-west / south-east (Fig. 18) and appear to represent the same feature. The drain is likely to comprise part of the drainage works of AD 1870/1, which prompted the discovery of the villa.



## 6. THE FINDS

- 6.1 All finds collected during the excavation have been cleaned, marked, quantified and catalogued by context. All metalwork has been X-rayed and stabilised where appropriate. The finds are quantified in Table 1, below:

**Table 1: Quantification of 2019 finds**

Type	Category	Count	Weight (g)
Pottery	Roman	875	18781
CBM	Brick and tile	442	27218
Glass	Window Fragments	44	91
	Vessel Fragments	4	4
Metalwork	Iron	595	12,310
	Copper alloy	21	100
	Lead	24	95
	<i>Total</i>	<i>640</i>	<i>12,505</i>
Coins	Copper alloy	11	15
Worked stone	Architectural fragments	2	n/a
	Roofing tiles	n/a	1,087,860
	Whetstone	1	10
	Quern fragment	1	30
Plaster and mortar	Fragments	109	5161

- 6.2 The finds assemblage principally comprised pottery, but included a range of building materials, including CBM, worked stone, plaster/mortar and window glass, which confirmed the relative status of the villa building. Metal items included an unusual deposit of iron door or window fittings, although personalia and dress fittings were relatively few. A small group of eleven coins comprised small-denomination copper alloy issues of fourth-century date.

### ***The Pottery***

- 6.3 The pottery assemblage from the 2019 excavation totals 875 sherds (18,781g), and augments the 688 sherds recovered from the 2017 excavation (Mephram 2019; Appendix B). The pottery ranges from good to fair in condition, and was principally recovered from layers of destruction debris in Trenches 1 and 2. The assemblage is dominated by coarsewares, principally represented by the Alice Holt industries, but augmented by South East Dorset Black Burnished wares. The products of Oxfordshire kilns are also probably represented, but are less distinctive.
- 6.4 Imported finewares included only two sherds each of samian and *moselkeramik*, the scarcity of samian simply reflecting the later, fourth-century date of the villa. A single sherd of a lid-seated jar of Mayen ware was also recorded. British finewares comprised 15.4% of the total assemblage, and consist almost entirely of Oxfordshire products, mostly colour-coated, but including white wares and white slip-coated wares. These comprised common

bowl/dish forms and beakers. A single sherd of New Forest colour-coated ware was also recorded. Greyware fabrics, mostly in jar forms, are likely to be products of local kilns, possibly including those at Hampstead Marshall and Compton, West Berkshire, in addition to those from the Alice Holt/Overwey industries.

- 6.5 With the possible exception of a few Samian sherds, the pottery assemblage included nothing earlier than the late third century AD, and includes a large component of diagnostically 'late' material, some of which, i.e. the Alice Holt and shell-tempered types, would not preclude the possibility of occupation continuing into the opening decades of the fifth century. Notable overall is the high proportion of finewares (19.3%), together with plentiful mortaria from the Oxfordshire kilns, in small and medium sizes, and a total absence of amphora.

### ***The Glass***

- 6.6 A total of 48 fragments of glass, including 44 fragments of window glass (91g) and four fragments of glass vessels (4g), were recorded from the 2019 excavation. These are described in further detail in Appendix C of this report. The green colouration and bubbly character of much of the window glass is suggestive of a third to fourth-century date. Interestingly, a small number of fragments display evidence of fire-damage and partial melting. Four small glass fragments appear to derive from vessels, one of which may have been of bottle form, with others representing blown tableware – possibly cups or beakers, of Late Roman type. One of these fragments features wheel-cut or abraded decoration.

### ***The Metalwork***

- 6.7 Some 639 items of metalwork (12.5kg) were recorded from the 2019 excavations, the great majority of which (595) were of iron (Appendix C). The remainder comprised 24 items of lead or lead alloy, and 21 of copper alloy. These totals did not include the coins (Appendix D, and below). The majority of copper alloy objects comprised strip-like fragments of unknown purpose, although two penannular brooches of late Roman type (Ra. 402 and Ra. 420) were recorded, together with a finger ring, two strip-form bracelets (Ra. 415 and Ra. 427) and a possible earring.
- 6.8 The iron objects overwhelmingly comprised nails of common Roman type, which are presumed to have been used in timber construction. Of particular interest is the group of five hinge fittings found deposited in a recess of wall 2029, which are thought to have been salvaged from the abandoned villa and hidden with the intention of eventual recovery (Fig. 23). The variety of hinge fittings present suggested that these derived variously from doors, shutters or furniture, although a precise origin in each case could not be

determined. Other iron finds comprised hinge staples, double-sided loops and a possible hook.

***The Coins*** by Richard Massey

- 6.9 A catalogue, compiled by Sam Moorhead of the British Museum, comprising Portable Antiquities Scheme (PAS) data for the 11 coins recorded from the 2019 excavations is presented in Appendix E. This small group matches the total of 11 from the 2017 excavation (Bedford and Clark 2019, 209), and with a closely comparable date-range. All comprise low-denomination copper alloy issues of mid-and late fourth century date; with the exception of the three Theodosian issues recorded in 2019, all identifiable coins represent a period confined to some four decades i.e. Reece Periods 17-19 (1991), i.e. AD 330-378. Where identifiable, all are of from Gallic mints.
- 6.10 With the exception of the three late fourth-century coins, the overall assemblage from the Mud Hole site falls into periods which account for just under half the national total of coins recorded from villa sites. This total broadly equates to the retrieval rates achieved for other villa sites (Smith 2016, 187), although conclusions from such a small sample should be treated with caution. This group compares unfavourably with the collection of around 200 coins (found during metal detecting and excavation) covering a wider date-range, from Hoar Hill, Boxford (Bedford and Clark 2017, 105-113), although such a small assemblage may partly reflect the limited metal-detecting of spoil in 2017. It may also imply a relatively low reliance on coinage on a site which may, notwithstanding the evidence of the mosaic, have occupied a relatively humble position in the villa hierarchy. Alternatively, the apparent paucity of coins from both excavation seasons may simply indicate intermittent use of the building, possibly as a hunting lodge, or similar.
- 6.11 The mid-fourth century represents the greatest period of coin loss across all classes of Romano-British rural sites, and greater numbers of villa sites yield higher frequencies of Periods 17-19 (AD 330-378) issues than of previous periods (Brindle 2017, 245-6, fig. 6.9). This may in part reflect the higher loss-rates associated with high inflation and coins of diminishing size (Reece 2002, 20), which were minted in large numbers. Significantly, this period also coincides with a high-point of villa prosperity and development in southern Britain, and the extension of more widespread coin use to lower-status rural settlements. The coin evidence confirms a limited period of activity at the Mud Hole villa, which extended, perhaps intermittently, to the later fourth and early fifth centuries.
- 6.12 The three Theodosian coins appear to lie outside this principal Period 17-19 date-range, and might tentatively suggest a later peak of activity, in Periods 20-21 (i.e. AD 388-402). In particular, the striking of copper alloy *nummi* of the VICTORIA AVGGG type at the Gallic

mints ceased around AD 395, and few are known to have arrived in Britain much after that date (Moorhead and Walton 2014, 102). Finds of Theodosian *nummi* outside urban centres or military sites are largely restricted to southern Britain, and are comparatively rare (Walton 2012, 103). The coin evidence is augmented by elements of the pottery assemblage, which do suggest some continuity of occupation into the early fifth century (Mephram, this report, Appendix B), although the continuing role of coinage much beyond this period remains contentious (cf. Besly 2006, 84-5). The mid to late fourth century is more generally associated with a marked overall decline in villa establishment and development (Allen 2016, 81-3, fig. 4.7), with a marked increase in settlement abandonment evident by the last decades of the century.

### ***Ceramic Building Material***

- 6.13 A total of 442 fragments of Ceramic Building Material (CBM) was recorded from 38 separate deposits and as unstratified finds during the 2019 excavation (Appendix F). Much of the more fragmented and undiagnostic material was discarded on site. Most of the CBM assemblage was recovered from demolition and dump deposits, and includes flue tile, (24.1% by weight of the assemblage) *imbrex* and *tegula* fragments. The assemblage also includes a number (4.7% by weight) of unclassified fragments.

### ***Worked Stone***

- 6.14 Worked stone items are described in detail in Appendix G of this report. Two notable architectural fragments include part of a lathe-turned column base, in a shelly oolitic limestone of south Cotswold origin. This appears to have supported the south portico of the villa building, and has clearly been fire-affected. A fragment of cornice, in a similar stone, from fill 2004, is comparable to the paving slabs recorded in the 2017 excavation, and also attests to the architectural pretensions of the villa.
- 6.15 All recorded stone roofing elements from the 2019 excavation were in a very fine, light to dark-grey shelly oolitic limestone, which may be from Wychwood Forest, Oxon, or further west (Appendix G). A total weight of 1087kg was recorded. A whetstone of ferruginous Devonian sandstone appears to have been re-worked from a paving slab or thick roofing tile. A quern fragment from context 2015 is in an imported lava-stone, from the Eifel region of the Rhineland, a source commonly associated with imported Roman querns.
- 6.16 Loose mosaic tesserae recovered in the 2017 and 2019 excavations derived from a variety of sources. Small, white design tesserae were of indurated chalk, probably from Dorset, while grey/dark-grey tesserae were of Kimmeridge Dolostone, again from Dorset. Loose red tesserae and the coarse red tesserae from the mosaic border panel are from ceramic

tile, while those in an olive-green/brown stone may comprise a greensand of relatively local origin.

### **Wall Plaster and Mortar**

- 6.17 A total of 109 fragments (5.1kg) of wall plaster or mortar was recovered from the 2019 excavation. This conformed closely to the material recovered in 2017, and is described in further detail in Appendix H of this report. Of the 2019 excavation total, some 47 fragments retained traces of paint. A narrow colour palette was evident, including white/cream, pink/orange and red/dark red. A single fragment features decoration, in the form of a white band on a red ground. On most coloured examples, paint had been applied to a thin, skim layer of fine plaster of 1-2mm thickness, backed by a secondary layer of chalky plaster. Very limited evidence of plaster mouldings included a notable fragment from destruction debris layer 2023, which preserved two surfaces forming a chamfer.

## **7. BIOLOGICAL MATERIAL**

- 7.1 The biological material and samples recovered from the 2019 excavation are quantified in Table 2, below:

**Table 2: Quantification of Biological Material and samples**

Type	Category	Count
Animal bone	Fragments	1700
Environmental Samples	Bulk	8
Samples	For particle size analysis (Reading University)	5
Sample	Soil micromorphology through mosaic bedding layers	1

### **Animal Bone**

- 7.2 The moderate animal bone assemblage, comprising some 1700 fragments, is described in further detail, in Appendix I of this report. Bone preservation was good to fair, and the wide range of wild and domestic taxa identified indicated a site of notable status in the Late Roman period. Pig and red deer were the most commonly recorded taxa, with smaller incidence of sheep/goat, although chickens were well represented. The sample size of cattle was small, but all parts of the carcass were recorded. A few other domestic non-food species, including horse, cat and dog were also represented. Wild mammal taxa included hare and badger, with a number of wild bird species, including duck present.



- 7.3 Butchery marks were commonly present on pig and red deer bones, with an expected bias towards meat-bearing parts of the carcass. The high incidence of pig and deer is unusual on contemporaneous sites, and indicative of strong associations with Romanised tastes and patterns of consumption. It is probable that most wild animal and bird species recorded, including hare, duck and goose, also formed part of a high-status diet. The presence of badger bones may indicate a species hunted for its fur rather than consumption.

### ***Plant Macrofossils***

- 7.4 Plant macrofossils were assessed from a total of eight bulk soil samples obtained from Period 1 and 2 features. These are described in further detail in Appendix J of this report. Period 1 samples contained moderate to small amounts of charred plant remains, which were dominated by cereals, including spelt wheat (*Triticum spelta*) and barley (*Hordeum vulgare*). The charred plant remains from deposit 1022 may represent a dump of crop processing waste, while those from deposit 1018 may represent domestic waste material.
- 7.5 Samples 300 and 302, respectively from deposits 2013 and 2020, contained moderate quantities of cereal remains, including barley, spelt wheat and emmer wheat, which again probably represented a deposit of crop processing waste. A low incidence of charred plant remains from Period 2 gully 1033 were again dominated by cereal remains, including barley and spelt wheat. These assemblages also contained a range of pastoral and arable weed seeds, including curled dock, vetch/wild pea, goosefoot, buttercup, clover/medick and bedstraw.

### ***Molluscs***

- 7.6 Mollusc shells were recorded in varying quantities from seven of the eight bulk samples assessed. These are described in Appendix K of this report. Numbers of mollusc shells were moderate to high in these samples, with moderate to high species diversity. There was an indication of woodland or scrub environments within the vicinity of the Mud Hole Villa site, with some other species typical of garden environments. Other mollusc species appeared to be indicative of an open grassland environment within the wider surrounding area, an interpretation also evident from the range of mollusc species recorded from the 2017 excavation. The samples also provided molluscan evidence of wetter or aquatic environments, in some cases possibly reflecting the damper location of the villa site. One species, *Valvata cristata*, is associated with well-oxygenated still or slowly-flowing water, and it is suggested that this species may have been brought to the site with the collection of water.

### ***Wood Charcoal***

- 7.7 Eight samples of charcoal from the 2019 excavation were processed for analysis, and provided information regarding the type and character of fuelwood used in domestic activity at the villa. This is described in further detail, in Appendix L of this report. Charcoal preservation was generally good, although material tended to be highly fragmented, with occasional evidence of iron-staining, resulting from waterlogged conditions. Nine wood taxa were identified, all native broadleaf species, with much of the charcoal derived from young wood. As with the charcoal recovered from the 2017 excavation, the principal taxon recorded was oak.

## 8. THE MOSAIC

*The Mosaic* by Anthony Beeson

### **Introduction**

- 8.1 Excavations in August 2017 uncovered under half of the mosaic during the final week of a community excavation. The author was invited to advise on its iconography, and described it to the world as “without question the most exciting mosaic discovery made in Britain in the last fifty years”. That assessment has increased with the complete excavation of the mosaic in 2019. At the time, this brief glance had afforded us a glimpse of the finest mosaic depiction in Britain of the hero Bellerophon killing the monster Chimaera, Hercules slaying a centaur, a panel set in a king’s court and two walking, and exceedingly rare, *telamones*, or giants, at both corners, holding up a pergola above their heads that was decorated with a guilloche pattern. It was also obvious that the mosaicist had attempted to give the pavement a *trompe l’oeil* effect, while subjects also overlapped or broke out of their borders in a way not previously encountered on British mosaics. Another rare feature for Britain was the existence of two damaged inscriptions on the mosaic. The author’s assessment then was that the pavement might chronicle the myth of Bellerophon. The recent excavations have shown that not only are the subjects on the mosaic unique for Britain, but that all are linked in mythology with connections to Poseidon (Neptune), Pelops, Bellerophon and Atlas. There is also a strong connection with horses and racing, in both cases the invention of Poseidon. The main subject of the mosaic, the story of Pelops, the deadly chariot race and the subsequent funerary games in honour of the loser that were to lead, in myth, to the founding of the Olympic Games is only known from a pavement from Shaba, Syria and Noheda in Spain (Tévar. 2018). The title of the mosaic must be now be revised to the Triumphs of Pelops and Bellerophon. This account omits retelling the many myths connected with the figure work on this mosaic, which have been fully covered in the recent publication (Beeson, Nichol and Appleton 2019).



Fig. 24: Aerial drone photograph of the mosaic (David Shepherd)

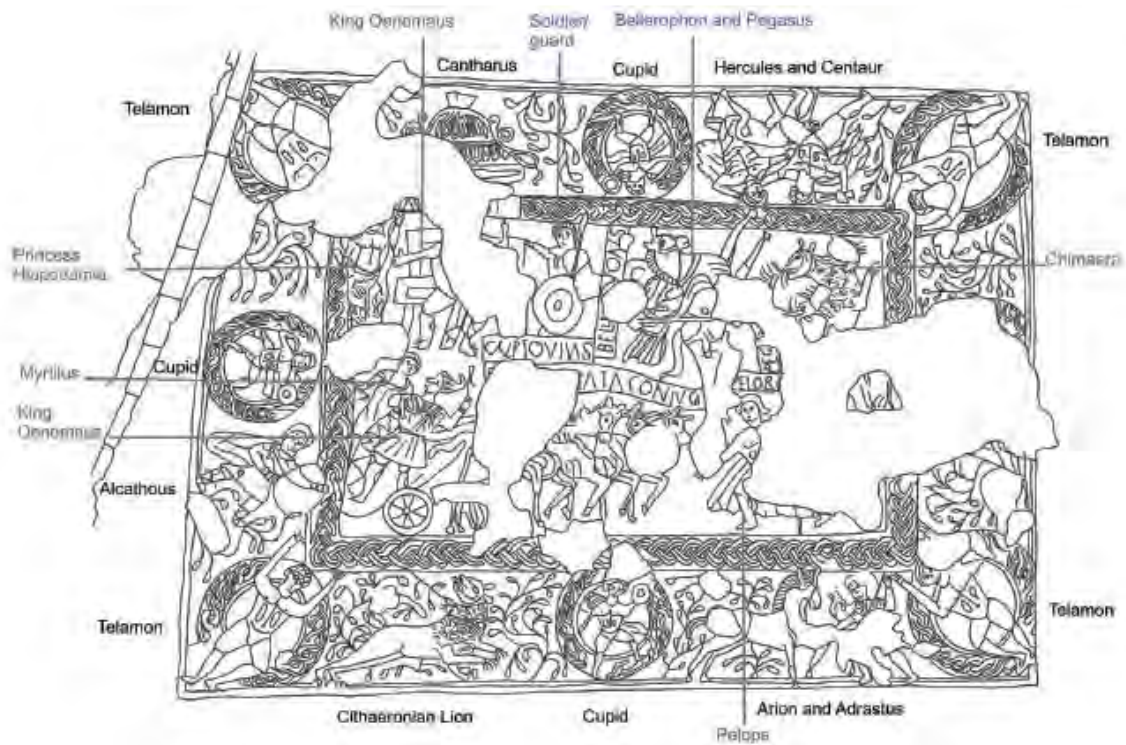


Fig. 25: Key drawing to the mosaic (Lindsey Bedford)

### ***The Triumph of Bellerophon***

- 8.2 The layout of the subjects on the mosaic suggest that at least one entrance into the chamber was from the south, and that on arrival the visitor would be confronted by the panel showing Bellerophon on Pegasus, killing the monster Chimaera (Figs. 26 and 27). Bellerophon's story is recounted elsewhere (Beeson, Nichol and Appleton 2019, 31-35), but it is important to remember that Poseidon was not only his father but also the sire of Pegasus and Chrysaor (whose son, Geryon, was later slain by Hercules). This story of Bellerophon was particularly popular in Britannia, and this is the fifth depiction to have been discovered here (Beeson 1996, 18-23). Others are known from Lullingstone, Kent, (Neal and Cosh 2009, Vol 2, 379-385; Yalouris 1975, fig 77), Hinton St Mary and Frampton, Dorset, (Cosh and Neal 2005, 156-160 and Frampton 130-140), and Croughton Northamptonshire (Neal and Cosh 2002, 234-6; Cosh and Neal 2010, 394-395). Considering that fewer than thirty mosaics of this subject have been found throughout the Empire as a whole, the fact that five have been found here is interesting. The iconography of Bellerophon defeating Chimaera gradually developed into that of St George and the Dragon, so it seems particularly pertinent that the myth was popular in Britain. An ancient belief saw Pegasus as symbolic of the sun and Chimaera as winter (Yalouris 1975, fig. 43). Bellerophon, as the active power of the sun, attacks winter and thus arranges the sequence of the seasons which accounts for their presence on some mosaics such as that at Lullingstone. The image also came to be seen as the power of good conquering evil, and as such it was adopted into early Christian art. In late antiquity, a landowner might wish to be flatteringly identified with the hero before his tenants and clients. Interestingly, the emperor Justinian is portrayed in just such a Bellerophon pose, with a spear (spearing nothing!) on an ivory diptych dating to AD 527, now in the Louvre (Beckwith 1961, 38, fig. 49). Boxford's Bellerophon holds a spear in his right hand that ends above the goat's head of the Chimaera (Figs. 26 and 27). Unfortunately, Bellerophon's head has been destroyed, beyond one blue tessera indicating the position of his chin, but most of the composition remains, although in places discoloured by burning. Most representations of Bellerophon by this period depict him looking 'off-stage' towards the spear, and not at the Chimaera, and that is how one must imagine Boxford's hero (Volbach 1961, fig. 94).
- 8.3 Boxford's Bellerophon is fully clothed in a fashionable 4th-century white tunic, complete with blue wristbands, decorative *orbiculi* (roundels) and *clavi* (stripes) (Figs. 26 and 27). The latter decorate the tunic's neckline, and the *orbiculi* appear at the shoulder as well as the thigh. Only the mosaic from Croughton (tentatively dated to around AD 360 and closest in spirit to Boxford's) features a clothed Bellerophon in Britain. A row of white tesserae defines the Boxford hero's left shoulder for the viewer, as the mosaicist uses this technique to clarify edges. The heel of Bellerophon's boot survives below Pegasus' belly, and he



wears a red *chlamys* (cloak) across one shoulder; that billows out in front of him, displaying its lining.

- 8.4 This feature consists of swirls of red and pink-brown, with a curved line of blue near the centre indicating that billowing fabric is intended here, and certainly not a shield as some have suggested, which would be iconographically incorrect. Elsewhere on the central panels, fabrics are given a similar multi-coloured treatment to indicate linings, and at Hinton St Mary, Dorset, Bellerophon's cloak also billows before him. Here it billows to the right, so as not to clutter the area behind him occupied by Pegasus' wings. Inscriptions on mosaic are rare in Britain, but above this panel is a framed panel containing the name BELLE[RE]FONS (Figs. 25, 26 and 27). Only portions of the bracketed letters remain, but enough to be certain that this is correct. The same spelling of the name occurs on a fourth-century AD Bellerophon mosaic from the villa de Puerta Oscura, at Malaga, Spain (Blázquez 1981, 77-78).



Fig. 26: The Bellerophon Panel (David Shepherd)





**Fig. 27: An interpretive construction of the Bellerophon Panel (Anthony Beeson)**

### ***Pegasus***

- 8.5 Boxford's Pegasus is the most spirited and beautiful British depiction. His most notable feature is a marvellous mane composed of a series of strikingly long, and often tapering, blue and ochre tesserae laid in alternating colour (Figs. 26 and 27). This beautiful way of treating horses' manes occurs elsewhere on this mosaic, and is one of the most notable and singular techniques attributed to this mosaicist. The same technique is used for Pegasus' long and sinuous tail, composed of nine alternate blue and ochre strands. The wings are treated as two sets of flipper-like objects that splay out behind Bellerophon. At the top of each wing is a long protruding flight-feather, and these are striped with blue, brown and white tesserae. Boxford joins Lullingstone and Croughton's mosaicists in giving Pegasus wings. His body is worked in ochre tesserae, with muscles outlined in blue. His muzzle is ochre, with blue detailing, and once would have displayed a red nostril. The Boxford mosaicist generally employs triangular tesserae to form the whites of his figure's

eyes, and Pegasus is no exception. He sports a red bridle and breast-band, while a red haunch-strap disappears beneath Bellerophon from a haunch-junction at his hindquarters. A red pendant strap with a circular ornament hangs from the junction, and a breeching strap continues under the tail. Uniquely, the mosaicist attempts to give another dimension to Pegasus, as he is shown literally in a flying gallop, leaping out of the panel, with his left front leg reaching to the outer edge of the guilloche border. The triangular undersides of the hoofs are displayed to aid the illusion. Similarly, his hind legs stretch out behind, crossing into the neighbouring panel, with the fetlocks terminating in a long inscription box. He is foreshortened to aid the illusion, so that only the tops of the back hoofs are shown. His name box contains the letters 'PEGAS[vs]'

### ***Chimaera***

- 8.6 Chimaera is mostly drawn in blue outline (Figs. 25, 26 and 27). Damage and burning have obfuscated some details, but most of this survives up to the animal's lower back, and her similarity to the lion in the western border enables an easy restoration. The back-claws and part of her outstretched legs survive on a mosaic island stretching into the open zone of the adjacent panel. Vigorously drawn, she is depicted as running at high speed with outstretched limbs and drooping claws, but also turning and defiantly attacking her tormentors, as does the Croughton monster. Rays of fire shoot from her mouths. Much of the lion-head survives, although having suffered damage. Likewise, the goat's head is discoloured and damaged at its neck, although details can be made out. It looks backwards at the attacker, and has rectangular ears and, below its chin, a double beard. Of the serpent tail, only a section of the throat and lower jaw, together with some flames, survives to the upper right of the goat's head, but it places it and enables a restoration. On the remaining part of her belly, two of a series of spaced teats survive, formed from single blue tesserae. Chimaera's inscription has been lost, but was probably situated above the fire-burst from the lion's head and below Pegasus' front right leg where the corner of a rectangular frame remains (Fig. 27).

### ***The Triumph of Pelops***

- 8.7 This main section of the mosaic was designed to be viewed from the western side of the room (Figs. 24 and 25). A doorway is suspected in the south-western corner, but any guest entering from the south, and past Bellerophon, would have been led that way to face the Pelops mosaic (Figs. 20 and 28). In the myth, Pelops, the lover of Poseidon, was, according to some accounts, possibly the child of Atlas, as was Sterope the wife of King Oenomaus (Appleton, Beeson and Nichol 2019, 43-45). The mosaic recounts his quest to win the Princess Hippodamia, at the risk of his life, by racing against the king. The Court Panel, partially uncovered in 2017, depicts the enthroned Oenomaus, king of Pisa and Elis (Fig. 28). The throne is one of the very few pieces of Roman furniture to be depicted in



surviving Romano-British art. Above his head, in the outer border, is a *cantharus* (wine cup) as a subtle visual aid to his identification and a play on the meaning of his name 'Man of Wine' (Fig. 50). A fragmentary inscription above the Court Panel, [...].AV[...]NI has been interpreted by Dr Roger Tomlin as possibly reading:

[OENO]MAV[S] REGNI (Oenomaus of the kingdom) (Fig. 29).



**Fig. 28: The Court Panel (Anthony Beeson)**

- 8.8 Oenomaus is larger than his companions, thus reflecting his importance. Much of his upper body and face are destroyed, but enough evidence remains to provide a sensible general reconstruction. The remaining tesserae representing the line of his neck suggest that his head probably intruded into the inscription above, and there is no sign of a beard which representations generally show (Figs 28 and 29). The figure reflects contemporary portrayals of the emperor. In his left hand, he holds a staff of office. A red and buff robe cascades in folds down between his legs, and his feet sport remarkably long and spread toes. He holds out his right arm with open palm and upright thumb, in a gesture of presentation, to direct the viewer to Pelops' prospective prize, the Princess Hippodamia. Her name means 'Horse tamer', and reflects the passion of Oenomaus for horses. She wears red armlets and bracelets, holds a billowing scarf, and is naked to the groin, with her red and buff garment covered in complicated blue folds (Figs. 28 and 29). Both her feet and most of her face are missing, and she intrudes into the surrounding guilloche border, which ends below her right hand.

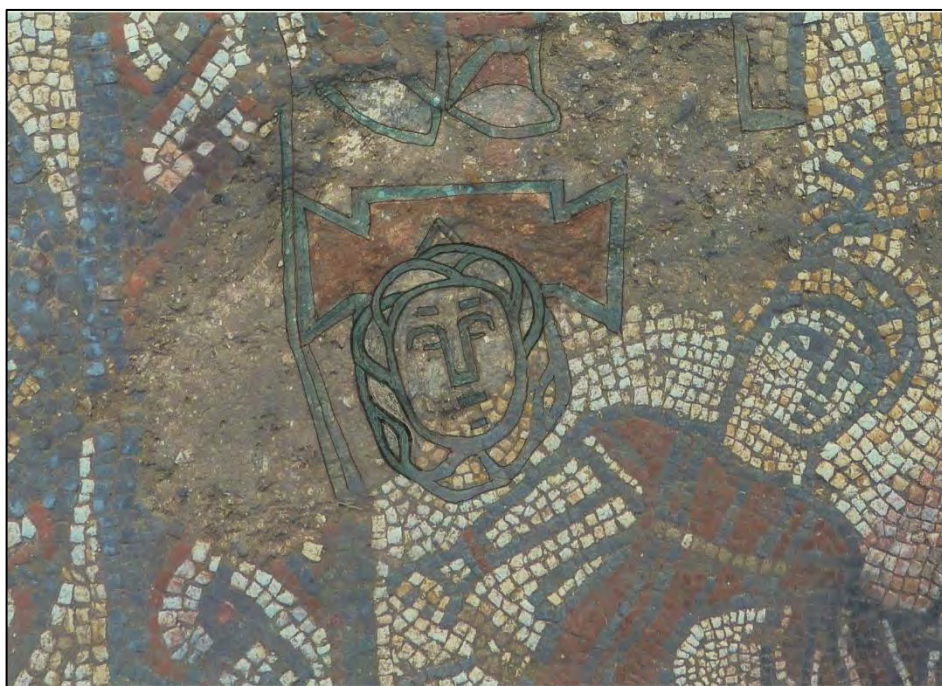


**Fig. 29: An interpretive reconstruction of the Court Panel (Anthony Beeson)**

- 8.9 To the right of Oenomaus stands a figure holding a spear and shield (Figs. 25, 28 and 29). Unlike other surviving figures on the mosaic, his hair is fashionably represented by striped tessellation such as appears on the Hinton St Mary mosaic, and he wears a white tunic decorated with bands at the wrist, and with *clavi* at the neck. A red *chlamys* is draped across one shoulder, and his spear intrudes far into the border above. A bossed oval shield, in red and buff, rests before him. It is notable that the mosaicist has not bothered to delineate the figure beyond his chest, which suggests that he is a subsidiary figure in the story. This figure has an importance, in that it is the only representation of an armed man with a shield in contemporary mid-fourth century dress to be found in Britain. The composition of ruler and armed companion reflects the sort of imperial imagery seen on the *Missorium* of Theodosius, of AD 388 (Weitzmann, 1961, fig. 53; Beckwith 1961, 17, fig. 16). He points and looks towards either Hippodamia or to Oenomaus, as if directing the viewer's gaze.
- 8.10 The Noheda mosaic and representations of the myth on sarcophagi from Cumae, Italy (Fig. 35), Tipasa, Algeria (Fig. 36), and elsewhere, break the story down into two main parts; a court scene and the chariot race for the hand of Hippodamia, and Boxford follows this artistic tradition (Roblès. 2003, 72, fig.10; Roblès *et al.*, 2019, 72-73, fig 69; Tévar 2013; Tévar 2018).
- 8.11 Below the Court Panel, the western half of the mosaic depicts the myth's fatal chariot race (Figs. 25, 30 to 34). Remarkably, only two other mosaic versions of this episode are known



in the entire Roman Empire. One from Shaba in Syria, featuring the race in the background, is now in the National Museum in Damascus, and the other has been discovered at a late-antique palace at Noheda (Villar de Domingo García), near Cuenca, Spain (Tévar 2013; Tévar 2018). This late fourth-century mosaic may possibly be based on the same original as Boxford's, even if considerably removed from it in technique and sophistication. At Boxford, the remains of a bearded head of a suitor, hanging from an ansate panel, may be seen below Hippodamia (Figs. 29 and 30).



**Fig. 30: Myrtilus (Anthony Beeson)**

- 8.12 Although only a fraction of the sharp-edged panel survives, its restoration is certain, and it is matched by a similar panel bearing three heads at Noheda. Below the head is the figure of the corrupted Myrtilus, wearing a long, high-waisted, red and blue striped classical charioteer's garment (Figs. 30 and 31). Both arms are behind his back, and his right hand holds the P-shaped wax linchpin that he would exchange for the metal one, and thus be the cause of the king's death.
- 8.13 He appears in conversation with a figure believed to be Oenomaus, whose face is depicted in profile (Fig. 31). The loss of the king's head in the Court Panel must remove the certainty that this is Oenomaus but, as that was also apparently clean-shaven, it seems likely. Oenomaus wields a whip, and wears a short-striped tunic and a misunderstood, striped Phrygian cap. He stands in a racing chariot decorated with a red and blue zig-zag decoration (Fig. 34). Red reins are attached to his belt and spread out over the front of the vehicle. The tail of the first horse, formed of long, thin tesserae, is outlined for clarity in white, and flows across the chariot. The colours of the equine line-up are pink, buff, white



and buff. They mirror Pegasus in execution, with their splendid manes and red nostrils (Fig. 34).



**Fig. 31: Myrtilus exchanging lynchpins (Anthony Beeson)**



**Fig. 32: The Chariot Race (Chris Forsey)**





Fig. 33: Interpretive reconstruction of the Chariot Race and Inscription (Anthony Beeson)



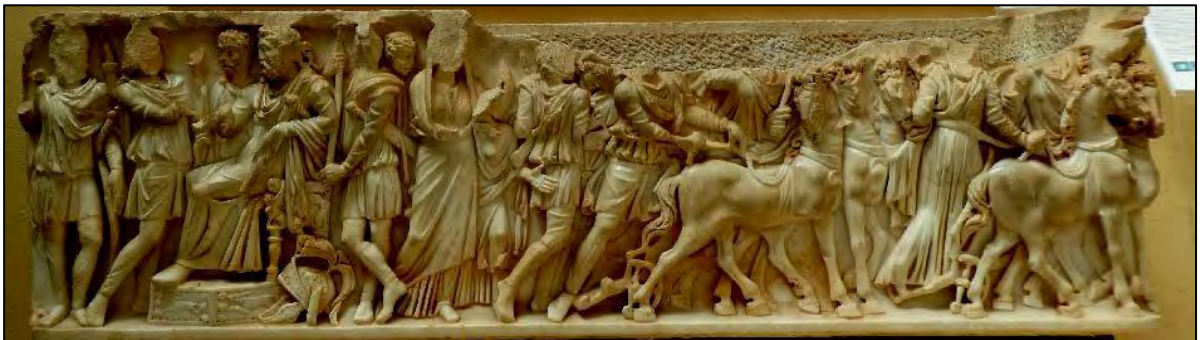
Fig. 34: Oenomaus and the Racing Chariot (Anthony Beeson)



- 8.14 Possibly from condensing the figures from a more elaborate original composition, the mosaicist has misunderstood, and has mixed the iconography of the scene and given Oenomaus a Phrygian cap and a whip, both the usual attributes in art of the Lydian Pelops. It should be noted, however, that Oenomaus has a whip on the Tipasa sarcophagus (Fig. 36), and would of course require one.



**Fig. 35: The Cumae Sarcophagus in the National Archaeological Museum, Naples (Antony Beeson)**



**Fig. 36: The Tipasa Sarcophagus, Tipasa Museum (Marigold Norbye)**

- 8.15 He wears a short tunic, which would be incorrect if he was supposed to represent Pelops, who always wears Phrygian trousers in art. As if to reinforce this, Pelops himself appears at the end of the scene, standing across the finishing line (Figs. 37 and 38). However, it must be remembered that in narrative Roman art characters can appear several times in the same composition, as is sometimes the case with portrayals of this myth on sarcophagi. Here, the victorious Pelops wears a charioteer's helmet, but is heroically nude, apart from an open and elaborately decorated robe that falls from his shoulders, as if to confirm his heroic status. He strides forward across the line with his right hand thrust out and the palm spread, as if to say: 'I am the victor!' His left hand may have held a victor's palm frond. Above his head is his name panel, misspelled as 'PELOBS'. The figure's stance is rather reminiscent of that of an attendant that partially survives above the group of the triumphant Pelops and Hippodamia at Noheda, and again a lost original may have furnished the model (Tévar 2013, 318-319, fig. 13; Tévar, 2018, fig. 6). The funerary games given by Pelops in honour of Oenomaus were credited as being the mythical

origins of the Olympics, and were immortalised in sculpture on the eastern pediment of the temple of Zeus at Olympia.



**Fig. 37: Pelops at the Winning Post (Anthony Beeson)**

- 8.16 The mosaic's major inscription runs above the chariot and is interpreted by Roger Tomlin (personal correspondence) as reading:

*Caepio vivas*

*c[um Fo]r[tu]nata coniuge*

'Long life to you, Caepio, with your wife Fortunata'.

- 8.17 Thus, Caepio is the name of the villa-owner, and the mosaic is possibly a wedding present from Fortunata's parents. Inscriptions are rare survivals on Romano-British mosaics, as are the names of individuals connected to them (Figs. 32 and 33).



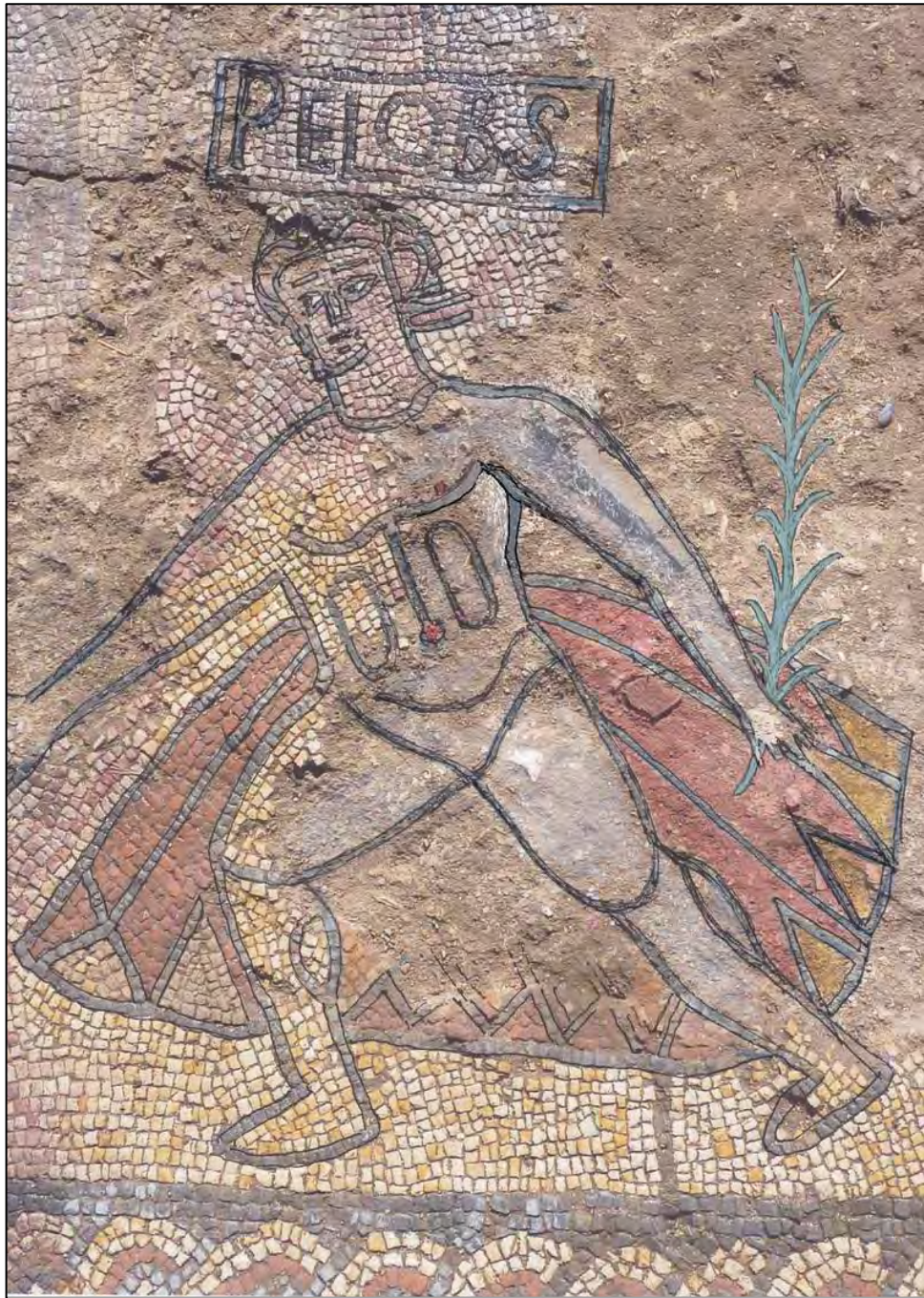


Fig. 38: An interpretive reconstruction of Pelops (Anthony Beeson)

### ***The Outer Border***

- 8.18 The outer border of the mosaic is filled with action and scenes of triumph that take place amidst the bushes of a landscape, set between the four corner *telamones*.

### ***The Telamones***

- 8.19 The Boxford mosaicist attempted to give his pavement a *trompe l'oeil* effect. At each corner stands a *telamon* holding up a rectangular pergola decorated with a guilloche pattern that frames the main central panels (Figs. 24, 25 and 39 to 42). It is notable that the mosaicist treats the guilloche as expendable, and abandons it where it will interfere with inscriptions or figure work. *Telamones*, or *atlantes*, are based on the figure of the giant



Atlas, who held up the sky. The reason for their inclusion here may be the fact that both Pelops and Sterope were considered by some to be his children. By coincidence, the daughter of Pelops' son Alcathous married an unrelated hero named Telamon.



**Fig. 39: The south-eastern Telamon (Anthony Beeson)**

- 8.20 Two of Boxford's *telamones* retain most of their features, the north-western one being beautifully intact (Fig. 41). They are foreshortened to give the appearance of standing upright, and they step out of blue cameo guilloche-bordered mandorlas that are similarly treated. The guilloche breaks at the top and bottom of the mandorlas as they emerge. The figures predate those of Christ, stepping from an oval blue mandorla, which appear in early Christian art. The famous miniature of the Ascension, in the Rabbula Gospels, illuminated around AD 586, that features such a scene, has a painted 'tessellated' border, and is itself believed to be copied from an actual mosaic (Weitzmann 1977, 29, 101-102, fig. 36). *Telamones* on mosaic are incredibly rare, and these walking versions are seemingly only matched by four on a restored mosaic in the Greek Cross Room at the Vatican, found at Tusculum in 1741 (Fig. 43). Boxford's combination of *telamones* and mandorlas appears to be unique. The corner placement of the *telamones* reminds one of a battered, but fine second or third-century AD example of a garden fountain from Avenches and now in the Musée Romains d'Avenches (Fig. 44). This fountain features four abraded corner

*telamones* supporting the roof of a structure that perhaps represents a garden pavilion, but once had the practical function of being the fountain's reservoir.



**Fig. 40: The north-eastern Telamon (Anthony Beeson)**

- 8.21 Boxford's figures lack the artistic subtlety of using terracotta, or other coloured tesserae, as an inner lining to their outlines, in order to soften and provide an element of solidity and dimension to their forms, as is most often found on figured mosaics. The *telamones*' hair is formed by intersecting arcs of blue tesserae, and like all figures on this floor, they have red nipples and navels. Their white skin has somewhat crude joint and muscle-lines, and no genitals, which the mosaicist seems not to have considered necessary on any of the pavement's naked figures (Figs. 39-42). Lack of genitalia occurs elsewhere on other Romano-British mosaics, such as at Horkstow, North Lincolnshire (Beeson. 1993; Beeson 1996: Neal and Cosh 2002, 148-157), and Lenthay Green, Dorset (Cosh and Neal 2005, 161-162), and is not significant. The technique used on these figures replicates in 'positive' the 'negative' depictions so often encountered in Roman mosaic, namely, black figures with white anatomical detailing, such as survive at many Roman sites (Calza 1958, 73, fig. 5; Picard 1969, figs. 90-98).





**Fig. 41: The north-western Telamon (Anthony Beeson)**



**Fig. 42: The south-western Telamon (Anthony Beeson)**





Fig. 43: Walking *Telamones* Mosaic, Greek Cross Room, Vatican Museums (Steve Clark)



Fig. 44: The *Telamon* Fountain from Avenches (Marigold Norbye)

### *The Triumphal Amorini*

- 8.22 In the centre of the border on each side of the mosaic are blue-backed guilloche bordered circular mandorlas out of which leap *amorini* (winged-cupids) (Figs. 24, 25 and 45 to 47). In 2017, it was expected that these would represent the seasons, as are commonly found on mosaics, and it was thought that the eastern one held a wreath of flowers representing Spring (Fig. 45). The seasons are often found in association with Bellerophon mosaics, as



Pegasus and Bellerophon form the impetus to set the year rolling. However, it was found that all bore the same attribute of a wreath in their left hands. Only part of the border of the southern roundel now remains, but the others are mostly intact. They are naked, but are backed by red sashes that are not attached around the waist as usually occurs. The usual red nipples and navels are evident and their oddly-drawn muscles give them remarkably smiling torsos. Their wings rather resemble flags in shape (Figs. 45-47).



**Fig. 45: The eastern Amorino (Anthony Beeson)**

- 8.23 The finest one, incorporating tiny tesserae and with its head in a classically tilted pose, is that on the western side, below the chariot race (Fig. 47). It has a sensitive face, and its right hand clasps a linchpin through the loop, with reference to the panel above. This is the only one holding something in its right hand, but all are holding quoit-like wreaths in their left.
- 8.24 Their white hands appear at the centre of each red wreath. The crudely drawn eastern *amorino* has a white wreath, whether by mistake or intention is unknown (Fig. 45). Echoing the triumphal theme of the mosaic, it should be interpreted that they are each holding golden victory wreaths; the *Corona Triumphalis*. An *amorino* in the same pose, and holding a wreath, appears on the Byzantine ivory Veroli casket, in the Victoria and Albert Museum,



celebrating Bellerophon's taming of Pegasus (Beckwith 1962, 14, fig. 8). A victory wreath also appears on the Pelops sarcophagus from Cumae (Tévar. 2018, fig. 9) (Fig. 35).



Fig. 46: The northern Amorino (Anthony Beeson)

### ***Hercules and the Centaur***

- 8.25 The Hercules group occupies the southern half of the eastern border (Figs. 25 and 48). In some accounts, Alcmena, Hercules mother, was the granddaughter of Pelops and Hippodamia, which links Hercules to the hero. He cleaned the stables of Augeus at Pelops' old kingdom of Elis and is credited with having established the violent boxing and wrestling contest called the *pancratium*, at Olympia, in honour of his kingly ancestor. He also slew the child of Chrysaor (Bellerophon's half-brother) and was connected to Arion and Adrastus (see below). Although rarely encountered on Roman mosaics in Britain, Hercules occurs widely in other forms of Romano-British decorative art. This is the first British mosaic depiction of this scene (Fig. 48). Mosaics showing all or some of the twelve Labours of Hercules occur throughout the Empire, but thus far none have been discovered in Britain beyond a mosaic at Bramdean, Hants, of Hercules and Antaeus, a story attached



to the eleventh Labour (Neal and Cosh 2009, part 1, 167-169). The Boxford Hercules shows another episode probably attached to the fourth Labour; the fight against the centaurs at the cave of Pholus, or his killing of Nessus.



**Fig. 47: The western Amorino (Anthony Beeson)**

- 8.26 The mosaicist has endowed the group with great energy, and the figure of Hercules lunges forward, adopting a classic and vibrant pose of conflict often encountered in Greco-Roman art (Fig. 48). The perspective and modelling of his thighs and legs is well handled, and only spoiled by the positioning of his right foot. His figure steps out of the panel's surrounding blue fillet and stands upon the red border. Hercules raises his right arm behind his head, to deal the deathblow with a club which is solidly portrayed in grey tesserae. Although the lower part of his face is now destroyed, his eyes survive, looking towards the centaur's torso. His abdominal muscles are stylised into two blue elongated circles, and the joints and calf muscles also indicated. Red tesserae mark his nipples and navel, but again the



mosaicist has not considered it important to depict genitals. From his right shoulder, the famous Nemean lionskin streams out, indicating the violent motion of the hero (Fig. 48).



**Fig. 48: Hercules and the Centaur (Anthony Beeson)**

- 8.27 The drawing of the centaur is less fluid than that of Hercules, but is, notwithstanding, well handled. Like his aggressor, his hair is formed by overlapping arcs of blue tesserae on a white field. He leans backwards, and the powerful muscles of his torso are indicated and stressed by blue lines. Again, red tesserae indicate his nipples and navel. A shaggy fur cloak, of grey tesserae layered by lines of blue, streams out from his left side as he turns (Fig. 48). It is decorated with a fashionable *orbiculus*. In his right hand he holds a rock, a centaur's traditional weapon. Below it, his tail flows away and curls between Hercules' legs. The hero grabs his victim by the hair while the centaur's left arm bends backwards, and his hand comes to rest on the victor's wrist. This is the 'fatal pose', used in classical art to indicate to the viewer that the victim is doomed, and death imminent (Beeson 1993, 11-13, fig. 6a-e). The un-bearded centaur here is dragged backwards, and his front legs bow outwards and stray beyond the blue border fillet while he looks towards his slayer. Currently, the closest parallel to the Boxford group occurs on a side-panel of the late second-century AD Hercules sarcophagus, once in the Astor collection at Hever Castle, Kent (Sotheby's 1983) (Fig. 49).



**Fig. 49: The Hercules Sarcophagus, formerly at Hever Castle (Warburg Institute Library)**

- 8.28 The Boxford image is quite remarkable as an extremely late example of the fatal pose that was developed in the fifth century BC. It seems to have gone out of fashion in battle scenes, perhaps because of its theatricality, and has not been traced on any of the Trajanic monuments or later battle sarcophagi of the second and third centuries AD. It perhaps last appears on an imperial monument, the pedestals of the temple of the *Gens Severa*, at Leptis Magna, of around AD 216, but these are based on a *gigantomachia* inspired by the Pergamum altar of 180 BC. It appears on the Horkstow Medallions mosaic but, until now, the latest example traced by the author is a late fourth-century AD relief of the death of Priam, in the Boston Museum of Fine Arts. The popularity of depicting Hercules and the Centaur continued, and a different version of the battle is found on a fifth-century AD Hercules *contorniate* (medallion), issued during the reign of Valentinian III (Alföldi, A and Alföldi, E. 1976-1990, Hercules, figs. 19, [3], 23, [10]).

### ***The Cantharus***

- 8.29 To the right of the eastern triumphal cupid is a *cantharus*, or wine cup (Fig. 50). It is wide-mouthed, and has elaborate tendril handles and gadrooning. Framed by bushes, it appears to be simply a garden ornament which alludes to Bacchus and the pleasures of wine. However, its symbolism and placing in the border is very subtle, as it sits directly above the head of the enthroned figure of Oenomaus in the court panel below it (Fig. 24).



Oenomaus' name translates as 'man of wine', so its presence cleverly confirms the identification of the subject on the throne in the viewer's mind. Subtleties such as this convince one that the decorative scheme of this mosaic was carefully planned. Possibly the villa owner's own chair was placed here, on the eastern coarse border, facing this, and visitors addressed him across the Court Panel.



**Fig. 50: The Cantharus (Anthony Beeson)**

### ***Alcathous of Elis and the Cithaeronian Lion***

- 8.30 A Victorian land drain cut through the tessellated border of the mosaic at the north-east corner, but caused very little damage, and provided a cross-section of the mosaic's foundation (Figs. 21 and 24, but see Fig. 57). At this location, the mosaic border appears to have gently subsided into the fill of an underlying earlier pit. Apart from bushes, the triumphal amorino and the *telamones*, the only figure found in the northern border is that of an archer to be identified as Alcathous of Elis, the son of Pelops and Hippodamia (Figs. 25, 51 and 52). The importance of this figure in British mosaics cannot be over-stressed, as – uniquely – it affects and connects with a figure in the western border. Such a connection of action between separate borders is certainly unique in British mosaics, and an extreme rarity if occurring elsewhere in the empire. The idea seems to be based on the sort of decoration one might find in the borders of illuminated manuscripts.



**Fig. 51: The north-western border of the mosaic (David Shepherd)**

- 8.31 The action at this beautifully preserved corner adds to the three-dimensional effect attempted by the mosaicist, as the archer fires an arrow from the bushes, *behind* the back of the north-western *telamon* and into the throat of a fleeing lion in the western border (Fig. 51). The archer is dressed in a fashionable 4th-century AD tunic. On his shoulder he wears a red *chlamys* that streams behind him, and his feet are clad in cross-laced hunting boots called *cothurni*. He may be wearing a pointed *petasus* hat, but this is unclear. He pulls a recurv bow, which disrupts the flow of the guilloche border surrounding the central panels (Fig. 52). Alcathous' fleeing target in the western border is to be identified with the Cithaeronian lion (Figs. 51 and 53). Similar in design to the lion-headed Chimaera, and illustrative of the lost areas of that figure, the animal turns to snarl at his tormentor as an arrow enters his throat and blood spurts forth. He is provided with a large red tongue and splendidly sharp teeth. The mosaicist playfully adds odd leaves to the arrow and lion's tail.





**Fig. 52: Alcathous of Elis (Anthony Beeson)**



**Fig. 53: The Citheronian Lion (Anthony Beeson)**

### ***Arion and Adrastus***

- 8.32 The final group in the western border depicts a young man, dressed in a knee-length red, white and blue striped tunic, moving towards a horse. He is identified as Adrastus, king of Argos, taming and about to bridle the fabulous horse Arion, another son of Poseidon by Demeter (Ceres) (Figs. 25, 54 and 55). At first glance, Adrastus appears to be holding a grey sceptre, staff or spear, but the object is held at its extremity in his raised left hand, so



is unlikely to be a weapon. Unfortunately, a large section of the lower figure is lost and with it the end of the object, and what remains near the border has leaves, a stem and one isolated blue tessera remaining. His right hand exists and is clasping something, although large, leafed foliage also seems to be growing through or behind it, and also in the area around his head (Figs. 54 and 55). This of course may be the mosaicist again adding leaves to an object, as in the case of the arrow and lion's tail.



**Fig. 54: Arion and Adrastus (Antony Beeson)**

- 8.33 The horse has lost most of its neck, and the top of its raised left front leg. He is unbridled, and that may be a clue to the action. The figure appears to be about to tether the horse with the object which, presumably curved around either to his other hand or to the horse's neck. The animal is naively drawn and executed and, although following the technique used on the other horses, is obviously not by the same mosaicist. In startling contrast to this is the figure of the youth, which is by the same hand as the western amorino, and uses the smallest tesserae found anywhere on the floor (and possibly in Britain) on his arms, as some are less than 2mm square (Fig. 54). Hercules gave Arion to Adrastus after a campaign in Elis, and this links the panel with that opposite, and also the horse was half-brother to Bellerophon, Pegasus and Chrysaor. The group bears a great resemblance to a famous third-century BC southern Italian tomb painting known as *The Foal or Horse Tamer* from Egnazia (Fig. 56). Arion appears with his parents Poseidon and Demeter on several bas-reliefs (Guzzo 2018, 224, figs. 52-53).





Fig. 55: Interpretive reconstruction of Arion and Adrastus (Anthony Beeson)



Fig. 56: The Foal Tamer from Egnazia, Egnazia site museum (Robert Field)

### ***Unusual foundations***

- 8.34 The Boxford mosaic is grouted into a thin layer of lime bonding cement above a compact layer of reddish sand of about 25-30 mm in depth. Below this, lay a foundation layer of compacted chalk and a light-brown silty clay layer of unknown depth, which included some mortar fragments and small, rounded pebble inclusions (Fig. 57). The sand layer is extremely unusual, and the writer has not encountered its use before in mosaic



foundations. Remarkably, in two places on the floor (in Pegasus and the chariot horses), heavy objects, presumably tiles, falling from the decaying building's roof have punched depressions into the sand without breaking the tesserae above. The writer speculates whether the use of the compacted chalk and sand layer was an attempt to stop rising damp in the room, on a site where the modern name of Mud Hole enshrines its natural wetness.



Fig. 57: Mud Hole villa: section through the mosaic foundation (Antony Beeson)

### ***Tesserae***

- 8.35 The tesserae used in the floor have been identified by Dr Kevin Hayward (personal communication 2017) as dark blue-grey and buff-grey dolostone from the Upper Jurassic beds at Kimmeridge Bay, or from an adjacent outcrop along Dorset coast. Similar tesserae from the same source appear at Silchester. Brownstone tesserae were also identified. This Devonian brownstone originates from The Forest of Dean, and was used for mosaics, both at Silchester and at the Groundwell Ridge complex near Swindon. The white tesserae are indurated (hardened) chalk, from Upper Cretaceous beds originating possibly from the Dorset or Hampshire Downs, and also white Lias, a fine white limestone from the Triassic beds of Somerset. Red is derived from terracotta building material and used both in the coarse border and the main pavement. According to Kevin Hayward (personal comment), a similar suite of materials occurred at the villa at Dinnington, in Somerset. Where pink tesserae occur in some areas of the mosaic, these are of chalk that

has been altered by heat. Interestingly, pink tesserae seem to have been chosen for one of the horses, so the use there is clearly intentional.

### Discussion

- 8.36 Naive and untidy in its design the mosaic certainly is, but it possesses a certain magic that entranced all who excavated it, as it no doubt did Caepio and Fortunata in the fourth century AD. The Boxford mosaic is arguably the most important example of late Roman art to have been discovered in Britain. This judgement lies not in the technical or artistic abilities of the mosaicists, but in the remarkable choice of subjects depicted, the innovative approach of the mosaicists and their attempts to produce a *trompe l'oeil* design. The great number of figures on the mosaic, and the spread of the Pelops myth across it, reminds one more of Mediterranean mosaics than those in Britain, where the mythological subjects depicted are generally confined to two or three figures firmly set within framed panels. The choice of images, all seemingly subtly connected to Pelops, Bellerophon or Poseidon, are of great interest and originality in art, and must surely have been chosen with care by the patron. They display the subtlety of thinking and the longevity of classical culture in the Britain of the late fourth century. The aristocratic horse theme is strong, with six being portrayed on the floor, and is also particularly pertinent for the Vale of Lambourn, the modern 'valley of the racehorse', most especially as Poseidon claimed to have invented horse racing! Indeed the supposition amongst the excavators was that this might have been a stud or a hunting lodge. The chamber itself resembles an audience or a formal reception room. The inscriptions in themselves are very unusual for Britain, and give us names of the main characters featured and the possible owner's name (Figs. 32 and 33). Only on the mosaic at Thruxton (Neal and Cosh 2009, part 1, 244-247) do we have other owners' names, although one may have featured at Hawkesbury (Cosh and Neal 2010, 163-164), and be hidden in the inscription at Lullingstone.
- 8.37 The apparently childlike naivety of the figures should be viewed in the light of what little we know of contemporary manuscript illumination. Indeed, the 5th-century *Virgilius Romanus*, in the Vatican, believed by many to be a Romano-British manuscript, displays great similarity in the naivety of its figures (Wright 2001). It may well be that the mosaic's patron requested the panels to be copied from a favourite manuscript in his collection. We know that the story of Pelops was covered in the works of Sophocles, Euripides, Accius and Pherecydes, to name but a few, and other works, such as *The Fabulae of Hyginus* or *Apollodorus' Library*, may have provided inspiration. Certainly, the lively borders suggest this. The similarity with some aspects of the Pelops panel at Noheda also suggests that both mosaics are based on a once-famous original. This also raises questions as to the singular spelling of Bellerefons that is only known from the Malaga mosaic. Is there an Iberian connection, either with the mosaic's designer, patron or mosaicist? Was the

cartoon that the possibly illiterate mosaicist worked from, or the codex that it might have been based on, of Spanish origin, or can we really believe that either he or the patron was of Iberian origin? Comparison with the Noheda Pelops mosaic and sarcophagi featuring the story (Figs. 35 and 36) show that Boxford's version follows a recognised artistic convention in this seemingly rarely portrayed story, in combining a tableau at the court of Oenomaus with the major composition of the race.

- 8.36 The work of the Boxford mosaicists has, thus far, not been identified elsewhere in Britain, but that does not mean that they were from another province of the Empire. Differences in the treatment of such features as hands and eyes suggest that two, or possibly three, mosaicists worked on the pavement. The one responsible for Adrastus and the western amorino was obviously highly accomplished (Figs. 47, 54 and 55), whereas the author of the eastern cupid was not (Fig. 45). Another gives his figures distinctively stump-like hands, with one or two fingers (cf. Fig. 46). Interestingly, the Croughton Bellerophon mosaic does seemingly retain simplified elements of the figure-work at Boxford, but at a far remove, and may be a later work by the least talented of the craftsmen, or perhaps another mosaicist using the same cartoon or copying the technique. The design of the hero's face with the rectangular nose brings to mind those of Boxford, although this is a common enough treatment in mosaic, whereas elements of Croughton's Pegasus, the mane, eye and musculature, also have echoes of the treatment of horses here, especially on the figure of Arion (Figs. 54 and 55). However, Croughton's tail, composed of a single line of tesserae, is a poor substitute for Boxford's splendid tails.
- 8.37 Unquestionably one of the most notable and apparent eccentricities of the mosaic is the fact that figures are not contained by their borders but overlap or break out of them (cf. Figs. 51 and 52). This overlapping is similar to that sometimes encountered in sculptural friezes and in late Roman manuscript illumination. It is worth noting that the famous *Vergilius Romanus* illumination, showing Dido and Aeneas sheltering from a downpour in a cave, has a guard sitting above their refuge whose spear pieces the borders (Wright 2001, fig. 31). This overlapping occurs with other items on more pages of the manuscript. Indeed, by the fifth century, one also frequently finds the same overlapping of borders by figures, and objects carved on the ivory diptychs that once ornamented the covers of codices, so it may well be that, in their apparent disregard for the sanctity of borders, the Boxford mosaicists were actually following a contemporary fashion found in other artistic media, but not yet recognised in British mosaics (Volbach 1961, figs. 91 -92). This is perhaps another clue which links the inspiration for the Boxford mosaics to a codex possibly owned by the patron. The similarities of draughtsmanship, and the evident overlap with aspects of late antique manuscript illumination and ivory diptych panels, such as the 5th-century AD Bellerophon panel in the British Museum (inventory no. 1856.6-23.2;



Volbach 1961, fig. 94; Wright 2001, 8-12 figs.) must raise the possibility that such a source was the inspiration for the mosaicists. The dating of mosaics is always problematic, but its connections with the art of the fifth century suggest that perhaps the Boxford pavement may date from the last quarter of the fourth century.

## 9. DISCUSSION

- 9.1 A combined plan of Trenches 1 and 2 is shown in Fig. 6. Many of the initial objectives for the excavation of the villa building were achieved. The plan of the villa building, with its coursed flint walls, was established with a degree of certainty, although further excavation will be needed to confirm the plan of the suspected north-western end (Fig. 6). The postulated rear corridor was shown not to exist, thus at its maximum extent, the building measured some 26m by 9.5m, including its front corridor and apparent north-west extension.
- 9.2 The finds assemblage recovered from the 2017 and 2019 excavations included a range of artefacts typically associated with a high-status Roman building, including window glass and painted wall plaster. Along with the pottery, these finds confirm a late Roman date for the villa, alongside a limited assemblage of dateable coins covering the period AD 335-402 (with some poorly preserved coins possibly suggesting a slightly earlier foundation date). There was also a suggestion of metalworking on the site. The number of villas in Britain reached a peak in the 4th century AD, a period particularly associated in Britain with the development of large, palatial villa establishments. The Mud Hole villa displays a size and modest ground-floor plan similar to that at Barton Court Farm, Oxon (Miles (ed) 1986). Many of the smaller villas of this period began to show a greater emphasis on interior decoration with opulent reception rooms, and the Mud Hole villa is no exception in also including a bath suite. It could be suggested, therefore, that the principal villa building may have functioned as a largely recreational facility, perhaps catering for a visiting *dominus*, with guests and dignitaries, during a short stay (cf. Smith 1978, 160; Rippengal 1993). The mythological depictions on the Mud Hole mosaic display strong connections with horses and racing. The mosaic room is most likely to have functioned as a *Tablinum* or *Triclinium*, a reception room which was separated from a main entrance room, usually by an array of columns or half-columns (pilasters), and may also have been furnished with retractable doors or *portières* (textile hangings). Even so, mosaics were not necessarily a pre-eminent indicator of status; the bath suite discovered in 2017 seems to have occupied a significant proportion of the villa ground-floor plan. Indeed, the mosaic at Mud Hole, ambitious as it is in terms of style, design and cultural import, was laid upon a crude, insubstantial bedding of clay and sand, suggesting that it had been constructed relatively cheaply and quickly

(see Fig. 57). It might be surmised that this may have been in order to impress a single important visiting official, or perhaps to mark some temporary event or celebration, possibly associated with Caepio and his wife Fortunata. Despite the eventual demise of the villa complex in the post-Roman period, the building appears to have remained occupied until the floors within the central room and front corridor had been robbed of useful building materials. Remarkably, the mosaic itself survived in largely intact condition, until buried by the gradual collapse of the villa structure.

- 9.3 Apart from its economic function, the role of the villa was to provide a social setting for the receiving and entertaining of guests, a setting in this case conspicuously enlivened by the mosaic and its mythological content, which ostentatiously demonstrated the *Romanitas* and cultural pretensions of its owner (cf. Millett 2014; Taylor 2001, 56-7; Scott 1993; Scott 2000, 169-70; 2004). Villas constitute only 1% of all known Romano-British settlement types (Smith *et al.* 2016, 33), although a large proportion of these establishments had developed from earlier settlements, generally non-villa farmsteads. In this context, the Mud Hole villa is relatively unusual in demonstrating a *de novo* fourth-century foundation, with no apparent evidence of earlier settlement. Geophysical survey (Bedford and Clark 2015c) demonstrated that, in common with many other southern villas, this example was enclosed by a ditched boundary, an attribute which follows the dominant pattern of farmstead settlements in this region.



Fig. 58: Digital reconstruction of the Mud Hole villa, looking east (David Brown, Lyons, Sleeman and Hoare, Architects)

- 9.4 There is relatively little available information regarding the division of internal space within multi-room villa buildings, some of which developed from simple, earlier structures comprising as little as two or three rooms. Buildings classified as hall or cottage villas, however modest in size, are relatively rare in British contexts (Smith *et al.* 2016, 71), particularly in view of the prodigious inherent investment in design, materials and construction techniques, which differentiates these from simpler, less well-appointed farmhouse structures. The majority of early 'cottage'-type villas developed into corridor buildings, commonly of 10-12 rooms, which were clearly distinct from the palatial courtyard types.
- 9.5 In common with many other examples, the Mud Hole villa was located close to a major road, which in this case ran 2.5km to the south-west. This road, Margary's Route 41b (1973, 132; Fig. 1), comprised a length of Ermin Street, which ran from Silchester to Cirencester, via roadside settlements at Thatcham and Speen, to the south-east of Boxford, and thence via further settlements at Wickham and Wanborough, to the north-west. Traces of the road *agger* have been traced in woodland to the west of Boxford (*ibid*; Williams 1925, 230). The strong correlation of villa sites with roads is evident in the location of most within a distance of 1km or less, with the incidence of villa settlement falling off rapidly beyond that (Smith *et al.* 2016, 115, fig. 4.48). The Mud Hole site also partly overlooks the Lambourn valley, which no doubt provided a local transport corridor, and is located some 1.2km from the river itself. Relative proximity to a major road implies ready access to markets and urban centres, although the closest major urban centre of *Calleva Atrebatum* (Silchester), is located some 21km to the south-east, and the 'small town' of *Durocornovium* (Wanborough, Wilts) is located on Ermin Street, some 26km to the north-west. The roadside settlements at Thatcham Newtown, located 9km to the south (Margary 1973, 132; Peake 1931, 117-9), and Wickham, 4.5km to the east, presumably functioned as convenient rural market centres (cf. Hodder and Millett 1980).
- 9.6 The relatively small size of Mud Hole Villa is consistent with a trend detected more widely, where the provision of higher quality interior decoration in the 4th century was accompanied by a decrease in villa size when compared with earlier villa establishments (see discussion by Bedford and Clark 2017, para. 7.2.12, and references - Millett 1992, 93-4; Perring 2002, 42; Martins 2004, 47; Cunliffe and Poole 2008c, 166). A more specialised role might be envisaged for Mud Hole Villa, the faunal assemblage from the current excavations having an unusual dominance of pig and red deer (Holmes, Appendix I), perhaps suggestive of a hunting lodge.



- 9.7 An assessment of the iconography of the mosaic and its possible relationship to contemporary manuscript illustration (Beeson, this report) has suggested a late date, perhaps not earlier than the last two decades of the fourth century AD, and conceivably extending into the early fifth. Such a late *floruit* in villa occupation is also attested by coin and pottery evidence, and the presence of poorly-preserved Period 3 structural features might indicate continuing occupation into the post-Roman period, although the problems associated with secure dating at this time have long been recognised (see Campbell (ed) 1991, 19). Regional evidence for fifth-century villa occupation has been supplied by Barton Court Farm, Abingdon, Oxon, with suggestions of Romano-British/Saxon continuity by the mid-fifth century (Miles 1986, 49). At the Shakenoak Farm villa, Oxon, occupation appears to have ended by c. AD 420-30, and was possibly associated with a Saxon presence (Brodrick *et al.* 2005). The evidence for late occupation in this case invites speculation regarding the eventual abandonment and destruction of the villa. Beeson (this report) has drawn attention to the extensive evidence of burning on the mosaic, and to this should be added the evidence of fire-affected window glass (McSloy, this report) and stone (Hayward, this report). The nature of the mosaic damage, evident as concentrated areas of burning within the central panel and northern border (Fig. 24), might suggest the effect of fallen burning timbers or, conversely, post-Roman squatter activity (cf. Higham and Ryan 2015, 42). However, the destruction/demolition layers sealing the mosaic included surprisingly little charcoal. The substantial survival of the mosaic appears all the more remarkable in the light of the floor robbing activity evident in Trench 1 (Figs. 9 and 10), and the very close proximity of the modern plough-zone on the south-western side of Trench 2.

## 10. STORAGE AND CURATION

- 10.1 The archive for the 2019 Mud Hole Villa excavation is currently held at the Cotswold Archaeology office in Andover, while post-excavation work proceeds. Upon completion of the project, and with the agreement of the legal landowners, the site archive and artefactual collection will be transferred to the Boxford History Project, which will determine provisions for its storage and eventual deposition. A summary of information for this project, set out in Appendix M of this report, will be entered onto the OASIS online database of archaeological projects on Britain.

## 11. ACKNOWLEDGEMENTS

- 11.1 Fieldwork was led by CA Senior Project Officer Matt Nichol, assisted by supervisors Agata Kowalska and Sam Wilson, and undertaken by the volunteers of the Boxford History Project (Fig. 59). The success of the excavation project is in no small part due to Joy Appleton, in ably managing volunteers and liaising so effectively with Duncan Coe at

Cotswold Archaeology. The excavation report was written by Matt Nichol. Drone photography was undertaken by several volunteers, and particular thanks are due to David Shepherd and Richard Miller. Thanks are also due to Steve Clark and Lindsey Bedford for bringing together the earlier gradiometry surveys and evaluation trenching which provided the basis of the present excavations and report. The pottery report was produced by Loraine Mephram (Wessex Archaeology), and the other finds reports were written by CA Finds Officer Jacky Sommerville and CA Finds Manager, Ed McSloy. We are most appreciative of the immense contribution made by mosaic specialist Anthony Beeson, whose devoted scholarship has enabled the wider significance and interest of the Mud Hole Villa mosaic to be fully realised. Thanks are also due to the observations and advice offered by Dr Peter Warry and Dr Kevin Hayward, in respect of ceramic building material and stonework. The Coins were examined by Sam Moorhead of the British Museum. The animal bone report was written by Matilda Holmes, the charred plant remains and molluscs reports by Sarah F. Wyles (CA), and the wood charcoal report by Dana Challinor. The illustrations were prepared by CA Illustrator, Esther Escudero. The archive has been compiled and prepared for transfer by Richard Paxford (CA). The fieldwork project was managed for CA by Duncan Coe, and the post-excavation by Richard Massey, who also contributed to this report.

11.2 The BHP would like to extend their gratitude to the generosity of many sponsors, including:

The Headley Trust;  
The Adrian Swire Charitable Trust;  
The Ardeola Charitable Trust;  
The North Wessex Downs SDF;  
The Greenham Common Trust;  
The Englefield Charitable Trust;  
The Good Exchange;  
Newbury Building Society;  
ASPROM;  
The Mick Aston Fund – CBA;  
and many other private individual sponsors.



Fig. 59: Excavation Team photograph, August 2019

## 12. REFERENCES

- Alcock, J. P. 2001 *Food in Roman Britain*, Stroud, Tempus Publishing.
- Alföldi, A. and Alföldi, E. 1976-1990. *Die Kontorniat-Medaillons*. 2 vol, 1976 (plates) und 1990 (text), Berlin, Walter De Gruyter.
- Allen, M., Blick, N., Brindle, T., Evans, T., Fulford, M., Holbrook, N., Richards, J. D. and Smith, A. 2015 *The Rural Settlement of Roman Britain: an online resource [data-set]*. York: Archaeology Data Service ([doi:10.5284/1030449](https://doi.org/10.5284/1030449))
- Allen, M. G. 2014 'Chasing Sylvia's stag: Placing deer in the countryside of Roman Britain.' In Baker K, Carden R and Madgwick R (eds) *Deer and People*, Oxford, Windgather Press 174-186.
- Allen, M. 2016 'The South', in Smith, A. *et al.* 2016, 75-140.
- Allen, M., Lodwick, L., Brindle, T., Fulford, M. and Smith, A. 2017 *The Rural Economy of Roman Britain*, Britannia Monograph Series No. **30**.
- Anderson, R. 2005 'An annotated list of the non-marine Mollusca of Britain and Ireland', *Journal of Conchology* **38**, 607-637.
- Appleton, J. and Bedford, L., Clark, S., Coe, D., Fuller, J. and Nichol, M. 2017 'Bellerophon in Boxford', *Current Archaeology* **333**, 44-51.
- Atkinson, M. and Preston, S. 2015 'Heybridge: A Late Iron Age and Roman Settlement. Excavations at Elms Farm, 1993-5. Volume 2', *Internet Archaeology* **40** <https://doi.org/10.11141/ia.40.1>



- Bedford, L. and Clark, S. 2014 *The Hoar Hill Roman Villa, Boxford, West Berkshire: Report on the 2013 Evaluation Excavation*, Unpublished BARG/BHP/CA report.
- Bedford, L. and Clark, S. 2015a *Third interim report on gradiometer and resistivity surveys of a Roman site at Hoar Hill, Boxford, West Berkshire in 2012, 2013 and 2014*, Unpublished BARG report.
- Bedford, L. and Clark, S. 2015b *Interim report on gradiometer and resistivity surveys of a Roman site at Wyfield Manor Farm, Boxford, West Berkshire, 5th – 9th August, 2014*, Unpublished BARG report.
- Bedford, L. and Clark, S. 2015c *Interim report on gradiometer and resistivity surveys of a Roman site at Mud Hole, Boxford, West Berkshire, 11th – 14th August, 2014*, Unpublished BARG report.
- Bedford, L. and Clark, S. 2017 *Further excavations of the Hoar Hill Roman Villa, Boxford, West Berkshire: Report on the 2015 Evaluation Excavation*, Unpublished BARG/BHP/CA report.
- Bedford, L. and Clark, S. 2018 *An Iron Age and Roman site at Wyfield Manor Farm, Boxford, West Berkshire*, Unpublished BARG/BHP/CA report.
- Bedford, L. and Clark, S. 2019 *The Mud Hole Villa and Mosaic, Boxford, West Berkshire: Report on the 2017 Evaluation Excavation*, Unpublished BARG/BHP/CA report.
- Beckwith, J. 1961 *The Art of Constantinople; an introduction to Byzantine art, 330-1453*. London, Phaidon.
- Beckwith, J. 1962 *The Veroli Casket*, London, Victoria and Albert Museum/H.M.S.O.
- Beeson, A. 1993 'The Medallions Mosaic. A new interpretation of the 'Painted Ceiling 'panel from the Orpheus Hall at Horkstow', *Mosaic* **20**, 7-17.
- Beeson, A. 1996. 'Pegasus the Wonder Horse and his portrayal on Romano-British Mosaics', *Mosaic* **23**, 18-23.
- Beeson, A. 1999. 'The Dipping of Achilles. More thoughts on the Horkstow Medallions Mosaic'. *Mosaic* **26**, 6-7.
- Beeson, A. 2018 'The Boxford Bellerophon Mosaic. An interim account', *ARA Bulletin*, 86-92.
- Beeson, A., Nichol, M. and Appleton, J. 2019 *The Boxford Mosaic – A Unique Survivor from the Roman Age*, Newbury, Countryside Books.
- De la Bédoyère, G. 1993 *Book of Roman Villas and the Countryside*, London, English Heritage, and B.T. Batsford.
- Berkshire Record Office, Q/RDC/71A-B (1819 enclosure award (A) and map (B) of Boxford).
- Besly, E. 2006 'The Coins', in Fulford, M. *et al.* 2006, 81-5.

- Blázquez, J. 1981 *Mosaicos Romanos de Córdoba, Jaén y Málaga*, Madrid, Instituto Español de Arqueología.
- Booth, A.L. 2014 'Reassessing the long chronology of the pennanular brooch in Britain: exploring changing styles, use and meaning across a millennium,' University of Leicester, Unpublished PhD Thesis <https://pdfs.semanticscholar.org/7335/999bcc6db6d874bc8ce4d871b1738f05fe1e.pdf> [Accessed: 12 Mar 2020]
- Brain, C. 1981 *The Hunters or the Hunted? An Introduction to African Cave Taphonomy*, Chicago, University of Chicago Press.
- Brindle, T. 2017 'Coins and Markets in the Countryside', in Allen, M. et al. 2017, 237-280.
- British Geological Survey 2019 Geology of Britain Viewer <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> [Accessed 9 February, 2019]
- British Library OSD 159 no. 9 (1812 Ordnance Survey Drawing, Lambourn sheet)
- Brodribb, A.C.C., Hands, A.R. and Walker, D.R. 1971 *The Roman Villa at Shakenoak Farm, Oxfordshire: Excavations, 1960-1976*, Oxford, BAR Br. Ser. **395**.
- Calza, G. 1958 *Ostia*, Rome.
- Campbell, J. (ed). 1991 *The Anglo-Saxons*, London, Penguin Books.
- Cotswold Archaeology 2019 *Mud Hole Villa, Community Excavation, Boxford, West Berkshire: Written Scheme of Investigation for an Archaeological Excavation*.
- Challinor, D. 2018 *Charcoal from a Romano-British oven, corn-drier and a post-Roman hearth at Wyfield Manor Farm, Boxford*, in Bedford, L. and Clark, S., 2018.
- Chartered Institute of Field Archaeologists (2014) *Standard and Guidance for archaeological field evaluation*.
- Clapham, A. and Gleason, K.L. 1997 'Archaeobotanical evidence', in Hostetter, E. and Howe, T.N. (eds) 1997, 345-54; 481-3.
- Cosh, S. and Neal, D. 2005 *Roman Mosaics of Britain. Volume II: South-West Britain*, London, Society of Antiquaries.
- Cosh, S. and Neal, D. 2010. *Roman Mosaics of Britain. Vol IV: Western Britain*, London, Society of Antiquaries.
- Cowell, R.W., Fulford, M. G. and Lobb, S. 1977-8 'Excavations of Prehistoric and Roman Settlement at Aldermaston Wharf, 1976-7', *Berkshire Archaeol. Journ.*, **69**, 1-35.
- Crummy, N. 1983 *The Roman small finds from excavations in Colchester*, Colchester Archaeological Report no. **2**, Colchester, Colchester Archaeological Trust.

- Cunliffe B. 2013 *The Roman Villa at Brading, Isle of Wight*, Oxford, Oxford University School of Archaeology Monograph **77**.
- Cunliffe, B. W. and Poole, C. 2008 *Dunkirt Barn, Abbots Ann, Hants, 2005 and 2006*, Oxford, English Heritage and Oxford University School of Archaeology Monograph No. **71**.
- Davies, P. 2008 *Snails, Archaeology and Landscape Change*, Oxford, Oxbow Books.
- Davis, S., Gonçalves, M. and Gabriel, S. 2008. 'Animal remains from a Moslem period (12th/13th century AD) lixeira (garbage dump) in Silves, Algarve, Portugal,' *Revista Portuguesa de Arqueologia* **11**(1), 183-258.
- Dicks, J, 2007 'Villas in East Hampshire and West Sussex: a study of their Roman pottery assemblages and settlement pattern', *Proc. Hants Fld. Club Archaeol. Soc.* **62**, 69–82.
- Eisenmann, V. 1986 'Comparative osteology of modern and fossil horses, half-asses, and asses,' In Meadow, R. and Uerpmann, H-P (eds) *Equids in the Ancient World*, 67-116.
- Fowler, E., 1960 'The Origins and development of the Penannular Brooch in Europe', *Proc. Prehist. Soc.* **26**, 149–16
- Fulford, M G, 1975a, *New Forest Roman Pottery*, Oxford, Brit Archaeol Rep **17** (reprinted version).
- Fulford, M. G., 1975b, 'The Pottery', in Cunliffe, B. W. (ed.), *Excavations at Portchester Castle. Volume 1: Roman*, Rep. Res. Comm. Soc. Antiq. **32**, 270–367.
- Fulford, M. G., 2014 'The Roman Period: Research Agenda', in Hey, G. and Hind, J. (eds.) 2014, 179-184.
- Fulford, M. Clarke, A. and Eckardt, H. 2006 *Life and Labour in Late Roman Silchester. Excavations in Insula IX since 1997*, Britannia Monograph Series No. **22**.
- Gelling, M. 1976 *The Place-Names of Berkshire, Part III*, English Place-Name Society Volume **51**.
- Grant, A. 1975 'The Animal Bones,' in Cunliffe B. W. (ed) *Excavations at Portchester Castle. Volume I: Roman*, London, Society of Antiquaries, 378-408.
- Grant, A. 1982 'The use of toothwear as a guide to the age of domestic ungulates,' in Wilson, B., Grigson, C. and Payne, S. (eds) *Ageing and Sexing Animal Bones from Archaeological Sites*, Oxford, BAR Br. Ser. **109**, 91-108.
- Greig, J. 1991 'The British Isles,' in van Zeist, W., Wasylikowa, K. and Behre, K-E. (eds) 1991, 229-334.
- Guzzo, P. G. et al. 2018 *Herculaneum and Pompeii. Visions of discovery*, Geneva, Skira.
- Harden, D. B. (2005) 'The Glass', in Brodbribb, A.C.C., Hands, A.R., and Walker, D.R. (eds.), *The Roman Villa at Shakenoak Farm, Oxfordshire Excavations 1960 – 1976.*, Oxford, BAR Br. Ser. **395**, Archaeopress.



- Hather, J G, 2000. *The Identification of Northern European Woods; A Guide for Archaeologists and Conservators*, London, Archetype Publications.
- Hey, G. and Hind, J. (eds) 2014 *Solent-Thames Research Framework for the Historic Environment: Resource Assessments and Research Agendas*, Oxford Wessex Monograph **6**.
- Higham, N.J. and Ryan, M. J. 2015 *The Anglo-Saxon World*, New Haven/London, Yale University Press.
- Hillman, G.C. 1981 'Reconstructing crop husbandry practices from charred remains of crops', in R.J. Mercer (ed.) 1981, 123-62.
- Hillman, G. 1984 'Interpretation of archaeological plant remains: the application of ethnographic models from Turkey', in W. van Zeist and W.A. Casparie (eds) 1984, 1-42.
- Hingley, R. 1989 *Rural Settlement in Roman Britain*, London, Seaby.
- Hodder, I. and Millett, M. 1980 'Romano-British Villas and Towns: a systematic analysis', *World Archaeology* **12**, 69-76.
- Holmes, M. 2017 'Boxford Roman Villa (HH15): The Animal Bone', in Bedford, L. and Clark, S. 2017.
- Hostetter, E. and Howe, T.N. (eds) 1997 *The Romano-British villa at Castle Copse, Great Bedwyn*, Bloomington/Indianapolis: Indiana Univ. Press.
- Johnston, P. and Haynes, I. (eds) 1996 *Architecture in Roman Britain*, York, CBA Research Report **94**.
- Johnstone, C. 2006 'Those elusive mules: investigating osteometric methods for their identification', in Mashkour, M. (ed) *Equids in Time and Space*, Oxford, Oxbow Books, 183-191.
- Jones, G.G. and Sadler, P. 2012. 'Age at death in cattle: methods, older cattle and known-age reference material,' *Environmental Archaeology* **17**, 11-28.
- Kerney, M.P. 1999 *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*, Colchester, Harley.
- King, A. 2001 'The romanization of diet in the western Empire: comparative archaeozoological studies,' In Keay, S. and Terrenato, N. (eds) *Italy and the West: Comparative Issues in Romanization*, Oxford, Oxbow Books, 210-223.
- Lauwerier, R. 1988 *Animals in Roman Times in the Dutch Eastern River Area*, Amersfoort: ROB, Nederlandse Oudheden **12**.
- Lyman, L. 1994 *Vertebrate Taphonomy*, Cambridge, Cambridge University Press.
- Lyne, M. A.B. and Jefferies, R. S., 1979, *The Alice Holt-Farnham Roman Pottery Industry*, Council for Brit Archaeol Research Report **30**.

- Manning, W.H. 1985 *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum*, London, British Museum Publications Ltd.
- Margary, I. D. 1973 *Roman Roads in Britain* (3<sup>rd</sup> Ed), London, John Baker.
- Martins, C. B., 2005 *Becoming consumers – looking beyond wealth as an explanation for villa variability*, Oxford, BAR Br. Ser. **403**.
- Mephram, L., 2019 'Pottery', in Bedford, L. and Clark, S., 2019.
- Mercer, R. (ed.) 1981 *Farming Practice in British Prehistory*, Edinburgh, Edinburgh University Press.
- Miles, D. (ed) 1986 *Archaeology at Barton Court Farm, Abingdon, Oxfordshire*, Oxford/London, Oxford Archaeological Unit and Council for British Archaeology, CBA Research Report **50**.
- Millett, M. 2014 'By small things revealed: rural settlement and society', in Millett, M., Revell, L. and Moore, A. (eds) 2014, *The Oxford Handbook of Roman Britain*, Oxford, Oxford University Press, online.
- Moorhead, S. and Walton, P. 2014 'Coinage at the end of Roman Britain', in Haarer, F. et al., *AD 410: The History and Archaeology of Late and Post-Roman Britain*, London, Society for the Promotion of Roman Studies, 99-116.
- Neal, D. and Cosh, S. 2002. *Roman Mosaics of Britain, Vol 1: Northern Britain, incorporating the Midlands and East Anglia*, London, Society of Antiquaries.
- Neal, D. and Cosh, S. 2009 *Roman Mosaics of Britain, Vol III: South-East Britain*, Part 1, London, Society of Antiquaries.
- Neal, D. and Cosh, S. 2009 *Roman Mosaics of Britain, Vol III: South-East Britain*, Part 2, London, Society of Antiquaries.
- O'Connor, T. 2003 *The Analysis of Urban Animal Bone Assemblages: A Handbook for Archaeologists*, York, Council for British Archaeology: The Archaeology of York **19/2**.
- Palmer, S. 1871 'Archaeological Notes', *Trans. Newbury and District Field Club* **1**, 205-209.
- Payne, S. 1973. 'Kill-off patterns in sheep and goats: The mandibles from Asvan Kale' *Anatolian Studies* **XXIII**, 281-303.
- Peake, H. T. E. 1906 'Ancient Earthworks', in Ditchfield, P. H. and Page, W. (eds) *The Victoria History of Berkshire, Vol. 1*, London, Archibald Constable & Co, 251-284.
- Peake, H. 1931 *The Archaeology of Berkshire*, London, Methuen.
- Perring, D. 2002 *The Roman House in Britain*, Abingdon, Routledge.
- Picard, G. 1969. *Rome*, Geneva, Skira.

- Prehistoric Ceramics Research Group, Study Group for Roman Pottery and Medieval Pottery Research Group, 2016 *A Standard for Pottery Studies in Archaeology*.
- Price, J. and Cottam, S. *Romano-British Glass vessels: A Handbook*, York, CBA Handbook in Archaeology **14**.
- Rashbrook, C. 1983, *A discussion of the pottery found at Hamstead Marshall, near Newbury*, Berkshire, Univ. Reading, Unpublished undergraduate dissertation.
- Reece, R. 1991 *Roman Coins from 140 sites in Roman Britain*, Cotswold Studies **4**, Cirencester, Archetype Publications Ltd.
- Reece, R. 1998 'Coins and Villas', In Branigan, K. and Miles, D. (eds) 1991, 34-41.
- Reece, R. 2002 *The Coinage of Roman Britain*, Stroud, Sutton Publishing.
- Richmond, I. 1979 'The Plans of Roman Villas in Britain', in Rivet, A.L.F. (ed.), *The Roman Villa in Britain*, London.
- Rippengal, R. 1993 'Villas as a Key to Social Structure? Some comments on recent approaches to the Romano-British Villa, and some suggestions towards an alternative', *TRAC First Conference Proceedings, 1991*, Andover, Avebury, 79-101.
- Roblès, J.-M. Blas de and Sintès, C. 2003 *Sites et monuments antiques de l'Algérie*, Aix-en-Provence, Édisud.
- Roblès, J.-M. Blas de et al. 2019. *Classical antiquities of Algeria, a selective guide*, London, Society for Libyan Studies.
- Schweingruber, F.H. 1990 *Anatomy of European Woods*, Bern/Stuttgart, Verlag Paul Haupt.
- Scott, E. 1993 *A Gazetteer of Roman Villas in Britain*, Leicester, Leicester Archaeology Monographs **1**.
- Scott, S. 1993 'A theoretical framework for the study of Romano-British Villa Mosaics', *TRAC, 1st Conference Proceedings, 1991*, Aldershot, Avebury, 103-114.
- Scott, S. 2000 *Art and Society in Fourth-Century Britain. Villa Mosaics in Context*, Oxford University School of Archaeology Monograph No. **53**.
- Scott, S. 2004 'Elites, Exhibitionism and the Society of the late Roman villa', in Christie, N. (ed.) *Landscapes of Change: Rural Evolution in Late Antiquity and the early Middle Ages*, London/New York, Routledge, 39-65.
- Seager Smith, R. and Davies, S. M., 1993 'Roman pottery', in Woodward, P. J. et al. *Excavations at Greyhound Yard, Dorchester 1981-4*, Dorset Natur Hist Archaeol Soc Monogr **12**, 202-89.
- Serjeantson, D. 1996 'The animal bones,' in Needham, S. and Spence, T. (eds) *Refuse and Disposal at Area 16 East Runnymede: Runnymede Bridge Research Excavations*, London, British Museum Press **2**, 194-223.



- Smith, A., Allen, M., Brindle, T. and Fulford, M. 2016 *The Rural Settlement of Roman Britain*, London, Society for the Promotion of Roman Studies, Britannia Monograph **29**.
- Smith, J.T. 1978 'Roman Villas as a Key to Social Structure', in Todd, M. (ed) 1978, 149-85.
- Sotheby's of London 1983 *Hever Castle Sale*, (lot 363, sarcophagus formerly in the Villa Borghese collection, 11 July 1983), London, Sotheby.
- Stace, C. 1997 *New Flora of the British Isles*, (2<sup>nd</sup> ed), Cambridge, Cambridge University Press.
- Swan, V. 1984 *The Pottery Kilns of Roman Britain*, RCHM(E), Suppl. Series **5**.
- Taylor, J. 2001 'Rural Society in Roman Britain,' in James, S. and Millett, M. (eds) *Britons and Romans: advancing an archaeological agenda*, York, CBA Research Report **125**, 46-59.
- Tévar, M. A. Valero 2013 'The Late-antique villa at Noheda (Villar de Dominigo Garcia) near Cuenca, and its mosaics', *Journal of Roman Archaeology* **26**, 307 – 330.
- Tévar, M. A. Valero 2018 'New representations of the myth of Pelops and Hippodamia in Roman mosaic art', *Journal of Mosaic Research* **11**, 297-314.
- Todd, M. (ed). 1978 *Studies in the Romano-British Villa*, Leicester, Leicester University Press.
- Tomber, R. and Dore, J. 1998 *The National Roman Fabric Reference Collection: a Handbook*, London, Museum of London Archaeology, MoLAS Monograph **2**.
- Tyers, P. A. 1996 *Roman Pottery in Britain*, London, Routledge.
- van Zeist, W. and Casparie, W.A. (eds) 1984 *Plants and Ancient man: Studies in the palaeoethnobotany*, Proceedings of the 6th Symposium of the International Work Group for Palaeobotanists, Rotterdam, Balkema.
- van Zeist, W., Wasylikowa, K. and Behre, K-E. (eds) 1991 *Progress in Old World Palaeoethnobotany*, Rotterdam, Balkema.
- Volbach, W.F. 1961 *Early Christian Art*, London, Thames and Hudson.
- von den Driesch, A. 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Cambridge, Massachusettes, Harvard University Press.
- Walton, P. 2012 *Re-thinking Roman Britain: Coinage and Archaeology*, Wetteren, Moneta Monograph **137**.
- Ward Perkins, J.B. 1944 'Excavations on the Iron Age Hill-fort of Oldbury, near Ightham, Kent', *Archaeologia* **90**, 127-176.
- Wedlake, W.J. 1982 *The Excavation of the Shrine of Apollo at Nettleton, Wiltshire, 1956–1971*, London, Society of Antiquaries.

- Weitzmann, K. 1977 *Late Antique and early Christian book illumination*, New York, George Braziller.
- Witts, P. 2005 *Mosaics in Roman Britain*, Stroud, Tempus.
- Woodward, A. and Leach, P. 1993 *The Uley Shrines: Excavation of a Ritual Complex on West Hill, Uley, Gloucestershire 1977–9*, London, English Heritage.
- Wright, D. 2001 *The Roman Vergil and the Origins of Medieval Book Design*, London, The British Library.
- Wyles, S.F. 2014 *Littlecote Roman Villa, Palaeoenvironmental Evidence*, Wessex Archaeology unpublished client report **74641**.
- Wyles, S. F. 2019 'The Charred Plant Remains', in Bedford, L. and Clark, S. 2019, 243-5.
- Yalouris, N. 1975 *Pegasus: the Art of the Legend*, Athens, Mobil Oil Hellas.
- Young, C. J. 1977 *Oxfordshire Roman Pottery*, Oxford, Brit Archaeol Rep, Br. Ser. **43**.
- Zeder, M. and Lapham, H. 2010 'Assessing the reliability of criteria used to identify post-cranial bones in sheep, Ovis, and goats, Capra,' *Journal of Archaeological Science* **37**, 2887-2905.
- Zeder, M. A. and Pilaar, S. 2010. 'Assessing the reliability of criteria used to identify mandibles and mandibular teeth in sheep, Ovis and goats, Capra,' *Journal of Archaeological Science* **37**, 225-242.
- Zohary, D., Hopf, M. and Weiss, E. 2012 *Domestication of plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley*, 4th edition, Oxford, Clarendon Press.

**APPENDIX A: CONTEXT DESCRIPTIONS****Table 3: Context Descriptions**

Context	Trench	Context Type	Fill of	Feature Type	Context Description	Length	Width	Depth	Spot-date
1000	1	Layer		Topsoil	Dark grey/brown silty clay, friable, w occasional flint nodules			0.2	Modern
1001	1	Deposit		External surface	Mid-grey/brown silty clay, friable, w occasional flint nodules & frequent flecks of chalk	3.3+	2+	0.1	
1002	1	Deposit		External surface	Light, white/brown clayey silt, compact, w frequent chalk, & rare, rounded flint nodules	3	1.4	0.1	
1003	1	Deposit		Destruction debris	Mid-grey/brown silty clay, friable, w frequent flint nodules, & rare CBM	3.3+	1.7	0.2	
1004	1	Masonry		Corridor wall	Flint Nodules. Wall foundation. NW-SE direction. Bonded with clay and crude lime mortar	3.3+	0.55	0.3	
1005	1	Deposit		Destruction Debris – occupation layer	Dark-brown/grey silty clay, friable, w frequent chalk, rare natural flints and CBM, frequent charcoal	2.8	0.8	0.18.	
1006	1	Deposit		Destruction debris-possible crude floor in corridor	Mid-brown/grey clayey silt, friable to compact, w frequent chalk and occasional flint nodules	2	1.7	0.8	
1007	1	Deposit		External surface – occupation layer	Mid-grey/brown sandy silt, friable to compact, w rare CBM, & occasional flint nodules	3.3+	1.1	0.08	
1008	1	Masonry		Core villa wall	Flint Nodules NE-SW direction. Bonded with yellowish lime mortar	3.3+	0.6	0.16	
1009	1	Deposit		Destruction debris	Mid-grey/brown silty sand, friable, w occasional flint nodules, frequent chalk, & rare rounded pebbles	3.3	2.4	0.24	
1010	1	Deposit		Destruction debris	Mid-grey/brown sandy silt, friable, w frequent flint nodules, chalk flecks & rare CBM	3.4	3.3	0.34	
1011	1	Masonry		Core villa wall	Flint Nodules. NW-SE. Bonded with yellow/white lime mortar	3.3	0.6	0.9	
1012					VOID				
1013	1	Deposit		Destruction debris	Mid-grey/brown clayey silt, friable to compact, w occasional flint nodules and CBM. Frequent chalk	3.3	2.5	0.68	



Context	Trench	Context Type	Fill of	Feature Type	Context Description	Length	Width	Depth	Spot-date
1014	1	Deposit		Destruction debris – dumped deposit	Dark-brown/grey sandy clay, friable, w abundant flint nodules, CBM, tiles, common charcoal & flint pebbles	2.7	2.6	0.18	
1015	1	Deposit		Destruction debris	Dark- brown/grey sandy silt, firm, common gravel, w occasional charcoal and rare CBM	4.2	3.3	0.3	
1016					VOID				
1017	1	Deposit		Compact chalk floor	Yellow/white chalk, firm, w abundant flint nodules	4.3	1.7	0.1	
1018	1	Deposit (same 1019)		Destruction Debris – dumped deposit	Dark-grey/brown sandy silt, firm, w very abundant chalk and mortar fragments, CBM, stone fragments and common flint nodules	6	3.3	0.28	
1019	1	Deposit (same 1018)		Destruction Debris – dumped deposit	Dark-grey/brown sandy silt, firm, w very abundant chalk and mortar fragments, CBM, stone fragments and common flint nodules	6	3.3	0.28	
1020	1	Deposit		Destruction Debris – roof collapse	Dark-grey/brown sandy silt, firm, w very abundant roof tiles with some CBM	4.9	1.7	0.26	
1021	1	Fill	1033	2nd fill of gully	Mid-greyish/brown sandy silt, firm, w abundant chalk, & common flints	1.3	1.7	0.16	
1022	1	Deposit		Occupation layer / floor surface	Dark-grey/black sandy silt, firm, w common charcoal flecks & occasional chalk/mortar patches	4.12	1.7	0.08	
1023	1	Masonry		Internal wall foundation	White chalk, firm. Common angular flints, w occasional pink/white mortar, & rare CBM	1.7	0.94	0.08	
1024	1	Deposit		Destruction Debris / dumped deposit	Mid-yellow/brown silty clay, firm, w abundant angular flints and rare CBM	1.0	3.3	0.26	
1025	1	Deposit		Destruction debris	Light-white/yellow silty sand, firm, w occasional angular flints	0.16	1.3	0.2	
1026	1	Fill	1033	3rd fill of gully	Mid yellowish brown clayey silt, abundant stone roof tiles, angular flint nodules, occasional charcoal and chalk	3.3	0.8	0.1	
1027	1	Deposit		External destruction deposit	Light white/brown clayey sand, friable	3.3	0.4	0.04	
1028	1	Deposit		External dumped deposit	Mid yellow/brown clayey silt, firm, common flint gravel, rare CBM	1.7	0.6	0.08	

Context	Trench	Context Type	Fill of	Feature Type	Context Description	Length	Width	Depth	Spot-date
1029	1	Cut		Foundation trench contains wall 1011	Linear, steep sides, sharp break of slope. NW-SE orientation	3.3	0.14	0.14	
1030	1	Fill	1029	Fill	Mid-brown/yellow clayey silt, firm, abundant mortar flecks, common flint gravel	3.3	0.14	0.14	
1031	1	Cut		Land drain	Linear, steep sides, sharp break of slope. NW-SE orientation	1.7	0.34	0.2	Modern
1032	1	Fill	1031	Fill	Mottled yellow/brown and brown/ Yellow clayey silt, firm, w common flint gravel	1.7	0.34	0.2	Modern
1033	1	Cut		Gully	Linear, steep sides, sharp break of slope. Concave, U-shaped base. NW-SE orientation	3.3	0.66	0.38	
1034	1	Fill	1033	1st fill of gully 1033	Dark black/brown sandy silt, firm, w abundant chalk fragments, rare CBM and flints	1.7	0.66	0.2	
1035	1	Layer		Natural	Mid-orang/brown clay with sandy patches. Firm. Abundant flint gravel. Heat affected				Geo
1036	1	Cut		Foundation trench containing wall 1004	Linear, steep sides, sharp, break of slope, flat base. NW-SE orientation	3.3	0.65	0.3	
1037	1	Deposit		Post-pad	Possible crude post-pad within the villa corridor, w <i>imbrex</i> tile fragments	0.65	0.56	0.06	
1038					VOID				
1039	1	Deposit		Mortar floor foundation remains	Light yellow/brown silty sand, firm, occasional CBM, w common flint pebbles	4	1.7	0.02	
1040	1	Deposit		Floor remains	Possible tile floor or surface. Broken tiles mixed with chalk and flints	0.38	0.2	0.04	
1041	1	Layer		Natural deposit	Mid yellow/brown sandy silt, with common flint pebbles			0.2	Geo
1042	1	Fill	1036	Fill	Dark yellow/brown sandy silt, firm, very abundant flint pebbles	3.3	0.65	0.3	
2000	2	Layer		Topsoil	Mid grey/brown clayey silt with very fine sand			0.3	Modern
2001	2	Deposit		Destruction debris	Pale/light yellow/grey/brown, clayey silt, compact. Very common flint nodules, mortar plaster, fragments of roof tiles	1.47	1.41	0.09	
2002	2	Deposit		Destruction debris	Dark-grey/brown clayey silt, compact. Common lime chalk, roof tiles, flint rubble.	2	3.12	0.26	

Context	Trench	Context Type	Fill of	Feature Type	Context Description	Length	Width	Depth	Spot-date
2003	2	Deposit		Destruction debris – roof collapse	Dark-brown/grey clayey silt, compact. Common mortar, wall plaster, roof tiles, flint rubble and rare charcoal			0.16	
2004	2	Deposit		Destruction debris	Mid-grey/brown clayey silt, compact. Roughly hewn flints, wall plaster/mortar, roof tiles, bone fragment, pots, iron nail	2	1.93	0.36	
2005	2	Deposit		External dumped deposit	Mid to dark-brown clayey silt with very fine sand. Compact to friable. Common roof tiles, roughly hewn flints, bones, pots, charcoal, CBM and nail	2	1.42	0.39	
2006	2	Deposit		Destruction debris – roof collapse	Mid-grey/brown/ yellow clayey silt, compact. Common roof tiles, flint rubble, mortar/wall plaster and rare charcoal	5.5	5.5	0.20	
2007	2	Deposit		Destruction debris within corridor	Light-grey/yellow clayey silt, compact. Occasional roughly hewn flints, tiles, chalk/mortar	1.47	1.41	0.16	
2008	2	Deposit		Destruction debris	Mid-brown/grey clayey silt, compact. Common lime mortar, tiles and flint nodules	5	1.8	0.06	
2009	2	Deposit		Compact but crude clay floor in corridor	Pale-yellow/grey, silt, compact. Abundant chalk, rare roof tiles	1.47	1.41	0.08	
2010	2	Cut		Land drain	Linear, steep, V-shape base. N-S orientation	2.1	0.08	0.72	Modern
2011	2	Fill	2010	Fill	Light-grey/brown silty clay. Compact	2.1	0.08	0.72	Modern
2012	2	Deposit		Destruction debris	Mid-brown/grey clayey silt, compact to friable. Common roof tiles, flint rubble, mortar and wall plaster	5.5	5.5	0.20	
2013	2	Deposit		External dumped deposit	Dark, black/grey clayey silt, compact. Occasional flint nodules, roof tiles, bones, pottery fragments, nails, mortar and wall plaster, charcoal	2	1.88	0.22	
2014	2	Deposit		Natural silt	Yellow/brown silt, loose, infrequent rounded pebbles				Geo
2015	2	Deposit		Layer above mosaic	Mid-grey/brown clayey silt	2.1	3.9	0.08	
2016	2	Masonry		Internal wall	Flint nodules set in lime mortar. NE-SW orientation. Butts wall 2029 and 2048		0.31	0.41	
2017	2	Masonry		Buttress	Flint nodules and 3 courses of red brick bonded with lime mortar. Butts wall 2048	1.6	0.8	0.66	



Context	Trench	Context Type	Fill of	Feature Type	Context Description	Length	Width	Depth	Spot-date
2018	2	Deposit		Destruction debris	Mid-yellow/brown clayey silt, compact. Occasional tiles, mortar and wall plaster. Common flint nodules	1.02	0.4	0.46	
2019	2	Layer		Natural	Red/yellow / brown, silty clay, friable. Common, well-sorted rounded flints				Geo
2020	2	Deposit		External dumped deposit	Dark, greyish black clayey silt, friable. Common pot fragments, bones, tiles, flint nodules, charcoal, mortar and wall plaster	2	0.96	0.29	
2021	2	Deposit		Destruction debris	Mid grey/brown sandy silty clay. Compact to friable. Common roughly hewn flints, wall plaster, mortar, roof tiles	2.96	1.44	0.21	
2022	2	Deposit		External dumped deposit	Dark blackish grey sandy silt. Compact to friable. Common CBM, flint nodules, charcoal, burnt bone and pit fragments	2.96	0.85	0.15	
2023	2	Deposit		Destruction debris	Mid-yellow to grey/brown clayey silt. Compact. Common roughly hewn flints and flints nodules, mortar and wall plaster, CBM	2.90	1.6	0.46	
2024	2	Deposit		Destruction debris	Pale white/grey mixed with pinkish/yellowish mortar/plaster, clayey silt. Compact. Abundant mortar and plaster, rare CBM	2	1.7	0.18	
2025	2	Deposit		Destruction debris	Pale yellow/grey clayey silt, with very fine sand. Compact. Frequent mortar and wall plaster, occasional CBM and flint nodules	3.02	0.5	0.35	
2026	2	Deposit		Destruction debris	Mid-yellow/brown clayey silt with very fine sand. Compact. Occasional mortar/wall plaster, tiles, flint nodules, bone and pot fragments, charcoal	2.9	2	0.4	
2027	2	Deposit		External occupation / destruction layer	Dark-grey/black sandy silty clay. Compact. Common roughly-hewn flints, burnt bones, pot and metal fragments. Common mortar and wall plaster	2.96	1.44	0.35	
2028	2	Deposit		External dumped deposit	Mid-grey/brown, very fine sandy silt/clay. Friable. Common chalk, wall plaster and mortar, CBM, tiles and roughly hewn flints	2	0.80	0.15	
2029	2	Masonry		Core villa wall	Flint nodules, some roughly-hewn. Rough faced. Flint nodules in lime mortar. Light grey/yellow mortar mixed with small pebbles	5	0.58	0.67	
2030	2	Deposit		External occupation	Light grey/yellow sandy silt/clay, loose. Common mortar/plaster, rare CBM fragments	2.9	2	0.09	
2031	2	Deposit		Infill associated	Pale yellow/brown clayey silt, friable. Common plaster/ mortar	0.58	0.2	0.1	

Context	Trench	Context Type	Fill of	Feature Type	Context Description	Length	Width	Depth	Spot-date
				with RA 421 hoard					
2032	2	Deposit		Destruction debris	Mid-grey mixed with light pink/yellow mortar. Mortar. Compact. Flint nodules embedded in mortar	0.7	0.5	0.1	
2033	2	Deposit		External occupation layer	Mid-yellow/brown, clayey silt, friable. Occasional mortar/wall plaster. Rare tile and pot fragments	2.96	1.44	0.07	
2034	2	Deposit		External gravel paving	Mid-red/ yellow brown silty clay. Compact. Occasional flint pebbles and tile fragments	2.96	1.44	0.08	
2035	2	Deposit		Internal occupation layer	Mid-brown/grey clayey silt, compact. Common roof tiles, mortar and wall plaster	1.14	0.5	0.09	
2036	2	Deposit		External occupation layer	Mid-yellow/brown clayey silt, loose. Occasional mortar and lime plaster	2	0.6	0.07	
2037	2	Cut		Foundation trench contains wall 2048	Linear, vertical sides and flat base. NW-SE orientation	2	0.11	0.13	
2038	2	Fill	2037	Fill	Mid-grey/brown silty clay, friable. Occasional rounded pebbles	2	0.11	0.13	
2039	2	Deposit		Floor?	Mid-grey/brown clayey silt, compact. Fragments of pot, tesserae, floor tiles	3.3	0.12	0.12	
2040	2	Masonry		Floor	MOSAIC	6	5	0.025	
2041	2	Deposit		Destruction debris	Pale-brown/grey clayey silt, with very fine sand. Compact. Common flint nodules, chalk, mortar and roof tiles	1.2	0.5	0.47	
2042	2	Masonry		Corridor wall	Flint nodules embedded in lime mortar. Roughly-hewn and rubble flints. Corridor wall	2	0.47	0.49	
2043	2	Cut		Gully	Linear. Rounded southern terminal, moderately steep sides and concave base. NE-SW orientation	1.05	1.08	0.34	
2044	2	Fill	2043	Fill	Mid-brown/grey clayey silt, with fine sand, friable. Occasional flints	1.05	1.08	0.34	
2045	2	Cut		Land drain	Linear, steep sides, flat base. NW-SE orientation	1	0.2	0.32	Modern
2046	2	Fill	2045	Fill	Mid-grey/brown clayey silt, friable. Ceramic pipe	1	0.2	0.32	Modern
2047	2	Masonry		Buttress	Flint nodules and 2 courses of red brick Bonded with yellowish brown lime mortar with flint pebbles. Butts wall 2048	0.6	0.6	0.64	
2048	2	Masonry		Core villa wall	Flint nodules, some roughly-hewn flints embedded in lime mortar. NE-	5.5	0.58	0.8	

Context	Trench	Context Type	Fill of	Feature Type	Context Description	Length	Width	Depth	Spot-date
					SW face				
2049	2	Deposit		External destruction debris	Mid-yellow/white, chalk / lime / mortar mixed with clayey silt. Compact	1.6	0.80	0.29	
2050	2	Deposit		External deposit	Mid yellowish brown clayey silt with very fine sand, compact. Common fragments of tiles, rare flint nodules, lime plaster and mortar	1.6	0.8	0.25	
2051	2	Deposit		Subsoil	Mid yellowish brown clayey silt with very fine sand. Friable. Rare flint gravel			0.2	
2052	2	Cut		Foundation trench cut contains wall 2029	Linear, vertical sides, flat base. W-E orientation	1.47	0.12	0.29	
2053	2	Fill	2052	Fill	Mid greyish brown clayey silt. Friable. Occasional chalk and mortar	1.47	0.12	0.29	
2054	2	Wall plaster		Structural	Wall plaster. Light yellowish white chalky plaster. Compact	2	0.05	0.08	
2055	2	Deposit		Mosaic floor foundation	Yellowish red, coarse to fine sand, loose. Rare natural pebbles	5	5	0.036	
2056	2	Deposit		Mosaic floor foundation	Mid yellowish brown sandy silty clay. Friable. Rare chalk and very rounded small pebbles	5	5	+0.1	



## APPENDIX B: POTTERY

*The Pottery* by Lorraine Mephram

### Introduction

This report covers the pottery recovered from the 2019 season of excavation at Mud Hole Villa. The assemblage totals 875 sherds, weighing 18,781 grammes, and augments the 688 sherds (6826 g) previously found on the site (Mephram 2019). Most pottery was hand-collected, with a very small quantity (6 sherds) retrieved from sieved soil samples. The assemblage is entirely of Roman date.

The condition of the pottery ranges from good to fair. The assemblage is fragmentary, but levels of surface and edge abrasion are relatively low, although the colour-coated wares have in some cases partially or completely lost their surface slips. There are a few context groups containing conjoining sherds, and a few cross-context joins were also noted. Mean sherd weight overall is 21.5 g, which is well above the mean weight noted for villas in Hampshire of 15.12 g (Dicks 2007, 76, table 6). However, this figure is skewed by sherds of a large, thick-walled storage jar in one context; once these are removed, the mean sherd weight falls to 14.8 g (compared to 9.9 g from the 2017 assemblage).

In terms of provenance, the majority of the assemblage was recovered from layers of destruction debris in both Trench 1 and Trench 2, with much smaller quantities from other context types (eg floor/surface and occupation layers). Only three sherds came from feature fills.

Methods of analysis fulfilled the requirements of the nationally recommended standard for pottery of all periods (Prehistoric Ceramics Research Group *et al.* 2016). The pottery has been quantified (sherd count and weight) by ware type within each context, using established wares where known (e.g. Black Burnished ware, Oxfordshire colour-coated wares), and also some 'catch-all' ware groups (e.g. greywares, oxidised wares) which undoubtedly include the products of more than one source. More detailed sub-division was considered to be unlikely to yield significant useful information. Correlation with national fabric reference codes are given where appropriate (Tomber and Dore 1998). A summary of the quantification is given in Table 4, and a list of pottery by context in Table 6; the full records are held in spreadsheet format in the project archive.

**Table 4: Pottery totals by ware type**

Ware type	Ware code*	No. sherds	Wt (g)	% by no	% by wt
Alice Holt	ALH RE	298	11,520	34.1	61.3
Black Burnished ware	DOR BB1	85	1092	9.7	5.8
Greyware		168	1633	19.2	8.7
Grog-tempered ware		19	312	2.2	1.7
Shelly ware	HAR SH	61	618	7.0	3.2
Mayen ware	MAY CO	1	150	0.1	0.8
Moselkeramik	MOS BS	2	4	0.2	<0.1

New Forest colour coated ware	NFO RS 2	1	38	0.1	0.2
Overwey/Tilford ware	OVW WH	11	160	1.3	0.9
Oxfordshire red-slipped ware	OXF RS	158	1663	18.1	8.9
Oxfordshire white-slipped ware	OXF WS	23	665	2.6	3.5
Oxfordshire whiteware	OXF WH	15	529	1.7	2.8
Oxidised ware		31	392	3.5	2.1
Samian		2	5	0.2	<0.1
<b>Total</b>		<b>875</b>	<b>18781</b>		

\*following Tomber and Dore 1998

The range of the assemblage is as expected for the area, dominated by coarsewares for which the Alice Holt industry appears to have been the major supplier, augmented by Black Burnished ware from south-east Dorset. Oxfordshire coarsewares are also probably represented, although not so distinctive; the Oxfordshire production centre is more clearly represented by its colour-coated finewares.

### **Imported wares**

Imported finewares are limited to two sherds of samian from Trench 1 (topsoil 1000, external surface 1001) and two of Moselkeramik, (from Trier in the Mosel valley), almost certainly from one vessel, from Trench 2 (external paving layer 2034). None of the sherds are diagnostic, although the Moselkeramik sherds are most likely to belong to beakers, as the most common vessel form in this ware type.

The scarcity of samian is almost certainly due to chronological factors, which are explored further below. The Moselkeramik dates to c. AD 180–250 (Tyers 1996, 138).

One other import is present, a coarseware, found in destruction/dump layer 1018. This is a sherd from a lid-seated jar rim in Mayen ware (MAY CO). Mayen ware is one of several coarsewares made in the Eifel mountain area of Germany, and the only one exported to Britain in any quantity. Jars with the distinctive lid-seated rim, as seen here, were the commonest vessel form, and may have served as containers. The ware is dated c. AD 300–450; in Britain, most examples are from mid- to late 4th-century contexts, and these are concentrated in south-east England (Tyers 1996, 151–2).

### **British finewares**

The British finewares make up 15.4% of the total Roman assemblage by weight (22.5% by sherd count; the discrepancy is accounted for the high fragmentation level of these often thin-walled sherds). They consist almost entirely of Oxfordshire wares, mostly red/brown colour-coated wares but also including whitewares, and white-slipped oxidised wares. There is only one other sherd, and this is of New Forest colour-coated ware.

The Oxfordshire industry supplied a range of vessel forms in colour-coated wares, both white-slipped and red/brown colour-coated wares, although the vessel forms supplied by the two types do differ.

The red/brown colour-coated wares (OXF RS), introduced from c. AD 270, are seen here mainly in common bowl/dish forms, including bead-rimmed and flanged examples (Young 1977 types C45, C47, C51, C55, C75, all dated to the mid-/late 3rd century AD to c. AD 400 or later), with one jug (*ibid.*, type C13) and a few possible beakers (one rim and two indented body sherds). Mortaria are represented by just one example (*ibid.*, type C100, dated to the 4th century AD). In contrast, the white-slipped ware (OXF WS), introduced around the mid-3rd century AD, appears here only in mortarium forms (*ibid.*, types WC4, dated c. AD 240–300, and WC7, dated c. AD 240–400). A number of body sherds carry decoration (applied or rouletted) decoration, but there is no sign here of the use of slip-trailed barbotine.

As well as colour-coated mortaria, the 15 sherds of Oxfordshire whiteware (OXF WH) all belong to mortaria, representing at least six vessels, of which two can be identified as Young type M22 (c AD 240–400), the standard late Roman form produced by the Oxfordshire potteries.

The only identifiable vessel form in New Forest colour-coated ware (NFO RS 2) is a mortarium, from destruction layer 2015 (Fulford 1975a, type 103, dated c AD 270–350).

### **Greywares**

This group of coarsewares makes up the largest single group in the Roman assemblage (75.8% of the total by weight, skewed by the presence of thick-walled storage jar sherds; 63.0% by sherd count). Greywares are notoriously difficult to attribute to source, and there are several production centres which could have been supplying the site. South-east Dorset Black Burnished ware (BB1) is most easily recognisable, which accounts for approximately 15.4% of the greyware group by sherd count. The Alice Holt and Oxfordshire industries are also likely to have been suppliers. Alice Holt wares have been identified here, although these are largely the later wares which were fired to a distinctive blue-grey colour; other fabric variants are less easily distinguished, although some vessel forms, particularly large storage jars, are also characteristic of the industry. The proportion of Alice Holt wares calculated here (54.1% of the greyware group by sherd count) is almost certainly an underestimate. Oxfordshire greywares, which cover a wide range of colour and texture (Young 1977, 202) are much less easily characterised, and no attempt has been made to do so here.

Black Burnished ware is seen here in a limited range of the most common vessel forms, most frequently the shallow, straight-sided 'dog dishes' (Seager Smith and Davies 1993, type 24) but also including one flanged bowl with incipient dropped flange (*ibid.*, later variant of type 22), dropped flange bowls (*ibid.*, type 25) and everted-rim jars (*ibid.*, types 2/3 and 3). While the 'dog dishes' have a fairly lengthy currency from at least the 2nd century AD onwards, other forms are more characteristic of the later Roman period (3rd and 4th centuries AD), and this combines with the observation of 'late' surface treatments (partial oxidisation, wiping, use of white-firing surface slip) to suggest that most, if not all, of the BB1 seen here belongs to this late period.

Amongst the Alice Holt wares, jars are most frequent (27 examples), and there are examples here of medium-sized necked and hooked rim forms (Lyne and Jefferies 1979, classes 1 and 3C) as well as



larger, thick-walled storage jars with heavy rims (*ibid.*, classes 1A, 1C and 4). The latter are also characterised by the use of horizontal bands of thin white- or black-firing surface slip interspersed with combed decoration; sherds making up what seems to be a large part of a single vessel of class 4 type were found in gully 1033, and include three sherds featuring possible post-firing perforations, possibly for repairs. The inturned bead rim of this jar places it late in the Alice Holt sequence; a comparable example is dated *c* AD 350–420 (*ibid.*, fig. 29, 4.45). All the examples of jars recorded have rim profiles which are paralleled within the later industry (mid-/late 2nd century AD onwards), rather than the early Roman industry. Also characteristic of the later industry are five dropped flange bowls (*ibid.*, class 5B) and one lid (*ibid.*, fig 39, 7.10, dated AD 200–270).

Greywares which are unattributed to source occur in a similar range of forms: largely everted rim jars (12 examples), with a few straight-sided dishes and dropped-flange bowls, and one flagon handle. Two body sherds appear to belong to indented forms, and one straight-sided dish has an applied boss.

The possible presence of greywares from nearby kilns should also be noted: Bradfield (16km to the west, 2nd–mid-3rd century AD); Compton (13 km to the north-east, 4th century AD) and the nearby 2nd/3rd-century kilns at Hampstead Marshall (6km to the south, 2nd/3rd century AD) (Swan 1984, Mf1.214–16; Rashbrook 1983).

### ***Oxidised wares***

Oxidised wares form a much smaller component of the Roman assemblage (4.8% by sherd count, 3.0% by sherd weight). As for the greywares, the oxidised wares are likely to derive from more than one source, and again the suppliers are likely to have included Oxfordshire and the Alice Holt kilns. The wares at the finer end of the spectrum are more likely to be Oxfordshire products, but at the coarser end there are 11 sherds which can be definitively assigned to the Alice Holt 'Overwey-Tilford' fabric variant (or 'Portchester fabric D'; Tomber and Dore 1998, OVW WH), which has a currency in the 4th century from about AD 330 (Fulford 1975b, 299; Lyne and Jefferies 1979, 35). Two are from hooked rim jars (Lyne and Jefferies 1979, class 3C), and five body sherds have characteristic horizontal rilling.

### ***Grog-tempered wares***

There are small quantities of grog-tempered wares (19 sherds; 2.2% of the assemblage by sherd count). Some of these can be identified as Wessex (or Hampshire) Grog-tempered ware (Tomber and Dore 1998, HAM GT; otherwise known as 'Portchester fabric A': Fulford 1975b, 286–92), a hand-made tradition of the later 3rd and 4th centuries AD seen across Hampshire and parts of surrounding counties. This is almost certainly the case for three dropped-flange bowl rims from topsoil 2000, but other types (eg Savernake-type ware) may also be present. The only other vessel forms present are one straight-sided dish and two jars, none of which are particularly chronologically distinctive.

### Shell-tempered wares

The shell-tempered ceramic tradition (represented here by 61 sherds; 7.0% of the assemblage by sherd count) is another late Romano-British phenomenon in Wessex. Shell-tempered wares have a far lengthier currency across the Midlands, from the Iron Age onwards (Tomber and Dore 1998, HAR SH), but outside this core area the occurrence of these wares is largely confined to the 4<sup>th</sup> century AD (Tyers 1996, 192–3). As for the Alice Holt ‘Overwey-Tilford’ wares, they appear in hooked rim jar forms with external rilling. Two jar rims are present here (contexts), and two body sherds are rilled. There is also one convex bowl with an expanded rim, represented by joining sherds from topsoil 2000 and destruction layers 2015 and 2025.

### Distribution

Table 5 gives the breakdown of the assemblage by context type. In contrast to the 2017 assemblage (which derived largely from feature fills or ploughsoil), the majority of the 2019 assemblage was recovered from demolition or dump layers (75.5% by sherd count, 53.9% by sherd weight). This limits the usefulness of the assemblage as a dating tool, as this material has clearly been redeposited. Despite this, the condition is relatively good, as shown by the mean sherd weights in Table 5, and the level of reworking must therefore have been low. That some post-depositional movement has taken place, however, is supported by the recognition of several cross-context joins in Trenches 1 and 2, generally between two destruction/dump layers but also between topsoil and destruction layers.

**Table 5: Pottery totals by context type**

Context type	No. sherds	Wt. (g)	Mean sherd wt.
Demolition	291	4773	16.4
Demolition/dump	109	2021	18.5
Dump	261	3332	12.8
Occup/surface	44	412	9.4
Topsoil	86	1209	14.1
Other misc layers	3	21	7.0
Feature fills	78	6978	89.5
Unstratified	3	35	11.7
<b>Total</b>	<b>875</b>	<b>18,781</b>	

Very small quantities came from occupation or floor/surface deposits (mainly in trench 2), and the mean sherd weight of the material in these layers (9.4 g) is consistent with a greater degree of reworking.

A small quantity came from feature fills (78 sherds), and 71 of these probably belong to a single vessel, a large Alice Holt storage jar (dated c AD 350–420) found in a tertiary fill (1026) of gully 1033. Large sherd size and relatively unabraded condition of the jar suggest that this represented a primary deposit.

## Discussion

This assemblage confirms the chronology proposed for the 2017 assemblage, with a distinct focus on the late Roman period (mid-3rd to 4th century AD). Apart from a couple of sherds of samian, there is nothing here which is necessarily earlier than the later 3rd century AD. Typical 'late' wares are present: Oxfordshire colour-coated, Overwey-Tilford, Wessex grog-tempered and shelly wares, with late variants of Black Burnished ware and Alice Holt greyware, and also late vessel forms, such as dropped-flange bowls and hooked rim and rilled jars. Amongst the latest vessels from the site is the Mayen ware jar with lid-seated rim from a destruction layer in Trench 1 (probably mid- to late 4th century AD) and the large Alice Holt storage jar, from gully 1033 (c AD 350–420). Continuation of occupation of the villa into the early 5th century cannot be ruled out, although the difficulties in pinning down any dating evidence to this period are well known.

Comparisons and contrasts with the nearby sites at Hoar Hill and Wyfield Manor Farm have already been discussed (Mephram 2019), and will not be repeated here; there is no new evidence to contradict the patterns already observed at Mud Hole, of relatively plentiful mortaria in small to medium sizes, a high proportion of finewares (the combined data from 2017 and 2019 raises the total to 19.3% by sherd count) but less Black Burnished ware and a total absence of amphorae. The major suppliers were clearly the Oxfordshire (for finewares) and Alice Holt (coarseware) production centres, supplemented by south-east Dorset (for BB1) and the Midlands (for shelly wares). The only possible amendment is in the identification in the 2019 assemblage of several large storage jars (mostly Alice Holt products), an element that was apparently scarce in 2017.

**Table 6: Pottery by context (number / weight in grammes)**

Context	Sam.	MOS BS	MAY CO	OXF RS	OXF WS	OXF WH	NFO RS	DOR BB1	ALH RE	Grey	Oxid	Grog	HAR SH	OWW WH	Total
1000	1/1			14/118	1/16			2/64	5/180	12/116	1/5	3/20	8/75	1/8	48/603
1001	1/4									1/17					2/21
1003				2/5				2/109		9/95		1/9			14/218
1005										1/6					1/6
1006								1/1							1/1
1007				1/6								1/12			2/18
1009				7/35	1/5					7/59		1/21	3/24	3/79	22/223
1010				14/189	1/66	1/56		4/56	13/458	15/214				1/24	49/1063
1013								1/11	1/36				1/14		3/61
1014					1/132	1/7			4/24	8/130	1/8			1/13	16/314
1016											1/4				1/4
1018			1/150	3/55		2/85		6/60	13/237	7/78			18/185		50/850
1019				16/109	3/57			5/52	23/786	9/135	1/7	2/25			59/1171
1020				6/56	1/4				17/388	4/47	1/13	1/23		2/10	32/541
1021				1/1											1/1
1022										5/50				1/7	6/57



Context	Sam.	MOS BS	MAY CO	OXF RS	OXF WS	OXF WH	NFO RS	DOR BB1	ALH RE	Grey	Oxid	Grog	HAR SH	OVW WH	Total
1026									71/6888						71/6888
1028				1/21								1/9			2/30
1034								1/28		2/12					3/40
2000				10/122	4/84			1/8	9/194	5/46		3/79	6/73		38/606
2002				1/41					1/154						2/195
2003				9/177	2/54				5/26	7/86	2/24		1/9		26/376
2004				1/18		3/95			3/31		1/14		1/12		9/170
2005				3/42		1/18 0		1/11	3/41	4/60	1/5	1/8	1/9		15/356
2006						6/90									6/90
2011				2/43					1/6						3/49
2012				1/8											1/8
2013				8/51				17/114	16/153	11/61	9/14 4		2/24		63/547
2014									1/6				1/11		2/17
2015				27/277	7/228		1/38	1/11	12/132	3/11	1/6	3/91	3/36		58/830
2020				3/25				9/109	22/316	7/65	5/84	1/6			47/605
2021									1/9	2/27	2/18				5/54
2022				20/223		1/16		11/198	36/880	24/111			5/20		97/1448
2023								3/19	1/10					1/15	5/44
2024									2/24	2/20	3/46				7/90
2025				2/6	2/19				1/19				11/126		16/170
2026				2/4					11/287	2/10	2/14			1/4	18/319
2027				2/7				1/8	18/145	10/94		1/9			32/263
2028				1/10				2/16	2/57						5/83
2033								3/43		1/2					4/45
2034		2/4						11	5/23	9/73					27/193
2035										1/8					1/8
2039								2/70							2/70
unstrat				1/14				1/11	1/10						3/35
<b>Total</b>	<b>2/5</b>	<b>2/4</b>	<b>1/150</b>	<b>158/ 1663</b>	<b>23/ 665</b>	<b>15/ 529</b>	<b>1/38</b>	<b>85 /1092</b>	<b>298 /11520</b>	<b>168/ 1633</b>	<b>31/ 392</b>	<b>19 /312</b>	<b>61/618</b>	<b>11/ 160</b>	<b>875/ 18781</b>

## APPENDIX C: GLASS

### *The Glass* by E. R. McSloy

A total of 48 fragments of glass, weighing 95g, was recorded from the 2019 excavations. The large majority comprises window or probable window glass fragments (44 fragments; 91g), with only a small number of vessel glass fragments (4; 4g). All material was hand-recovered, primarily from 'destruction debris'-type deposits, the largest groups (of 16 and 7 fragments) from layers 2015 and 2025. Some 10 fragments were recovered from subsoil layers (1000; 2000), or as unstratified finds. The assemblage was scanned by context, and recorded direct to an MS Access database. Quantification has been according to fragment- count and weight, and by type (vessel/window glass). Glass colour and fragment thickness, and attributes such as decoration or 'distortion', have also been recorded (Table 7).

#### ***Assemblage range: Window glass***

The large majority of window glass comprises small fragments of green-coloured glass, typically with common, rounded or elongated bubbles. Almost all fragments (Table 7) exhibit glossy/glossy surfaces, and other features such as stress marks, which are characteristic of cut-cylinder glass. This, together with the colouring and poor (bubbly) quality of the glass, is suggestive of a late 3rd to 4th-century date (Harden 2005, 52). Three fragments feature the matt/glossy finish common to mould-made (cast) glass, a technique prevalent in the 2nd and 3rd centuries. These fragments (from deposits 1022 and 2027, and an unstratified piece) occur in a natural, green-coloured glass, which is also typical for the period indicated.

The thickness of the cylinder window glass is variable (1.2–4mm), but mainly in the 1.5–2mm range. For the majority, translucency is good, lessening slightly with thicker fragments. A small number of fragments, from deposits 1000 and 1009, are distorted and opaque, possibly the result of heat damage causing partial melting. A number of other fragments feature cracking/feathering of the kind described for material from the 2017 excavations (Bedford and Clark 2019, Plate 152). It would appear that this is most likely a post-depositional effect relating to the properties of this type of glass, rather than something decorative or otherwise intentional.

#### ***Vessel glass***

Four fragments (4g) probably derive from vessels. All are body fragments, and exhibit a degree of curvature or other features suggesting derivation from vessels. A single piece, from layer 1003, was moderately thick-walled (3.5mm), and of natural green glass. It probably derived from a bottle of a type in common use across the later 1st to 3rd centuries. Two fragments (deposits 2003 and 2015) in pale green glass, and c. 1.5 mm in thickness, probably come from blown tableware vessels of later Roman type. This was more certain for a small fragment in pale-yellow/green glass, from destruction debris deposit 2025. This piece measures c. 0.5mm in thickness, and features a double line of wheel-cut or abraded decoration. Both the glass colour and the decoration are features of tableware forms, including cups/beakers and flasks of 4th-century date (Price and Cottam 1998).

**Table 7: Glass: summary quantification**

Context	Type	Count	weight	Comments
1003	Vessel glass	1	1	<1g; nat green, (th. 3.5mm) bottle?
2025		1	1	pale yel. green; double wheel-cut lines (<1mm th)
2003	Vessel glass?	1	1	pale green, bubbly; curvature; 1.5mm th
2015		1	1	pale green, bubbly; sl curvature; 1.5mm th)
Us Tr. 1	Window glass	1	1	nat. green, sl bubbly - rounded edge. Matt/glossy (3mm)
1009		1	2	pale green, bubbly (2mm th)
1020		1	3	pale green, bubbly (1.2mm th)
1022		1	1	nat. green; matt/glossy (5mm th)
2000		4	10	pale green, bubbly (1.5-2mm th)
2000		1	2	pale green, bubbly, pitted (3mm th)
2000		1	2	pale green, bubbly; rounded edge (3-4mm th)
2003		4	3	pale green, bubbly (1.2-1.5mm th)
2015		11	14	pale green, bubbly (1.2-1.5mm th)
2015		3	7	pale green, bubbly (2.5mm th)
2015		1	1	pale green, bubbly chip 4mm th
2021		1	3	pale green, bubbly (1.2mm th)
2025		2	7	pale green, bubbly (2mm th)
2025		3	16	pale green, bubbly; sl. distorted (3mm th)
2027		1	3	nat green, sl bubbly - rounded edge. Matt/glossy (3mm)
2027		1	1	pale green, bubbly (1.5mm th)
2031		1	1	pale green, bubbly (2.5mm th)
2035		1	5	pale green, bubbly; (3.5mm th)
1000	Window glass?	3	5	pale green, bubbly - distorted (1.5-3mm th)
1009		1	2	pale green, bubbly - distorted (1.5-3mm th)
2025		1	2	pale green, bubbly - distorted (1.5-3mm th)
<b>Total</b>		<b>48</b>	<b>95</b>	



## APPENDIX D: METAL ITEMS

### ***Metal finds*** by E.R. McSloy

Some 639 items of metal (12.5kg) were recorded from the 2019 excavations. The large majority of objects were of iron (595), with 24 of lead or lead alloy and 20 of copper alloy. The total excludes coins, which are reported separately (this report, Appendix E). Most objects were hand-recovered during the course of the excavations, or recovered by metal detector prospection from spoil. A small number of items (44), mostly fragmentary iron nails, were recovered subsequently from bulk soil sample residues.

The metal objects have been recorded at a basic level, and direct to an MS Access database. Recording has included identification/classification, functional grouping (below), short description and, where known, date-range. Overall, the condition of the metalwork was good. As is typical of most archaeological ironwork, this material exhibited highest levels of corrosion and soil adherence, and many items are brittle and fragmented. The items of copper alloy and lead/lead alloy were less affected by corrosion which obscures form. Preliminary to reporting, the iron and copper alloy objects were subjected to X-radiography to assist in identification, and the X-ray Plates (nos. 1–8) form part of the archive.

The assemblage belongs exclusively to the Roman period. The metalwork is described below and summarised in Table 8, which quantifies the group by material and according to broad functional grouping. The latter have been adapted from Crummy's (1983) functional categories. The illustrated catalogue is selective, and comprises dateable items, or those otherwise of individual interest.

### ***Assemblage range: Copper alloy***

A total of 20 objects of copper alloy were recovered from 12 deposits, and as unstratified items (3). Most from among the stratified objects come from destruction debris deposits (layers 1020, 2004, 2015, 2025 and 2026), or external dumps (layers 2020, 2027).

The majority of copper alloy items comprise sheet or strip-like fragments, where original function is unclear. Items which are dateable by their form or otherwise of note are described below. All consist of small items of dress or personal adornment.

### ***Brooches***

The two brooches (Ra. 402 and Ra. 420) were both of the penannular variety, and feature the coiled terminal characterizing Fowler's Type C (Fowler 1960). Fowler argued for Late Iron Age origins for her Type C grouping, and later (1983) for a reappearance of the type in the 3rd to 4th centuries. Notably, Ra. 402 and Ra. 420 both exhibit traits considered 'late' by Fowler –ie. the flattened hoop in Ra. 420 and the ribbed or notched decoration seen in both examples. A recent reappraisal of Fowler's work has noted that such features, while not exclusively 'late,' are more frequently seen in this period (Booth 2014, 146). Given the late character of the site, and in particular the exclusively 4th to early 5th-century coin group, there would seem no reason to doubt a similar date for the brooches.

- Ra. 402 Penannular form brooch. Complete. Terminals coiled at right angles to hoop (Fowler Type C). There is matching longitudinal, double-grooved decoration to the terminals, and to the pin where it joins the hoop. Also, a close-set, rilled/incised decoration to the front face of the hoop, in three wide bands; outboard of the terminals and facing the pin 'break'. The hoop is a slightly flattened oval in section: 1.9-2.1mm; hoop diam. 23–24mm. *Destruction debris 1020.*
- Ra. 420 Penannular form brooch. Pin missing. Terminals coiled at right angles to hoop (Fowler Type C). The hoop is of flat, strip-like section (3.3mm Wide and 2.3 Th.). The outer edge of the top surface is decorated with V-shaped notches, at intervals of c. 1mm. Hoop diam. 24–27mm. *External dump 2027.*

### *Finger ring*

Finger rings of crenellated form, such as Ra. 417, appear to be rare, although such decoration is commonly seen on strip-form bracelets/armlets of later Roman type, including Ra. 427, described below. A good parallel for Ra. 417 comes from a 4th to early 5th-century burial from Colchester (Crummy 1983, 47, no. 1768). The Colchester example was also asymmetrically worn, the suggested cause resulting from friction caused by a second ring worn on an adjacent finger.

- Ra. 417 Finger ring. The hoop is distorted and heavily worn, so that the crenellated decoration survives only in sections. Hoop diam. 19–22mm; width 1–1.7mm; th. 1.3mm. *Destruction debris 2026.*

### *Bracelet/armlets*

Strip-form bracelets such as Ra. 415 and Ra. 427 are common finds from later Roman assemblages. Close parallels for the simply-decorated Ra. 415 include 4th to early 5th-century burial contexts from Colchester (*ibid.* 41, no. 1657) and Cirencester (Holbrook *et al.* 2017, 37, no 1), the latter example worn at the upper arm. Crenellated forms such as Ra. 427 are also known from burials of the same date from Colchester (Crummy 1983, 41, no. 1659), and at sites including Uley, Glos (Woodward and Leach 1993, 165, fig. 128, nos. 2, 8 and 16) and Nettleton, Wilts (Wedlake 1985, 214, fig. 91, nos. 19–24).

- Ra. 415 Bracelet/armlet fragment. Section from strip-form bracelet/armlet with notched decoration to the outer edge (alternating along each face). External diam. estimated at 65–70mm; width 3mm; th. 1.2mm. *External dump 2020.*
- Ra. 427 Bracelet/armlet fragment. Three joining sections from a narrow, strip-form bracelet/armlet, the outer edge with regularly spaced, crenellated decoration. The three sections probably form the full object, straightened and incorporating flattened terminals, probably original soldered. Width 1.8–2.3mm; th. 1mm. *External dump 2027.*

### *Earring?*

Hook-like object Ra. 419 is fragmentary, but of closely comparable form to items identified as possible earrings from Nettleton, Wilts, from 4th-century deposits (Wedlake 1982, 205, fig. 85, nos 1–2).

- Ra. 419            Small object fragment with hooked terminal, the end of the hook bent back away from the shaft. The broken end of the shaft is flattened in section. Surviving length 17mm. *External dump 2027.*

### **Iron**

The iron objects comprise the large bulk of the metalwork assemblage, numbering 595 items/fragments from 44 deposits. Most common by far are nails, some 570 of which were recorded. The largest numbers were from destruction debris or external dump-type deposits, notably layers 1009, 1010, 1020, 2015, 2022 and 2025. More significant was a group of hinge fittings and other items (Ra. 421), recovered from a recess (fill 2031) within wall 2029, and possibly representing cached material associated with robbing episodes following the abandonment of the villa.

The large majority of the nails consist of forged forms with square-sectioned shafts and flattened heads, and as such comparable with the common Roman 'carpentry' forms, which Manning classified as his Type 1 (Manning 1985, 32). Where of measurable length, these are in the c. 40–100mm range, with most in the c. 50–70mm range. One nail, from destruction debris deposit 2023, has a shouldered/triangular-form head (Manning's Type 2), and is the longest of the nails recorded, at more than 130mm. It seems likely that the majority of nails relate to the construction and use of the villa buildings, including possibly for securing the stone roof tiles. The majority of nails are largely straight, an indication perhaps that few were extracted for reuse. Other classes of buildings-related objects in the assemblage consist of 'double-spiked loops,' hinge fittings and a probable hook (unstratified). Most of the hinge fittings were recorded from part of the probable hoard, and are described below. Other examples include L-shaped hinge staples (Ras. 415, 439, 443), all from layer 2035, and a U-shaped probable drop-hinge Ra. 432, which was an unstratified find.

Ironwork objects other than the nails and building-related fittings are very few. Three hobnails from ditch 1033 (fill 1034) and one shoe cleat (external dump 2027) are representative of dress items of Roman type, the latter type seemingly most common to the later Roman period. The single tool is a chisel, Ra. 416, which is included in the catalogue. It is a broad-bladed and lightweight form, probably better suited to woodworking tasks – paring or finishing (Manning 1985, 21).

- Ra. 416            Woodworking chisel. Complete, but with damage to its central section. Flat blade, expanding to broad (40mm), convex edge. The handle is thicker (8-10mm) and the terminal slightly splayed. Length 196mm. *Internal occupation deposit 1021.*

### ***The ironwork hoard (Ra. 421a-e)***

As noted above, these (five) items occurred discretely in a recess (fill 2031) within wall 2029. The breakage/distortion apparent on some objects, nos. 421b-c, is consistent with their having been 'salvaged' and deposited, most probably with the intent of later recovery and reuse. All items represent hinge fittings. Whether these originally equipped doors, shutters (or possibly large furniture items) cannot be determined, although the variety of hinge types suggest the fittings were possibly recovered from more than one source.



All items correspond to hinge fittings of Roman type (Manning 1985, 125–126). Items Ra. 421c–e are elements from drop-hinges (Manning's Type 1). The sturdy, L-shaped items (staples) Ras. 421d/e worked as the pivot, with the longer end driven into the masonry or timber. The hinge part is represented by Ra 421c, the arms of which appear to have been forced apart. Typically for this form, the arms are of unequal length, and the terminal of the longer arm is expanded (though only partly surviving).

Objects Ra. 421a–b are examples of loop hinges (Manning's Type 2), but of differing form. Ra. 421a is formed from two straps joined by a loop and eye, while Ra. 421b is a single strap (now distorted and broken), which terminates in an eye through which is a long double-spiked loop. Manning states that hinges of his Type 2 were best suited to vertically-mounted shutters or lids.

#### *Catalogue*

- |          |  |
|----------|--|
| Ra. 421a | Loop hinge. Double strap type - joined by loop/eye. Each strap with 3 x 3 rivet holes (1 <i>in situ</i> ); Length (strap 1) 415mm (strap 2) 300mm; width 40mm. <i>External occupation deposit 2031.</i>  |
| Ra. 421b | Loop hinge. Single strap type. The strap is bent and broken, the detached fragment with expanded terminal. 4 or 5 rivet holes (3 rivets <i>in situ</i> ). Length 465mm width 40mm. <i>External occupation deposit 2031.</i>                            |
| Ra. 421c | Drop hinge. The looped strap has been prised apart, the two arms of unequal length, each with 3 x rivet holes. The longer arm terminates in an expansion, which is damaged. Overall length 450mm; width 35mm. <i>External occupation deposit 2031.</i> |
| Ra. 421d | L-shaped hinge pivot/staple - from drop-hinge. Length 190mm; width x 70mm. <i>External occupation deposit 2031.</i>  |
| Ra. 421e | L-shaped hinge pivot/staple - from drop-hinge. Length 130mm; width x 70mm. <i>External occupation deposit 2031.</i>  |

#### **Lead**

The 20 items of lead, the majority of which (16) comprised unstratified metal-detector finds, mostly consisted of irregular pieces of waste material. Two objects, both unstratified, probably represent plug/patch repairs for pottery vessels, and of a type common from Roman assemblages. The remainder consist of sheet fragments, including some offcuts. Such material might derive from a range of functions or activities, which on a villa site might be expected to include pipework relating to water management.

**Table 8: Summary table of metal items, by material and functional grouping**

Function	Type	Copper alloy	Iron	Lead	Total
dress/personal adornment	bracelet	2			2
	brooch	2			2
	finger ring	1			1
	hobnail		3		3
	shoe cleat		1		1
fasteners and fittings	double-spiked loop		1		1
	nail		570		570
household	pot mend			2	2
indet.	fragment	5			5
	fragment/offcut	1			1
	object	1	1		2
	sheet	4		7	11
	strap		2		2
	strap/sheathing		3		3
	strip	2	3	1	6
	wire fragment	2			2
structural fittings	drop hinge		1		1
	drop hinge?		1		1
	hinge staple		5		5
	hook		1		1
	loop hinge		2		2
tools	chisel		1		1
waste	waste			14	14
<b>Total</b>		<b>20</b>	<b>595</b>	<b>24</b>	<b>639</b>

## APPENDIX E: THE COINS

*Catalogue of coins from the 2019 excavation recorded on the PAS database* by Sam Moorhead



Record ID: [FASAM-3802A5](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy contemporary copy of a nummus of Constantius II (AD 337-61), dating to c. AD 355-61 (Reece Period 18), FEL TEMP REPARATIO, soldier advancing left, spearing fallen horseman. Prototype Mint of Lyons, but the mintmark, crescent and dot PLG is not used at this period, but in the AD 332.



Record ID: [FASAM-37E1D2](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus of the House of Valentinian, dating to AD 364-78 (Reece Period 19), GLORIA ROMANORVM, Emperor advancing right, holding standard and dragging captive. Mint unclear.



Record ID: [FASAM-37C69C](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus of the House of Constantine - VRBS ROMA / Wolf and twins - dating to AD 333-4 (Reece Period 17). Mint of Arles. RIC VII, p. 274, no. 379.



•

Record ID: [FASAM-379A4D](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus, probably of the House of Theodosius, dating to AD 388-402 (Reece Period 21), probably [SALVS REI PVBLICAE], Victory advancing left, holding trophy and dragging captive). Mint unclear.



•

Record ID: [FASAM-377DD8](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus of Constantine II (AD 337-40), dating to AD 337-40 (Reece Period 17), GLORIA EXERCITVS, two soldiers and one standard. Mint of Trier. RIC VIII, p. 143, cf. no. 49 passim.



•

Record ID: [FASAM-37564C](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus of Arcadius (AD 383-408), dating to AD 388-95 (Reece Period 21), VICTORIA AVGGG, Victory advancing left with wreath and palm. Mint unclear.



•

Record ID: [FASAM-37352B](#)

Broad period: ROMAN



County: West Berkshire

Copper alloy nummus of Constantius II as Caesar (AD 317-37), dating to AD 330-4 (Reece Period 17), GLORIA EXERCITVS, two soldiers and two standards. Mint of Lyon. RIC VII, p. 138, cf. no. 245 passim.

---



Record ID: [FASAM-37058A](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus of Theodora, dating to AD 337-40 (Reece Period 17), [PIETAS ROMANA, Pietas holding infant]. Mint unclear.

---



Record ID: [FASAM-36E7A4](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus of Theodosius I (AD 379-95), dating to AD 388-95 (Reece Period 21), VICTORIA AVGGG, Victory advancing left, holding wreath and palm. Mint of Arles. LRBC p. 57, nos. 565 / 568.

---



Record ID: [FASAM-36ACFA](#)

Broad period: ROMAN

County: West Berkshire

Copper alloy nummus of Constans (AD 337-50), dating to AD 347-8 (Reece Period 17), VICTORIAE DD AVGGQ NN, Two Victories. Mint unclear.

## APPENDIX F: CERAMIC BUILDING MATERIAL

### ***Ceramic Building Material*** by Jacky Sommerville

A sample of 442 fragments of ceramic building material (CBM) (27218g), from 38 separate deposits and as unstratified finds, was retained for analysis from the 2019 excavation. This sample was representative of total weights of 35.08kg of brick and 72.96kg of tile recovered from Trench 1 contexts, and 76.56kg of brick and 189.64kg of tile from Trench 2. A total quantification of brick and tile recovered from Trench 1 and 2 contexts is provided in Table 11, below. All CBM fragments were hand-recovered, with the exception of one fragment of brick retrieved from a bulk soil sample of demolition deposit 1015. The assemblage has been counted, weighed and classified according to type (Table 9), on an MS Access database. Basic fabric types have been assigned to all fragments, except for the tesserae. Marks, dimensions (where applicable) and the occurrence of over-firing have also been recorded.

#### ***Provenance***

Most of the assemblage was recovered from demolition and dump deposits, and topsoil (43.6%, 16.7% and 18.2% respectively, Table 10). Most is from Trench 2 (90.5% by weight).

#### ***Fabric***

Just two broad fabric types were recorded from the assemblage – tempered with sand and with sand-and-grog (Table 9). Sandy fabrics comprise 68% by weight, and 73% by count. Both fabrics were used for all types of building material, but the sand-and-grog tempered fabric features more heavily among the *tegulae* than among the other types.

#### ***Brick***

Eight fragments of brick were recorded (31.1% of the assemblage by weight) from demolition and dump deposits, and topsoil. Thickness ranges from 34mm to 60mm, however, all but one measure 34mm to 45mm in thickness. Two fragments are over-fired – from demolition deposits 1015 and 2003. Dog paw-prints were recorded on two fragments; from dump deposit 2005 (Ra. 4), and topsoil deposit 2000. A fragment from dump deposit 2020 retains the full width of 208mm (8”), enabling it to be classified as a *bessalis*. A probable *pedalis* or *Lydion*, from demolition deposit 2021, measures 270mm in width.

#### ***Flue tile***

Flue tile makes up almost a quarter of the assemblage; 24.1% by weight. Most was recovered from demolition and dump deposits (including wall collapse deposit 1010), although some came from occupation layers, topsoil and modern land drains. One fragment, from demolition deposit 2006, is overfired, and one full width fragment was recorded from demolition deposit 2004 (185mm).

#### ***Roofing***

The recovered roofing material comprises three fragments of *imbrex* (curved tile) from demolition (including wall collapse 2023), and dump deposits, and ten of *tegula* (flanged tile) from demolition

deposits (including wall collapse deposit 1010), a dump deposit, a floor and an occupation layer. *Imbrices* make up the smallest proportion of the assemblage, at only 1.4% by weight, and *tegulae* comprise 26.9%. Of the *tegulae*, four feature cutaways (from demolition deposits 1025 and 2026, dump deposit 2005 and occupation layer 2030). Signature marks were noted on fragments from demolition deposit 2004 and from dump deposit 2005. The former fragment also displays a cat's paw-print.

### ***Tesserae***

Ceramic tesserae total 109 (11.7% of the assemblage by weight), most of which were retrieved from demolition deposits, including wall-collapse deposit 2023. Several were recorded from dump deposits, occupation layers, topsoil and a land drain. Only seven small tesserae were included in the assemblage; these measure approximately 10mm across, and were recorded from demolition deposit 2015. The remainder are substantially larger, with an average weight of 31g. Dimensions were not recorded, but a rough average would be 35 x 25mm.

### ***Unclassified fragments***

A relatively small proportion of the assemblage (4.7% by weight) is composed of featureless fragments measuring less than 30mm in thickness, which cannot be classified. One of these, from topsoil deposit 2000, has been over-fired. A fragment, from demolition deposit 2023, features a curved outer edge, although it is unclear whether this is an intentional feature of a specialist form.

**Table 9: Breakdown of the ceramic building material assemblage**

Classification	Sand-tempered fabric		Grog-and-sand tempered fabric		Total		% by weight
	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	
Brick	7	6339	1	2010	8	8349	31.1
Imbrex	2	333	1	55	3	388	1.5
Tegula	7	3370	3	3863	10	7233	26.9
Flue tile	32	4988	13	1477	45	6465	24.1
Fragment	27	1114	10	149	37	1263	4.7
Tessera	-	-	-	-	109	3129	11.7
<b>Total</b>	<b>75</b>	<b>16144</b>	<b>28</b>	<b>7554</b>	<b>212</b>	<b>26827</b>	

**Table 10: Provenance of ceramic building material assemblage**

Deposit type	Trench 1		Trench 2		Unknown		Total		% by weight
	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	
Demolition	16	1617	75	10040			91	11657	43.6
Land drain (modern)	1	150	29	1373			30	1523	5.7
Dump			35	4486			35	4486	16.7
Floor	2	352	2	1956			4	2308	8.6
Occupation layer	1	117	9	1774			10	1891	7
Silting			2	5			2	5	0.02
Topsoil	4	238	32	4655			36	4893	18.2
Unstratified					4	64	4	64	0.2
<b>Total</b>	<b>24</b>	<b>2474</b>	<b>184</b>	<b>24289</b>	<b>4</b>	<b>64</b>	<b>212</b>	<b>26827</b>	

## APPENDIX G: WORKED STONE

### *Worked Stone* by Kevin Hayward

A review of the main rock types and principal worked stone elements from Mud-Hole Boxford is presented below. These items were examined macroscopically on site, on 31st August, 2019, using a hand lens.

#### ***Architectural Fragments***

The two examples from the 2019 excavations are the first architectural elements to be uncovered from the Mud Hole villa site. The crispness of carving and the quality of the rock type, collectively comprising freestone, an even-grained limestone with an open, porous texture, enabling the rock to be worked or carved in any direction, provide further insight into the status of the villa building.

##### *Part of a lathe-turned column base*

This item (Ra. 429), was recovered from fill [2025]. It has been fashioned from a cream-coloured, compact banded shelly oolitic limestone. This can be identified as a Middle Jurassic (Bathonian) South Cotswolds limestone, comparable to Box Corngrit or Monk's Park stone from north-east Wiltshire. This would have been used to support the western portico of the villa building. It is burnt pink, so like the mosaic had suffered from the effects of heat.

##### *Fragment of a cornice element*

This item, from fill 2004, was in a fawn/brown-coloured, open-textured banded shelly oolitic limestone. This appears to be a Middle Jurassic (Bathonian) stone of South Cotswold origin, and resembling Middle Jurassic Bibury stone, from a probable source six miles east of Cirencester, or possibly a Coombe Down oolite or a Box Groundstone, from a north-east Wiltshire source. Paving slabs in this stone were identified from the 2017 excavations.

#### ***Roofing tile***

A total weight of 408.4 kg of stone roof tile fragments was recovered from Trench 1 contexts and 619.46kg from Trench 2. A complete quantification of stone roof tile elements, together with CBM, is given in Table 11, below. Collectively, these large quantities suggest a primary use of stone roofing material during the principal construction phase of the villa. The relative transport distances involved might suggest considerable expense, although this material may have been more readily sourced than ceramic tiling by the mid-fourth century.

All complete roofing elements from the 2019 excavations are of a very fine, light to dark-grey shelly oolitic limestone. This contains both very small white and black oyster fragments (*Rhynchonellid* shell), indicating a Forest Marble type, of Middle Jurassic (Bathonian) South Cotswold origin. These may be from, Wychwood Forest, Oxfordshire, or from further west, towards Cirencester and Bath. These formed the most common roofing tile type from the 2017 excavations.



**Whetstones**

An example from context (2005) was in a hard, fine red-brown ferruginous mica sandstone, of Lower Devonian origin and probably from the Forest of Dean or South Wales.

This item has been reworked from a paving slab or a thick roofing tile. It is very smooth on one side. These very hard, geologically old sandstones are ideal for re-use in this fashion.

**Table 11: quantification of stone roof tile and CBM from Trenches 1 and 2 (kg)**

TRENCH 1				TRENCH 2					
Context	Stone - tile	CBM - brick	CBM - tile	Context	Stone - tile	CBM - brick	CBM - tile	CBM - unspecified	Worked chalk
Backfill	0.835		0.474	Backfill					
Unstratified	0.164	1.511		Unstratified					
1000	51.733	7.460	1.103	2000	131.934	0.841	56.373	0.131	
1001	0.047		1.287	2001	2.634		1.102		
				2002	24.272		5.593		
1003	11.079	3.474	1.998	2003	116.015	3.722	10.322	2.053	
				2004	36.986	6.082	11.182		
1005	1.605			2005	45.523	5.490	8.291		
1006	1.050		0.793	2006	5.247		1.275		
				2007	31.380	14.675	9.502		
				2008	4.587				
1009	23.367		2.077	2009	14.251		3.554		
1010	172.378	12.165	26.706						
				2011	5.829		2.886		
				2012	52.542		6.802		
1013	6.421		0.787	2013	19.074	0.654	3.249		
1014	26.542	2.799	1.527	2014	1.789	2.263			
				2015	26.569		1.922		
1017		3.703	2.252						
1018	0.733		10.600	2018	4.976	0.408	2.331		0.15
1019	75.136	0.756	11.765	2019	0.452		0.693		
1020	9.439	0.589	5.324	2020	0.423	1.891	9.479		
1021	1.982	0.572	0.825	2021	15.917	0.558	3.168		
1022	2.311		0.015	2022	21.385	2.950	10.933		
				2023	28.752	18.930	14.373	0.905	
1024			0.477	2024			1.388		
1025	0.160		1.077	2025	19.804	0.479	0.531		
1026	20.570		2.768	2026	5.025	8.276	12.464		
				2027	1.212	3.335	3.596		
				2028	0.813		1.826		

					2030	0.379	5.488	4.837	
					2031	1.658		0.616	
					2033	0.032	0.527	0.617	
1034	2.850	2.052	1.110		2034			0.581	
					2036			0.159	
<b>TOTALS TRENCH 1</b>	<b>408.402</b>	<b>35.081</b>	<b>72.965</b>		<b>TOTALS TRENCH 2</b>	<b>619.460</b>	<b>76.569</b>	<b>189.645</b>	<b>3.089</b> <b>0.150</b>

Roofing tiles in this stone type are also common from previous excavations

### ***Quern fragment***

A quern fragment from context 2015 is an example of an imported lavastone of the Quaternary period, from the Eifel Mountains of the Rhineland region. This source is commonly associated with querns and millstones of Roman date throughout central-southern and eastern England.

### ***Design Tesserae***

Bags of loose small design tesserae and a small mosaic fragment which would have comprised part of the intact mosaic, and are made of three materials:

#### ***Indurated Chalk***

This is a hard, re-precipitated chalk from the Upper Cretaceous of the Wessex Basin, especially around Dorset. This material was noted in the central mosaic panel at Boxford, in 2017 and 2019, in the form of small white design tesserae, and comprised some 50% of all loose stone tesserae recovered from the excavations.

#### ***Kimmeridge Dolostone***

This is a very fine, soft dark-grey dolomitic mudstone, from the Upper Jurassic (Kimmeridgian) exposure at Kimmeridge Bay, Dorset. This material was noted in the central mosaic panel at Boxford, in 2017 and 2019, in the form of small dark-grey/grey design tesserae.

The loose red tesserae employed in the central mosaic panel are ceramic building material of a similar/same fabric as the larger border tesserae.

A fourth material observed *in situ*, in the wheel of the chariot within the central panel of the mosaic can be described as an olive-green/brown stone. This may be a type of greensand.

## APPENDIX H: WALL PLASTER AND MORTAR

*Wall plaster and mortar* by E. R. McSloy

A total of 109 fragments (5.1kg) of wall plaster and mortar was recovered from the 2019 excavations, adding to the 381 fragments (23.8kg) from the 2017 season (Bedford and Clark 2019). Fragment size and condition was very variable, although most pieces are small, particularly those with painted surfaces. The mean fragment weight (47g) is inflated by a small number of larger fragments, the largest from destruction debris layer 2023, which weighs 2.7kg. Pigment, where present, frequently survives only as traces.

For recording, an approach similar to that adopted for the 2017 material was used. Material was scanned by context and quantified by fragment count and weight, according to broad class and fabric (below). Details such as the presence/colour of paint and other characteristics, including moulded surfaces/impressions and brush marks, were also noted. The fabric divisions are based on macroscopic differences of colour and coarse inclusions, and these have been matched as far as possible to the fabric codings used for the 2017 season material (*ibid.*).

Table 12 shows the distribution of the assemblage by trench, and relative to deposit type, and demonstrates that the large bulk of material comes from Trench 2, and from 'destruction debris'-type deposits.

**Table 12: Mortar and Plaster summary by provenance**

Deposit type	Tr. 1		Tr. 2		Total	
	Ct.	Wt. (g)	Ct.	Wt. (g)	Ct.	Wt. (g)
Unstratified					2	74
Destruction debris	3	59	75	4091	78	4150
External dump			3	10	3	10
External occupation			5	321	5	321
Fills (ditches, pits/postholes)	3	45	2	23	5	68
Masonry					16	538
<b>Totals</b>	<b>6</b>	<b>104</b>	<b>16</b>	<b>538</b>	<b>109</b>	<b>5161</b>

### *Assemblage range*

**Table 13: Mortar and Plaster: Breakdown by material class**

Class	Count	Weight
Undiagnostic (no surface)	48	870
Plaster/mortar moulding, painted	1	384
Plaster/mortar moulding, plain	8	3016
Painted (wall plaster)	46	652
Plain (plaster/mortar)	6	239
<b>Total</b>	<b>109</b>	<b>5161</b>

The categories for recording mortar/plaster classes and their quantities are set out in Table 13. The largest proportion (44%) consists of undiagnostic fragments, lacking surfaces or other indications of

use, although a proportion of this material (6 fragments; 75g) consists of *opus signinum* fragments – a waterproof render or flooring material.

Some 47 fragments (43%) preserved paint traces. In the large majority of cases, this had been applied to a thin skim of plaster or finishing coat. In one instance (pinkish) pigment appears to have been applied thinly to the surface of a plaster or mortar moulding – a block-like piece, Ra. 453, recovered from masonry feature 2054. In the remaining painted plaster, a narrow palette of colours is in evidence, more so than for the 2017 assemblage (*ibid.*, 194). White/cream is commonest (27 pieces or 57%), followed by pink/orange (13 pieces or 28%) and red/dark red (5 pieces or 11%). A single piece, from destruction debris layer 2015, features elaboration in the form of a white band painted on a red ground. On only one piece were marks from paint application evident – on a small (white-painted) fragment, also from layer 2015, where marks from a coarse-bristled brush were apparent.

No clear evidence was recorded for the use of multiple backing layers of the kind noted with the 2017 excavated assemblage from the nearby Hoar Hill villa (*ibid.*). This may be as the result of fragmentation, which is consistently high for the painted component, and it is possible that breakage occurs at the horizon of backing layers of differing consistencies. For the large majority of painted pieces (41 fragments), the pigment was applied to a thin skim layer of 1-2mm, backed by a secondary pink, chalky fabric (equivalent to 2017/Type B), described below. Where thickness was measurable (for three fragments only), this was in the range 19–28mm. More rarely (5 pieces) the paint was applied to a skim backed by a coarser, stony backing fabric (equivalent to 2017/Type C).

Fragments with smoothed, unpainted surfaces occur in small quantities (Table 14). The manner use for this material, and for the mortar/plaster mouldings, is unclear. The prevalent use of a white fabric (equivalent to 2017/Type A) may be intentional for aesthetic motives, or perhaps for reasons of durability. Fragments from destruction debris layers 2012 and 2023 feature the impressions of timber or masonry to their rear, suggesting application direct to walling. Where measurable, such material was 31–47mm in thickness. Among the mouldings, the largest piece is from destruction debris layer 2023, which preserves two surfaces forming a rough chamfer. None of the mouldings are well-finished or exhibit elaboration, which may suggest that their primary use was not as architectural detail or decoration.

### **Fabrics**

Descriptions for the plaster/mortar fabrics are set out below, and Table 14 shows their quantities relative to class. Unsurprisingly, there is good correspondence with the fabrics (coded A–D) recorded from the 2017 excavations, although there are differences in relative abundance. Perhaps most notable is the scarcity of *opus signinum*, though much of this material from the 2017 excavation related to Trench 1, which was centred on the bath suite.



*White, chalky*: White plaster/mortar containing common coarse chalk inclusions. May occasionally contain iron oxides. Mostly unpainted and utilized primarily as mouldings. 41 fragments (38%); 4212g (82%). Corresponds with 2017 excavations Fabric A (Bedford and Clark 2019, 196–197).

*Pink/buff, chalk-rich*: Pinkish plaster/mortar containing common, small chalk inclusions and sparse sand. Primarily used as backing for painted plaster. 55 fragments (50%); 607g (12%). Corresponds with 2017 excavations Fabric B (*ibid.*).

*White, coarse*: Open-textured white plaster/mortar, containing common sand, small stones, including flint. Primarily used as backing for painted plaster. 7 fragments (7%); 267g (5%). Corresponds with 2017 excavations Fabric C (*ibid.*).

*Opus signinum*: Pink-coloured mortar, containing chalk and crushed tile/brick. Used as waterproof linings or flooring. 6 fragments (6%); 75g (1%). Corresponds with 2017 excavations Fabric D (*ibid.*).

**Table 14: Mortar/plaster summary by fabric and attributes**

Fabric*	Class (Ct./Wt.(g))					Total	
	painted	plain	moulding, (painted)	moulding, (plain)	Undiag.	Ct.	Wt.(g)
White, chalky (A)		3;168	1;384	7;2992	30;668	41	4212
Pink, chalk-rich (B)	41;423	2;53		1;24	11;107	55	607
White, coarse (C)	5;229	1;18			1;20	7	267
<i>Opus Signinum</i> (D)					6;75	6	75
<b>Totals</b>	<b>46;652</b>	<b>6;239</b>	<b>1;384</b>	<b>8;3016</b>	<b>48;870</b>	<b>109</b>	<b>5161</b>

\*codes in parenthesis are equivalent types noted from 2017 excavations (Bedford and Clark 2019)

### Summary discussion

The plaster/mortar assemblage is smaller than that recovered from the 2017 excavations. Generally, it is of similar character, excepting the scarcity of *opus signinum*, which is readily explained by the siting of the 2019 trenches away from the bath house building. The painted plaster comes mostly from Trench 2, focused on the mosaic room. This material is well-fragmented but provides further evidence for painted walls relating to this room, and for a simple red and white (panel?) scheme.

## APPENDIX I: THE ANIMAL BONE

**Animal Bone** by Matilda Holmes

### Summary

A moderate assemblage just over 1700 animal bones was recovered from Late Roman contexts. Preservation was good to fair, and a diverse range of taxa were recorded, indicating that this was a site of some status. The inhabitants would have enjoyed hunting and a rich diet.

### Methodology

Bones were identified using the author's reference collection. Due to anatomical similarities between sheep and goat, bones of this type were assigned to the category 'sheep/ goat', unless a definite identification (Zeder and Lapham 2010; Zeder and Pilaar 2010) could be made. Horses, donkeys and mules were separated based on long bone measurements and teeth (Davis *et al.* 2008; Eisenmann 1986; Johnstone 2006). Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (micro – rat/ vole size; small – cat/ rabbit size; medium – sheep/ pig/ dog size; or large – cattle/ horse size). Ribs were identified to size category, where the head was present, vertebrae were recorded when the vertebral body was present, and maxilla, zygomatic arch and occipital areas of the skull were identified from skull fragments. Due to difficulty with the identification of post cranial bones of micro-mammals, only their mandibles and maxillae were identified to taxa.

Tooth wear and eruption were recorded using guidelines from Grant (1982) and Payne (1973), as were bone fusion, metrical data (von den Driesch 1976), anatomy, side, zone (Serjeantson 1996) and any evidence of pathological changes, butchery (Lauwerier 1988) and working. The condition of bones was noted on a scale of 0-5, where 0 represented fresh bone and 5, where the bone was disintegrating (Behrensmeyer in Lyman 1994, 355). Other taphonomic factors were also recorded, including the incidence of burning, gnawing, recent breakage and refitted fragments. All fragments were recorded, although articulated or associated fragments were entered as a count of 1, so they did not bias the relative frequency of species present. A number of sieved samples were collected, but because of the highly fragmentary nature of such samples, a selective process was undertaken, whereby fragments were recorded only if they could be identified to species and/ or element, or showed signs of taphonomic processes.

Bones were only included in analysis if they came from features that could be securely dated. Quantification of taxa used a count of all fragments (NISP – number of identified specimens), and that of anatomical elements was done using a restricted count of epiphyses only, based on Grant (1975). Redistribution of different carcass parts was investigated, whereby the more robust, dense elements are most likely to survive in terms of preservation if whole carcasses are disposed of (after Brain 1981). Mortality profiles were constructed, on the basis of tooth eruption and wear of mandibles (Grant 1982; Jones and Sadler 2012) and bone fusion (O'Connor 2003).

### ***Taphonomy and Condition***

Bones were generally in good to fair condition (Table 15), although several refitted fragments and freshly broken bones were recorded, indicating that the assemblage was friable upon excavation. A few gnawed fragments suggest that bones were not always disposed of immediately following discard. The presence of loose as well as several broken teeth further indicate some post-depositional movement, particularly in the destruction deposits. A few incidences of butchery and burning were observed, although there were no large concentrations of burnt bone to imply that bones were routinely exposed to fire, either through cooking or disposal.

There were no obvious deposits of butchery, skin-processing or craft-working waste, suggesting that the assemblage derived from general rubbish deposits. There was also an absence of associated bone groups, which indicates a lack of primary contexts. The general taphonomic trends are consistent with disturbed deposits of general refuse.

### ***Carcass Representation and Butchery***

Bones came from all parts of the carcass, and although sample sizes were small, some trends are apparent. Only pigs had carcass parts in quantities consistent with the deposition of complete carcasses (Table 16), suggesting they were culled, processed and consumed on site. The sheep/goat assemblage was too small to provide reliable information. All parts of the cattle carcass were represented in similar proportions, with a slight over-representation of the upper limbs although the sample size was again small (Table 16). Red deer bones were dominated by upper limb elements, indicating that they were brought to the site as joints of meat (Table 16; Fig. 1a).

Butchery marks were commonly recorded on pig and red deer bones and, less often, on cattle, sheep/goat and chicken bones. Butchery marks generally reflect the processes of carcass reduction to pot-sized joints of meat, which is consistent with the bias towards meat-bearing bones. Exceptions include a cattle first-phalanx, with a cut-mark typical of skinning, and two fragments of antler, one with saw-marks to a tine, and another that had been chopped through. Butchery of equid and badger bones was occasionally observed on the lower hind leg; cuts that probably reflect removal of the skin.

### ***Species Representation and Diet***

Pig and red deer bones were most commonly recorded, with lower numbers of cattle and sheep/goat (Table 17). Chickens were also well-represented, with a few other domestic mammals (equid, canid, cat) also present. Where identifications were possible using metrical and/ or morphological analysis, equids were represented by horses rather than donkeys, and canids by dogs rather than foxes or wolves. As well as the red deer, other wild mammals included hare and badger. Birds included duck (cf. tufted duck), goose, jackdaw, turdus (cf. redwing) and small passerines. Further finds of field vole, small passerine and frog/toad came from the samples.

Such high numbers of pig and red deer are unusual on contemporary sites (Table 18). A diet based on beef and pork is typical of urban, military and villa sites which exhibit a strong identification with

Roman lifestyles (King 2001, 8). It is probable that many of the wild animals, including goose, duck, small passerines and hare, also formed part of the diet, although the badger may have been more useful for fur, and the field vole, and frog/ toad were probably incidental inclusions. The diverse range of wild animals emphasises the important role of hunting to those living at the site. In Britain, the procurement of venison is most evident at villa sites in the later Roman period, and hunting would have been carried out by elites as a display of status (Allen 2014).

### ***The Assemblage***

Cattle and sheep/ goat samples are small, with very little mortality data, although some evidence is available from long-bone fusion. Cattle were culled as adult and older adult animals, while sheep were culled at younger adult as well as older adult stages (Table 19). This implies that some were kept for meat, while others were important for secondary products such as milk, wool or traction. Cattle measurements were within the range recorded at contemporary Elm's Farm, Heybridge, Essex (Atkinson and Preston 2015).

More data were available for pigs. Both tooth wear and fusion data imply that pigs were culled at all ages, from juvenile to adult (Tables 19 and 20). This is an unusual pattern, as domestic pigs were usually culled prior to, or at, maturity, to provide an optimum meat to cost ratio. The older animals may represent breeding stock or wild pigs, although it should be noted that no exceptionally large pig bones were recorded, suggesting that wild boar were not present. Red deer were also recovered in notable quantities, and the fusion data suggest that they died before reaching old age, as all but one of the vertebrae (the latest fusing elements) were fused. Most other long bones were fused, indicating that although animals were not old, they were largely mature at death.

The porous bones of perinatal calves, lambs and piglets were present suggesting that they were bred close by, and/ or that very young animals were consumed as a delicacy (Alcock 2001, 35).

Equid remains came from legs and vertebrae, nearly all of which were fused suggesting that they were used as working animals. Chicken bones were just fusing, implying that they were consumed at a young age, and would not have been used for egg production or fighting.

### ***Summary***

The animal bones from the 2019 excavations at Boxford represent a highly unusual assemblage, with exceptionally high numbers of pig and red deer that are unparalleled at other contemporary sites. High pig numbers suggest the emulation of a distinctively 'Roman' diet, more typical of Italian sites or high-status sites in the south-west Germany/eastern Switzerland region (King 2001). However, it appears to be a spatially-specific trend, as previous excavations produced very low proportions of pigs and no deer remains (Holmes 2017). It therefore suggests that this area of the site was used to dispose of the remains of some lavish meals, including venison, pork, wild birds and suckling pig.



**Table 15: Condition and taphonomic factors affecting the hand-collected assemblage identified to taxa and/ or element. Teeth included where stated**

Condition	Ct.
Fresh	
Very good	1
Good	248
Fair	120
Poor	11
Very poor	
<b>Total</b>	<b>380</b>
Refit	37=101
Fresh break	39
Gnawed	28
Loose mandibular teeth*	11
Teeth in mandibles*	18
Butchery	24
Burning	72**

\*deciduous and permanent 4th premolar and molars

\*\*includes unidentified fragments

**Table 16: Species representation by anatomical element in order of expected preservation (Epiphysis count). Hand-collected bones**

Element	Cattle	Sheep/ goat	Pig	Red deer
Mandible*	1	1	5	2
Metacarpal P	1	2	6	1
Metatarsal P	2	1	7	
Humerus D		1	1	9
Tibia D			5	3
Radius P	3		3	8
Pelvis	1	1	1	1
Scapula D	1	1	1	1
Metacarpal D			1	1
Metatarsal D	1	1		1
Femur P			2	4
Radius D		1	1	2
Tibia P	2			1
Femur D	1			2
Humerus P	1		1	
1st phalanx*	1	1	1	1
2nd phalanx*				
3rd phalanx*				
<b>Total</b>	<b>15</b>	<b>10</b>	<b>35</b>	<b>37</b>

Mandibles with dp4, M1-3; counts of phalanges adjusted for frequency bias

**Table 17: Late Roman species representation (NISP)**

Taxa	Hand-collected	Samples
Cattle	41	
Sheep/ goat	41	4
Sheep	3	
Goat	1	
Pig	157	5
Equid	9	
Canid	4	
Cat	1	
Deer	4	
Red deer	116	
Hare	1	
Field vole		4
Badger	6	
Chicken	22	
Goose	1	
Duck	2	
Jackdaw	1	
Turdus	1	
Passerine	2	1
Frog/ toad	1	1
<b>Total identified</b>	<b>414</b>	<b>15</b>
Unidentified mammal	11	
Large mammal	853	
Medium mammal	403	
Small mammal	4	
Micro-mammal		21
Bird	17	
<b>Total</b>	<b>1702</b>	

**Table 18: Comparison of the species representation from Boxford and that of other high-status villas (data from Allen et al. 2015)**

Site	County	Phase	Ncsp	% Cattle	% Sheep/ goat	% Pig	% Red deer
Boxford	Berkshire	Late Roman	243	17	19	65	48
Fishbourne Palace	West Sussex	Mid-late Roman	1108	42	26	31	4
Fishbourne Palace	West Sussex	Late Roman	1412	40	26	34	5

Latimer	Buckinghamshire	Middle Roman	208	64	21	15	15
Latimer	Buckinghamshire	Late Roman	460	82	5	13	22
Shakenoak Farm	Oxfordshire	Late Roman	6850	56	27	17	6
Piddington	Northamptonshire	Mid-late Roman	2936	43	23	30	4

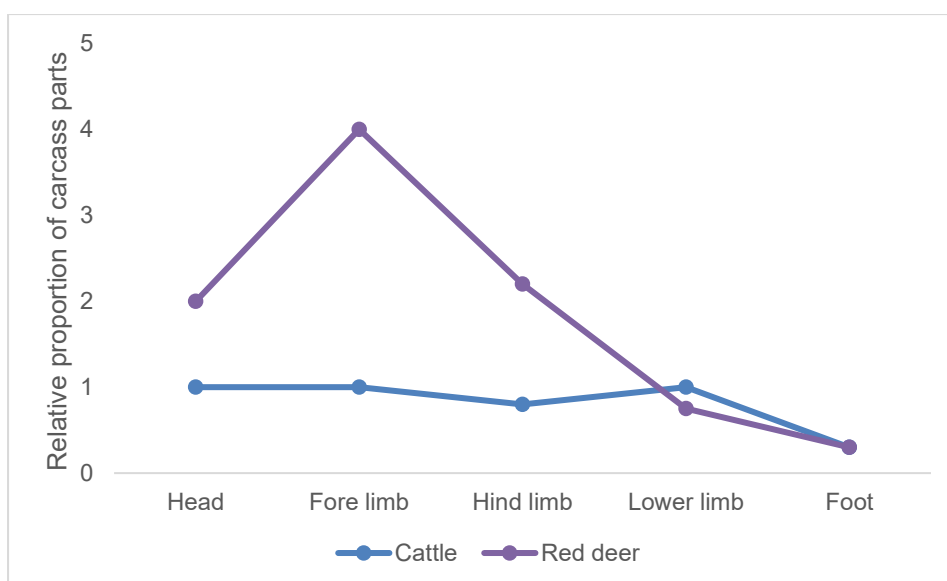
**Table 19: Fusion data for the main domesticates.**

Cattle	U	F	Sheep/ goat	U	F	Pig	U	F	%F
Early		6	Early	1	2	Early	1	9	90
Intermediate			Intermediate	1	1	Intermediate	3	10	77
Late	1	2	Late		1	Late	2	4	67
Final	5	3	Final		2	Final	6	6	50
<b>Total</b>	<b>6</b>	<b>11</b>	<b>Total</b>	<b>2</b>	<b>6</b>	<b>Total</b>	<b>12</b>	<b>29</b>	

U= unfused; F= fused

**Table 20: Pig mandible wear-stages**

Stage	Pig
A	1
B	1
C	
D	1
E	1
F	
G	
H	
I	



Head= mandible; Fore limb= scapula, humerus and radius; Hind limb= pelvis, femur and tibia; Lower limb= metapodials; Foot= phalanges

**Figure 11: mean proportion of bones by carcass part. Quantities given in Table 15.**

## APPENDIX J: PLANT MACROFOSSILS

### *Plant Macrofossils* by Sarah F. Wyles

The charred plant remains, from a total of eight bulk soil samples, were analysed from a range of deposits of Roman date; seven of these were from Period 1, and one from Period 2. The Period 1 samples were from deposits 1022 and 1018, associated with walls 1008 and 1011 respectively, waste deposit 1015 in Trench 1, deposits 2022 and 2027 associated with wall 2029, and deposits 2013 and 2020, associated with wall 2048 in Trench 2. The Period 2 sample was taken from gully 1033 in Trench 1.

The bulk samples were processed following standard flotation methods, using a 250µm sieve for the recovery of the flot, and a 1mm sieve for the collection of the residue. All identifiable charred plant remains were identified following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary *et al.* (2012) for cereals. The results are recorded in Table 21, below.

#### **Period 1**

##### *Trench 1*

A moderate quantity of charred plant remains was recovered from deposit 1022 (sample 306), associated with wall 1008. This assemblage was dominated by cereal remains, with chaff elements outnumbering grains. The cereal remains included those of spelt wheat (*Triticum spelta*) and barley (*Hordeum vulgare*). The weed seeds included those of vetch/wild pea (*Vicia/Lathyrus* sp.), clover/medick (*Trifolium/Medicago* sp.), bedstraw (*Galium* sp.) and curled dock (*Rumex crispus*). This charred plant assemblage may represent a mixture of crop processing waste derived from the de-husking of hulled grain stored as semi-cleaned grain, or in spikelet form (Hillman 1981; 1984), and of accidental waste material.

Sample 305 from deposit 1018, associated with wall 1011, contained a moderately small number of charred plant remains. These were predominantly those of cereal, with grains being more numerous than chaff elements. Again, they included remains of spelt wheat and barley. The weed seeds included those of dock (*Rumex* sp.) and vetch/wild pea. This assemblage may represent a dump of domestic waste material.

A few charred plant remains were recorded from waste deposit 1015 (sample 304). These included remains of spelt wheat and curled dock.

##### *Trench 2*

Small numbers of charred plant remains were recovered from deposits 2022 (sample 301) and 2027 (sample 303), associated in 2029. These remains were predominantly those of cereal, and included those of barley, spelt wheat, seeds of docks, bedstraw and vetch/wild pea, and hazelnut (*Corylus avellana*) shell fragments.

Sample 300, from deposit 2013, and sample 302 from deposit 2020 associated with wall 2048, contained moderate numbers of charred plant remains. These remains were predominantly those of



cereal, including those of barley, spelt wheat and emmer wheat (*Triticum dicoccum*). A single germinated hulled wheat (emmer or spelt (*Triticum dicoccum/spelta*) grain in the assemblage was from deposit 2013. The other remains included seeds of goosefoot (*Chenopodium* sp.), persicaria (*Persicaria* sp.), curled dock and vetch/wild pea, and hazelnut shell fragments. These assemblages may represent a mixture of crop processing waste, derived from the de-husking of hulled grain stored as semi-cleaned grain or in spikelet form, and of accidental waste material.

## **Period 2**

### **Trench 1**

A low number of charred plant remains were recovered from gully 1033 (sample 307). Again, these were dominated by cereal remains, in particular grains. The cereal remains included those of barley and spelt wheat, and the other remains seeds of buttercup (*Ranunculus* sp.), docks, clover/medick, and brambles (*Rubus* sp.), and a possible apple/pear type (*Malus/Pyrus* type) pip.

### **Summary**

These assemblages augment the results from the samples from the earlier phase of work on the villa (Wyles 2019, 243). The cereal remains recovered within these assemblages are compatible with the Roman date of these deposits. During the Roman period in Southern Britain, spelt wheat was the predominant wheat species (Greig 1991). Spelt wheat, together with barley and emmer wheat, has been recorded in other assemblages of this date in the region, including Castle Copse Villa, Great Bedwyn (Clapham and Gleason 1997) and Littlecote Villa, Wilts (Wyles 2014), as well as in the assemblages recovered during earlier work at Boxford.

A number of the assemblages provide indications of crop processing, possibly the late stage of processing involving the de-husking of hulled grain which was stored as semi-cleaned grain or in spikelet form.

The small numbers of weed seeds include species generally typical of grassland, field margins and arable environments. The presence of low-growing species, including clover or medick and twinning species, such as vetches/wild peas and bedstraw, may suggest a low harvesting height by sickle (Hillman 1981), a typical harvesting technique for the period. There is also a small indication of the exploitation more marginal environments, including hedgerows and scrub, and woodland edges.

Table 21: Charred plant Identifications

Phase		Phase 1							Phase 2
Area		TR 1			TR 2				TR 1
Feature type		Deposit/ later activity associated with wall 1008	Deposit/ later activity associated with wall 1011	waste deposit	Deposit/ later activity associated with wall 2029		Deposit/ later activity associated with wall 2048		Gully 1033
Context		1022	1018	1015	2022	2027	2013	2020	1034
Sample		306	305	304	301	303	300	302	307
Vol (L)		14	19	17	15	15	14	14	19
Flot size		40	60	40	100	30	75	35	40
%Roots		60	60	35	15	40	40	25	40
Cereals	Common Name								
<i>Hordeum vulgare</i> L. <i>sl</i> (grain)	barley	1	1	-	5	3	2	-	1
<i>Triticum dicoccum</i> (Schübl) (glume base)	emmer wheat	-	-	-	-	-	-	1	-
<i>Triticum spelta</i> L. (grain)	spelt wheat	1	1	1	-	-	3	2	1
<i>Triticum spelta</i> L. (glume bases)	spelt wheat	7	4	-	1	-	7	8	1
<i>Triticum dicoccum/spelta</i> (grain)	emmer/spelt wheat	2	5	1	3	-	3	3	3
<i>Triticum dicoccum/spelta</i> (germinated grain)	emmer/spelt wheat	-	-	-	-	-	1	-	-
<i>Triticum dicoccum/spelta</i> (spikelet fork)	emmer/spelt wheat	7	5	-	-	-	1	2	-
<i>Triticum dicoccum/spelta</i> (glume bases)	emmer/spelt wheat	8	5	1	-	-	8	4	2
<i>Triticum sp.</i> (grain)	wheat	-	1	1	-	-	2	-	-
Cereal indet. (grains)	cereal	6	5	2	7	1	5	5	5
Cereal frag. (est. whole grains)	cereal	6	8	2	4	1	7	5	5
Cereal frags (rachis frags)	cereal	-	-	-	-	-	-	1	-
Other Species									
<i>Ranunculus sp.</i>	buttercup	-	-	-	-	-	-	-	1
<i>Corylus avellana</i> L. (fragments)	hazelnut	-	-	-	1	1	1	-	-
<i>Chenopodium sp.</i> L.	goosefoot	2	-	-	-	-	1	-	-
<i>Persicaria lapathifolia/maculosa</i> (L.) Gray/Gray	pale persicaria/redshank	-	-	-	-	-	1	-	-
<i>Rumex sp.</i> L.	docks	1	1	-	1	1	-	-	1
<i>Rumex crispus</i> L. Type	curled dock	2	-	1	-	-	-	1	-
<i>Rubus sp.</i>	brambles	-	-	-	-	-	-	-	1
<i>Malus/Pyrus</i> type pip	apple/pear	-	-	-	-	-	-	-	cf. 1
<i>Vicia L./Lathyrus sp.</i> L.	vetch/wild pea	4	1	-	1	1	-	1	-
<i>Medicago/Trifolium sp.</i> L.	medick/clover	2	-	-	-	-	-	-	1
<i>Galium sp.</i> L.	bedstraw	1	-	-	-	1	-	-	-
Mineralised nodule		-	-	-	-	2	-	-	-

## APPENDIX K: MOLLUSCS

**Molluscs** by Sarah F. Wyles

Mollusc shells were recorded in varying quantities in seven of the eight samples from this phase of work on the villa. The shells have been recorded by species in Table 22, below, following the nomenclature of Anderson (2205). Habitat preferences are according to Kerney (1999) and Davies (2008).

Shell numbers were moderate to high within the seven samples assessed, and there was generally moderate to high species diversity within the assemblage. The species present include the open-country species *Vallonia costata*, *Vallonia excentrica*, *Vertigo* sp. and *Helicella itala*, the intermediate species *Cochlicopa* sp., *Deroceras/Limax* sp., *Cepaea/Arianta* sp. and *Trochulus hispidus*, and the shade-loving species *Discus rotundatus*, *Carychium* sp., *Aegopinella nitidula*, *Aegopinella pura*, *Oxychilus cellarius*, *Vitrea* sp., *Merdigera obscura*, *Acanthinula aculeata*, *Cochlodina laminata* and *Clausilia bidentata*. There were also a few shells of aquatic species in two of the assemblages, those of the amphibious species *Anisus leucostom*, in sample 306 from deposit 1022, and those of the ditch species *Valvata cristata* and the aquatic species *Pisidium* sp., in sample 305 from deposit 1018.

*Acanthinula aculeata*, *Cochlodina laminata* and *Merdigera obscura*, species typical of woodland, may indicate the presence of woodland/scrub environments within the vicinity of the Mud Hole villa. Alternatively, some of the other species recorded on the site (*Cepaea*, *Trochulus hispidus*, *Discus rotundatus*, *Oxychilus cellarius*, *Aegopinella nitidula*, *Vallonia costata*, *Vitrea*, *Cochlicopa lubrica* and *Clausilia bidentata*) can be classed as synanthropes, typical of garden environments. The other terrestrial mollusc species may be indicative of an open grassland landscape within the wider surrounding area. This is similar to the local environment indicated by the mollusc assemblages recovered from the previous phase of work on the site. However, there is also a small indication of aquatic environments in two assemblages from this phase of work. *Anisus leucostoma* is a species which thrives in areas subject to seasonal flooding and desiccation, and may be indicative of some damper grassland in the vicinity of wall 1008. *Valvata cristata*, on the other hand, 'is a species restricted to well-oxygenated, slowly flowing or still water, with a strong preference for richly vegetated places on muddy substrates' (Kerney 1999, 27). It is possible that the shells of *Valvata cristata* and *Pisidium* were brought on to site near wall 1011 with the collection of water.

Table 22: Mollusc shell quantifications

Phase		Period 1							Period 2
Area		TR 1			TR 2				TR 1
Feature type		Deposit/ later activity associated with wall 1008	Deposit/ later activity associated with wall 1011	waste deposit	Deposit/ later activity associated with wall 2029		Deposit/ later activity associated with wall 2048		Gully 1033
Context		1022	1018	1015	2022	2027	2013	2020	1034
Sample		306	305	304	301	303	300	302	307
Vol (L)		14	19	17	15	15	14	14	19
Molluscs	Habitat								
<i>Carychium</i> spp.	S	X	X	-	X	-	X	X	-
<i>Cochlicopa</i> spp.	I	X	-	-	X	X	-	X	X
<i>Vertigo</i> sp.	O	X	X	-	-	-	-	-	X
<i>Vallonia costata</i> (Müller)	O	X	X	-	X	X	X	X	X
<i>Vallonia excentrica</i> Sterki	O	X	X	-	X	X	X	X	X
<i>Acanthinula aculeata</i> (Müller)	S	-	X	-	-	-	X	-	-
<i>Merdigera obscura</i> (Müller)	S	-	-	-	X	-	-	-	-
<i>Discus rotundatus</i> (Müller)	S	X	X	-	X	X	X	X	X
<i>Vitrea</i> sp.	S	-	X	-	X	X	X	X	X
<i>Aegopinella pura</i> (Alder)	S	X	X	-	X	X	X	X	X
<i>Aegopinella nitidula</i> (Draparnaud)	S	-	-	-	X	X	X	X	-
<i>Oxychilus cellarius</i> (Müller)	S	X	X	-	X	-	-	-	X
<i>Deroceras/Limax</i>	I	-	X	-	X	X	-	-	X
<i>Cochlodina laminata</i> (Montagu)	S	X	-	-	X	-	-	-	-
<i>Clausilia bidentata</i> (Ström)	S	X	-	-	X	-	-	-	-
<i>Helicella itala</i> (Linnaeus)	O	X	X	-	X	X	-	-	X
<i>Trochulus hispidus</i> (Linnaeus)	I	X	X	-	X	X	X	X	X
<i>Cepaea/Arianta</i> sp.	I	-	X	-	X	X	-	-	-
<i>Valvata cristata</i> Müller	D	-	X	-	-	-	-	-	-
<i>Anisus leucostoma</i> (Millet)	A	X	-	-	-	-	-	-	-
<i>Pisidium</i> sp.	U	-	X	-	-	-	-	-	-
<b>Total</b>		***	****	0	*****	***	****	***	****

Key: O = open country species, I = intermediate species, S = shade-loving species, D = ditch species, A = amphibious species, U = unassigned aquatic species



## APPENDIX L: WOOD CHARCOAL

**Wood Charcoal** by Dana Challinor

### **Introduction and Methodology**

Eight samples of charcoal from the second, 2019 phase of excavation at Mud Hole Villa were provided for analysis. A range of deposits associated with walls, waste deposits and a gully were examined to determine the types and character of fuelwood used in domestic activities at the villa, and how this compared to the results from the earlier excavations. All of the material probably derived from occupation debris from the villa.

Standard identification procedures were followed using identification keys (Hather 2000, Schweingruber 1990), and modern reference material. Up to 50 fragments per sample were identified, where available. The charcoal was fractured and examined at low magnification (up to X45), with representative fragments examined in longitudinal sections at high magnification (up to X400). Observations on maturity and other features were made, where appropriate. Classification and nomenclature follow Stace 1997. The results are summarised in Table 23, below.

### **Results**

The preservation of the charcoal was generally good, but fragment sizes tended to be small. Identification of material measuring <4mm in transverse section can be difficult, and the determination of maturity is hampered in smaller fragments. The quantity of charcoal in the contexts varied significantly, with abundant material in only two samples (300 and 301). Sample 305 was too sparse in identifiable charcoal, and was not included in the table; traces of *Betula* and *Fraxinus* were recorded. Some iron staining was recorded in sample 301 and strong vivianite deposits were also noted in sample 307, which is indicative of deposition in waterlain or seasonally waterlogged deposits.

Nine taxa were positively identified:

*Quercus* sp., oak

*Betula* sp., birch

*Corylus avellana*, hazel

*Populus/Salix*, poplar/willow

*Prunus* sp., blackthorn/cherry

Maloideae, incl. *Malus*, apple; *Sorbus*, service tree/whitebeam/rowan; *Crataegus*, hawthorn.

*Acer campestre*, field maple

cf. *Hedera helix*, ivy

*Fraxinus excelsior*, ash

The identified taxa were all consistent with native species. One *Prunus* fragment (from sample 307) clearly exhibited the wide rays characteristic of *P. spinosa* (blackthorn) or the introduced *P. domestica* (plum). Given that sloe seeds were recorded at the site previously, it is likely that blackthorn is represented. Other *Prunus* fragments were not sufficiently diagnostic to confirm species, and it is

possible that a second species is present. Where possible to assess, much of the charcoal derived from young wood – roundwood and sapwood.

**Table 23: Wood Charcoal identifications (showing fragment counts)**

Phase	Period 1						Period 2
Trench	TR 1		TR 2				TR 1
Feature	Deposit/ later activity associated with wall 1008	waste deposit	Deposit/late activity associated with wall 2029		Deposit/late activity associated with wall 2048		Gully 1033
Context number	1022	1015	2022	2027	2013	2020	1034
Sample number	306	304	301	303	300	302	307
<i>Quercus</i> sp. oak		8 (s)	21 (rs)	20 (sr)	37 (rs)	21 (sr)	7
<i>Betula</i> sp. birch	7	8	1	2	1		6
<i>Corylus avellana</i> L. hazel			2r	1r	3r		6
<i>Alnus/Corylus</i> alder/hazel	1						
<i>Populus/Salix</i> poplar/willow						1	
<i>Prunus</i> sp. blackthorn/cherry					1r	3r	1
Maloideae hawthorn grp		8 (r)	4 (r)	2			5
<i>Acer campestre</i> L. field maple		3	6 (r)	2r		1	
<i>Hedera helix</i> L. ivy							(1)
<i>Fraxinus excelsior</i> ash	3	2	16 (sr)	3s	8 (sr)	4 (r)	4
Indeterminate	5	1b					

h=heartwood; r=roundwood; s=sapwood; b=bark; brackets denotes cf. identification or presence in some frags only

### Discussion

The charcoal analysis from the 2019 excavations at Boxford replicates the results from the earlier excavations at the site. The species lists are notably similar; alder and elder were absent this time, and a single fragment of probable ivy was recorded, which was not present in the earlier samples, but these differences are not significant. The samples derived from similar domestic waste-type deposits or accumulations of spent fuelwood as the earlier suite of samples. The most abundant taxon was (as before) oak, with a range of open-ground and shrub types (ash, birch, hazel, blackthorn, hawthorn group, field maple) and a trace of poplar/willow, which favours wet ground habitats. The character of the wood (roundwood and sapwood) suggests the use of relatively young wood, with no confirmed evidence for mature wood (heartwood). The picture suggests a resource area of fairly open woodland, which was probably coppiced and harvested for wood on a short rotational cycle and supplemented

by occasional use of wet-ground species. Compared to the charcoal assemblages from Wyfield Manor Farm (Challinor 2018) there is greater diversity in those from both excavation phases at Mud Hole Villa, Boxford. To some extent, this reflects the contexts types; the samples from Wyfield Manor represented specific-event activities, from *in situ* features for crop drying, cooking etc., whereas the Boxford samples represent accumulation of material from non-specific, multi-event burns. This accounts for the greater diversity in the latter assemblages, and also indicates the range of taxa utilised for domestic fuelwood over time. Certainly, the assemblage from Period 2 is comparable to those from Period 1, indicating apparent consistency in fuelwood supplies and use.

**APPENDIX M: OASIS REPORT FORM**

<b>PROJECT DETAILS</b>	
Project Name	Mud Hole Roman Villa, Boxford, West Berkshire
Short description	<p>The 2019 excavation further characterised the villa building, and revealed the full extent of the mosaic. Period 1 was represented the earlier fourth-century core of the villa building, with Period 2 by a series of later modifications and additions. Period 3 represented a phase of decline and robbing activity, possibly in the early fifth century. Recovered finds suggest a limited period of construction and occupation entirely confined to the fourth century and possibly slightly later. The centre of the villa in Trench 1 (Trench 2 during excavation in 2017) was also investigated, but no further intact floors were found. Evidence suggested that a tiled floor had probably been robbed. Several layers of rammed chalk floors, and a crudely-constructed post-pad, appeared to be associated with the latest phase of occupation. There was evidence of domestic refuse dumped against the external walls of the building, and the front corridor appeared to have been robbed out prior to the final demise of the building.</p> <p>An unusual deposit of iron door and window fittings, hidden within a hollow in the eastern external wall, adjacent to the largely intact mosaic, appeared to reflect late robbing activity. A column fragment and a further group of iron fittings were found within an adjoining doorway. The back wall of the core villa building in Trench 1 also appeared to have been modified or robbed of any useful building material. Following removal of overlying destruction layers, the mosaic was revealed. This displayed localised evidence of burning and damage, possibly resulting from structural collapse, but remained substantially intact. As was apparent from the 2017 excavation, the mosaic is of outstanding interest, both in terms of its rare mythological subject matter, and as an example of Romano-British artistic expression.</p>
Project dates	19 August to 05 September, 2019
Project type	Community Excavation
Previous work	(Bedford and Clark 2015) (Bedford and Clark 2019)
Future work	Unknown
<b>PROJECT LOCATION</b>	West Berkshire
Site Location	Boxford
Study area (M <sup>2</sup> /ha)	500ha
Site co-ordinates	NGR: 444023 171996
<b>PROJECT CREATORS</b>	
Name of organisation	Cotswold Archaeology / BHP
Project Brief originator	Cotswold Archaeology / BHP
Project Design (WSI) originator	Cotswold Archaeology
Project Manager	Richard Massey
Project Supervisor	Matt Nichol
<b>MONUMENT TYPE</b>	Roman villa and mosaic
<b>SIGNIFICANT FINDS</b>	Roman villa and mosaic



<b>PROJECT ARCHIVES</b>	<b>Archive to be transferred to Boxford History Project</b>	Content (e.g. pottery, animal bone etc)
Physical		ceramics, CBM, worked stone, coins, metalwork, animal bone etc
Paper		Context sheets, matrices, plans, registers
Digital		Database, digital photos, survey plans, geomatics data
<b>BIBLIOGRAPHY</b>	Cotswold Archaeology 2020 <i>Mud Hole Roman Villa, Boxford, West Berkshire: the results of the 2019 excavation</i> , CA report No. <b>AN0091-01</b> .	

#### **Andover Office**

Stanley House  
Walworth Road  
Andover  
Hampshire  
SP10 5LH

t: 01264 347630

#### **Cirencester Office**

Building 11  
Kemble Enterprise Park  
Cirencester  
Gloucestershire  
GL7 6BQ

t: 01285 771022

#### **Exeter Office**

Unit 1, Clyst Units  
Cofton Road  
Marsh Barton  
Exeter  
EX2 8QW

t: 01392 573970

#### **Milton Keynes Office**

Unit 8 - The IO Centre  
Fingle Drive, Stonebridge  
Milton Keynes  
Buckinghamshire  
MK13 0AT

t: 01908 564660

#### **Suffolk Office**

Unit 5, Plot 11, Maitland Road  
Lion Barn Industrial Estate  
Needham Market  
Suffolk  
IP6 8NZ

t: 01449 900120

e: [enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

