# HOUGHTON REGIS NORTH 1
# HOUGHTON REGIS
# BEDFORDSHIRE

## PHASE 1 AIW WITHIN AREAS ACA2, ACA8 AND ACA9

## ASSESSMENT AND UPDATED PROJECT DESIGN

Albion archaeology

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## ASSESSMENT AND UPDATED PROJECT DESIGN

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## Preface

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## Acknowledgements

*This report has been edited by Kathy Pilkinton and Mike Luke. Specific sections have been written by Kathy Pilkinton (introduction, project methodologies, site sequence), Holly Duncan ('other artefacts'), John Giorgi (charred plant remains and charcoal), Mark Maltby (animal bone), Natasha Powers (human bone) and Jackie Wells (ceramic artefacts). The discussion of research objectives and the updated project design sections were written by Kathy Pilkinton and Mike Luke.*

*The excavation was supervised by Kathy Pilkinton. Investigation and recording was undertaken by the following staff: Michael Emra, Johnathan Durman and Ernie Rizzo (Assistant Archaeological Supervisors) and Marco Capardoni, Irene Sala, Krzysztof Ryniec, and William Eves (Archaeological Technicians). The work was overseen by Wes Keir (Project Officer) under the management of Mike Luke (Project Manager). Metal-detecting was undertaken by Archie Gillespie and Mike Head. All GPS survey was undertaken by Mercedes Planas (Souterrain Archaeological Services). Finds processing was supervised by Jackie Wells (Finds Officer) and the environmental samples were processed under the supervision of Gary Edmondson. The contextual assessment and creation of a provisional phasing hierarchy were undertaken by Kathy Pilkinton. All Albion projects are under the overall management of Drew Shotliff (Operations Manager).*

*The project was commissioned by WT Partnership, on behalf of Lands Improvement Holdings, and monitored on behalf of the local planning authority by Martin Oake (Central Bedfordshire Council Archaeologist).*

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### *Key Terms*

Throughout this document the following terms or abbreviations are used:

| | |
|---|---|
| ACA | Archaeological Character Area |
| AIA | Advanced Infrastructure Application |
| AIW | Advanced Infrastructure Works |
| CBCA | Central Bedfordshire Council Archaeologist |
| Client | WT Partnership on behalf of Lands Improvement Holdings |
| CI*f*A | Chartered Institute *for* Archaeologists |
| HRDC | Houghton Regis Development Consortium |
| HRN1 | Houghton Regis North 1 development area |
| LPA | Local Planning Authority (Central Bedfordshire Council) |
| *Procedures Manual* | *Procedures Manual Volume 1 Fieldwork*, 3rd edn, 2017 Albion Archaeology |
| SFB | Sunken-featured building |
| WSARM | Written Scheme of Archaeological Resource Management |

## *Non-Technical Summary*

*In 2014, Central Bedfordshire Council granted outline planning consent (CB/12/03613) for a housing-led urban extension to the north of Houghton Regis — a development known as Houghton Regis North 1 (HRN1).*

*The outline permission allows for the implementation of Advance Infrastructure Works (AIW) in advance of approval of reserve matters for the development of each area or sub area of the scheme, subsequent to approval of an Advance Infrastructure Application (AIA).*

*In relation to part of the Phase 1 AIW, this report presents an assessment of the results of a programme of archaeological fieldwork and an Updated Project Design (UPD). The latter describes the further work required to analyse, produce a final report and archive the results of the fieldwork. All work has been undertaken in line with the approved Written Scheme of Archaeological Resource Management (WSARM). The fieldwork was undertaken over parts of three Archaeological Character Areas (ACA,) as defined by evaluation (Albion 2012). The fieldwork comprised three excavation areas: HRN3455 (within ACA2), HRN3456 (within ACA8) and HRN3459 (within ACA9). The fieldwork was undertaken between 10th December 2018 and 22nd February 2019.*

*The earliest firm evidence for human activity appears to date to the late Bronze Age/early Iron Age (Phase 2). It comprised boundary ditches, dispersed pits and an inhumation.*

*The late Iron Age/early Roman period (Phase 3) saw the establishment of enclosures on ACA9 which were associated with dispersed pits and post-built structures. A limited number of similar pits and postholes were present on ACA8 but there the excavation area was clearly peripheral to a settlement core. A single ditch within ACA2 was assigned to this period.*

*The enclosures within the excavated part of ACA9, which originated in the late Iron Age, were extended in the Roman period (Phase 4), although their character suggests that they are peripheral to the main settlement in this area. A system of bedding trenches was established in this period within ACA8. These are probably linked to increased horticulture.*

*The limited information afforded by the narrow excavation area through the ACA2 settlement suggests that the Roman (Phase 4) settlement comprised a series of possibly rectangular enclosures adjacent to the Ouzel Brook. While no buildings were identified, the presence of significant quantities of Roman building material suggests that the settlement may have contained substantial buildings (as was indicated by the evaluation). A stone surface probably served as a threshing floor associated with crop-processing. Two unusual finds (a flagon with an ink-written graffito and part of an iron spearhead) and the evidence for more substantial buildings than the norm suggest that the ACA2 settlement is likely to have been of higher 'status' than the others in the area.*

*The only evidence for early Saxon (Phase 5) activity was limited to an isolated sunken-featured building. It produced a relatively large quantity of pottery, suggesting that is was in use for more than just a short period of time. It is also interesting in terms of the wider landscape because a similar isolated Saxon building was investigated within the J1/J2 excavation area at the southern end of HRN1.*

*Evidence was also recovered for strip cultivation ,indicating a medieval open field system (Phase 6), and post-medieval field boundaries (Phase 7). Generally speaking these were on a similar alignment to the earlier Iron Age and Roman boundaries.*

*The investigated remains and the recovered finds have the potential to contribute to a number of local and regional research themes. These relate to the evolution of the landscape through time and the nature of activity on the periphery of settlements. In particular, there is potential to contribute to regional themes relating to settlement character and economic basis during the late Iron Age and Roman periods. Therefore, in accordance with the WSARM, a programme of analysis is proposed, resulting in a final report that will be submitted to the county journal,* Bedfordshire Archaeology.

*Upon completion of the analysis and final report, the project archive for each of the three investigations will be accessioned with Luton Culture (under accession numbers LUTNM: 2018/37, 2018/38, 2018/43).*

# 1. INTRODUCTION

## *1.1 Project Background*

In 2014 Central Bedfordshire Council granted outline planning consent (CB/12/03613) for a housing-led urban extension to the north of Houghton Regis — a development known as Houghton Regis North 1 (HRN1).

The outline permission allows for the implementation of Advance Infrastructure Works (AIW) in advance of approval of reserve matters for the development of each area or sub area of the scheme, subsequent to approval of an Advance Infrastructure Application (AIA). Condition no. 9 on the permission states:

> *Before the commencement of any Advance Infrastructure Works within a development area, an Advance Infrastructure Schedule detailing the Advance Infrastructure Works for that development area shall be submitted to and approved in writing by the Local Planning Authority. Each Advance Infrastructure Schedule shall be accompanied by a written scheme of archaeological resource management which shall also be approved in writing by the Local Planning Authority.*

Albion Archaeology was commissioned by the client to prepare a WSARM (Albion Archaeology 2018b) for the Phase 1 AIW. The works fell partly within three of the Archaeological Character Areas (ACAs) defined during the evaluation (Albion 2012) — ACA2, ACA 8 and ACA 9 (Table 1). These areas were subject to open-area excavation, undertaken in advance of the AIW. With the agreement of the LPA, the open-area excavations were extended to encompass all parts of ACAs 8 and 9 that fell within Phase 1.

The open-area excavations were undertaken between 10th December 2018 and 22nd February 2019. The remainder of the fieldwork described in the WSARM was undertaken in conjunction with the main contractor's AIW and will be reported separately.

## *1.2 Status and Purpose of this Report*

This report presents an assessment of the results of the open-area excavations within ACAs 2, 8 and 9, together with an Updated Project Design (UPD). The latter describes the further work required to analyse the results of the fieldwork, produce a final report and deposit the resultant archive with Luton Culture.

## *1.3 Site Location and Description*

The fieldwork covered by this report comprises three archaeological open-area excavations between Houghton Regis and the A5-M1 link road centred on TL025/257 (Figs 1 and 2). The areas were distinguished by the following Albion project numbers: HRN3455 (within ACA2), HRN3456 (within ACA8) and HRN3459 (within ACA9).

The topography of the area is relatively flat at *c.*120m OD but slopes, in places quite steeply, down to the Ouzel Brook to the north. The underlying geology consists of West Melbury Marly Chalk Formation[1]. There are no recorded superficial deposits but alluvium can be anticipated along the upper reaches of the Ouzel Brook.

## *1.4 Archaeological Background*

### 1.4.1 Introduction

HRN1 forms part of a landscape to the north of Houghton Regis that contains a variety of heritage assets dating from the Mesolithic period to the modern day. The adjacent chalk ridgelines of the Chilterns have long been known to contain evidence for early prehistoric settlement and ritual activity (Branigan 1994) but until recently our understanding of past land-use and occupation in the vicinity of HRN1 was based largely on surface artefact collection and small-scale excavations undertaken by The Manshead Society (Hudspith 1995). They identified scatters of Mesolithic, Neolithic and Bronze Age flint tools along the chalk ridge between Chalton and Wingfield and concentrations of Iron Age and Roman artefacts in the vicinity of Chalton Cross Farm and Houghton Park.

In preparation of the planning applications for HRN1 and the associated Woodside Link road, a number of archaeological investigations were carried out in the area:

- *Desk-based assessment (Albion Archaeology 2012)
- Field-walking (Amey 2012)
- *Geophysical survey (Stratascan 2012)
- Trial-trench evaluation (Albion Archaeology 2010 and 2013)
- *Trial-trench evaluation (Albion Archaeology 2012)

Note: those directly associated with HRN1 are indicated by an asterisk.

The evaluation work allowed the identification of twenty-one Archaeological Character Areas (ACA), which were described within Chapter 13 of the Environmental Statement for HRN1 (HRDC 2012, 1–20). This document deals with works carried out within ACAs 2, 8 and 9. Table 1 below summarises the archaeological remains identified within these areas and their heritage significance as determined within the Environmental Statement (HRDC 2012).

| ACA | Evaluation evidence | Interpretation and correlation with numbered heritage assets previously recorded within the HER | Heritage significance |
|---|---|---|---|
| 2 | Pits, ditches, occupation/demolition layers, mortared surfaces, possible wall alignments | Late Iron Age/Roman farmstead core. HER 1453 | Regional |

[1] http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=houghton+regis&gobBtn=go

| ACA | Evaluation evidence | Interpretation and correlation with numbered heritage assets previously recorded within the HER | Heritage significance |
|---|---|---|---|
| 8 | Numerous enclosure ditches (also identified by geophysical survey), pits and an inhumation | Late Iron Age – Roman settlement site. Previously identified from cropmarks and pottery scatters. HER 15855 | District to regional |
| 9 | Numerous enclosure ditches (also identified by geophysical survey) | Late Iron Age – Roman settlement site. Previously known from cropmarks and pottery scatters. HER 15856 | District to regional |

**Table 1:** Summary of evaluation results for ACAs 2, 8 and 9

Archaeological investigations were also subsequently carried out on the Woodside Link and A5–M1 Link roads, which are integral to the HRN1 development. Several dispersed pits dating to the late Bronze Age/early Iron Age period and containing burnt stone were revealed within the route of the Woodside Link road near to the Phase 1 AIW (Albion Archaeology 2018a).

A number of areas of archaeological investigations were undertaken at the eastern end of the A5–M1 Link road (MOLA 2015), in advance of a new access road between Houghton Road and Chalton Cross Farm. They revealed a number of probable field boundary ditches dating to the mid–late Iron Age. Later Iron Age boundary ditches and pits were also identified to the north of the Phase 1 AIA.

# 2. PROJECT METHODOLOGIES AND ORIGINAL OBJECTIVES

## *2.1 Introduction*

The project methodologies and objectives were detailed in the WSARM (Albion Archaeology 2018b). They are summarised here along with an overview of the national and regional research frameworks relevant to the project.

Throughout the project the requirements and professional standards set out in the following documents were adhered to (see also Appendix 1):

| | |
|---|---|
| Albion Archaeology | • *Procedures Manual: Volume 1 Fieldwork* (3rd edn, 2017) |
| CI*f*A | • *Charter and by-law; Code of conduct* (2014)<br>• *Standard and guidance for archaeological excavation* (2014) |
| East Anglian Archaeology Occasional Paper 14 | • Gurney, D. *Standards for Field Archaeology in the East of England* (2003) |
| Historic England | • *Management of Research Projects in the Historic Environment* (2015)<br>• *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (2nd edn, 2011) |
| Luton Culture | • *Procedures for preparing archaeological archives for deposition with Luton Culture* (2013) |

## *2.2 Methodologies*

### 2.2.1 Fieldwork

Fieldwork was undertaken between December 2018 and February 2019 (Table 2). All archaeological features and deposits were investigated in accordance with the WSARM (Albion Archaeology 2018b) and Albion Archaeology's *Procedures Manual* (Albion Archaeology 2017).

Three open-area excavations, totalling *c*.5.1ha, were undertaken (Fig. 2).

| Albion project | ACA | Extent | Fieldwork start | Fieldwork finish |
|---|---|---|---|---|
| HRN3455 | 2 | 0.1ha | 10th December 2018 | 9th January 2019 |
| HRN3456 | 8 | 2.5ha | 12th December 2018 | 17th January 2019 |
| HRN3457 | 9 | 2.5ha | 11th January 2019 | 11th February 2019 |

**Table 2:** Summary of the three open-area excavations

The overburden was removed by a 360 degree mechanical excavator, fitted with a toothless ditching bucket, operating under archaeological supervision. Archaeological hand-excavation and recording then proceeded once sufficient archaeological features were exposed. The fieldwork was monitored and approved by the Central Bedfordshire Council Archaeologist (CBCA) on behalf of the LPA.

### 2.2.2 Post-fieldwork

Following the fieldwork, checking and consolidation of the site records was completed. In addition, all outstanding artefacts and ecofact samples were processed. The site archive was consolidated and its internal consistency checked in accordance with the requirements outlined in *Management of Research Projects in the Historic Environment, section 2* (Historic England 2015).

## *2.3 The National and Regional Research Frameworks*

The project was undertaken in line with national and regional research frameworks.

National heritage strategy is embodied within *Heritage 2020: strategic priorities for England's historic environment 2015-2020*[2]; it is a cross-sector collaboration initiative being delivered under the auspices of the Historic Environment Forum and builds on the successes of the National Heritage Protection Plan (NHPP) 2011–2015, published by English Heritage in 2010.

The aim of the Heritage 2020 initiative is to put together, on behalf of the whole environment sector, a unifying framework — as requested by the NHPP consultation — which encourages individual organisations to work together using agreed common priorities to add value to all their work. Five key themes regarding the understanding, valuing, caring and enjoying of England's historic environment have been identified:

- discovery, identification and understanding
- constructive conservation and sustainable management
- public engagement
- capacity building
- helping things to happen

Whilst these themes are at a relatively high conceptual level, the work undertaken as part of the investigation, in line with national planning policy, can be seen to fit within this framework.

On a regional level, a number of research frameworks have been devised. The earliest comprises *Research and Archaeology: a Framework for the Eastern Counties 1. resource assessment* (Glazebrook 1997). This was complemented by *Research and Archaeology: a Framework for the Eastern Counties 2. research agenda and strategy* (Brown and Glazebrook 2000), which set out research priorities.

These documents were reviewed and revised in *Revision of the Regional Research Framework for the Eastern Region* (Medlycott and Brown 2008). Finally, the regional research framework was again reviewed and augmented in *Research and Archaeology Revisited: a revised framework for the East of England* (Medlycott 2011a).

[2] Available online at http://www.heritage2020.net/2020-framework/

In addition to these regionally focussed documents, work has also specifically been done on the county of Bedfordshire: *Bedfordshire Archaeology. Research and Archaeology: Resource Assessment, Research Agenda and Strategy* (Oake *et al.* 2007).

## 2.4 Original Project Objectives

Previous archaeological investigations and assessments in the vicinity of the AIW indicated there was potential for remains dating to the Bronze Age, Iron Age, Roman and medieval/post-medieval periods to be present.

Based on the research agendas and those formulated in the WSARM (Albion Archaeology 2018b), a number of areas of research and investigation were highlighted that could potentially be addressed by the investigations:

- Landscape development in the Bronze and Iron Ages (Oake 2007, 9–10);
- Characterising Roman rural settlement, including settlement layout and economy (Oake 2007, 10–12; Going and Plouviez 2000, 19–22 and Medlycott 2011b, 47);
- Regional variation in settlement in the Roman period (Oake 2007, 17 and Medlycott 2011b, 47);
- The origins and development of field systems and the relationship between field systems and settlements in the Iron Age and Roman periods (Oake 2007, 10–12; Bryant 2000, 15; Going and Plouviez 2000, 19–22 and Medlycott 2011b, 47);
- The origin and development of medieval field systems (Oake 2007, 14).

HRN1 traverses a wide archaeological landscape. The regional research framework (Medlycott 2011a, 84–5) states that: 'Human interaction with landscape and environment is central to archaeological study […] in the East of England' and 'the establishment of projects at a landscape scale, rather than that of an individual site, would allow for the chronological and spatial development of complex areas of palimpsest cropmarks and finds scatters to be analysed. Targeted fieldwork providing dating evidence for those landscapes should be a primary future research aim for the region'.

Overall, the scale of HRN1 presents an opportunity to understand how the wider landscape was utilised during the Iron Age, Roman and medieval periods, a research theme that is likely to be of regional significance.

# 3. SITE SEQUENCE: SUMMARY OF THE RESULTS

## *3.1 Introduction*

The recorded contextual data represents the features and deposits investigated during the fieldwork (i.e. pits, ditches, fills, layers etc.). This contextual data has been assessed in order to establish whether it would provide a coherent spatial and chronological framework. The main criteria used were:

- Do the contexts form a coherent spatial or interpretive unit e.g. boundary, enclosure, pit group etc.?
- Do the contexts have stratigraphic relationships with other contexts?
- Do the contexts contain suitable dating material?

It was possible to assign all of the 821 contexts defined on site to the resultant contextual hierarchy which comprised:

- Groups (G), e.g. structures, ditches, pits etc.
- Land-use Areas (L), e.g. trackway, boundaries, enclosures etc.
- Phases, e.g. episodes of human activity corresponding to broad, chronological periods based largely on their artefactual assemblage.

A summary of the contextual/phasing hierarchy is present in Table 3 below.

| Phase | Period | ACA | Principal features | No. of contexts |
|---|---|---|---|---|
| 1 | Geology/natural | 2 | Tree-throws/natural features L215 | 10 |
| | | | Natural geology L218 | 1 |
| | | 8 | Palaeochannel L107 | 9 |
| | | | Tree-throws/natural features L108 | 12 |
| | | | Natural geology L109 | 1 |
| | | 9 | Tree-throws/natural features L23 | 20 |
| | | | Palaeochannel L25 | 10 |
| | | | Natural geology L27 | 1 |
| 2 | Late Bronze Age/early Iron Age | 8 | Large pits L103 | 10 |
| | | 9 | Boundary ditch L28 | 16 |
| | | | Boundary ditch L29 | 3 |
| | | | Inhumation and adjacent pit L30 | 4 |
| 3 | Late Iron Age/early Roman | 2 | Ditch L200 | 3 |
| | | 8 | Small pits L100 | 4 |
| | | | Small pits L104 | 10 |
| | | 9 | Enclosure L1 | 32 |
| | | | Possible enclosure L2 | 31 |
| | | | Possible trackway/boundary ditch L3 | 7 |
| | | | Post-built structures L4 | 17 |
| | | | Dispersed pits and postholes L5 | 121 |
| | | | Enclosure L6 | 40 |

| Phase | Period | ACA | Principal features | No. of contexts |
|---|---|---|---|---|
| | | | Gullies L12 | 17 |
| | | | Isolated gully L16 | 5 |
| | | | Postholes L18 | 4 |
| | | | Dispersed pits L19 | 11 |
| 4 | Roman | 2 | NW-SE aligned ditches L201 | 13 |
| | | | Ditches and pit L202 | 13 |
| | | | Pit cluster L204 | 20 |
| | | | Enclosure ditches L205 | 10 |
| | | | Enclosure ditches L206 | 7 |
| | | | Stone surface L207 | 6 |
| | | | Late pits L208 | 5 |
| | | | Ditches L209 | 23 |
| | | | Pits and postholes - north L210 | 20 |
| | | | Pits - south L211 | 5 |
| | | | NE-SW aligned ditches L216 | 21 |
| | | 8 | Bedding trenches L101 | 35 |
| | | | Boundary ditch L102 | 11 |
| | | 9 | Enclosure L7 | 3 |
| | | | Enclosure L8 | 31 |
| | | | Boundary ditch L9 | 12 |
| | | | Large unenclosed pits L10 | 9 |
| | | | Ditches L13 | 14 |
| | | | Later phase of rectangular enclosure L6 | 49 |
| | | | Pits L15 | 9 |
| 5 | Early Saxon | 9 | Sunken-featured building (SFB) L11 | 14 |
| 6 | Medieval | 2 | Furrows | 5 |
| | | 8 | Furrows | 1 |
| | | 9 | Furrows | 6 |
| 7 | Post-medieval | 2 | Field boundaries L212 | 4 |
| | | 9 | Quarry pits L21 | 33 |
| | | | Possible trackway L20 | 21 |
| 8 | Modern | 2 | Land drains | 2 |
| | | | Modern L214 | 9 |
| | | 8 | Land drains | 2 |
| | | | Large shallow pit L105 | 2 |
| | | 9 | Land drains | 2 |
| | | | Drainage system | 5 |
| | | | **Total number of contexts:** | **821** |

**Table 3**: Summary of the contextual hierarchy by Phase and ACA

The following summary is presented by ACA and Phase (P), with only the more significant Land-use Areas (L) briefly described. Group (G) numbers are only provided where it is felt they will aid the reader.

## *3.2 HRN3455 (within ACA2)*

The excavation comprised a 3m-wide and *c.*350m-long corridor (Fig. 2). The narrow extent of the excavation area made wider interpretation of the features problematic despite the geophysical survey (Stratascan 2012), cropmarks and trial trenching (Albion Archaeology 2012) identifying significant and extensive Roman settlement within ACA2 as a whole. The results of the geophysical survey in the vicinity of the HRN3455 corridor, which may have aided interpretation, were unclear, possibly due to the nature of the geology in the vicinity of the adjacent brook and disturbance from a hedgerow. Therefore Land-use Areas have largely been assigned on the basis of feature type and location.

| Phase | Period | Land-use Area | Principal features |
|---|---|---|---|
| 1 | Geological/natural features | L215 | Tree-throws/natural features |
| | | L218 | Natural geology |
| 3 | Late Iron Age/early Roman | L200 | Ditch |
| 4 | Roman | L201 | NW-SE aligned ditches |
| | | L202 | Ditches and pit |
| | | L204 | Pit cluster |
| | | L205 | Enclosure ditches |
| | | L206 | Enclosure ditches |
| | | L207 | Stone surface |
| | | L208 | Late pits |
| | | L209 | Ditches |
| | | L210 | Pits and postholes - north |
| | | L211 | Pits - south |
| | | L216 | NE-SW aligned ditches |
| 6 | Medieval | L213 | Furrows |
| 7 | Post-medieval | L212 | Field boundaries |
| 8 | Modern | L214 | Field drains |
| | | L217 | Overburden layers |

**Table 4:** Principal features HRN3455 (ACA2)

### 3.2.1 Phase 1: geological and natural features (Fig. 3)

Natural features including tree-throws were assigned to L215. Their sterile fills were distinct from the archaeological features.

### 3.2.2 Phase 3: late Iron Age/early Roman (Fig. 4)

Only a single feature was assigned to this phase. It comprised a ditch L200 (1m wide x 0.4m deep) which contained a significant amount of late Iron Age/early Roman pottery (250g).

### 3.2.3 Phase 4: Roman (Fig. 5)

The majority of features identified within HRN3455 have been assigned to the Roman period (Phase 4). The predominant features were NW-SE aligned ditches, which are likely to have been in use throughout the Roman period. Land-use Areas have been assigned largely on basis of the spot-date of the Roman pottery recovered.

A number of Land-use Areas contained no dating evidence: ditches L209 and pits L210 and L211; these have been assigned to Phase 4 based on their proximity to dated features.

***Ditches L201***

Like the majority of the ditches in this phase those assigned to L201 were NW-SE aligned. All contained artefacts dating to the 1st/2nd century.

***Ditches and pit L202***

Two shallow ditches and an associated pit appeared to be broadly contemporary. Ditch G233 produced a single sherd of pottery dating to the Roman period. Stone-filled pit G231 contained no dating evidence but was truncated by G233.

***Ditches L205 and pit cluster L204***

The two ditches of L205 contained pottery dating to the 2nd/3rd century, including 125g from a primary fill.

Pit cluster L204 contained four pits of varying shape and depth located to the NE of ditches L205. They are likely to be contemporary with the ditches as they all contained Roman pottery (mainly of 2nd/3rd-century date). The assemblage was large (*c.*1.7kg) with the majority deriving from pit G224.

***Ditches L206***

Ditches L206 probably defined later Roman enclosures as both contained 3rd/4th-century pottery. In addition, ditch G212 was stratigraphically later than the nearby features including stone surface L207.

***Stone surface L207***

A stone surface was found centrally within the corridor. It comprised closely-packed irregular stones and Roman building material, which appear to have been placed within a shallow oval foundation pit. Based on similar features found elsewhere, it may have been a threshing floor. The disuse layers above the stone surface contained 13 fragments of human skull.

No dating evidence was recovered from the stone surface itself but it is well-dated because 3rd/4th-century pottery and coins were recovered from the overlying disuse layers. The surface itself was stratigraphically later than ditches L216, dated to the 1st/2nd century, suggesting the surface dates to the late Roman period.

***Late pits L208***

Two shallow pits contained no datable finds, but as they were dug into the top of Roman features it is likely that they are late Roman in date.

***Ditches L209***

Parallel ditches which produced no finds but on the same alignment as the ditches containing Roman pottery.

***Pits and postholes L210 to north***

Small pits and postholes at NE end of excavation area which produced no datable finds. The layout of the postholes as seen within the narrow trench did not suggest they were part of a structure.

***Pits L211 to south***

Two undated postholes at southern end of site.

***Ditches L216***

The ditches assigned to L216 were distinct in that they were NE-SW aligned and, therefore, on a different alignment to the majority of ditches within the excavation area. The small parallel ditches contained pale and sterile deposits. The southern ditch showed evidence of re-cutting. Assignment to the Roman period was based on *c.*200g of 1st/2nd-century pottery.

### 3.2.4 Phase 6: medieval (Fig. 6)

Three furrows L213 of presumed medieval date were identified, indicating the former existence of open fields. The presence of furrows to the south of the excavation area was previously known from geophysical survey (Stratascan 2012).

### 3.2.5 Phase 7: post-medieval (Fig. 7)

Evidence for post-medieval activity comprises two field boundaries L212 on a NNW-SSE alignment similar to that of the earlier Roman ditches (Phase 4). G220 was identified by geophysical survey and trial trenching (Albion 2012).

### 3.2.6 Phase 8: modern (Fig. 8)

Modern field drains L214 had truncated many of the archaeological features. The overburden comprised *c.*0.3m of topsoil and *c.*0.2m of subsoil.

## *3.3 HRN3456 (within ACA8)*

Features identified within HRN3456 range in date from the late Bronze/early Iron Age to the modern period (Fig. 9).

| Phase | Period | Land-use Area | Principal features |
|---|---|---|---|
| 1 | Geological/natural features | L107 | Palaeochannel L107 |
| | | L108 | Tree-throws/natural features L108 |
| | | L109 | Natural geology |
| 2 | Late Bronze Age/early Iron Age | L103 | Large pits |
| 3 | Late Iron Age/early Roman | L100 | Pit cluster to east |

| Phase | Period | Land-use Area | Principal features |
|---|---|---|---|
| | | L104 | Pit cluster to west |
| 4 | Roman | L101 | Bedding trenches |
| | | L102 | Boundary ditch |
| 6 | Medieval | L106 | Furrows |
| 8 | Modern | L105 | Large shallow pit |
| | | L110 | Overburden |

**Table 5:** Principal features HRN3456 (ACA8)

### 3.3.1 Phase 1: geological and natural features (Fig. 10)

The main geological feature identified was a paleochannel L107. It comprised a dark band of silty material within a natural hollow that increased in depth towards the north end of the site (i.e. towards the Ouzel Brook). A large number of tree-throw holes L108 were also present. They were filled with similar deposits to the palaeochannel, suggesting they were part of a contemporary landscape.

### 3.3.2 Phase 2: late Bronze Age/early Iron Age (Fig. 11)

The evidence for this period consisted of two large pits assigned to L103. The larger one G106 was 3.5m long x 2.9m wide x 1.1m deep. Its size may suggest that it functioned as a water-pit, although no waterlogged deposits survived near its base. It contained distinct chalky fills suggestive of deliberate backfilling.

No dating evidence was recovered from either pit so assignment to this period was based on dating of similar features previously revealed within the wider HRN1 development area.

### 3.3.3 Phase 3: late Iron Age/early Roman (Fig. 12)

Phase 3 contained two clusters of small pits. L104 to the west consisted of five pits and L100 to the east consisted for two pits. All the pits were under 0.4m deep. The only pit to contain pottery was the northernmost one of L100, which produced two sherds of Iron Age pottery.

### 3.3.4 Phase 4: Roman (Fig. 13)

A system of bedding trenches L101 was located in the south-west corner of the excavation area and continued beyond the limit of the site. It comprised seven E-W bedding trenches, measuring up to *c.*1m wide and 0.25m deep. Only one sherd of late Iron Age/early Roman pottery was recovered.

A single boundary ditch L102 terminated *c.*50m east of the bedding trenches; it corresponds with L9 within ACA9. It contained a sherd of pottery dated to the 2nd century.

### 3.3.5 Phase 6: medieval (Fig. 14)

Two NW-SE furrows L106 of presumed medieval date were identified, indicating the former existence of open fields. The presence of furrows to the south was previously known from geophysical survey (Stratascan 2012).

Their absence across most of the area is likely to be the result of modern plough truncation.

### 3.3.6 Phase 8: modern (Fig. 15)

Modern overburden deposits, comprising topsoil (*c.*0.2m thick) and subsoil (0.1–0.4m thick), were assigned to L110.

A large but shallow pit L105 (9.1m in diameter x 0.2m deep) was assigned to the modern period. The only dating evidence recovered was an undiagnostic iron nail. However, the regular, flat-based nature of the pit suggests a possible modern construction.

## *3.1 HRN3457 (within ACA9)*

Archaeological features identified date from the late Bronze Age/early Iron Age to the modern period.

| Phase | Period | Land-use Area | Principal features |
|---|---|---|---|
| 1 | Geological/natural features | L23 | Tree-throws/natural features |
| | | L25 | Paleochannel |
| | | L26 | Colluvium |
| | | L27 | Natural geology |
| 2 | Late Bronze Age/early Iron Age | L28 | Boundary ditch |
| | | L29 | Boundary ditch |
| | | L30 | Inhumation and adjacent pit |
| 3 | Late Iron Age/early Roman | L1 | Enclosure |
| | | L2 | Possible enclosure |
| | | L3 | Possible trackway/boundary ditch |
| | | L4 | Post-built structures |
| | | L5 | Dispersed pits within enclosure area |
| | | L6 | Enclosure |
| | | L12 | Gullies |
| | | L16 | Isolated gully |
| | | L18 | Postholes within L7 |
| | | L19 | Small pits south of L6 |
| 4 | Roman | L7 | Enclosure |
| | | L8 | Enclosure |
| | | L9 | Boundary ditch |
| | | L10 | Large unenclosed pits south of L8 |
| | | L13 | Ditches extending north of site |
| | | L14 | Activity within enclosure L7 |
| | | L15 | Pits truncating L8 |
| 5 | Early Saxon | L11 | Sunken-featured building (SFB) |
| 6 | Medieval | L24 | Furrows |
| 7 | Post-medieval | L20 | Possible trackway |
| | | L21 | Quarry pits |
| 8 | Modern | L26 | Overburden |

| | |
|---|---|
| L22 | Land drains |

**Table 6:** Principal features HRN3457 (ACA9)

### 3.1.1 Phase 1: geological and natural features (Fig. 17)

The main geological feature identified was a palaeochannel L25, a dark band of silty material that ran north-south across the site within a natural hollow. It was similar in nature and alignment to that found within HRN3456 to the south-west and was respected by ditches assigned to the late Bronze Age/early Iron Age. A large number of tree-throw holes L23 were also present. They were filled with similar deposits to the palaeochannel, suggesting they were part of a contemporary landscape.

Up to 1m of colluvium L26 was removed along the north side of the area to reveal archaeological deposits, suggesting the slope along the edge of site was once significantly steeper than the modern gradient.

### 3.1.2 Phase 2: late Bronze Age/early Iron Age (Fig. 18)

The earliest evidence for human activity comprised boundary ditches L28 and L29, and an inhumation with adjacent pit G30.

#### *Boundary L28*

The north-south boundary survived as a small ditch and its truncated nature suggests that it may have originally extended beyond the northern limit of the excavation area. A *c.*7m-wide gap in the ditch indicates the location of an entranceway through the boundary.

No datable artefacts were recovered from the ditch but it was stratigraphically earlier than features assigned to Phase 3 late Iron Age/early Roman, specifically enclosure L6.

#### *Ditch L29*

A short length of ditch was identified in the small excavation area targeted on inhumation G75 that had been found during the trial trenching (Albion Archaeology 2012). Although only a short length was visible it appeared to be SE-NW aligned. It terminated within the excavation area where a pit and a grave had been dug into it (see below).

No datable artefacts were recovered from the ditch but it has been assigned to this phase because of its association with inhumation G75.

#### *Inhumation and adjacent pit L30*

Inhumation G75 was discovered during the trial trenching. It comprised a flexed skeleton positioned on the same alignment as underlying ditch L29 with its head to the NW. Both the grave and the adjacent pit were dug into partially infilled ditch L29.

No datable artefacts were recovered but the absence of finds and the position of the burial within the ditch suggests it is likely to be middle-late Bronze Age or early Iron Age in date.

### 3.1.3 Phase 3: late Iron Age/early Roman (Fig. 19)

Phase 3 is characterised by the establishment of at least two enclosures L1 and L6 with a possible third L2 extending beyond the site to the north. These enclosures appear to be on the same alignment as the boundary established in Phase 2 suggesting a degree of continuity within the landscape. Dispersed pits L5 and L19 broadly occupied the enclosed area, but where a stratigraphic relationship was visible, the pits were always earlier suggesting that at least some of them represent slightly earlier unenclosed activity.

***Enclosure L1***

Ditches were identified on all but the northern side of this enclosure. The only evidence for recutting was in the south-east corner where the ditch was significantly larger (1.1m deep) than in the other excavated segments (0.15m deep). The south-west corner was also larger in size, suggesting it too may have been recut, although no recut could be distinguished on site. The east and west ditches decreased in size to the north; it is possible that a ditch on the north side had been completely truncated by modern ploughing.

Approximately 750g of late Iron Age/early Roman pottery was recovered, largely from the more substantial south and west ditch lengths.

***Enclosure L6***

This rectangular enclosure was defined by a ditch on all sides. The existence of an earlier ditch G9 along the south side may hint at the original form of the enclosure before it was extended to the east. Where the ditch widened on the west side of the enclosure, it also became significantly deeper (0.8m).

Approximately 850g of late Iron Age/early Roman pottery was recovered.

***Post-built structures L4***

Four groups of postholes appear to define possible post-built structures located outside of enclosures L1 and L6. Three (G22, G29 and G54) may represent four-post structures; the fourth (G21) comprises two individual postholes to south of G22. Those associated with structure G54 were only 0.05m deep, whereas those of structure G22 were *c*.0.4m deep. The location and similarity in size (up to 0.3m deep and *c*.0.25m wide) of the postholes of G21 suggest they too may have been part of a similar structure.

No dating evidence was recovered from the L4 postholes, so assignment to this phase is based on the dating of similar structures in the region to the Iron Age.

***Possible enclosure L2***

Two parallel ditches at the northern limit of the site may form two sides of another enclosure, although no southern boundary survived. A pit cluster, including G61 and G62, appears to be associated with the enclosure as the pits were located adjacent to the SE side of the enclosure. The pits were generally shallow and oval in form.

The enclosure ditches and pits were assigned to Phase 3 on the basis of the recovery of late Iron Age/early Roman pottery. Pit G61 was unusual in that it produced a significantly larger amount of pottery (*c.*1.5kg) than the other features.

***Dispersed pits L5 and L19***

Dispersed pits L5 and L19 were all located in the vicinity of enclosures L1 and L6. The pits of L5 fell within or between the enclosures whereas the pits assigned to L19 were south of the main enclosures. Pits G39, G47 and G48, at 1.2m diameter and 0.7m deep were the largest pits. The bell-shaped profiles of pits G47 and G48 is suggestive of a storage function. The pits in L5 were in small clusters of varying sizes, sometimes including a posthole such as in G44/45. The 'clusters' do not always appear to respect the enclosures, supporting the idea that at least some of the pits may predate these ditches.

Assignment of the pits to this phase is based on the recovery of late Iron Age/early Roman pottery from nineteen of the thirty-eight features. In addition, a brooch found within G47 indicates a late Iron Age date for the infilling of this pit. Approximately 2.3kg of fired clay fragments were recovered from the pits of L5.

***Ditches L3, L12 and L16***

Four small ditches assigned to Phase 3 do not appear to form part of any enclosure.

Ditch L3 was located in the gap between enclosures L1 and L6, suggesting it may have been associated with a trackway or boundary. Two short lengths of gullies L12 were also situated between the two enclosures. Neither produced any dating evidence but their proximity to dispersed pits L5 suggests they may be of a similar date.

Isolated gully L16 was partially excavated during trial trenching. It was shallow and poorly defined. It is stratigraphically earlier than a Roman ditch and hence has been assigned to this phase.

### 3.1.4 Phase 4: Roman (Fig. 20)

Roman activity was characterised by the continuation and enlargement of enclosures established in the late Iron Age/early Roman period. Enclosure L8 extended across the gap between the earlier enclosures.

***Enclosure L7 and internal activity L14***

Enclosure L7 reused some of the Phase 3 ditches that defined enclosure L6. Its northern ditch was up to 1.1m deep, while the southern ditch was only *c.*0.3m deep. There was evidence of recutting and more complexity in the ditch arrangements in the south-west corner where ditch G20, which terminated, suggests there may have been a southern extension.

Assignment to this phase is based largely on the recovery of *c.*630g of 1st/2nd-century pottery and on stratigraphic relationships with Phase 3 enclosure L6. A posthole assigned to L14 also produced pottery dating to the Roman period.

***Enclosure L8***

Enclosure ditch L8 partially enclosed the areas of Phase 3 enclosures L1 and L6. It was broadly consistent in depth at *c*.0.35m.

Assignment to Phase 4 is based on stratigraphic relationships with Phase 3 enclosures and on pottery, largely recovered during the trial trenching, dating to the 1st/2nd century (Albion Archaeology 2012).

***Boundary ditch L9***

A NE-SW boundary ditch L9 is also assigned to this period despite being on a very different alignment to the enclosures because it stops at the southern ditch of enclosure L7. If a similar ditch (L102) on the same alignment within ACA8 is part of the same boundary, it would extend across *c*.240m.

***Large pits L10***

Two large pits were located south of the main enclosures on the projected alignment of ditch G20. They had dark upper fills and chalky lower fills. At *c*.1m deep, they were deep enough to have functioned as water-pits; however, no waterlogged deposits survived. Only *c*.22g of Roman pottery was recovered from pit G55.

***Ditches L13***

Two *c*.1.2m-wide ditches on the same alignment continued beyond the northern extent of the excavation area and terminated at their southern extents.

Assignment to this Phase was based on the recovery of 33g of Roman pottery.

***Pits L15***

Three pits were dug into the north side of ditch L8 after it had largely infilled and they may therefore be among the latest features dug in this phase.

### 3.1.5 Phase 5: early Saxon (Fig. 21)

Evidence for early Saxon activity comprised a single sunken-featured building (SFB) L11. Its position, central within the earlier Phase 3 enclosure L1, suggests that the latter may have still existed in some form during this period.

The SFB comprised a rectangular pit (3.5m long x 3m wide and 0.1m deep) with a pair of opposing postholes (up to 0.5m deep) and a smaller central posthole. Approximately 0.5kg of early Saxon pottery was recovered from its fill. In addition, two iron nails, a fragment of a glass vessel and a Roman coin were found.

### 3.1.6 Phase 6: medieval (Fig. 22)

Two furrows L24 of presumed medieval date were identified, indicating the former existence of open fields. The presence of furrows to the south was previously known from geophysical survey (Stratascan 2012). Their absence across most of the area is likely to have been the result of modern ploughing.

### 3.1.7 Phase 7: post-medieval (Fig. 23)

The post-medieval period is characterised by a large area of quarry pits L21 at the eastern end of the excavation area. These were of variable dimensions and contained largely sterile fills. However, a roof tile and a sherd of post-medieval pottery were recovered.

Parallel ditches possibly defining a trackway L20 were similarly sterile but produced a single fragment of roof tile, suggesting a post-medieval origin.

### 3.1.8 Phase 8: modern (Fig. 24)

Modern overburden deposits, comprising topsoil and subsoil, were assigned to L26. A thin topsoil only *c*.0.2m thick was removed from the area. Subsoil was only present along the north side of the excavation area where it was up to 1m deep.

A series of land drains L22 were present in the area of the Phase 7 quarry pits L21. Although clearly associated in some way, they truncated the pit fills so were later in date.

# 4. QUANTIFICATION AND ASSESSMENT OF THE ARTEFACTS AND ECOFACTS

## *4.1 Introduction*

This section provides a summary of the artefacts and ecofacts recovered during the investigations. At the end of each sub-section the potential of each individual data-set to address the original research objectives is reviewed. Summarised information on quantity, spatial provenance, date and condition is provided.

## *4.1 Pottery*

### 4.1.1 Methodology

The assemblage was recorded by fabric type and quantified by minimum sherd count and weight. Pottery was spot-dated by form and/or fabric type, and was a principal determinant in assigning contexts to chronological periods.

### 4.1.2 Quantification, date range and fabrics

The assemblage totals 654 sherds (15.1kg), the majority deriving from later Iron Age and Roman features (Phases 3 and 4) within HRN3457 (Table 7).

| | **ACA2 HRN3455** | | **ACA8 HRN3456** | | **ACA9 HRN3457** | | | |
|---|---|---|---|---|---|---|---|---|
| **Phase** | *Sh.* | *Wt. (g)* | *Sh.* | *Wt. (g)* | *Sh.* | *Wt. (g)* | **Total sherd** | **Wt. (g)** |
| **2** | - | - | - | - | 1 | 13 | 1 | 13 |
| **3** | 7 | 250 | 2 | 13 | 224 | 6,625 | 233 | 6,888 |
| **4** | 126 | 3,176 | 2 | 82 | 248 | 4,381 | 376 | 7,639 |
| **5** | - | - | - | - | 31 | 504 | 31 | 504 |
| **6** | 11 | 95 | - | - | - | - | 11 | 95 |
| **7** | - | - | - | - | 2 | 39 | 2 | 39 |
| **Total** | **144** | **3,521** | **4** | **95** | **506** | **11,562** | **654** | **15,178** |

**Table 7**: Pottery quantification by Phase and ACA

Pottery spans the late Iron Age, Roman, early Saxon and post-medieval periods. A single sherd of post-medieval date also occurs. Fabrics are listed in Table 8 in accordance with the Bedfordshire Ceramic Type Series.

| | | **ACA2 HRN3455** | | **ACA8 HRN3456** | | **ACA9 HRN3457** | |
|---|---|---|---|---|---|---|---|
| **Fabric type** | **Common name** | **Sh.** | **Wt. (g)** | **Sh.** | **Wt. (g)** | **Sh.** | **Wt. (g)** |
| *Iron Age* | | | | | | | |
| F03 | Grog and sand | - | - | - | - | 9 | 329 |
| F05 | Grog and shell | - | - | - | - | 4 | 282 |
| F06A | Fine grog | 1 | 12 | 1 | 4 | 32 | 559 |
| F06B | Medium grog | - | - | - | - | 111 | 2,519 |
| F06C | Coarse grog | - | - | - | - | 36 | 1,398 |
| F07 | Shell | 1 | 49 | - | - | 25 | 485 |
| F09 | Sand and grog | 4 | 213 | - | - | 110 | 3,519 |
| F17 | Grog | - | - | - | - | 1 | 4 |
| F32 | Sand and flint | - | - | 2 | 13 | - | - |
| F34 | Sand | 1 | 22 | - | - | 54 | 886 |
| F39 | Grog and mica | - | - | - | - | 9 | 183 |
| F | Non-specific Iron Age | - | - | - | - | 27 | 220 |

| | | ACA2 HRN3455 | | ACA8 HRN3456 | | ACA9 HRN3457 | |
|---|---|---|---|---|---|---|---|
| **Fabric type** | **Common name** | **Sh.** | **Wt. (g)** | **Sh.** | **Wt. (g)** | **Sh.** | **Wt. (g)** |
| *Roman* | | | | | | | |
| R01 | Samian ware | 9 | 34 | - | - | 8 | 81 |
| R03B | Gritty white ware | 3 | 95 | - | - | 1 | 33 |
| R05A | Oxidised sandy | 1 | 54 | - | - | - | - |
| R05B | Fine oxidised sandy | 10 | 93 | - | - | - | - |
| R06B | Coarse grey ware | 42 | 1,202 | - | - | 21 | 214 |
| R06C | Fine grey ware | 7 | 85 | - | - | 11 | 140 |
| R06F | Grog and sand grey ware | 15 | 335 | - | - | - | - |
| R06G | Silty grey ware | 1 | 2 | - | - | - | - |
| R06H | White-slipped grey ware | - | - | - | - | 7 | 25 |
| R06I | Black-slipped grey ware | 13 | 205 | - | - | - | - |
| R07A | Black-burnished ware | 2 | 65 | - | - | - | - |
| R07B | Sandy black ware | 1 | 17 | - | - | 1 | 9 |
| R09A | Pink-grogged ware | 2 | 82 | - | - | - | - |
| R11 | Oxford oxidised ware | 1 | 9 | - | - | - | - |
| R11E | Oxford white ware | 2 | 86 | - | - | - | - |
| R12B | Nene Valley colour-coated ware | 5 | 43 | - | - | - | - |
| R13 | Shelly ware | 17 | 520 | - | - | 6 | 128 |
| R14 | Sand (red-brown harsh) | 4 | 133 | 1 | 78 | - | - |
| R18A | Gritty pink ware | - | - | - | - | 1 | 12 |
| R21 | Mortaria (unprovenanced) | 1 | 99 | - | - | - | - |
| R22A | Hadham oxidised ware | 1 | 66 | - | - | - | - |
| *Post-Roman* | | | | | | | |
| A16 | Saxon coarse quartz | - | - | - | - | 21 | 395 |
| A18 | Saxon fine quartz | - | - | - | - | 7 | 55 |
| A19 | Saxon quartz and organic | - | - | - | - | 3 | 54 |
| P01 | Glazed red earthenware | - | - | - | - | 1 | 32 |

**Table 8**: Pottery type series by ACA

### 4.1.3 HRN3455 (within ACA2)

The assemblage totals 144 late Iron Age and Roman sherds (3.5kg), the majority associated with Phase 4 features.

***Phase 3: late Iron Age/early Roman***

Pottery collected from ditch L200 comprises seven sherds (250g) in grog-, sand- and shell-tempered fabrics datable to the early 1st century AD. Diagnostic forms are two lid-seated jars and a storage-type vessel.

***Phase 4: Roman***

The Phase 4 assemblage totals 126 sherds (3.1kg: MSW[3] 25g) and derives mainly from pits L204 (Table 9). With the exception of a single late Iron Age sherd, all are fully Romanised wares, ranging in date from the late 1st to 3rd century. The assemblage is predominantly local in character and comprises a standard range of sandy coarse wares and a smaller quantity of shelly wares. A few regional wares occur, deriving from Buckinghamshire (pink-grogged ware), the Verulamium region (white ware), the Nene Valley (colour-coated ware), Oxfordshire (oxidised ware) and Dorset (black-burnished ware). Eight undiagnostic Gaulish samian sherds are the sole continental import.

[3] Mean sherd weight

Forms are jars with simple everted rims, a rouletted beaker, flanged bowls, mortaria and a flagon. The latter is of particular interest as it has an unusual ink-written graffito referring to a *lagona* (wine storage jar or jug) and to the gods Jupiter and Vulcan.

| Land-use Area | Sherd | Wt. (g) |
|---|---|---|
| L201 Ditches | 6 | 32 |
| L202 Ditches and pit | 2 | 10 |
| L204 Pit cluster | 61 | 1,737 |
| L205 Enclosure ditches | 25 | 561 |
| L206 Enclosure ditches | 5 | 200 |
| L207 Stone surface | 19 | 443 |
| L216 Ditches | 8 | 193 |
| **Total** | **126** | **3,176** |

**Table 9**: HRN3455 (ACA2) – Phase 4 pottery quantification

***Phase 6: medieval***

Residual Roman pottery collected from medieval furrows L213 comprises ten abraded coarseware body sherds (93g) and a samian fragment (2g). The poor condition of the material is consistent with its recovery from agricultural features.

### 4.1.4 HRN3456 (within ACA8)

Two abraded sand-tempered Iron Age body sherds (13g) derived from the northernmost of two small pits assigned to L100 (Phase 3). Single abraded sherds of late Iron Age and early Roman pottery derived respectively from Phase 4 bedding trenches L101 (4g) and boundary ditch L102 (78g).

### 4.1.5 HRN3457 (within ACA9)

Pottery collected from HRN3457 totals 506 sherds (11.5kg) spanning the late Iron Age, Roman and early Saxon periods, the majority deriving from features assigned to Phases 3 and 4.

***Phase 2: late Bronze Age/early Iron Age***

A highly abraded grog-tempered body sherd (13g) datable to the late 'Belgic' Iron Age (13g) was collected from boundary L28. The sherd is considered to be intrusive, and is likely to originate from Phase 3 enclosure L6.

***Phase 3: late Iron Age/early Roman***

The majority of the HRN3457 assemblage derives from dispersed pits L5, and enclosure ditches and associated features L2 (Table 10), the latter including 14 sherds (828g) from a single vessel. A range of grog- and sand-tempered fabrics typical of the late 'Belgic' Iron Age occur. All are likely to be of local origin, although specific provenance is unknown. Most vessels are wheel-thrown; some are hand-built with a wheel-finished shoulder and rim, and a few are entirely hand-built. Diagnostic forms are in the 'Belgic' tradition (after Thompson 1982) and comprise jars with simple everted or lid-seated rims, some with single/multiple cordons or combed decoration; large storage-type vessels, and a rouletted butt beaker.

| Land-use Area | Sherd | Wt. (g) |
|---|---|---|
| L1 Enclosure | 38 | 748 |
| L2 Possible enclosure features | 67 | 1,990 |
| L3 Possible trackway/boundary ditch | 1 | 6 |
| L5 Dispersed pits | 97 | 3,034 |
| L6 Enclosure | 20 | 843 |
| L19 Dispersed small pits | 1 | 4 |
| **Total** | **224** | **6,625** |

**Table 10**: HRN3457 (ACA9) – Phase 3 pottery quantification

***Phase 4: Roman***

The Phase 4 assemblage totals 248 sherds (4.3kg: MSW 18g) and derives mainly from enclosure L7 and enclosure ditch L8 (Table 11), the latter including 31 sherds (840g) from a single lid-seated vessel. Fifty-four sherds (629g) are Roman in date (mainly late 1st and 2nd century) and the remainder late Iron Age, although their quantity suggests the latter are unlikely to be residual. Iron Ages wares are comparable in form and fabric with those collected from Phase 3 features. Additional forms are a platter and corrugated vessel. The Roman assemblage almost entirely comprises locally manufactured sandy coarse wares and a smaller quantity of shelly wares. Regional and continental wares are less well represented than on HRN3455, and respectively comprise a reeded-rim white ware bowl from the Verulamium region and four samian sherds, including a possible form 37 bowl.

| Land-use Area | Sherd | Wt. (g) |
|---|---|---|
| L7 Enclosure (re-cut & extension of L6) | 129 | 2,047 |
| L8 Enclosure ditch | 70 | 1,609 |
| L9 Boundary ditch | 2 | 38 |
| L10 Large pits | 3 | 22 |
| L13 Ditches | 6 | 33 |
| L14 Internal activity (enclosure L7) | 4 | 36 |
| L15 Pits cutting L8 | 34 | 596 |
| **Total** | **248** | **4,381** |

**Table 11**: HRN3457 (ACA9) – Phase 4 pottery quantification

***Phase 5: early Saxon***

Thirty-one sherds representing 15 hand-built early Saxon vessels (504g) derived from the fills of SFB L11. Wares are principally sand-tempered; three sherds also contain organic matter. The pottery is well-preserved, with a mean sherd weight of 16g, although is largely undiagnostic of form — an upright incurving rim and flat-rounded base are the only feature sherds. The pottery is undecorated, although several sherds have smoothed or wiped surfaces. The largest single vessel comprises six sherds, weighing only 123g.

***Phase 7: post-medieval***

The fills of post-medieval quarry L21 yielded a 17th-century glazed red earthenware bowl rim (32g) and a residual sherd of Roman grey ware (7g).

### 4.1.6 Assessment of potential

The majority of the pottery assemblage is later prehistoric and Roman in date, and primarily local in character. The Roman pottery is largely low-status and domestic, indicated by the basic, utilitarian wares present, and the small quantity of regional and continental imports. With the exception of the flagon sherd with unusual ink-written graffito from HRN3455, the pottery is typical of the period and locality. Most of the assemblage comprises coarse wares, represented by a standard range of well-documented locally manufactured fabrics; thus the assemblage is unlikely to yield new data on Roman ceramic fabrics. The wares can, however, be usefully compared with late Iron Age and Roman assemblages recovered from other sites in the Houghton Regis environs.

Albeit small, the Saxon assemblage from HRN3457 is of interest as it demonstrates a degree of continuity from the Roman period, absent from the neighbouring sites. It also augments known distribution of Saxon ceramics across the county.

## *4.2 Ceramic Building Material*

Brick, tile and fired clay was recorded by fabric type, and quantified by minimum fragment count and weight. Brick and tile derived principally from HRN3455 and fired clay from HRN3457 (Table 12). None was collected from HRN3456.

| | **ACA2 HRN3455** | | **ACA9 HRN3457** | | | |
|---|---|---|---|---|---|---|
| **Phase** | *Frag.* | *Wt. (g)* | *Frag.* | *Wt. (g)* | **Total Frag.** | **Wt. (g)** |
| **3** | - | - | 41 | 3,232 | 41 | 3,232 |
| **4** | 38 | 4,987 | 17 | 712 | 55 | 5,699 |
| **6** | 1 | 38 | - | - | 1 | 38 |
| **7** | 1 | 116 | 2 | 87 | 3 | 203 |
| **Total** | **40** | **5,141** | **60** | **4,031** | **100** | **9,172** |

**Table 12:** CBM quantification by Phase and ACA

### 4.2.1 HRN3455 (within ACA2)

***Phase 4: Roman***

Roman building material is of standard form — tegula (24 examples), imbrex (12) and a single stamped flue tile. It comprises abraded sand- or grog-tempered wares with a mean fragment weight of 131g. Surviving tegulae flanges are D-shaped and two have knife-cut rebates. Most were collected from ditches L205, L206 and associated with stone surface L207 where they had been reused in the construction of the possible threshing floor (Table 13). Part of a handmade sand/organic slab (thickness 34mm) derived from enclosure ditches L205.

| **Land-use Area** | **Frag.** | **Wt. (g)** |
|---|---|---|
| L202 Ditches and pit | 2 | 112 |
| L204 Pits | 1 | 51 |
| L205 Ditches | 14 | 2,115 |
| L206 Ditches | 8 | 1,257 |

| Land-use Area | Frag. | Wt. (g) |
|---|---|---|
| L207 Stone surface | 10 | 1,127 |
| L209 Ditches | 2 | 192 |
| **Total** | **37** | **4,854** |

**Table 13**: HRN3455 (ACA2) – Phase 4 brick and tile quantification

***Phases 6 and 7: post-Roman***

Single abraded pieces of imbrex and tegula (154g) were respectively collected from Phase 6 furrows L213 and Phase 7 field boundaries L212, where they occurred as residual finds.

### 4.2.2 HRN3457 (within ACA9)

***Phases 3 and 4: late Iron Age and Roman***

Redeposited fired clay fragments (3.9kg) were collected from late Iron Age and Roman features, the majority associated with Phase 3 dispersed pits L5 (Table 14). They mainly occur in a sandy organic fabric, and many retain traces of flat or slightly undulating finger-smoothed surfaces. Two pieces (125g) represent structural daub and retain wattle / lath impressions.

Portable furniture recovered from dispersed features across the site includes fragments from a minimum of 14 handmade slabs ranging in thickness from 25–40mm. Slabs occur with greatest frequency on late Iron Age and early Roman sites, and are likely to represent 'bake stones' or temporary shelves in ovens or kilns. Fragments of a tray/slab with raised edges and a plate with pre-firing circular perforations (diameter 30mm) also occur.

| Phase | Land-use Area | Wt. (g) |
|---|---|---|
| **3** | L1 Enclosure | 50 |
| | L2 Enclosure ditches and associated features | 795 |
| | L5 Dispersed pits | 2,362 |
| | L6 Enclosure | 25 |
| **4** | L7 Enclosure (re-cut & extension of L6) | 201 |
| | L8 Enclosure ditch | 451 |
| | L13 Ditches | 44 |
| | L15 Pits cutting L8 | 16 |
| **Total** | | **3,944** |

**Table 14**: HRN3457 (ACA9) – Phases 3 and 4 fired clay quantification

***Phase 7: Post-medieval***

Trackway ditches L20 and quarry L21 yielded single abraded pieces of sand-tempered post-medieval flat roof tile (87g).

### 4.2.3 Assessment of potential

Further analysis of the ceramic building material has the potential to assist with the establishment of chronology and comparison with assemblages recovered from other sites in the Houghton Regis environs.

## *4.3 'Other Artefacts'*

### 4.3.1 Methodology

'Other artefacts' are defined as registered and bulk finds, excluding pottery and ceramic building material. Each object was assigned a preliminary identification and a functional category, and was quantified by number and/or weight. All ironwork and selected non-ferrous objects were x-rayed by P Greaves, Drakon Heritage and Conservation. Preliminary identifications were up-dated in light of the information gained from the x-rays.

Each site is initially discussed separately in terms of the quantification, variety and date range of the assemblage. This is followed by a discussion of the assemblage's provenance (phase and contextual deposition). Its potential to address the research aims of the investigations is then considered.

### 4.3.2 HRN3455 (within ACA2)

***Quantification and variety***

A total of 13 'other artefacts' were recovered.

| Material | Quantity |
|---|---|
| Silver | 1 |
| Copper alloy | 5 |
| Iron | 4 |
| Glass | 2 |
| Stone | 1 |
| **Total** | 13 |

**Table 15:** HRN3455 (ACA2) – 'other artefacts' by material

The objects were assigned to one of nineteen categories, the majority of categories relating to the function the objects performed (*e.g.* Building Materials and Services; Crafts and Industry, Dress and Personal Adornment). Two categories (Prehistoric Flint and Objects of Uncertain Identity) are not functionally related (Table 16).

| Finds category | Material | Broad term | Quantity |
|---|---|---|---|
| Fastenings & Fittings | Iron | Nail | 1 |
| Fastenings & Fittings | Iron | Timber/Joiner's dog | 1 |
| Household | Glass | Bottle | 2 |
| Commerce | Silver | Coin | 1 |
| Commerce | Copper alloy | Coin | 4 |
| Militaria & Weaponry | Iron | Spearhead | 1 |
| Multi-functional | Iron | Hook | 1 |
| Uncertain | Copper alloy | Strip fragment | 1 |
| Natural | Ironstone | Fossil | 1 |

**Table 16:** HRN3455 (ACA2) – 'other artefacts' by functional category

***Date range***

Typologically dated finds were limited in number, but the most closely dated was the coin assemblage. Three of the five coins could be dated and all are thought to be Roman in date, the earliest being a possible coin of Hadrian (AD

117–38). Two coins date to the 4th century, including a *siliqua* of Valentinian I (AD 364–78) and a fragment of a possible '*Fel Temp Reparatio*, falling horseman' coin dating to the mid-4th century. Although the socketed iron spearhead is incomplete, it appears to be an example of Manning's type 3, narrow blades with expansion at base (Manning 1976, 19–20), which can be dated to the Roman period generally.

The only other typologically dated finds comprise two glass bottles, one an embossed, moulded octagonal bottle with screw-threaded rim dating to post-1886 and a 'Yeast Vite' tablet bottle, a product in use from 1920s into the 1980s.

***Provenance***

'Other artefacts' were recovered from three of the five phases identified at HRN3455 (ACA2).

The coin from the fill of late Iron Age/early Roman ditch (L200) is currently illegible; cleaning and study during analysis may help to refine its dating.

| Phase | L | G | Description | Object | Quantity |
|---|---|---|---|---|---|
| 3 | 200 | 229 | Ditch | Copper alloy coin | 1 |
| 4 | 201 | 207 | Ditch | Copper alloy coin | 1 |
| 4 | 202 | 218 | Ditch | Silver coin | 1 |
| 4 | 205 | 200 | Enclosure ditch | Ironstone fossil | 1 |
| 4 | 205 | 228 | Layer | Iron spearhead | 1 |
| | | | | Iron joiner's dog | 1 |
| 4 | 206 | 212 | Ditch | Copper alloy strip | 1 |
| 4 | 207 | 213 | Stone surface | Copper alloy coin | 2 |
| | | | | Iron nail | 1 |
| | | | | Iron hook | 1 |
| 7 | 212 | 220 | Field boundary | Glass bottle | 2 |

**Table 17**: HRN3455 (ACA2) – 'other artefacts' by Phase, Land-use Area and Group

Phase 4 deposits produced the bulk of the other artefacts assemblage. The fill of ditch G207 in L201 contained a Roman coin, possibly a *dupondius* of Hadrian (AD 117–38). The fill of ditch G218 in L202 yielded a later 4th-century silver *siliqua* of Valentinian I (reverse RESTITVTOR REIPVBLICAE) from the mint at Thessalonica (Salonika, Greece). Although the ironstone ball in the fill of enclosure ditch G200 in L205 is naturally occurring, such stones have been known to be utilised as slingshot and could have been used in hunting, as well as warfare (Cunliffe 1984, 425–6; Greep 1987, 183–200).

Layer G228 was adjacent to and associated with large enclosure ditch G227 in L205. This spread of material contained a 'joiner's dog' and a socketed spearhead. Although certainty as to the form of spearhead is not possible due to its being incomplete, it seems likely that it is a type with narrow blades and with an expansion at the base of the blade (Manning type 3; 1976, 19–20).

The copper alloy strip fragment from ditch G212 in L206 retains no diagnostic features.

The final feature in Phase 4 to yield 'other artefacts' was possible threshing floor G213. Two copper alloy coins were found associated with the stone surface; both are poorly preserved but are likely to date to the later 3rd and 4th centuries. In addition to the coins, the threshing floor produced a flat-headed general purpose nail (Manning type 1b: Manning 1985, 134-5) and a large, robust S-shaped hook. Neither item is closely dated. The size of the S-shaped hook (length 101.5mm) suggests it did not serve as a chain link; it may have been used for suspension (steelyard?) or perhaps as a harness or cart fitting.

The two glass bottles from Phase 7 (post-medieval) field boundary G220 are firmly of modern date (20th century).

### 4.3.3 HRN3456 (ACA8)

***Quantification and variety***

A total of five 'other artefacts' were recovered.

| Material | Quantity |
|---|---|
| *Registered finds* | |
| Copper alloy | 1 |
| Iron | 3 |
| Lead alloy | 1 |
| **Total** | 5 |

**Table 18**: HRN3456 (ACA8) – 'other artefacts' by material

The following finds categories are represented in this assemblage (Table 19).

| Finds category | Material | Broad term | Quantity |
|---|---|---|---|
| Fastenings & fittings | Iron | Tack | 2 |
| Household | Lead alloy | Vessel repair plug | 1 |
| Commerce | Copper alloy | Coin | 1 |
| Uncertain | Iron | Strip fragment | 1 |

**Table 19**: HRN3456 (ACA8) – 'other artefacts' by functional category

***Date range***

The finds of flat-headed tacks, strips and vessel repair plugs are not closely datable; for example, vessel repair plugs of lead are known to occur in both Roman and medieval periods. The coin is currently illegible but appears to be a 'minim' of later 3rd- or 4th-century date.

***Provenance***

Colluvial deposits (Phase 1) contained a 'minim' coin of probable later 3rd- or 4th-century date. The single 'other artefact' from Roman deposits (Phase 4) was found in the fill of ditch G104 (L102) and comprised a lead alloy vessel repair plug of the 'waisted' variety. Modern ploughsoil deposits (Phase 8) contained two iron flat-headed tacks and an iron perforated strip retaining a flat-headed tack in situ.

### 4.3.4 HRN3457 (ACA9)

***Quantification and variety***

A total of nineteen 'other artefacts' were recovered.

| Material | Quantity |
|---|---|
| *Registered finds* | |
| Copper alloy | 6 |
| Iron | 9 |
| Lead alloy | 1 |
| Glass | 1 |
| Flint | 2 |
| **Total** | 19 |

**Table 20:** HRN3457 (ACA9) – 'other artefacts' by material

The following finds categories are represented in this assemblage (Table 21).

| Finds category | Material | Broad term | Quantity |
|---|---|---|---|
| Fastenings & fittings | Iron | Nail | 6 |
| Household | Glass | Vessel | 1 |
| Commerce | Copper alloy | Coin | 2 |
| Dress & accessories | Copper alloy | Brooch | 1 |
| Dress & accessories | Iron | Brooch | 1 |
| Dress & accessories | Copper alloy | Button | 1 |
| Prehistoric | Flint | Core | 1 |
| Prehistoric | Flint | Blade | 1 |
| Multifunctional | Iron | Wire | 1 |
| Uncertain | Copper alloy | Mount? | 1 |
| Uncertain | Lead alloy | Strip fragment | 1 |
| Uncertain | Iron | Tang? | 1 |

**Table 21:** HRN3457 (ACA9) – 'other artefacts' by material

***Date range***

The earliest typologically dated finds are two worked flints comprising fragments from a core and a blade. The core has opposed platforms and small blade-like removal scars, while the narrow blade retains parallel ridges. These pieces of debitage date to the Mesolithic to early Neolithic.

The late Iron Age is represented by two brooches: an iron Drahtfibel (Mackreth's D1.b; 2011, 22) and a copper alloy Nauheim brooch (Mackreth's N1.a; 2011, 14). Both brooch types span the period *c*.50 BC–AD 50. An AE Unit, possibly of Tasciovanus (obverse Pegasus with TAS below; reverse winged griffin?) is dated to *c*.15–10 BC (Van Arsdell 1989, cat. 1790–1).

Three other objects can be dated to the Romano-British period. A copper alloy Colchester Derivative brooch (Mackreth's CD Ha 1.a3a.d; 2011, 52–3) dates to *c*. AD 43–120. A coin of Valens (to be confirmed; reverse SECURITAS REIPVBLICAE) dates to *c*.AD 364–78. A small fragment from a vessel of pale greenish-yellow glass with self-coloured raised trails may date to the 3rd–4th century.

The post-medieval period is represented by a cast, composite button of acorn-shape with white metal plating and integral alpha-type loop.

***Provenance***

The fills of Phase 3 (late Iron Age to early Roman) enclosure ditch L2 contained a flint blade core fragment with opposed platforms dating to the Mesolithic to early Neolithic period. The post-depositional damage evident is indicative of its residual nature.

The dispersed pits of L5 yielded a small assemblage that on the whole was not closely dated. The possible mount from small pit G35 comprises a rectangular strip (30 x 9.2mm) with a small, integral D-shaped loop at either end of the reverse surface, the loop oriented parallel with the width of the mount. The obverse surface has engraved decoration; a vertical line divides the surface in two, each zone has eight lines radiating from a central point. This has some similarities to strap or apron mounts, in particular the pattern of decoration (cf. Webster 1960, fig. 5 no. 134), but such mounts have integral rivets rather than loops. There are also similarities to rectangular shield plate brooches (cf. Mackreth 2011, pl. 124 nos 7888–11675) but the loops are set in the wrong orientation to serve as a form of pin.

The lead strip fragment and iron nail head in the fill of storage pit G47 (L5) are not particularly informative, but the iron Drahtfibel brooch does confirm the late Iron Age date for infilling of the pit. The inclusion of personal dress items within Iron Age pit fills, although not unknown, is relatively rare (Hill 1995, 66) and this could perhaps signal that the infilling of the storage pit was a significant event.

| Phase | L | G | Description | Object | Quantity |
|---|---|---|---|---|---|
| 3 | 2 | 16 | Enclosure ditch | Flint core fragment | 1 |
| 3 | 5 | 35 | Pit | Copper alloy mount? | 1 |
| 3 | 5 | 47 | Storage pit | Iron brooch | 1 |
| | | | | Iron nail | 1 |
| | | | | Lead alloy strip | 1 |
| 4 | 7 | 4 | Enclosure ditch | Copper alloy brooch | 1 |
| 4 | 8 | 5 | Enclosure ditch | Iron tang fragment? | 1 |
| | | | | Flint blade | 1 |
| 4 | 14 | 46 | Layer | Iron nail | 1 |
| 5 | 11 | 65 | SFB Posthole | Iron nail | 2 |
| | | | | Copper alloy coin | 1 |
| | | | | Glass vessel | 1 |
| 7 | 21 | 66 | Quarry | Copper alloy button | 1 |
| | | | | Iron nail | 2 |
| | | | | Iron wire | 1 |
| 8 | 26 | 72 | Plough soil | Copper alloy coin | 1 |
| | | | | Copper alloy brooch | 1 |

**Table 22:** HRN3457 (ACA9) – ‘other artefacts’ by Phase, Land-use Area and Group

The Romano-British period features (Phase 4) produced a small assemblage. The Colchester derivative brooch from the fill of enclosure ditch L7 equates

with Mackreth's CD Ha 1.a3a.d (2011, 52–3) and suggests this enclosure may have been going out of use in the earlier 2nd century.

A small assemblage of objects was found in the fill of a Phase 5 early Saxon sunken-featured building L11. The assemblage could be residual from preceding Romano-British activity in the area, but it may well reflect the Anglo-Saxon penchant for collecting Roman-period objects. Although the coin of Valens (AD 364–78) and the fragment of glass vessel do suggest 4th-century activity somewhere in the surrounding area, the nature of that activity remains unknown; this assemblage does not shed light on the nature of the early Saxon activity either.

The only datable find from post-medieval quarrying activity L21 comprised a cast composite button with integral loop, probably of 18th–19th-century date.

Modern (Phase 8) ploughsoil contained further evidence of activity in the pre-Roman late Iron Age. A coin of Tasciovanus, dated to 15–10 BC (Van Arsdell 1989 cat. 1790-1), and a Nauheim brooch of Mackreth's Nauheim 1.a (2011, 14), dating to *c*.50 BC–AD 50, were recovered.

### 4.3.5 Potential

The 'other artefact' assemblage from HRN3455, HRN3456 and HRN3457 provides *terminus ante quem* dates for a number of features, for example Phase 3 storage pit G47 and Phase 4 enclosure ditch G4. Specialist identification of the coins, the glass vessel sherd, and further research on objects such as the mount from pit G47 (Phase 3; L5), will also help to refine the dating.

Although there is a lack of tools and implements associated with crafts and subsistence activities across the three sites, when studied in conjunction with other excavations in the Houghton Regis area the assemblage may afford us a greater insight into the nature and economic basis of the settlement activity.

## *4.4 Animal Bone*

### 4.4.1 Method

All the bones and teeth were summarily recorded onto a relational database. HRN3455 produced 201 fragments of animal bone weighing *c*.3.9kg; HRN3456 produced just 2 fragments weighing 1g; and HRN3457 produced a total of 435 fragments weighing *c*.4.7kg.

### 4.4.2 HRN3455 (within ACA2)

The Roman period (Phase 4) was the only phase that produced animal bones. A total of 201 fragments weighing *c*.3.7kg were recovered from nine Land-use Areas. These included 37 unidentified mammal fragments retrieved from sieved samples. A total of 58 fragments were identified. These were dominated by cattle (81%) with horse (10%) and sheep/goat (9%) the only other species recorded (Table 23).

| | L200 | L201 | L202 | L204 | L205 | L206 | L207 | L209 | L216 | Total | % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cattle | 5 | 2 | 4 | 1 | 13 | 5 | 14 | 1 | 2 | 47 | 81.0 |
| Sheep/Goat | - | - | 1 | 3 | - | - | 1 | - | - | 5 | 8.6 |
| Horse | - | - | 1 | - | 1 | 3 | 1 | - | - | 6 | 10.3 |
| Total identified | 5 | 2 | 6 | 4 | 14 | 8 | 16 | 1 | 2 | 58 | |
| Unidentified | 16 | 6 | 9 | 7 | 21 | 23 | 57 | 2 | 2 | 143 | |
| **Total** | **21** | **8** | **15** | **11** | **35** | **31** | **73** | **3** | **4** | **201** | |

**Table 23:** HRN3455 (ACA2) – Phase 4 animal bone

### 4.4.3 HRN3456 (ACA8)

The only animal bones from this site came from a sieved sample from paleochannel (L107). Two calcined unidentified mammal fragments weighing 1g possibly from the same bone were the only elements recovered. This small assemblage alone has no potential for further analysis.

### 4.4.4 HRN3457 (within ACA9)

A total of 435 fragments weighing *c*.4.7kg were recovered from this site.

***Phase 2: late Bronze Age/early Iron Age***

A single small bone fragment was identified as a cattle mandible was recovered from ditch terminus L29. The mandible was from a young adult.

***Phase 3: late Iron Age/early Roman***

A total of 271 animal bone fragments were retrieved from five Land-use Areas. These included 138 fragments retrieved from sieved samples, of which 131 were of unidentified mammal. Altogether, 80 fragments were identified. Cattle (46%) were the most commonly identified species followed by sheep/goat (34%), pig (13%), horse (3%) and dog (1%) (Table 24). Three bones of frog/toad were recovered from a sieved sample. No bones of wild mammals, bird or fish were identified. The percentages were fairly similar to those obtained from contemporary deposits from HRN3455 (ACA2), in which pigs were better represented than in subsequent Roman phases.

| | L1 | L2 | L4 | L5 | L6 | Total | % |
|---|---|---|---|---|---|---|---|
| Cattle | 9 | 5 | - | 16 | 7 | 37 | 46.3 |
| Sheep/Goat | 4 | 1 | - | 21 | 1 | 27 | 33.8 |
| Pig | 1 | - | - | 8 | 1 | 10 | 12.5 |
| Horse | - | 1 | - | 1 | - | 2 | 2.5 |
| Dog | - | - | - | 1 | - | 1 | 1.3 |
| Frog/Toad | - | - | - | 3 | - | 3 | 3.8 |
| Total identified | 14 | 7 | 0 | 50 | 9 | 80 | |
| Unidentified | 4 | 23 | 3 | 122 | 39 | 191 | |
| **Total** | **18** | **30** | **3** | **172** | **48** | **271** | |

**Table 24**: HRN3457 (ACA9) – Phase 3 animal bone

***Phase 4: Roman***

A total of 115 animal bone fragments were recovered from four Land-use Areas. These included 31 fragments from sieved samples, of which 30 were

of unidentified mammal. A total of 58 fragments were identified. Cattle were the most commonly identified followed by sheep/goat. Pig, horse and dog were also found in small numbers (Table 25).

| | L7 | L8 | L13 | L15 | Total |
|---|---|---|---|---|---|
| Cattle | 13 | 13 | 2 | - | 28 |
| Sheep/Goat | 6 | 7 | 3 | - | 16 |
| Pig | 2 | 4 | - | - | 6 |
| Horse | 3 | 2 | 1 | - | 6 |
| Dog | 1 | - | - | - | 1 |
| Frog/Toad | - | 1 | - | - | 1 |
| Total identified | 25 | 27 | 6 | 0 | 58 |
| Unidentified | 13 | 15 | 5 | 24 | 57 |
| **Total** | **38** | **42** | **11** | **24** | **115** |

**Table 25:** HRN3457 (ACA9) – Phase 4 animal bone

***Phase 5: early Saxon***

SFB L11 produced 48 poorly preserved animal bone fragments, nearly all of which were eroded. Only nine elements were identified, six of which belonged to cattle and one each to sheep/goat, red deer and dog. A cattle mandible belonged to a young adult and a dog mandible also came from an adult. The distal end of a red deer metatarsal was the only identification of a wild mammal from the site.

***Phase 7: post-medieval***

A horse tooth was the only element recovered.

### 4.4.5 Assessment of potential

The assemblage from HRN3456 (ACA8) is too small to justify further analysis. With the exception of bone from medieval and post-medieval deposits, analysis of the animal bone from the two other sites will provide information about animal exploitation. When viewed alongside information from contemporary sites in the surrounding area it will add to our understanding of the Iron Age and Roman environs.

## *4.5 Charred Plant Remains and Charcoal*

### 4.5.1 Introduction

Environmental bulk soil samples were collected for the recovery of charred plant remains for potential information on the agrarian economy of the site from the late Bronze Age through to the post-medieval period.

### 4.5.2 Methodology

Twenty-four bulk soil samples were collected from a range of features, mainly pits and ditches, 20 of which were from HRN3457 (ACA9) with two samples from each of the other two sites. The majority of the samples were from Iron Age/early Roman (nine samples) and Roman (eight samples) deposits, Phases 3 and 4 respectively. There was also one sample from a late Bronze Age/early Iron Age (Phase 2) ditch fill, two from an early Saxon SFB (Phase 5) and

another from a post-medieval (Phase 7) ditch fill. The other three samples were from the fills of two palaeochannels (Phase1).

Sample size ranged from 4–30 litres, the majority being between 10 and 30 litres. The samples were processed using a Siraf-style flotation tank and meshes of 0.3mm and 1mm for the recovery of the flots and residues respectively. The flots were then dried along with the residues, which were sorted for biological and artefactual remains. Samples were sorted from the flots and identified using a binocular microscope (with a magnification of up to x40) together with modern and charred reference material and manuals (Cappers *et al* 2006; Jacomet 2006).

### 4.5.3 Quantification and preservation

Identifiable charred plant remains were present in 21of the 24 samples totalling 4,456 quantified items and consisting mainly of cereal debris, mostly grains (70%) but with some chaff (23%), the remains of other plants (largely wild plant/weed seeds) making up the other 7%. Virtually all the quantified remains were from late Iron and Roman samples, which included eight rich assemblages (>100 items), most of the material coming from HRN3457 (ACA9) and HRN3455 (ACA2) with very few charred plant remains in the two samples from HRN3456 (ACA8). Five samples contained charcoal-rich deposits.

Preservation of the charred material was variable but most of the grains were poorly preserved and *c*.64% were not identifiable; while there were unquantifiable small (<2mm) grain fragments, occasionally in large amounts, in 19 samples. Nomenclature and taxonomic order for the wild plants follows Stace (2005) also used for ecological data together with Hanf (1983) and Wilson *et al* (2003).

### 4.5.4 HRN3455 (within ACA2)

***Phase 4: Roman***

Two samples were collected. A layer covering stone surface G213 (L207), interpreted as a possible threshing floor, produced a fairly good charred plant assemblage dominated by cereal debris of mainly grains from hulled wheat. The main fill of enclosure ditch G227 (L205) produced a rich charred plant assemblage also dominated by cereal debris.

### 4.5.5 HRN3456 (within ACA8)

Two samples were taken from this site, one from a paleochannel and the other from the bedding trenches.

***Phase 1: geological features***

Paleochannel L107 produced a hazel (*Corylus avellana*) nut shell fragment, a few small cereal grain fragments and two rhizome fragments.

***Phase 4: Roman***

Bedding trenches L101 produced just a few grains, hulled wheat chaff fragments and a large wild grass seed.

### 4.5.6 HRN3457 (within ACA9)

Twenty samples were collected from features dating from the late Bronze Age/early Iron Age (Phase 1) to the post-medieval period (Phase 7). These included pits, postholes, ditches and an SFB.

***Phase 2: late Bronze Age/early Iron Age***

A sample from boundary ditch L28 produced just one unidentifiable charred grain.

***Phase 3: late Iron Age/early Roman***

The nine samples from this phase, six from pit fills, two posthole fills and a ditch fill, produced charred plant remains. This accounts for over half of the quantified material from the three sites and includes four rich assemblages.

The charred plant remains in a sample from enclosure L1 produced just a few indeterminate cereal grains and a weed seed.

Two samples from pits within L2 produced rich charred plant assemblages, the larger of the two being from the basal fill of pit G62. Both produced very similar charred plant remains dominated by poorly preserved cereal grains, accounting for over 90% of the quantified material with only very small amounts of hulled wheat chaff and weed seeds.

Charred plant remains were recovered from two postholes associated with four-post structures L4. The sample from G22 produced just a few charred grains of hulled wheat and hulled barley but the posthole from G29 contained a rich assemblage dominated by poorly preserved cereal grains with smaller amounts of hulled wheat chaff and weed seeds.

Four samples from three pits within dispersed pits and postholes L5 contained charred plant remains. Pits G35 and G37 produced moderate amounts mainly consisting of poorly preserved hulled wheat grains. Two samples were taken from storage pit G47. The basal fill contained a moderate amount of charred plant remains consisting mainly of cereal debris. The other sampled fill from the middle of the pit contained an exceptionally rich and dense concentration of charred cereal debris with large amounts of both grains and hulled wheat chaff.

***Phase 4: Roman***

Five samples were collected from this phase, three from enclosure ditches and two from pits.

Two samples from enclosure L7 produced charred plant assemblages; one from ditch G6 contained just a small number of hazel nut shell fragments and one grain. The other sample, however, from the upper fill of ditch G4, produced a very rich, high concentration of charred plant remains, dominated by poorly preserved cereal grains. A sample from enclosure L8 consisted of just several grains and a small wild grass seed.

The lower fill of large pit G55 contained only a small number of charred grains including hulled wheat and two large wild grass seeds. However, the sample from the upper fill of oval pit G274 produced a rich charred plant assemblage consisting mainly of poorly preserved cereal grains.

***Phase 5: early Saxon***

Two samples were collected from isolated SFB L11. The sample from the main fill produced a modest number of poorly preserved charred cereal grains. Other remains consisted of several large charred legume seeds, possibly from cultivated pulses, several charred hazel nut shell fragments and a few charred weed seeds. The other sample, from the fill of a post-pipe contained a smaller number of charred grains including wheat, barley and oat together with two large charred, possibly cultivated, legume seeds.

***Phase 7: post-medieval***

No identifiable charred plant remains were found in the one sample from post-medieval trackway ditch L20.

### 4.5.7 Charcoal

Charcoal was present in virtually all the samples with variable amounts of potentially identifiable fragments (>2mm) in 18 of the 24 flots.

Two samples from HRN3455 (ACA2) produced large amounts of charcoal; ditch G227 and stone surface G213 both dated to the Roman period (Phase 4).

Large amounts of charcoal were also present in five samples from HRN3457 (ACA9). Rich samples from the late Iron Age/early Roman period (Phase 3) were from the dispersed pits and postholes of L5: pit G61 and posthole G29. From the Roman period (Phase 4) ditch G4 also produced large amount of charcoal. Charcoal-rich deposits from the early Saxon period (Phase 5) were both from SFB L11; the main fill of the building and a post-pipe were sampled.

### 4.5.8 Assessment of potential

Identifiable charred plant remains were present in 21of the 24 samples. Five charcoal-rich deposits were also highlighted. Once fully quantified and analysed they have good potential to contribute to the project's aims and objectives by comparing crop husbandry practices with other sites in the vicinity, such as Woodside Link (Giorgi 2018).

Analysis of the charred plant remains and charcoal will provide information on the following:

- The range of plant foods used on the site and possible changes over time;
- The range of woods being used for fuel on site and possible changes over time;
- Aspects of the arable economy of the settlement/diet of the inhabitants during the Roman period;

- Aspects of crop husbandry (range of crops cultivated, the soils used for growing the crops, possibly sowing and harvesting methods) and any changes between the different phases of the site;
- The nature of the crop-processing activities taking place within the site;
- The type of wood used for construction on site (of the SFB);
- Character of the local woodland environment.

## *4.6 Human Bone*

### 4.6.1 Introduction

The investigations recovered one inhumation (HRN3457) and, *c.*1.5km to the east, a fragmentary skull (HRN3455) was recovered.

### 4.6.2 Methods

An assessment was made of the state of preservation from 'good' to 'poor'. Age was estimated from a combination of epiphyseal fusion, and dental eruption and development (Scheuer and Black 2000; Gustafson and Koch 1974; Moorrees *et al.* 1963). Measurements (in mm) were taken of dental features using landmarks identified in Buikstra and Ubelaker (1994). Pathological changes were recorded using standard osteological guidelines (Roberts and Connell 2004), with supplementary diagnostic references as required.

### 4.6.3 HRN3455 (within ACA2)

***Phase 4: Roman***

The human bone from G213 consisted of numerous fragments of adult frontal bone which could be reconstructed to show a moderately well-preserved and largely complete left frontal and orbital roof, a partial right frontal and an area of missing bone in the midline and glabella region. Some of the fragments show wear on the broken edges, suggesting that the skull has been redeposited and/or exposed to the elements in its broken state. Slight polishing of the surface may indicate that it was handled in antiquity. A slightly sloping forehead and orbital margins that are wide and square suggest that the skull may be that of a male.

### 4.6.4 HRN3457 (within ACA9)

***Phase 2: late Bronze Age/early Iron Age***

Inhumation G75 consisted of the largely complete, though fragmentary, remains of a child aged 9–10 years at death. The bone was poorly preserved with widespread erosion of the outer cortex and the absence of all joint surfaces and epiphyses, limiting surface observations and the collection of metric data.

The individual had suffered from a period of systemic stress (such as disease or nutritional deficiency), which exhibited as a clear hypoplastic line towards the cemento-enamel junction of the permanent maxillary molars, suggesting that the incident occurred around the age of 5 years.

### 4.6.5 Assessment of potential

Given its isolation, the late Bronze Age/early Iron Age child's burial within HRN3457 holds minimal information as to the general population from which it originated, but it is of interest in its own right. There are indications that the child had suffered from systemic stress in infancy, which may be a measure of the level of resources available at that time, although other more individualised interpretations, such as childhood disease, are possible.

Disarticulated deposits of human bone such as those from HRN3455 are relatively common in prehistory, with the cranium often favoured and have been suggested to indicate extended burial rituals involving excarnation and selective disposal (Joy 2012). However, in this instance, the location of the cranium within a Roman settlement may suggest that it was the result of disturbance of a nearby grave of an earlier period, rather than deliberate curation or selective deposition.

# 5. DISCUSSION OF RESEARCH OBJECTIVES FOR ANALYSIS

## *5.1 Introduction*

The original project objectives for analysis were presented in the WSARM (Albion Archaeology 2018b) and are summarised in Section 2.4. The assessment in Sections 3 and 4 indicates that the results of the fieldwork can contribute to a number of updated research themes. These are based on objectives taken from the local and regional research frameworks (Medlycott 2011a; Oake *et al* 2007) and for the Roman period from the results of the recently published three volumes on new visions of the countryside of Roman Britain (Smith *et al*. 2016; Allen *et al.* 2017; Smith *et al*. 2018).

In summary, the investigations have produced evidence for a landscape utilised from the late Bronze Age to the present day. The types of human activity have varied both chronologically and spatially. This activity will be examined both within single chronological periods and as cross-period themes. The latter will ensure that any continuity and discontinuity in the landscape will be explicitly considered.

The updated research themes are discussed below under the following headings:

1. Establishment of a chronological framework (all phases)
2. Continuity and discontinuity in the landscape (all phases)
3. Character and economic basis of settlements and other activity (late Iron Age, Roman and early Saxon phases)
4. The nature of activity away from settlements (all phases)
5. The local environment (all phases)

## *5.2 Research Theme 1: Chronological Framework*

### 5.2.1 Summary

The assessment demonstrates that it has been possible to establish a chronological framework for the archaeological remains recorded on the three sites; all significant features/deposits have been assigned to chronological phases. This was achieved primarily through the examination of artefact typology and stratigraphic sequence.

The natural features identified within ACAs 8 and 9 (Phase 1) consist primarily of paleochannels pre-dating the earliest archaeological evidence. Tree-throw holes were also a prominent feature of ACAs 8 and 9. Where associated with features they predated the archaeological remains.

Phase 2 activity was identified within ACAs 8 and 9 and dates to the late Bronze Age/early Iron Age. It takes the form of a ditched boundary and two large pits within the main areas of ACA9 and ACA8 respectively. A flexed inhumation burial and ditch outside the main area of ACA9 were also assigned to this period and indicates activity in this period is to be found outside of the

'core' ACAs. The next phase of activity took place in the late Iron Age/early Roman period (Phase 3), which saw the establishment of enclosures on ACA9 and broadly contemporary pits and postholes. A limited number of similar pits and postholes were present on ACA8 but the excavation area was peripheral to the main settlement. A single ditch has been assigned to this period (Phase 3) within ACA2.

The settlement remains within ACA2 are dated to the Roman period (Phase 4). The enclosures within the excavated part of ACA9, which originated in the late Iron Age, were extended and a boundary was established between ACAs 8 and 9. A system of bedding trenches, probably linked to horticulture, was created in this period within ACA8.

The only evidence for early Saxon (Phase 5) activity is a sunken-featured building in ACA9.

### 5.2.2 Statement of potential

There is moderate potential to refine and finalise the chronological framework once the full identification of the pottery and 'other artefacts' has been completed. In addition, targeted radiocarbon dating may assist in dating key features such as the isolated inhumation. The finalised framework will underpin the analysis and final reporting. It is fundamental to the successful conclusion of the project.

## *5.3 Research Theme 2: Continuity and Discontinuity in the Landscape*

### 5.3.1 Summary

The investigations have produced evidence for eight chronological periods. The latter can usefully characterise activity at a particular point in time and, thereby, highlight discontinuity. Conversely, they can also hinder an appreciation of continuity in the landscape. The transition from one chronological period to the next is a common theme in both national (Historic England 2014), regional (Medlycott 2011a) and county research agendas (Oake *et al*. 2007). Continuity, discontinuity and transition from one period to the next are, therefore, a major research theme and are discussed briefly below.

### 5.3.2 Late Bronze Age/early Iron Age

A number of dispersed features were discovered across ACAs 8 and 9, including ditches, pits and an inhumation. These were situated on previously unoccupied land, although the ditch is aligned with the pre-existing natural palaeochannels. Similar dispersed features of this date were recorded along the line of the Woodside Link (Albion Archaeology 2018a).

### 5.3.3 Late Iron Age/early Roman

The two enclosures within ACA9 follow the same alignment as the late Bronze Age/early Iron Age boundary ditch (Phase 2) and the natural palaeochannels (Phase 1). Clusters of small pits indicate increased activity in the late Iron Age/early Roman period (Phase 3), generally, but not exclusively, internal to the enclosures. In addition, the presence of a small number of storage pits and four-post structures indicates increased human activity.

Storage pits and four-post structures are more commonly associated with the middle Iron Age but the predominance of late Iron Age/early Roman finds in their backfill suggests that they either fell out of use during this period or continued to be utilised for a longer period than observed at other settlements. Little can be said about the single ditch within ACA2.

#### 5.3.4 Roman

The late Iron Age/early Roman enclosures in ACA9 were enlarged but continued in use into the Roman period (Phase 4). However, activity in this period appears to shift with the utilisation of pits within the enclosed areas ceasing.

It is interesting to note that the bedding trenches within ACA8 occupied the same area as small pits dug in the late Iron Age early Roman period (Phase 3).

A series of enclosures were established within ACA2 on the same alignment as the late Iron Age/early Roman ditch. This fits the trend observed by the rural settlement of Roman Britain project where 'continuity of settlement from the late Iron Age seems to have been the norm' (Smith *et al*. 2016, 408).

#### 5.3.5 Early Saxon

A sunken-featured building was located in the centre of the westernmost, Roman enclosure within ACA9. This indicates that some form of the enclosure may have remained visible and in use in the early Saxon period (Phase 5).

#### 5.3.6 Medieval and post-medieval

Strip cultivation indicating a medieval open field system (Phase 6) and the subsequent post-medieval field boundaries (Phase 7) within ACA2 follow the alignment of the earlier Iron Age and Roman enclosures.

#### 5.3.7 Statement of potential

There is good potential to elucidate the issues of continuity and discontinuity in the development of the landscape.

### *5.4 Research Theme 3: Settlement Character and Economic Basis during the late Iron Age/Roman Period*

#### 5.4.1 Summary

The limited information afforded by the narrow excavation through the ACA2 settlement suggests that it comprised a series of possibly rectangular enclosures adjacent to the brook. While no buildings were identified, the presence of significant quantities of Roman building material suggests that the settlement may have contained substantial buildings (as was indicated by the evaluation).

A stone surface probably served as a threshing floor associated with crop-processing. It, therefore, complements the drying ovens found on two other Roman sites investigated within HRN1 (Albion 2019a and b) and on the Woodside Link (Albion 2018a). In combination, this evidence will assist in

our understanding of the character and economy of Roman settlements in the area.

The ACA2 settlement also produced two unusual finds: a flagon with ink-written graffito and part of an iron spearhead. These and the evidence for more substantial buildings than the norm suggest that the ACA2 settlement is likely to have been of higher 'status' than the others in the area, as suggested by the evaluation (Albion 2012).

The investigations demonstrate that there was no settlement of any period within the excavated part of ACA8. The excavated evidence within ACA9 included ditched enclosures, dispersed pits and four-post structures. It is likely that these represent the periphery, rather than the core, of a late Iron Age/Roman settlement. The enclosures within ACA9 may, therefore, represent stock enclosures adjacent to the pasture land around the brook.

The bedding trenches within ACA8 add to the picture of the broader landscape between the settlement sites and also contribute to our understanding of the Roman economy of the area. The creation of such bedding trenches is generally regarded as evidence for increased horticulture in the Roman period. Extensive systems have been found in the region, e.g. Tavistock Avenue, Ampthill (Northamptonshire Archaeology 2010), Woolaston, Northamptonshire (Brown *et al*. 2001). At the latter, the bedding trenches were considered to be part of a large vineyard. Smaller systems like those within ACA8 are also known in the region, e.g. on Land West of Kempston (Luke 2016, 292–4) where it was suggested that they were dug for the creation of fruit hedges. Placing the HRN1 sites within their wider economic hinterland will be key to understanding both the character and economic basis of the individual sites and the wider Roman landscape.

The characterisation of rural agrarian and economic activity in the Roman period is an area of research highlighted by Medlycott as requiring further work: 'we still need to understand the Roman agricultural 'norm', against which assemblages can be compared' (Medlycott 2011b, 46). The HRN1 evidence from the late Iron Age and Roman periods has the potential to contribute to our understanding of how the economy was organised; it will provide a valuable comparison with other sites in the area.

### 5.4.2 Statement of potential

Further analysis of the structural and artefactual data will assist in determining the 'status' of the settlements, in particular whether or not the ACA2 settlement really does stand out from the norm. When fully examined the archaeological features such as storage pits, four-post structures, the possible threshing floor and bedding trenches, alongside the botanical data (charred plant remains and charcoal) and animal bone assemblage, will elucidate the economic basis of the area in the late Iron Age and Roman periods. It will then be possible to usefully compare it with the evidence from nearby sites, and those elsewhere within Bedfordshire and the wider Chiltern region.

## 5.5 Research Theme 4: Landscape

For the prehistoric and Roman periods, prior to large-scale, open-area excavations, most archaeological investigations had been concentrated on settlements themselves, so that little information about the wider landscape was available.

The use of the landscape during the late Bronze Age/early Iron Age transition is a key question in the regional research agenda, with evidence for 'complex' activities taking place away from settlements — e.g. isolated pits, substantial ditched boundaries and pit alignments (Medlycott 2011b, 29–31). Although the evidence from the ACA2, 8 and 9 sites is limited, it does include ditched boundaries, dispersed pits and an inhumation. As such, it can be compared with more substantial evidence found elsewhere, e.g. Land West of Kempston (Luke 2016, 137–42) and Biddenham Loop (Luke 2016, 145–7).

Late Iron Age and Roman rural settlement densities, distribution and associated land-use is better understood, but Medlycott has highlighted that there is still a bias '…towards the larger and more affluent rural sites' and more work is still required to answer key questions about the Roman rural landscape (2011b, 46–7). The pits enclosures and grain storage areas of ACA9 are located between the extensive Roman settlements indicated within ACA2 and recently excavated within ACA13 (Albion Archaeology 2019b) but are significantly different in character, suggesting they performed a specific function and will, therefore, contribute to the understanding of the wider landscape.

While the only evidence for early Saxon activity is limited to an isolated SFB, it did produce a relatively large quantity of pottery, suggesting that is was in use for more than just a short period of time. It is also interesting in terms of the wider landscape because a similar isolated Saxon building was investigated within the J1/J2 excavation area (Albion Archaeology, 2019a).

### 5.5.1 Statement of potential

The late Bronze Age/early Iron Age, the late Iron Age/Roman and early Saxon evidence identified within the investigations will contribute to our understanding of the wider landscape during these periods. The different HRN projects when combined with the results of the A5-M1 project to the north (MOLA 2015) will provide evidence for the origins and evolution of an extensive landscape to the north of Houghton Regis.

## 5.6 Research Theme 5: Local Environment

Human interaction with landscape and environment is central to archaeological study. Although the palaeochannels cannot be closely dated, they appear to predate the earliest human activity and their alignment was respected right up to the medieval period. Unfortunately, like the tree-throws, they did not produce any significant artefactual or ecofactual data worthy of further analysis. The extent of woodland and the pace of woodland clearance, especially during the Roman period, is of particular interest (Medlycott 2011b, 46; Murphy 2007, 79). Quantification and analysis of the wood charcoal will assist in providing information on the character, exploitation and management

of the local woodland environment during the late Iron Age and Roman periods.

# 6. UPDATED PROJECT DESIGN

## *6.1 Introduction*

As established in the previous sections, the results of the investigation have the potential to contribute to a number of regional research objectives. On this basis, and in accordance with the WSARM (Albion Archaeology 2018b), this section provides the methodologies and task list for the proposed analysis and subsequent final reporting and archiving programmes.

Details of the professional standards and guidelines that will be adhered to during the project are provided in Appendix 1.

## *6.2 Analysis*

### 6.2.1 Contextual

The underlying framework for the analysis and final reporting of the results will be the contextual hierarchy. The provisional hierarchy, described in this report, will be rigorously checked and compared with quantified artefact and ecofact data. Research will focus on the subtleties of this complex chronology with particular reference to the late Iron Age/Roman transition. However, it is envisaged that the broad outlines of the structural hierarchy used in this assessment will remain largely intact.

The digitised plan and section data will be interrogated via GIS software linked to relational database tables to produce mock-up final illustrations. Plans will be produced to show all features in each Phase, with Land-use Areas identifiable and significant Groups annotated.

### 6.2.2 Radiocarbon determinations

The majority of deposits on site can be well-dated by stratigraphic and artefactual evidence. However, the inhumation from HRN3457 did not contain any datable artefacts; it will, therefore, be sent for accelerator mass spectrometry (AMS) dating at the Scottish Universities Environmental Research Centre Radiocarbon Laboratory (SUERC).

### 6.2.3 Pottery

With the exception of the small quantity of post-medieval material, detailed quantification of the pottery assemblage will be required. The final report will summarise the pottery assemblage within appropriate chronological periods by fabric type, form, decoration and attribute. The text will refer to comparative assemblages (published or unpublished). In addition, where appropriate, the pottery assemblage from individual elements of the structural hierarchy, e.g. Land-use Areas and Groups, will be discussed. Selection of pottery vessels for publication-standard illustration, if suitable, will be made at this juncture. The pottery sherd with the graffito will be examined and reported on by Roger Tomlin.

### 6.2.4 Ceramic building material

No further analysis of the tile and fired clay assemblage is required, although the text produced for this assessment will be amended as necessary to reflect any changes to the site's phasing or interpretation identified during analysis.

### 6.2.5 'Other artefacts'

Ahead of analysis all stone objects will be subject to petrological identification by Dr J Eyers (Chiltern Archaeology). The preliminary identifications of the coins will be confirmed by Dr Peter Guest as part of the analysis stage of the project.

Each 'other artefact' will be assigned a narrow term, and where applicable, a date range. Narrow term information will be established by an examination of each object, noting:

- form
- method of manufacture
- material and source
- presence of diagnostic features
- condition
- selected parallels from comparable sites
- comparison with ceramic data from the site

The text will summarise the assemblage, excluding those of medieval or post-medieval date, within appropriate chronological periods by material type and forms. Selection of artefacts for publication-standard illustration, if required, will be made at this juncture. The text will refer to comparative assemblages (published or unpublished).

### 6.2.6 Animal bone

With the exception of bones from medieval and post-medieval deposits, all bones and teeth from the hand-collected and sieved samples within HRN3455 (ACA2) and HRN3457 (ACA9) will be examined and recorded in detail onto a relational database. Where present, the following information will be recorded on each specimen: species; anatomy (element); parts (zones) of the element present; handedness (on bones in associated groups); percentage of element present; gnawing damage; breakage patterns; erosion; weathering; charring; concretions; fusion data; sexing data; animal bone group number; sieved sample number; other comments (including evidence for pathology).

Separate data tables linked to the main table by an individual identification number will be created for metrical, butchery and tooth-ageing data. Where necessary, identifications will be confirmed by reference to comparative skeleton collections. Tooth eruption and wear descriptions for cattle, sheep/goat and pig will follow the recording method of Grant (1982), to facilitate comparisons with other assemblages. Similarly, for national and international comparative purposes, measurements will follow those recommended by von den Driesch (1976).

Relevant faunal evidence will be incorporated within the site narrative to assist in the general interpretation of settlement usage and deposition. Broader discussion of the animal bone assemblage within the report will be limited by the small size of the assemblage; where possible, it will focus on species abundance with briefer comments on other evidence. However, where available, the data accumulated on body parts represented, ageing and sexing, butchery methods, pathology and stature will also contribute to broader regional surveys of animal husbandry practices, meat diet, carcass processing methods and deposition in the Roman period.

#### 6.2.7 Charred plant remains and charcoal

Once fully quantified the charred grain assemblages will be analysed with reference to the contextual data to recover further information on the agrarian economy of the settlements, the location and extent of crop-processing activities and to provide information about the local environment.

Nomenclature and taxonomic order for the wild plants follows Stace (2005) also used for ecological data together with Brenchley (1911; 1913), Hanf (1983) and Wilson *et al* (2003).

Analysis of the charcoal will concentrate on species identification and quantification where the assessment has proved that this is possible. This will provide information on the range of woods used as fuel for crop-processing; whilst charcoal from other features may provide an insight into the character of the local woodland environment.

Analysis will include:

- The sorting, identification and quantification of the twenty-one productive samples;
- Sub-sampling may be required of the particularly rich assemblages;
- Tables of results will then be prepared, followed by a discussion of the charred material taking into consideration evidence from other sites of similar periods in the area.

#### 6.2.8 Human bone

The human bone recovered will be quantified and analysed prior to the bone from HRN3457 being sent for radiocarbon dating. Once more securely dated, the burial will be placed in a wider archaeological context and considered as part of contemporary funerary traditions.

### *6.3 Final Report*

#### 6.3.1 Overview

The scale and significance of the results mean that the final report will be suitable for submission to the county journal, *Bedfordshire Archaeology*. Consistent with the results of this assessment, the final report will concentrate on evidence from the Iron Age and Roman periods.

### 6.3.2 Introduction and site narrative

The introduction will provide sufficient information to put the results into context but will not be as detailed as this assessment report. The contextual hierarchy will provide the chronological/spatial structure for the site narrative. It will be organised by Phase, Land-use Area, Group and, where appropriate, Sub-group. Where appropriate, artefactual and ecofactual evidence will be integrated into the site narrative. The level of detail presented will be commensurate to the significance of the results, e.g. the burial, four-post structures, SFB etc. will be described in detail whereas features of uncertain function containing few finds will not.

### 6.3.3 Specialist reports

All the specialist reports will be read and edited to ensure a consistency in approach. Specialist reports will be published in full, either as part of the body of the report or as an appendix.

### 6.3.4 Discussion

Discussion will focus upon the research themes outlined within Section 5, specifically the late Iron Age/ Roman settlement and economic basis with remains from other periods described and discussed in less detail. The results will be compared with those from other excavations in the vicinity and further afield, as appropriate.

### 6.3.5 Illustrations

Illustrations will be produced for the introductory, site narrative and discussion sections of the final report. The selected artefact illustrations will be checked and scanned, and a digital paste-up of the final figures completed.

## *6.4 Archiving*

Subject to the landowner's consent, the written and material archives will be accessioned with Luton Culture (see Table 26), in line with *Procedures for preparing archaeological archives for deposition with Luton Culture* (Luton Culture 2013).

| Site | Accession no. | Oasis reference no. |
|---|---|---|
| HRN3455 (ACA2) | LUTNM: 2018/37 | albionar1-335887 |
| HRN3456 (ACA8) | LUTNM:2018/38 | albionar1-335888 |
| HRN3457 (ACA9) | LUTNM:2018/43 | albionar1-335890 |

**Table 26:** Archive reference table

The site archive currently includes the elements listed below in Table 27–29. It will increase in size once the contextual analysis and specialist reports have been finalised.

| Record type | Quantity | Comments |
|---|---|---|
| Context records | 325 A4 sheets | incl. 223 contexts |
| Registers | 27 A4 sheets | incl. contexts, drawings, registered artefacts, photo, ecofact samples |
| Sample record sheets | 77 A4 sheets | - |

| Record type | Quantity | Comments |
|---|---|---|
| Site drawings | 8 permatrace sheets (62 x 62cm)<br>1 digital AutoCAD compatible site plan<br>1 digital GIS-based site plan | incl. 102 section drawings |
| Photographs | *c*.531 digital images | A selection of these will be retained for archiving on completion of analysis |
| Pottery | 1.5 boxes | 144 sherds (*c*.3.5kg) - |
| Ceramic building material | 0.5 box | 40 fragments (*c*.5.1kg)<br>Brick, tile, fired clay |
| Stone objects | 1 box | |
| Registered and other bulk non-ceramic artefacts | 1 large tub | incl. 13 registered artefacts (which includes an iron spearhead and Roman coins) |
| Animal bone | 1 box | 201 fragments (*c*.3.9kg) |
| Human bone | 1 tub | 13 skull fragments (*c*.0.7g) |
| Bulk soil samples | 2 samples | Only significant flots and residues will be retained for archive on completion of analysis |

**Table 27**: Site archive HRN3455 (ACA2)

| Record type | Quantity | Comments |
|---|---|---|
| Context records | 31 A4 sheets | incl. 97 contexts |
| Registers | 11 A4 sheets | incl. contexts, drawings, registered artefacts, photo, ecofact samples |
| Sample record sheets | 2 A4 sheets | - |
| Site drawings | 3 permatrace sheets (62 x 62cm)<br>1 digital AutoCAD compatible site plan<br>1 digital GIS-based site plan<br>6 Printed A1 plans | incl. 39 section drawings |
| Photographs | *c*.67 digital images | A selection of these will be retained for archiving on completion of analysis |
| Pottery | 1 bag | 2 sherds (13g) |
| Registered and other bulk non-ceramic artefacts | 1 tub | incl. 5 registered artefacts |
| Flots & miscellaneous finds | 1 tub | - |
| Animal bone | 1 bag | 2 fragments (0.1kg) |
| Bulk soil samples | 2 samples | Only significant flots and residues will be retained for archive on completion of analysis |

**Table 28:** Site archive HRN3456 (ACA8)

| Record type | Quantity | Comments |
|---|---|---|
| Context records | 141 A4 sheets | incl. 547 contexts |
| Registers | 28 A4 sheets | incl. contexts, drawings, registered artefacts, photo, ecofact samples |
| Sample record sheets | 21 A4 sheets | - |

| Record type | Quantity | Comments |
|---|---|---|
| Site drawings | 9 permatrace sheets (62 x 62cm)<br>1 digital AutoCAD compatible site plan<br>1 digital GIS-based site plan<br>11 Printed A1 plans | incl. 170 section drawings |
| Photographs | *c*.328 digital images | A selection of these will be retained for archiving on completion of analysis |
| Pottery | 3 boxes | 506 sherds (*c*11.5kg) - |
| Ceramic building material | 1 tub | 60 fragments (*c*.4kg) incl. fired clay |
| Registered and other bulk non-ceramic artefacts | 1 large tub | incl. 19 registered artefacts (including 2 brooches) |
| Animal bone | 3 boxes | 435 fragments (*c*.4.7kg) |
| Human bone | 1 tub | - |
| Flots | 2 tubs | - |
| Bulk soil samples | 20 samples | Only significant flots and residues will be retained for archive on completion of analysis |

**Table 29:** Site archive HRN3457 (ACA9)

## *6.5 The Project Team, Programme and Management*

### 6.5.1 The Project Team

To ensure a consistency of approach it is intended that wherever possible the project team will be the same as that used in the assessment stage of the project. This includes specialists who have analysed and published similar data-sets from other contemporary sites in the vicinity.

The majority of the project team (see Table 30) work for Albion Archaeology. MoRPHE stresses the possibilities for personal and professional development (Historic England 2015, 16 and 26) and every opportunity will be taken to facilitate professional development for team members, giving them the opportunity to expand their experience of post-excavation analysis within the scope of this project.

| Task | Name, Title/Organisation | Initials |
|---|---|---|
| Overall management | Drew Shotliff, Albion Operations Manager | DS |
| Project management and co-author | Mike Luke, Albion Project Manager | ML |
| Co-author and contextual analysis | Kathy Pilkinton, Albion Project Officer | KP |
| Animal bone | Mark Maltby, University of Bournemouth | MM |
| Charred plant remains | John Giorgi, freelance specialist | JG |
| Coins | Peter Guest, freelance specialist | PG |
| Human bone | Natasha Powers, Allen Archaeology | NP |
| Other artefacts | Holly Duncan, Albion Artefacts Manager | HBD |
| Pottery and CBM | Jackie Wells, Albion Finds Officer | JW |
| Pottery graffito | Roger Tomlin, freelance specialist | RT |
| Radiocarbon determinations | Scottish Universities Environmental Research Centre | SUERC |
| Stone | Jill Eyres, Chiltern Archaeology | JE |
| Wood charcoal | Dana Challinor, freelance specialist | DC |

| Task | Name, Title/Organisation | Initials |
|---|---|---|
| Structural illustration | Joan Lightning, Albion CAD technician/illustrator | JL |
| Artefact illustrations | Mike Trevarthen, freelance illustrator | MT |
| Archiving | Helen Parslow, Albion Archives Officer | HP |

**Table 30**: The project team

### 6.5.2 The project programme

The programme is itemised in Table 31, within which a number of key stages have been identified; completion of these key stages of the project will each provide a natural review point as recommended by MoRPHE (Historic England 2015). The programme will commence on submission of this Assessment and Updated Project Design.

| Task Description | Name * | Time estimate (duration of task) |
|---|---|---|
| Radiocarbon determinations | SUERC | |
| Final phasing and contextual analysis | KP | |
| **Key stage 1: completion/finalising of the contextual hierarchy** | | 2 months |
| Pottery and CBM – final quantification, recording and reporting | JW | |
| Pottery graffito | RT | |
| 'Other artefacts' – coins | PG | |
| 'Other artefacts' – final quantification, recording and reporting | HBD | |
| Animal bone – final quantification, recording and reporting | MM | |
| Charred plant remains – analysis and reporting | JG | |
| Human bone – analysis and reporting | NP | |
| Stone – analysis and reporting | JE | |
| Wood charcoal – analysis and reporting | DC | |
| Site narrative | KP | |
| Structural illustration | JL/MT | |
| **Key stage 2: completion/finalising of specialist analysis and texts** | | 4 months |
| Artefact illustrations | MT | |
| Amendments to structural illustrations | JL/MT/JKP | |
| Integration of all specialist texts | KP | |
| Production of discussion | KP | |
| Editing final report | KP/ML/DS | |
| **Key stage 3: completion of first draft** | | 2 months |
| Albion's refereeing process | KP/ML | |
| Addressing comments received | KP/ML | |
| **Key stage 4: issue of final report** | | 2 months |
| **Key stage 5: Archiving** | | 2 months (may be concurrent with Stage 4) |
| Archive preparation (contextual) | KP | |
| Archive preparation (artefacts/ecofacts) | HP/JW | |
| Archive preparation and liaison with Luton Culture | HP | |
| Archive transfer | HP | |
| **Key stage 6: end of project** | | |

**Table 31**: Summary of project programme

* For initials see Table 30.

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# 8. APPENDIX 1: PROFESSIONAL STANDARDS AND GUIDELINES

The project will be undertaken using Historic England's guidelines on *Management of Research Projects in the Historic Environment* (MoRPHE) (Historic England 2015). In addition, the project will follow all relevant guidance issued by Historic England, much of which is available on the Historic Environment Local Management (HELM) website http://www.helm.org.uk.

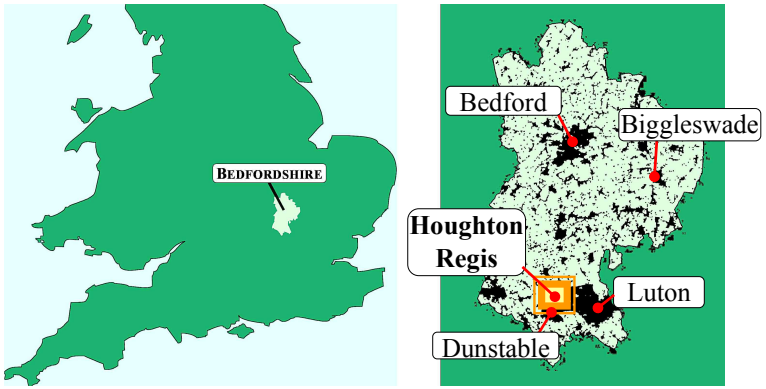
The following are particularly relevant to this project:

- *Heritage 2020 draft strategic priorities* (Heritage Alliance 2014)
- *National Heritage Protection Plan Framework* (HE 2012) and associated guidelines and Action Plans
- *Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2011)

Throughout the project, the following standards and guidance will also be adhered to:

- Archaeology Data Service (ADS) – *Guides to Good Practice* (2011).
- Association of County Archaeological Officers – notably *Standards for Field Archaeology in East Anglia* (East Anglian Archaeology Occasional Paper, 14), by D Gurney (2003).
- Luton Culture guidelines - *Procedures for preparing archaeological archives for deposition with Luton Culture* (Luton Culture 2013).
- The Chartered Institute *for* Archaeologists' (CIfA) *Codes of Conduct* and standard and guidance documents relevant to the project. These include:
    - *Code of conduct* (2014)
    - *Standard and guidance for archaeological excavation* (2014)
    - *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (2014)

In addition, relevant guidelines published by national or regional societies and specialist interest groups will be consulted, where applicable.



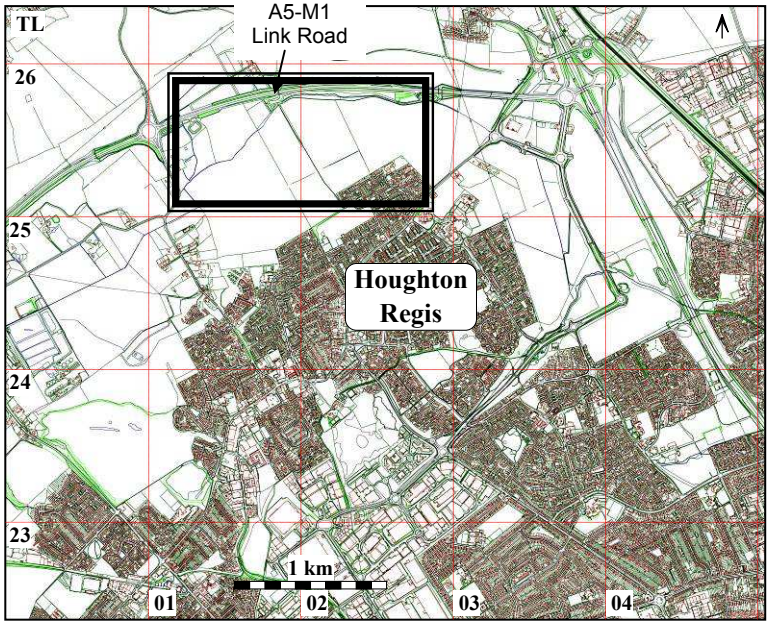




**Figure 1:** Site location.

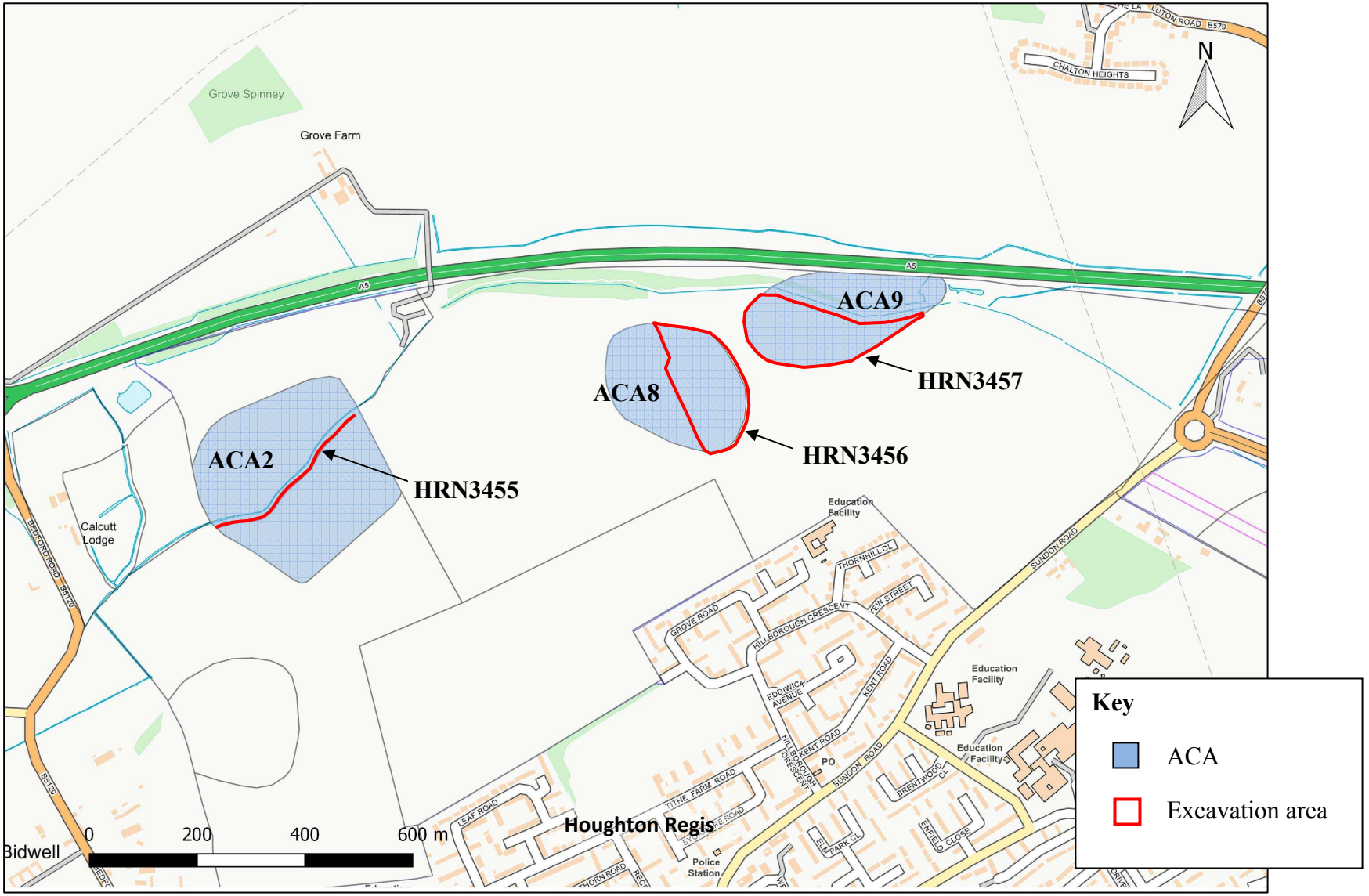



**Figure 2:** Site locations within their Archaeological Character Areas (ACAs)

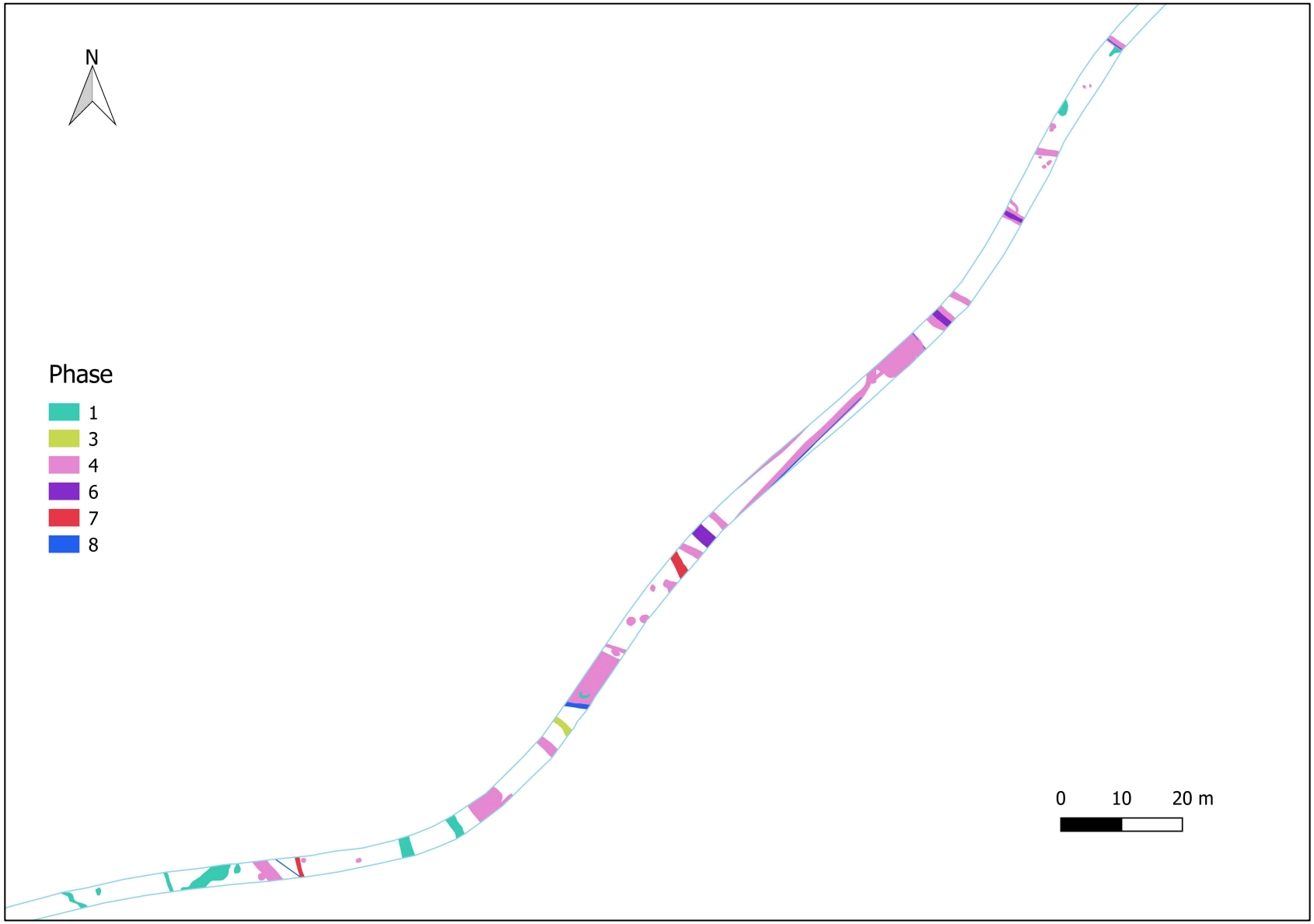



**Figure 3:** HRN3455 – All-features plan

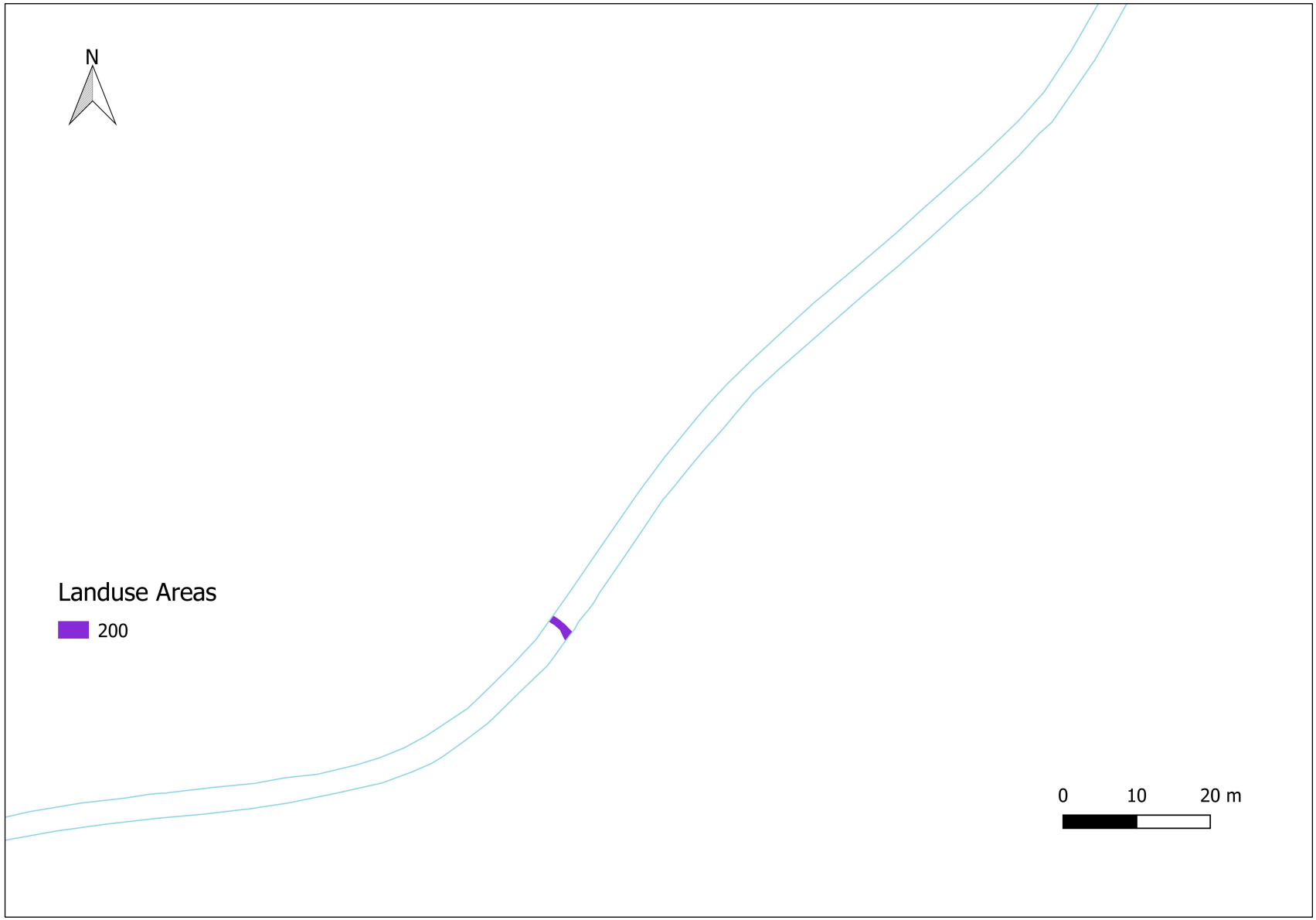



**Figure 4:** HRN3455 – Phase 3 late Iron Age/early Roman

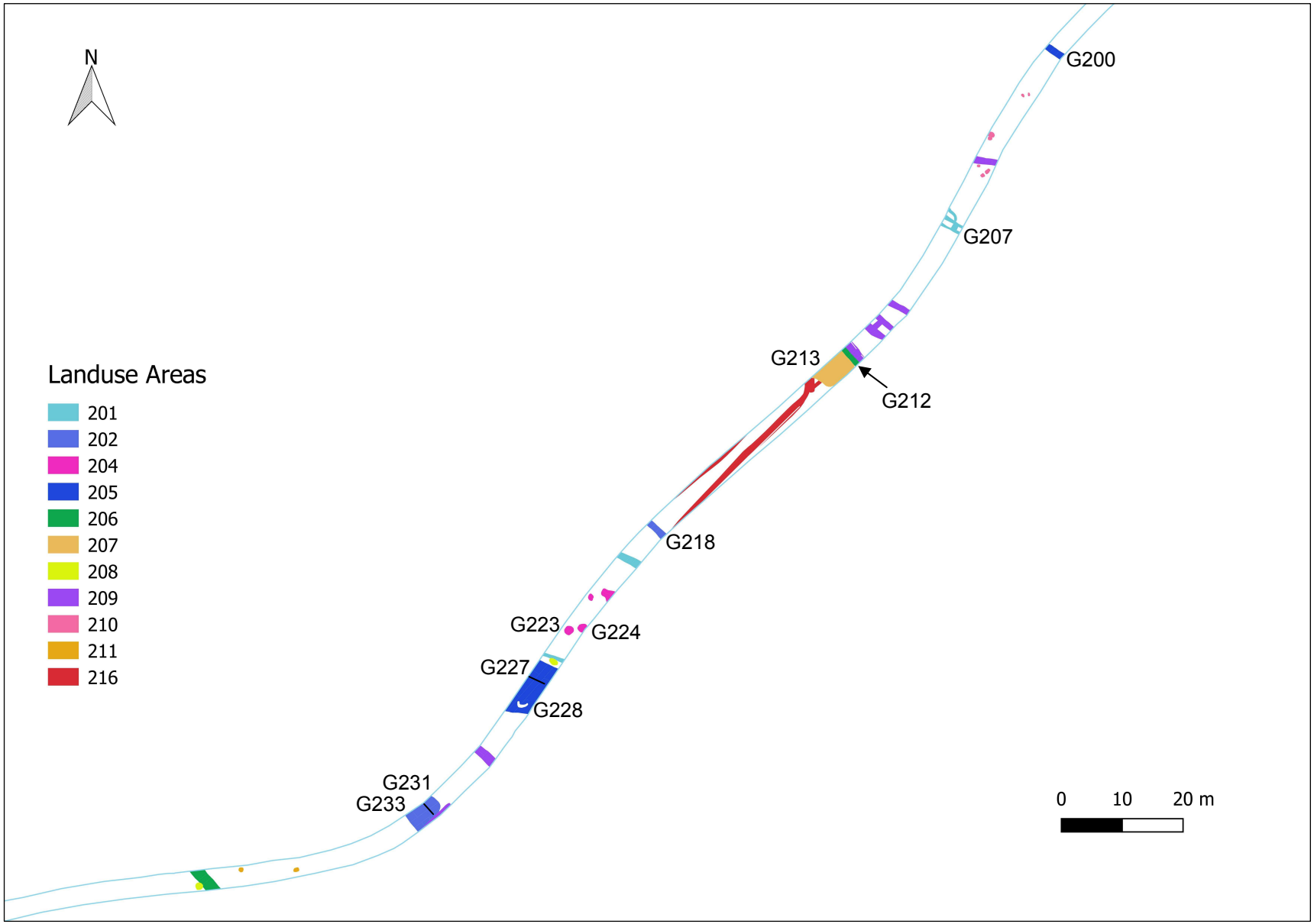



**Figure 5:** HRN3455 – Phase 4 Roman

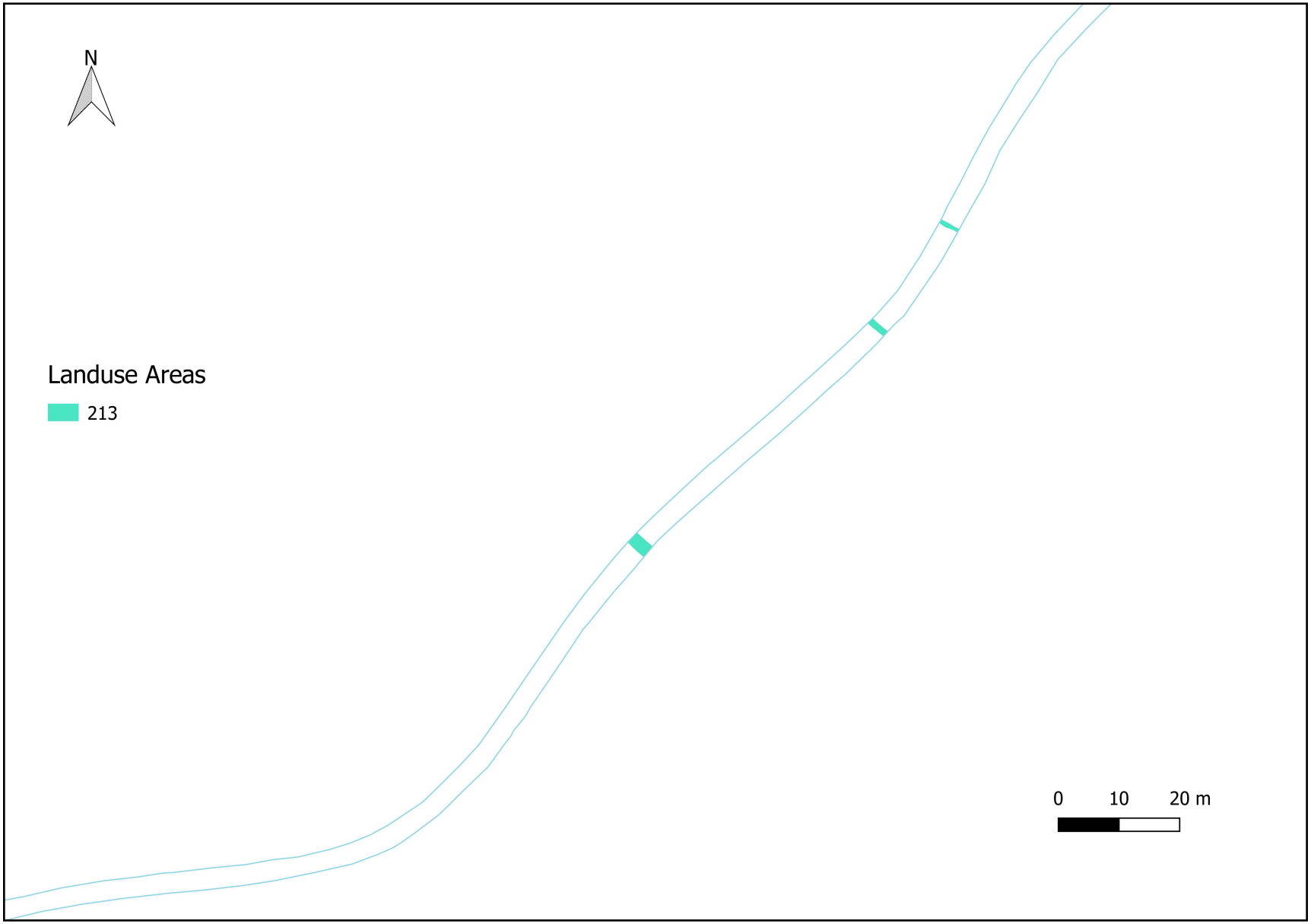



**Figure 6:** HRN3455 – Phase 6 medieval

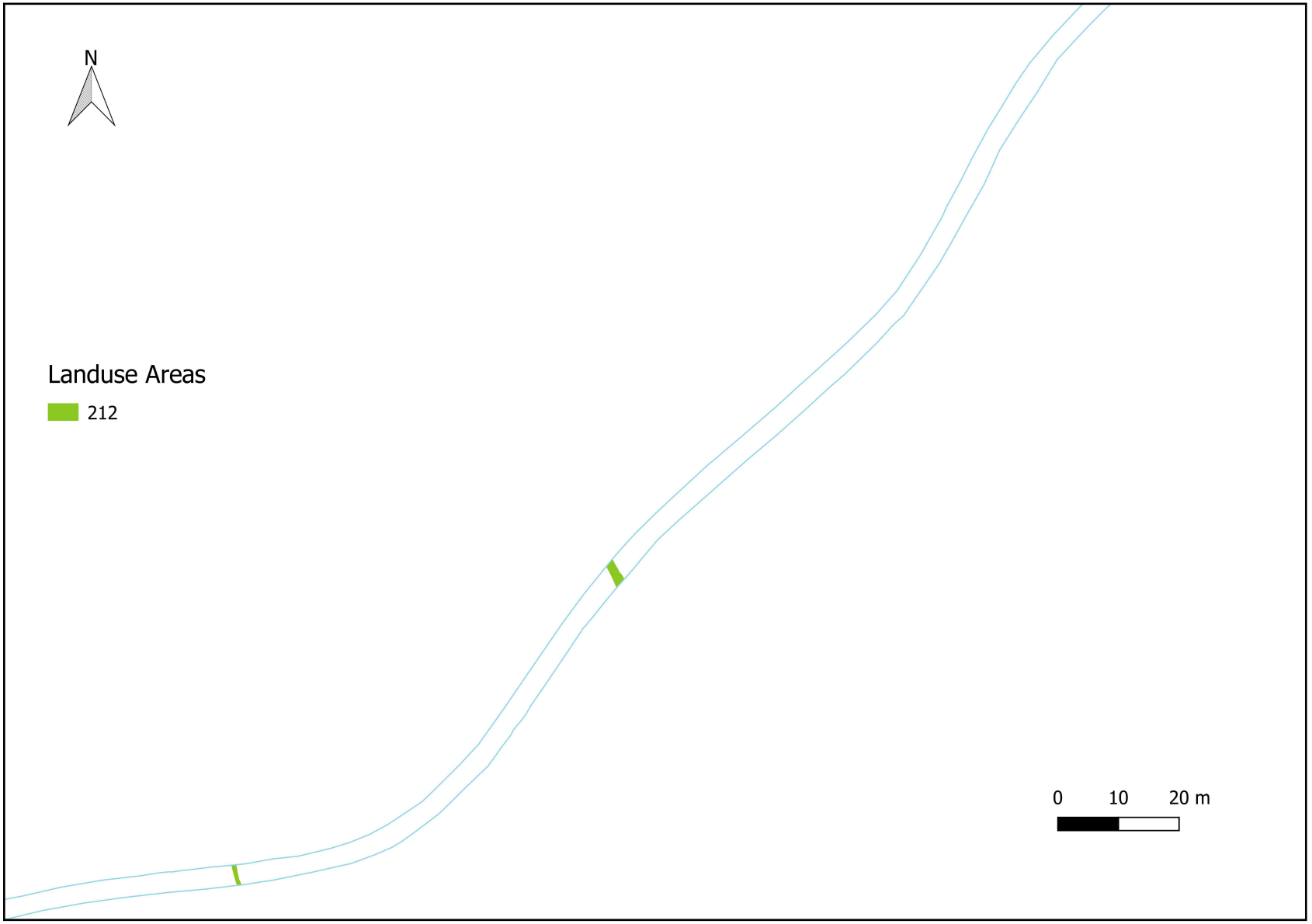



**Figure 7:** HRN3455 – Phase 7 post-medieval

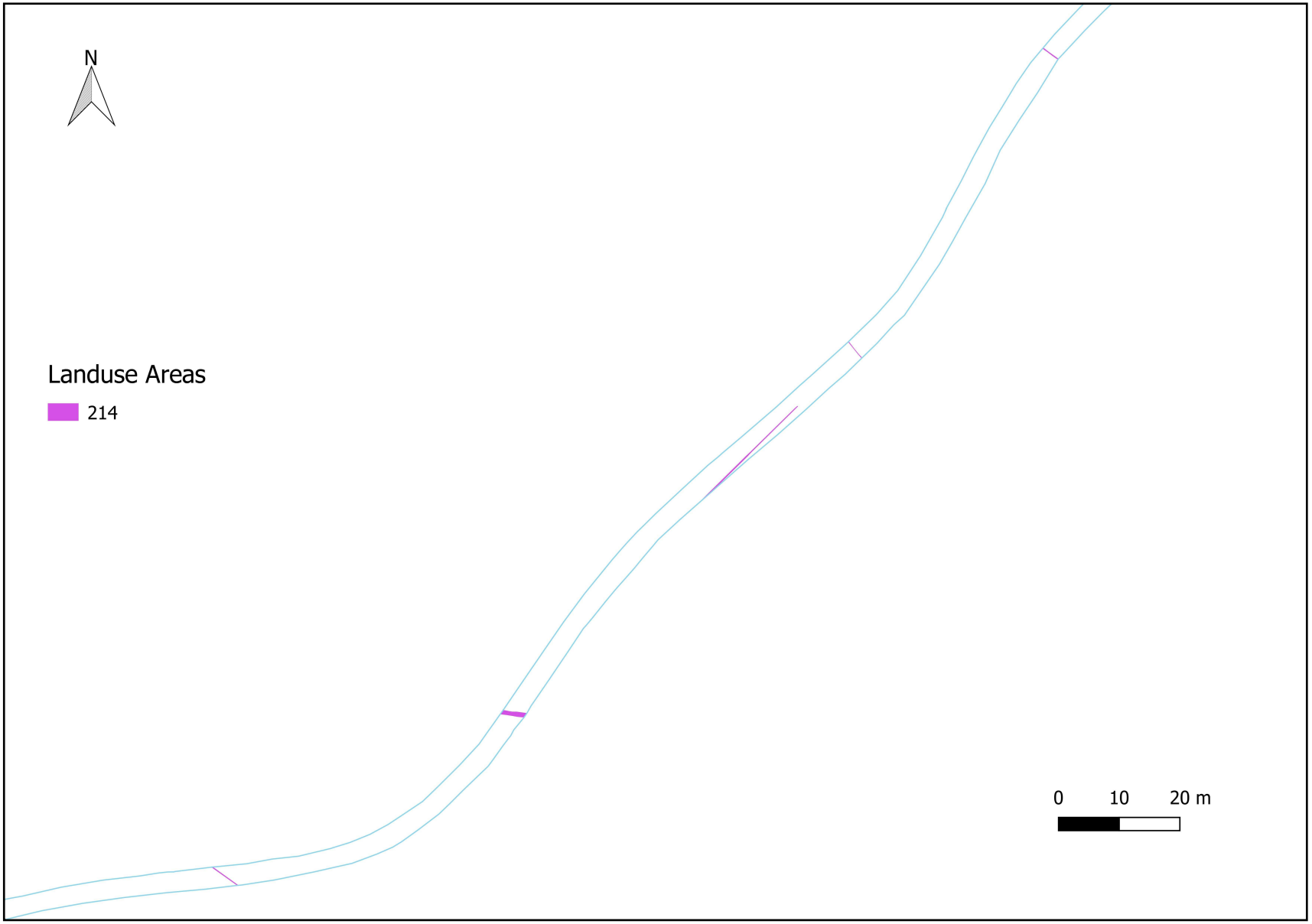



**Figure 8:** HRN3455 – Phase 8 modern

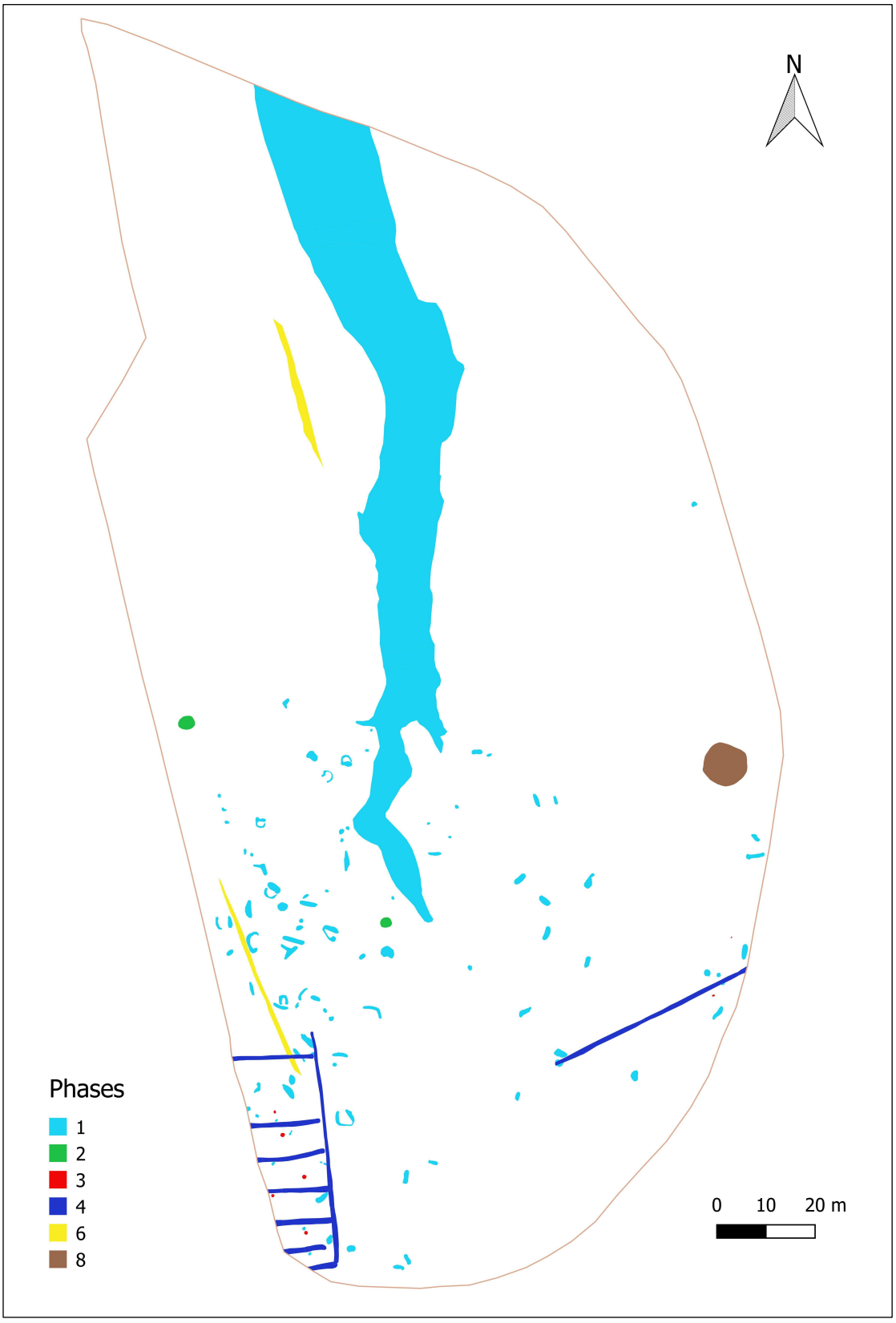



**Figure 9**: HRN3456 – All-features plan

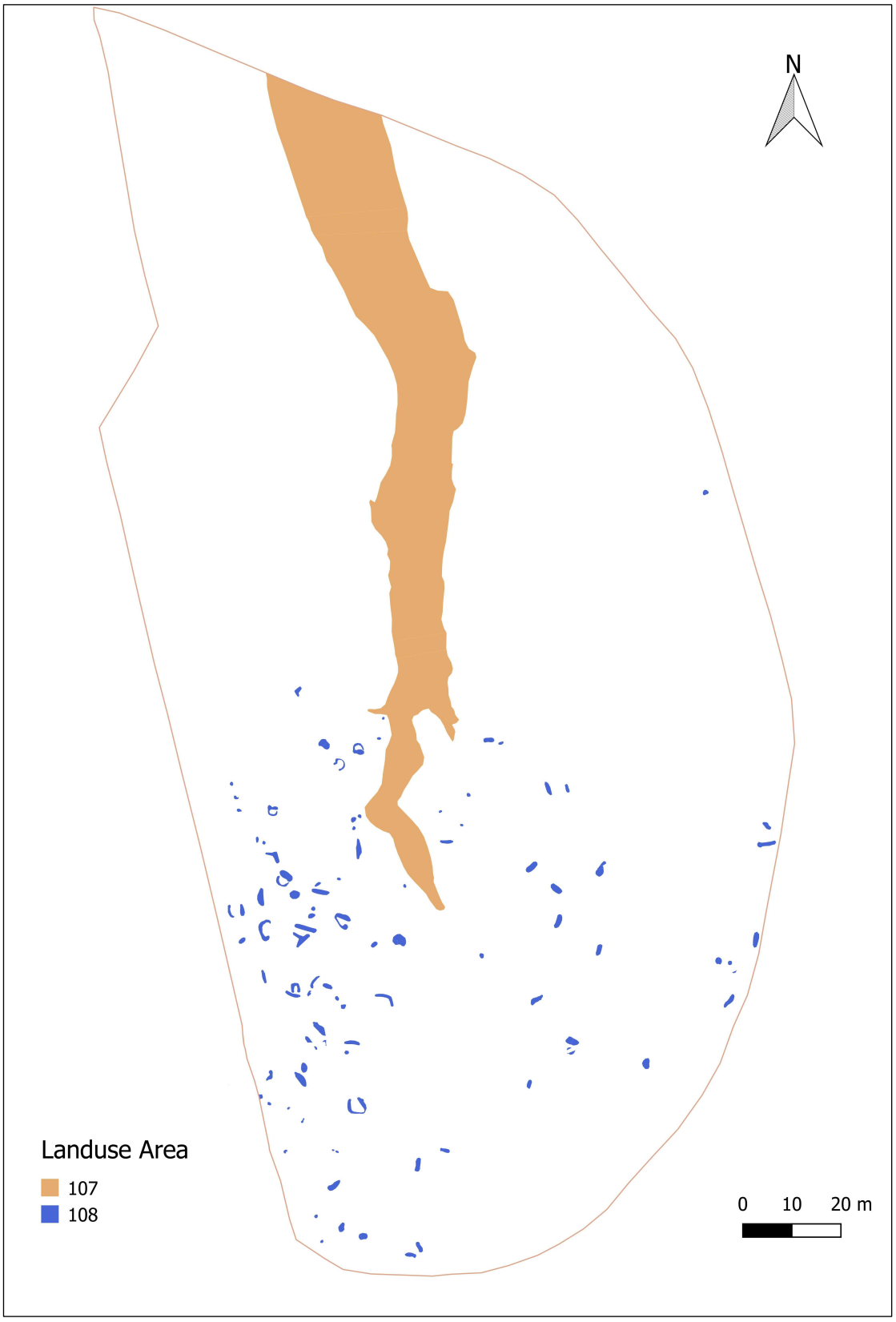



**Figure 10:** HRN3456 – Phase 1 geological and natural features

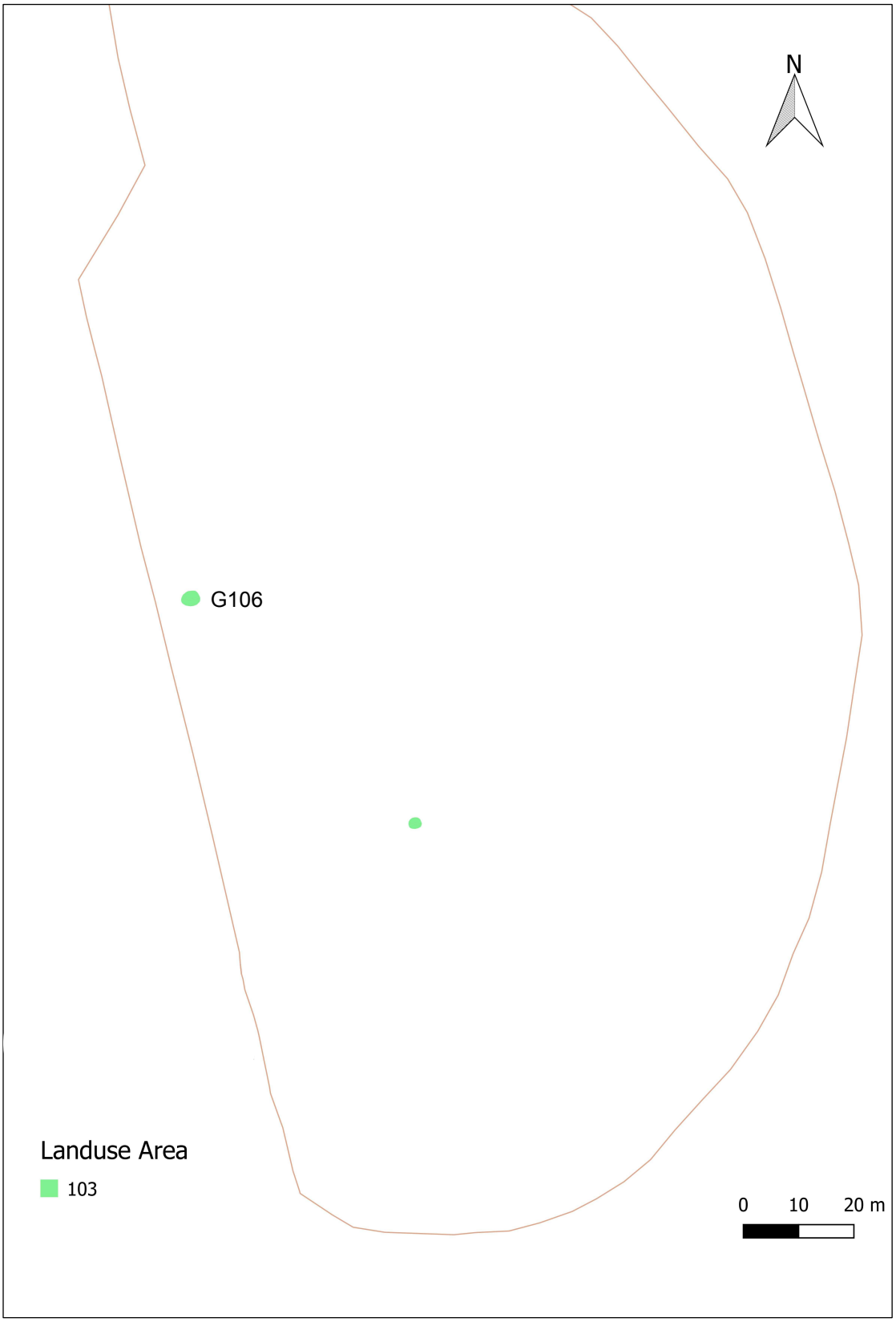



**Figure 11:** HRN3456 – Phase 2 late Bronze Age/early Iron Age


**Figure 12:** HRN3456 – Phase 3 late Iron Age/early Roman

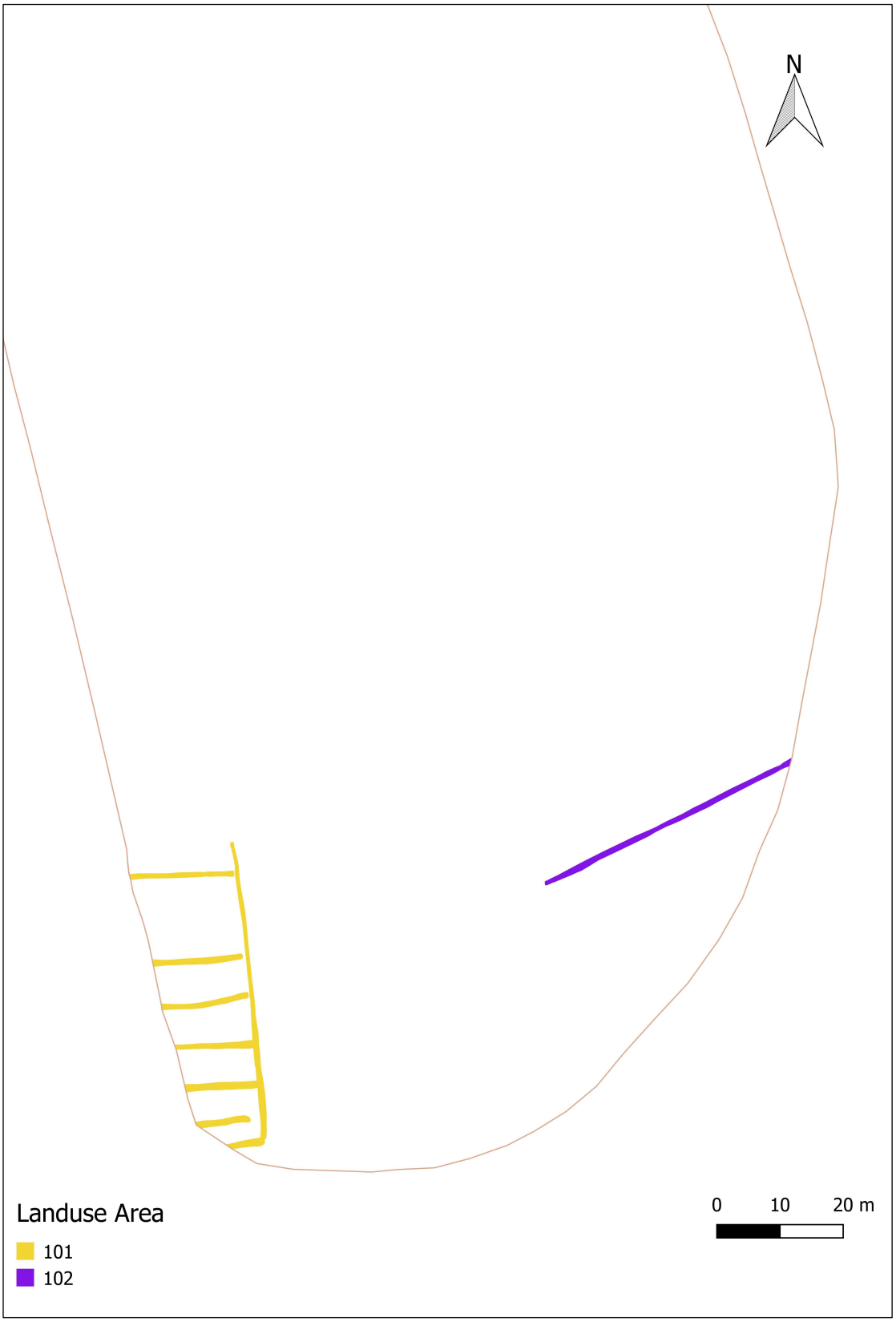



**Figure 13:** HRN3456 – Phase 4 Roman

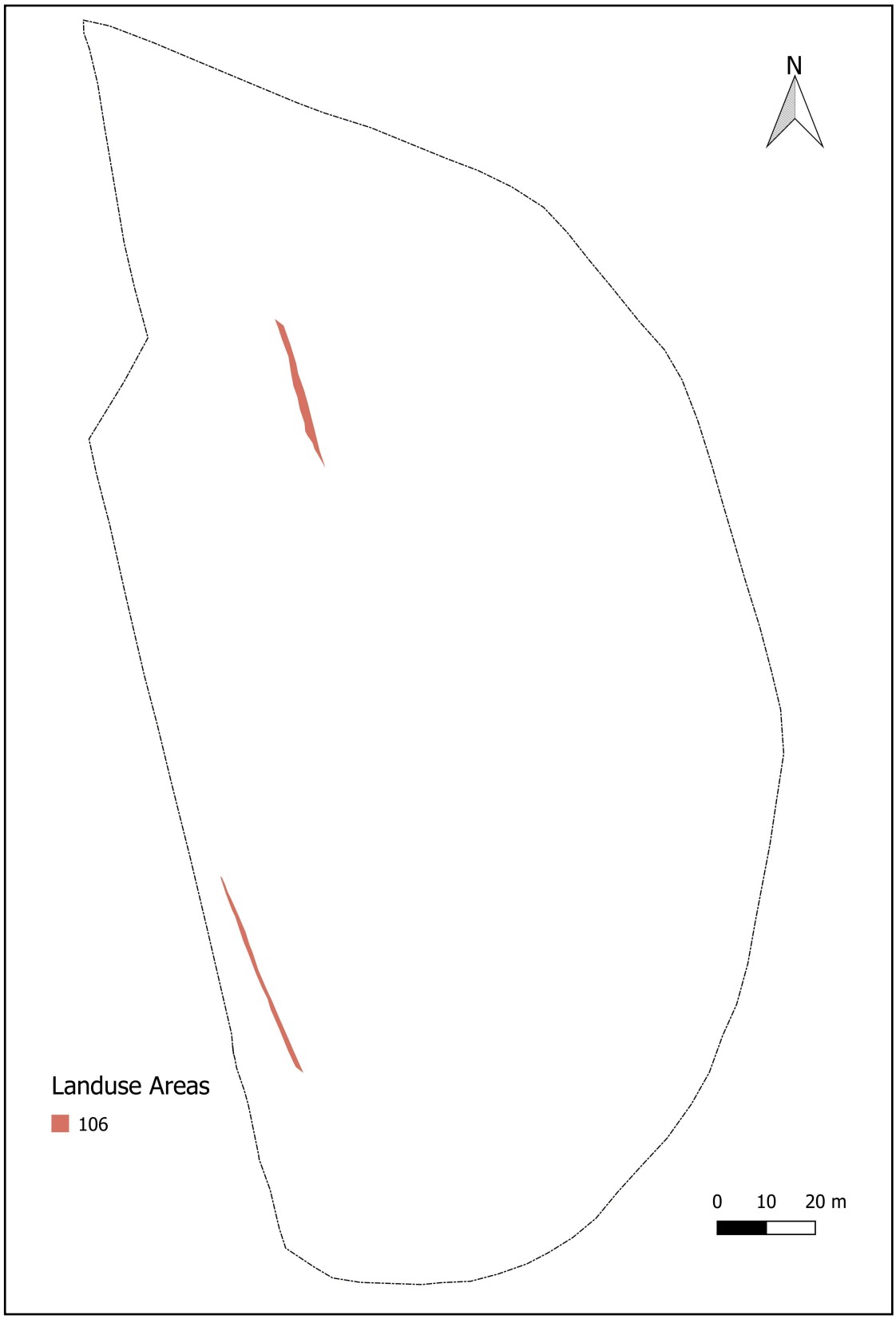



**Figure 14:** HRN3456 – Phase 6 medieval

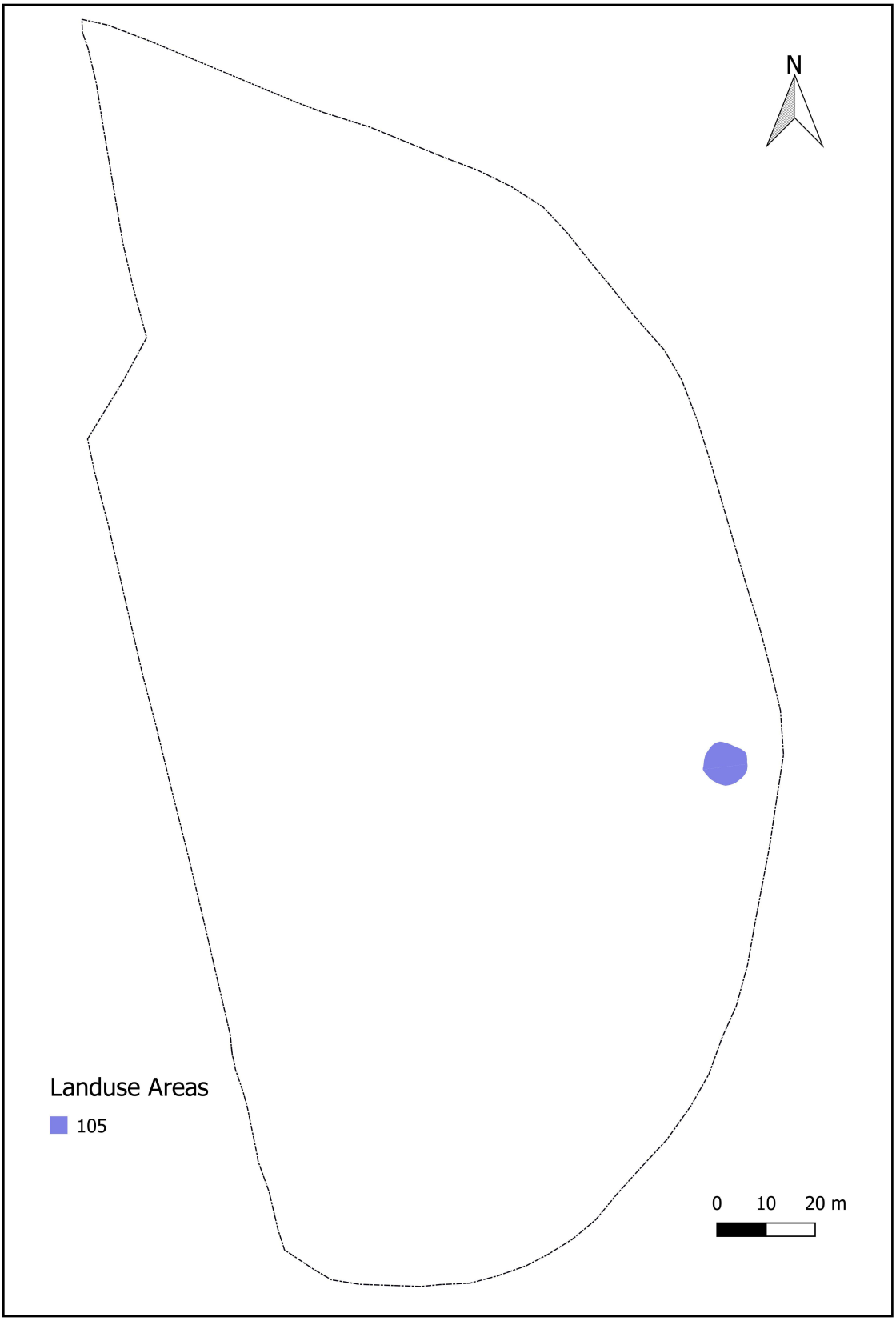



**Figure 15:** HRN3456 – Phase 8 modern

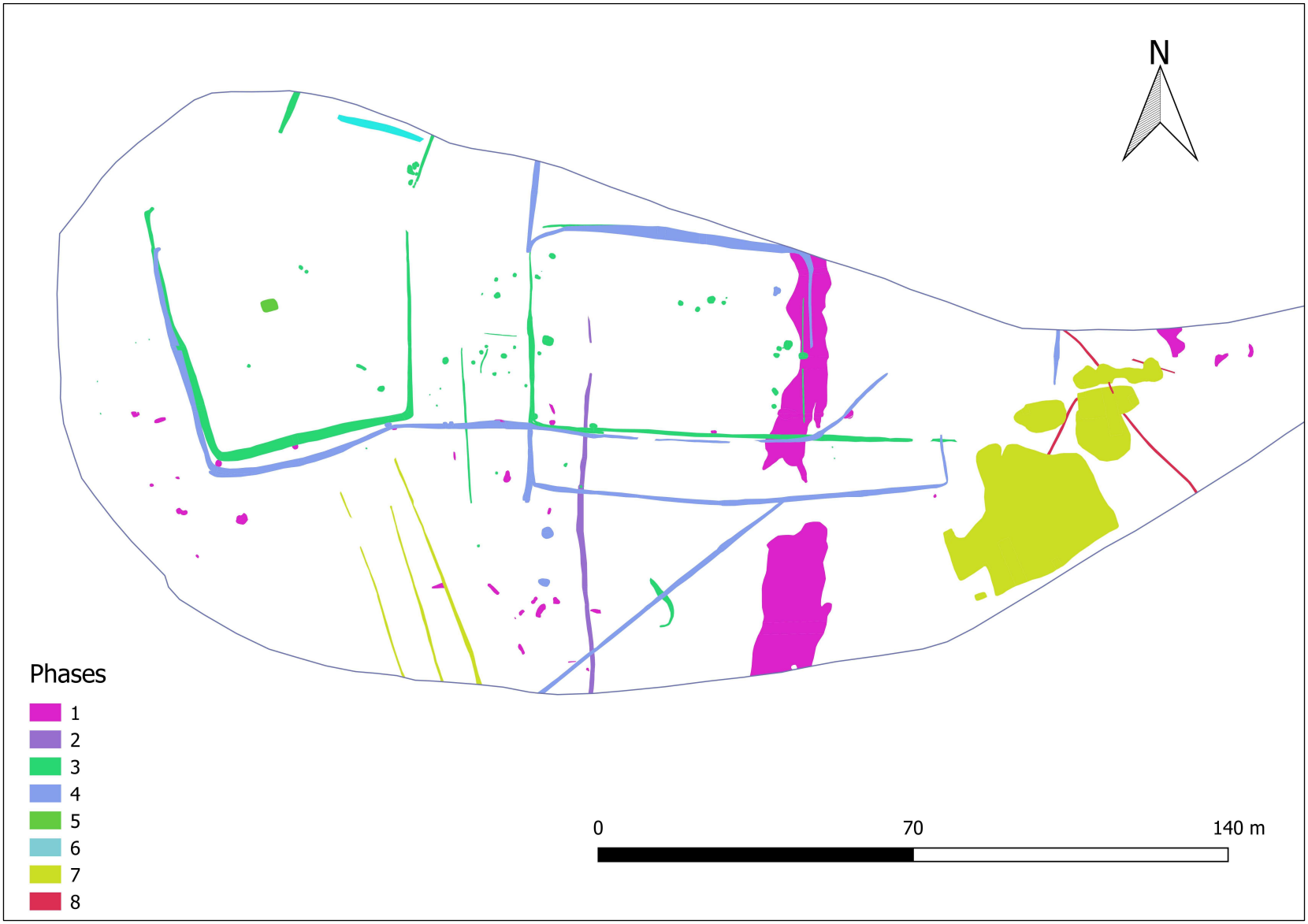



**Figure 16:** HRN3457 – All-features plan

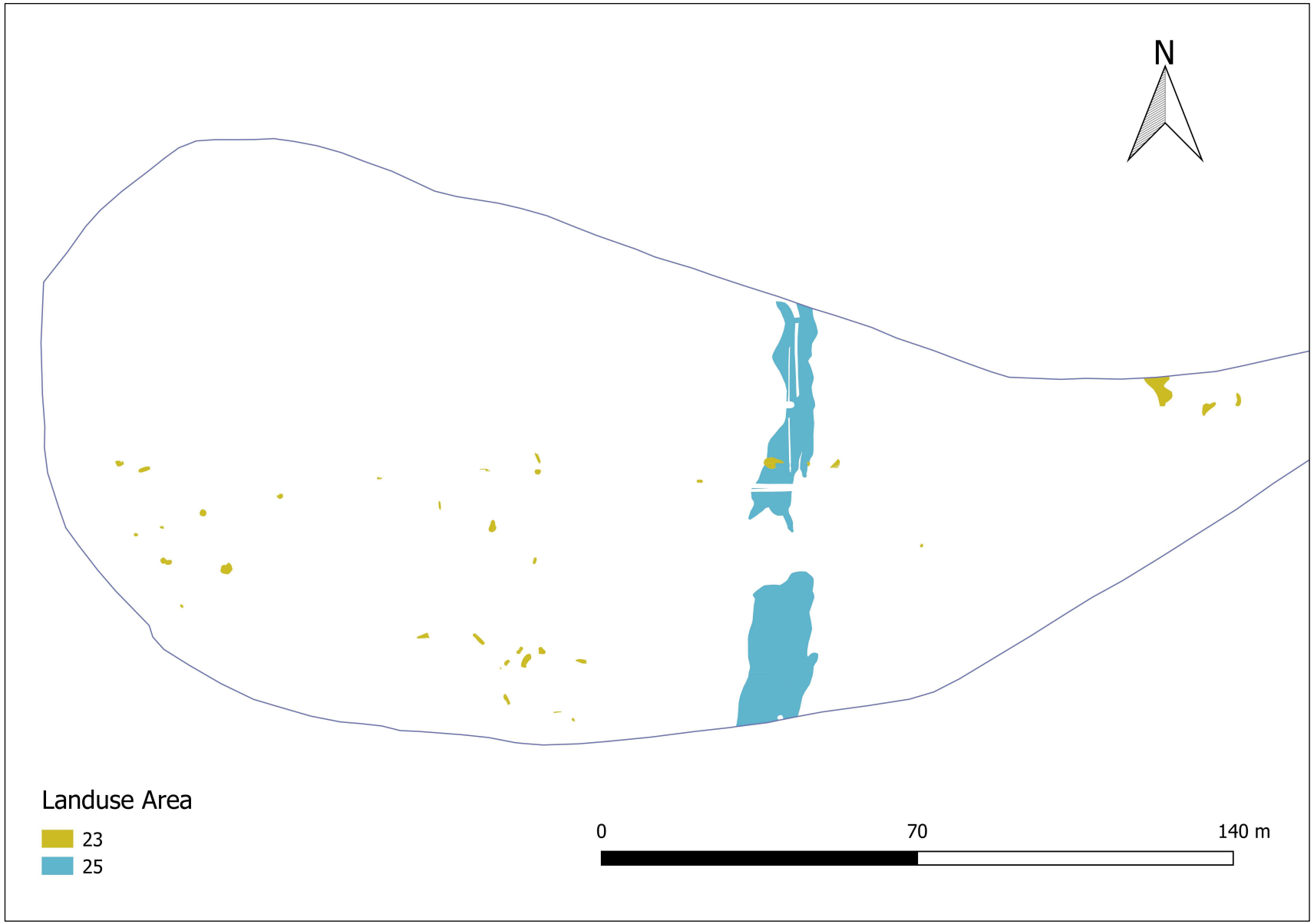



**Figure 17:** HRN3457 – Phase 1 geological and natural features

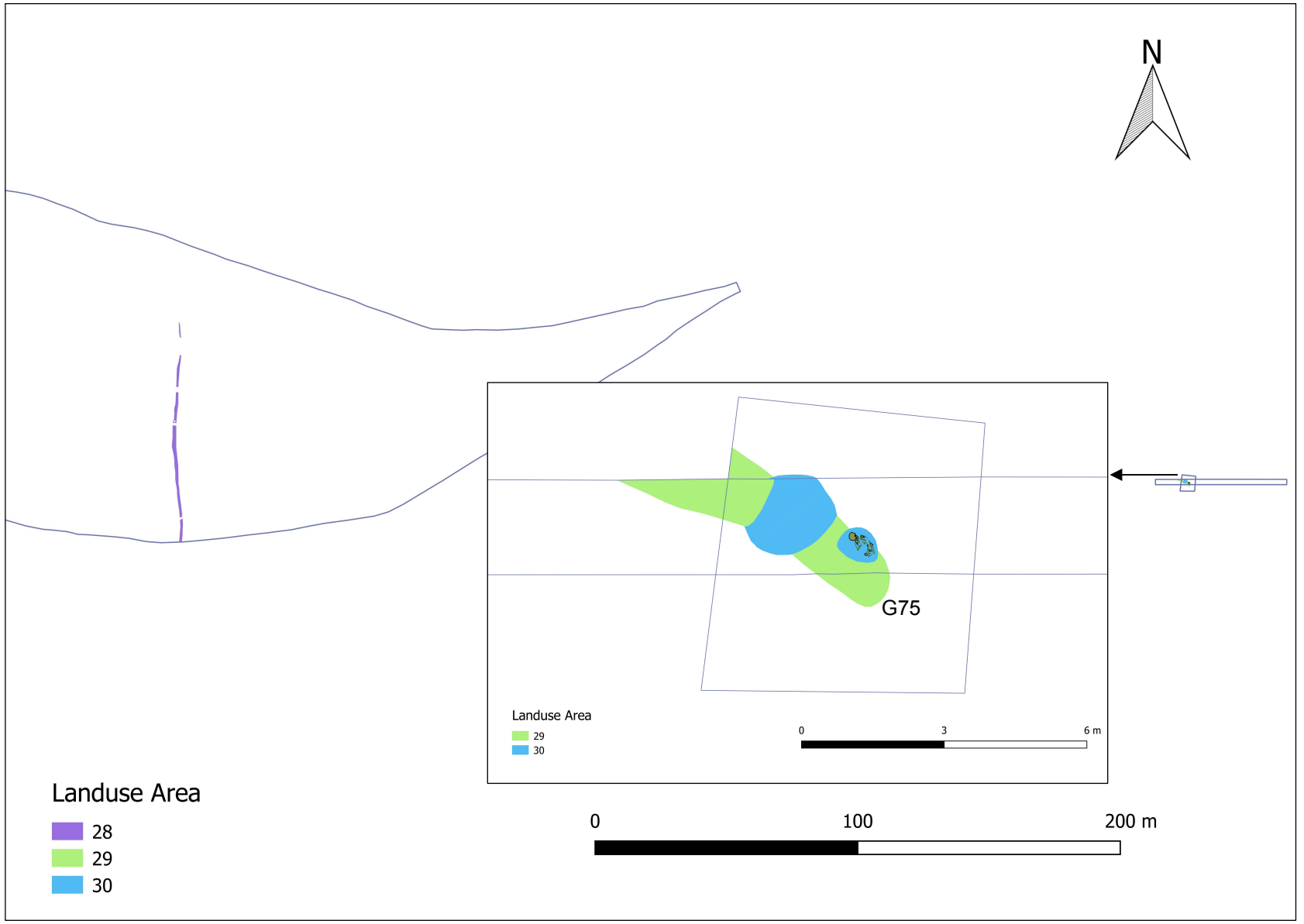



**Figure 18:** HRN3457 – Phase 2 late Bronze Age/early Iron Age with isolated burial

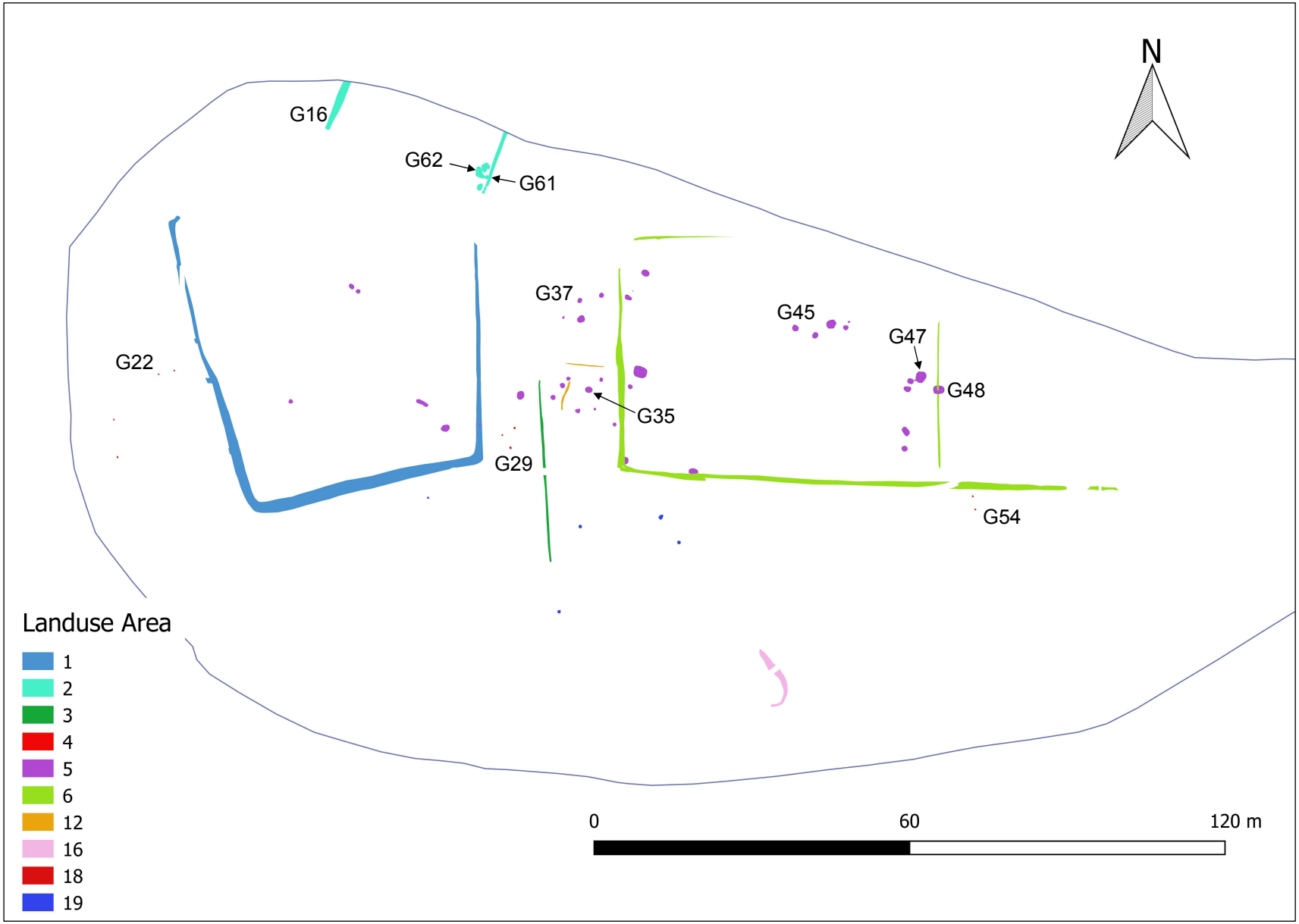



**Figure 19:** HRN3457 – Phase 3 late Iron Age/early Roman

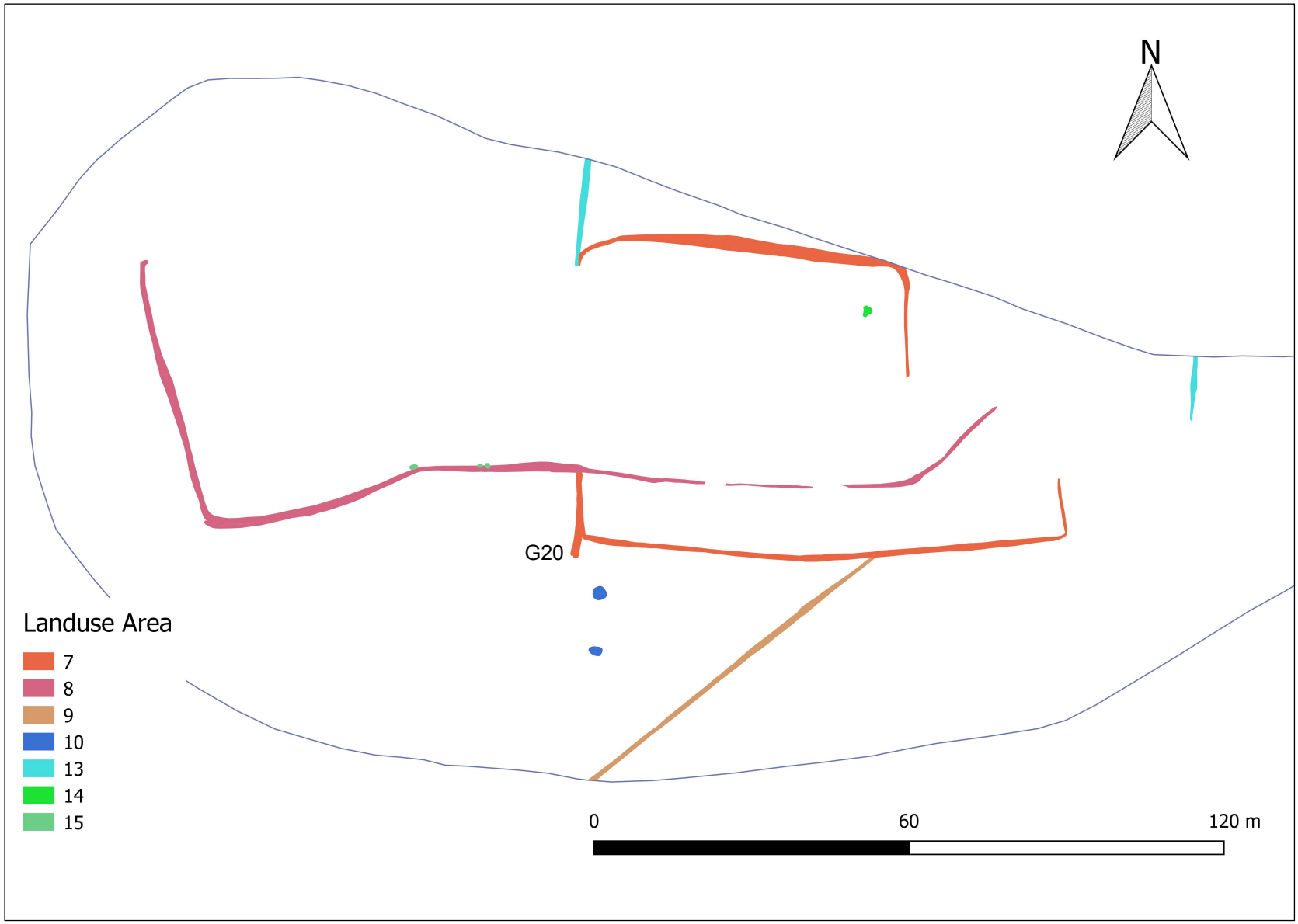



**Figure 20:** HRN3457 – Phase 4 Roman

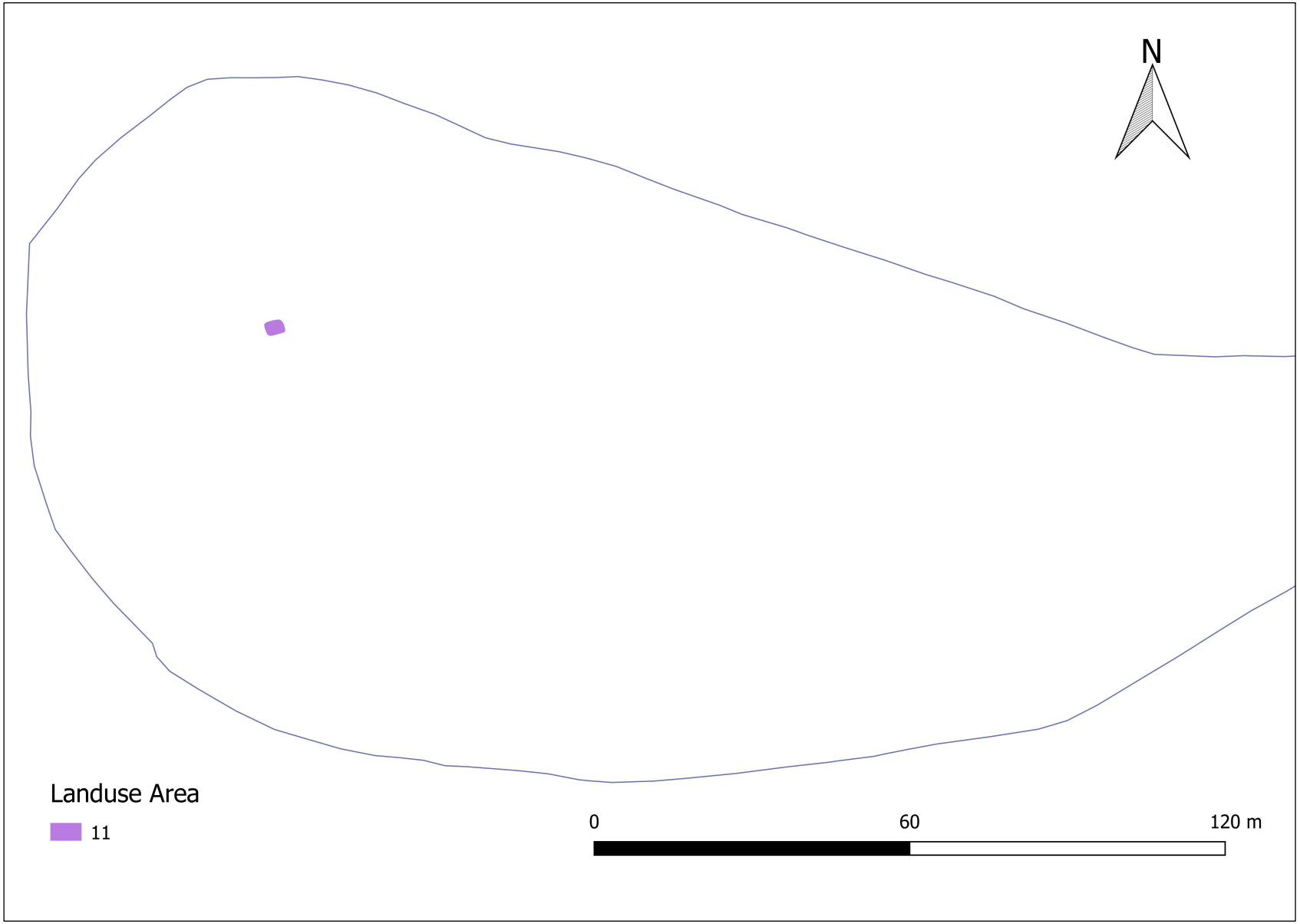



**Figure 21:** HRN3457 – Phase 5 early Saxon

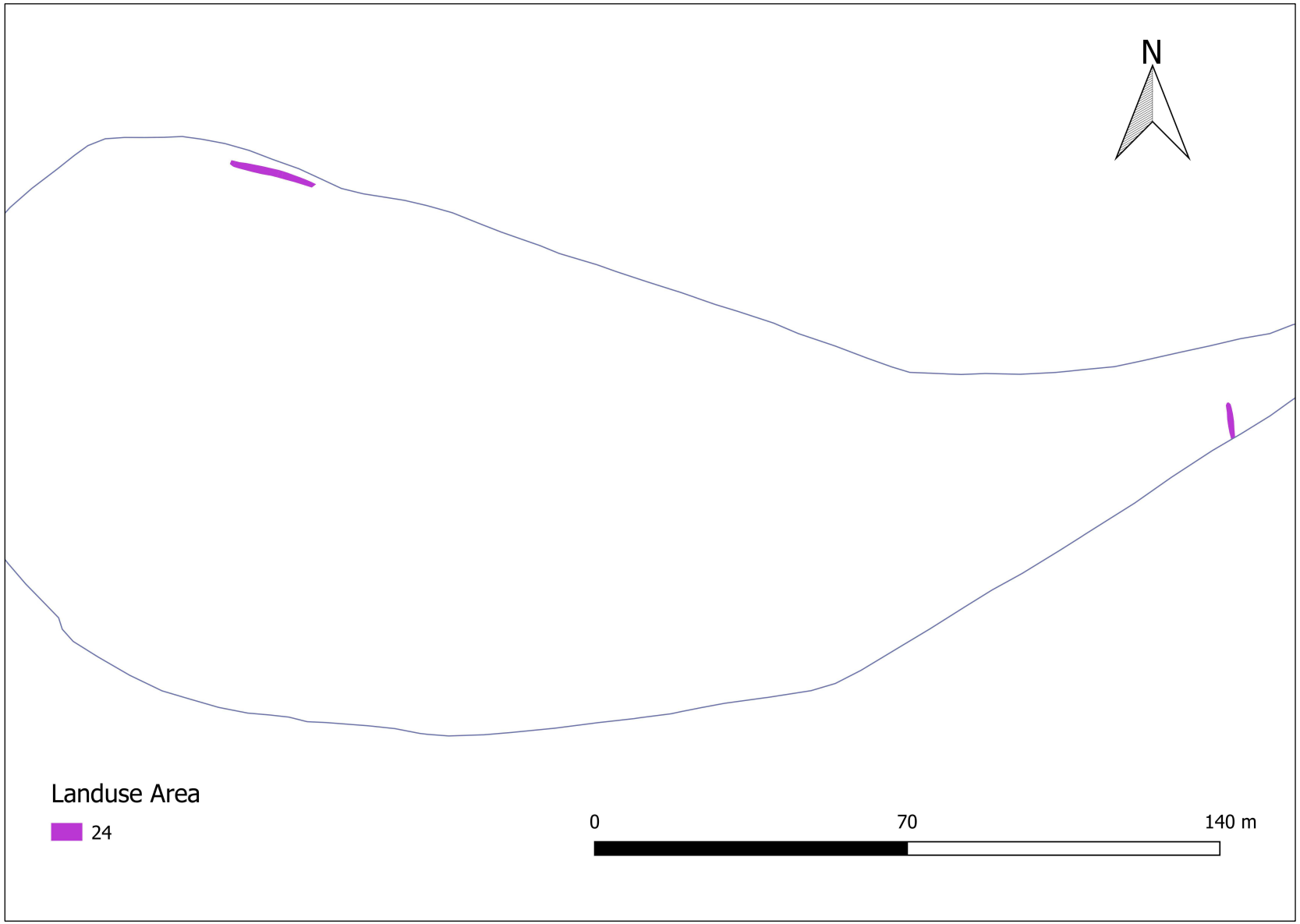



**Figure 22:** HRN3457 – Phase 6 medieval

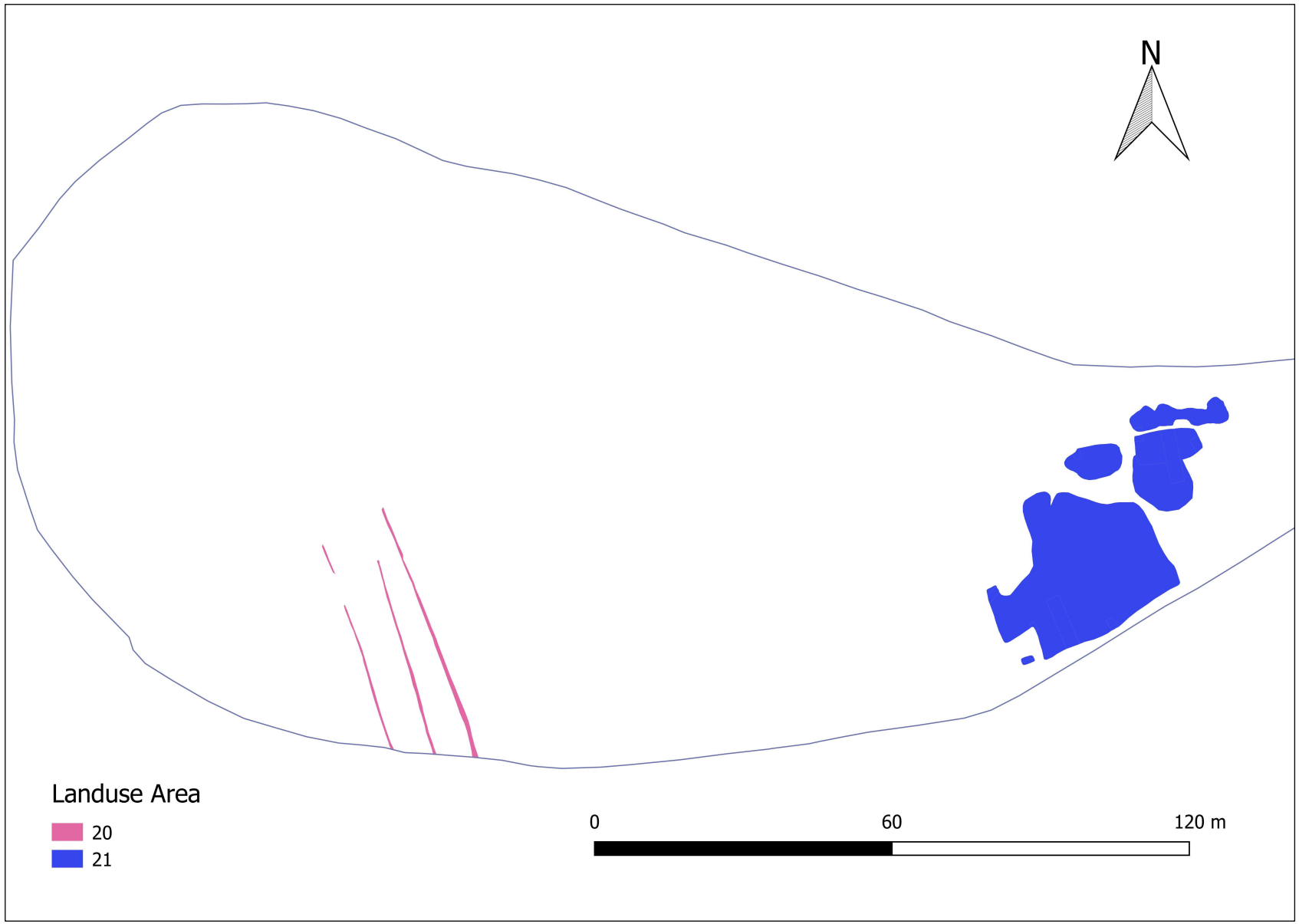



**Figure 23:** HRN3457 – Phase 7 post-medieval

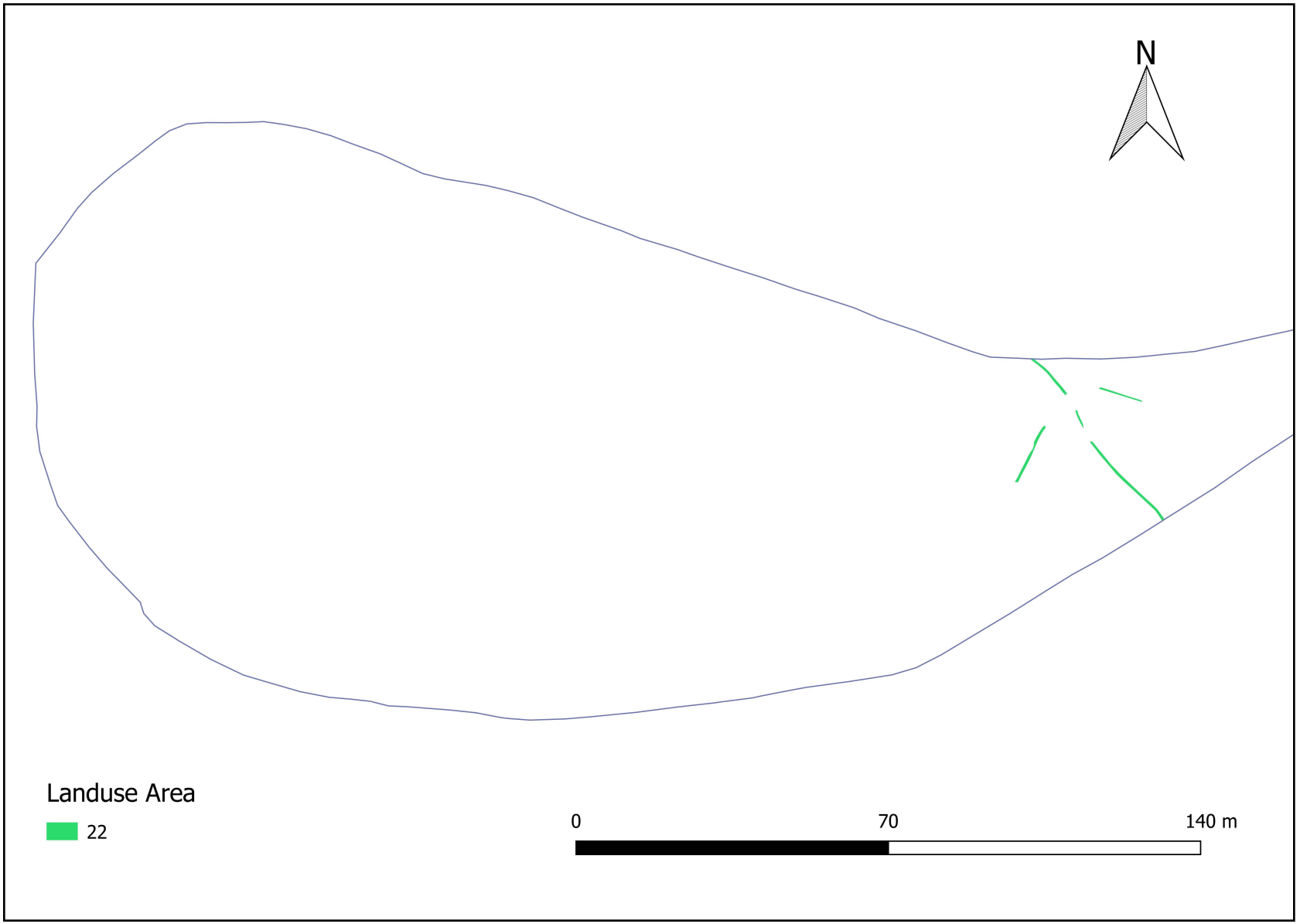



**Figure 24:** HRN3457 Phase 8 modern

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