Beyond the Castle:

The Archaeology of Lancaster's Castle Hill

Beyond the Castle: The Archaeology of Lancaster's Castle Hill

Jason Wood

This report is dedicated to David Shotter, Emeritus Professor in Roman Imperial History at Lancaster University, in recognition of his contribution to the study of Roman Lancaster.

LANCASTER CITY COUNCIL
Promoting City, Coast & Countryside

April 2021


















HANKS


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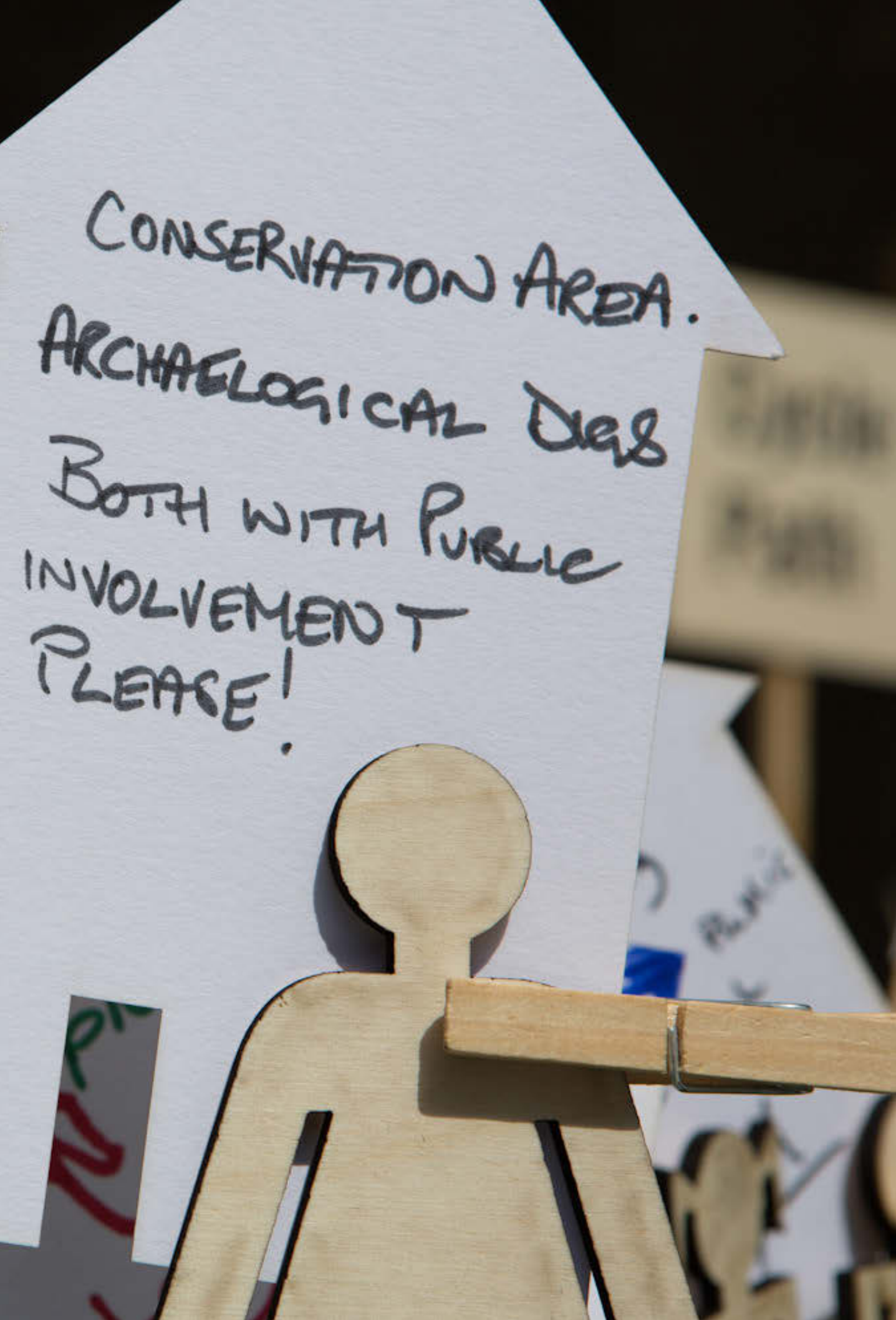

CONSERVATION AREA.
ARCHAEOLOGICAL DIGS
BOTH WITH PUBLIC
INVOLVEMENT
PLEASE!

Preface

The Beyond the Castle project originated from Lancaster City Council's urban planning and regeneration strategy 'Lancaster Square Routes'. A key aspiration of the strategy was to connect better and rejuvenate the open green space and heritage site from Lancaster Castle to St George's Quay.

In 2012 the Interreg-funded PROUD project enabled Imagination Lancaster at Lancaster University to lead a novel co-design project and programme of creative activities that engaged more than 900 residents in imagining the future of the site, and gave a firm mandate for continued development under the emerging Beyond the Castle brand.

In response, a successful bid to the Heritage Lottery Fund was made to support archaeological research, landscape management and community engagement which began in 2014. Further funding came from Lancashire County Council, Lancaster City Council, Lancashire Environment Fund, Coastal Communities Fund, Post Code Lottery Trust and the Duchy of Lancaster Benevolent Fund, with support in kind from the Lancaster Environment Centre at Lancaster University.

Lancashire County Council originally led and managed the Beyond the Castle project but in 2017 this responsibility passed to Lancaster City Council. The City Council now wishes to plan for appropriate management and protection of the site in order to enhance its heritage value, facilitate improved public access and maximise its contribution to the wider visitor economy. Understanding the commercial opportunities that the site may present is also important to the City Council as the basis for a business case for further investment and activities.

This report, commissioned by the City Council, details and evaluates all archaeological work to date on Castle Hill undertaken both prior to and during the Beyond the Castle project. It is intended to act as a single point of reference for the consideration and development of future work.


Mitre House
Old Vicarage
Vicarage Field East
New Vicarage
Vicarage Field West
Priory Church
Castle
Quay Meadow
BING MAPS

Introduction

The summit of Castle Hill is occupied by the Castle itself, owned by the Duchy of Lancaster, and the Priory Church and churchyard, owned by the Church of England. The open green space leading down to the Quay is mostly owned by the City Council and is divided into three distinct roughly triangular parcels of land separated by Vicarage Lane and the former railway line (now cycle way) – Vicarage Field West, Vicarage Field East and Quay Meadow. The site is recognised nationally as one of considerable archaeological importance, a large part it being designated as a Scheduled Ancient Monument. The Castle and Priory Church are Listed Grade I.

Relatively little is known about the archaeology of Lancaster compared say to York, Chester or Carlisle. This is especially true for the Roman and medieval periods and in particular on Castle Hill and its environs. On Castle Hill, limited excavations between the 1920s and 1970s revealed only tantalising glimpses of three successive Roman forts and associated structures, whereas the area behind the Quay had never been excavated. A pre-Conquest monastery or minster is known to have occupied Castle Hill and while the medieval period is represented by the Castle and Priory Church there were undoubtedly other early and late medieval buildings in the vicinity.

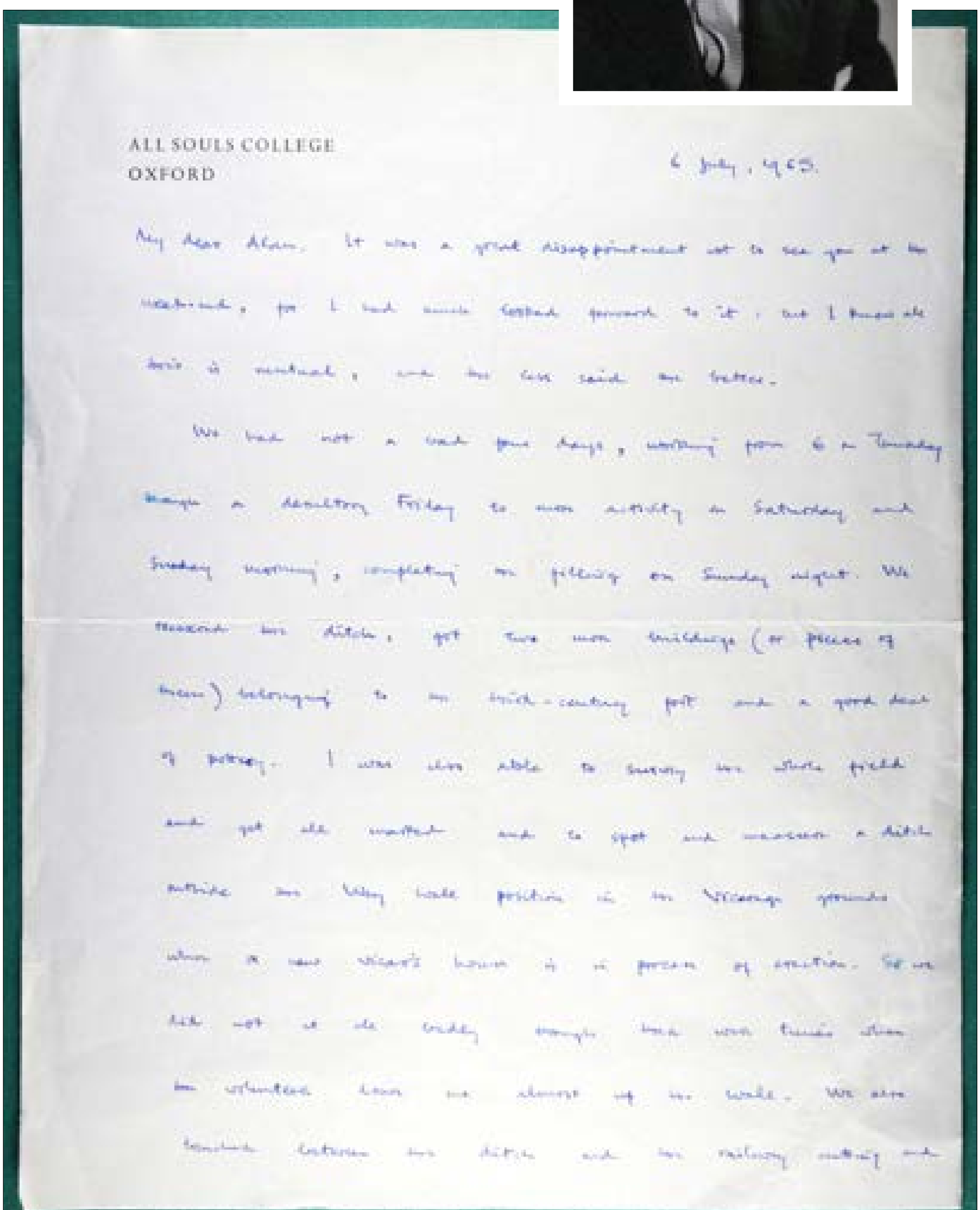
Given its significance, and potential as a key location in telling the story of Lancaster's origins, it is surprising that the site has seen so little archaeological enquiry or proper management in the last 40 years. This has now begun to be addressed with the advent of the Beyond the Castle project.

Between 2014 and 2020, the project put in place a coherent strategy for new and comprehensive archaeological investigation of the area, making use for the first time of digital technologies to survey and excavate the remains and experimenting with innovative ways of working to engage local people and visitors. Topographical and geophysical surveys have started to reveal the site's complex pattern of earthworks and buried remains, while the potential for significant discoveries has been realised in three trial excavations.

But before discussing the results of the archaeological investigations carried out during the Beyond the Castle project, it is first necessary to provide a critical review of earlier excavations and related work.

Archaeological work prior to the Beyond the Castle project

Professor Sir Ian Richmond (1902-1965)



ALL SOULS COLLEGE
OXFORD

6 July, 1965.

My dear Alan. It was a great disappointment not to see you at the week-end, for I had much looked forward to it, but I suppose the [illegible] is mutual, [illegible] the less said the better.

We had not a bad four days, working from 6 on Thursday through a desultory Friday to more activity on Saturday and Sunday morning, completing the filling on Sunday night. We [illegible] the ditch, got two more buildings (or pieces of them) belonging to the [illegible]-century fort and a good deal of pottery. I was also able to survey the whole field and get it marked and to spot and measure a ditch outside the [illegible] position in the Vicarage grounds where a new vicar's house is in process of erection. [illegible] we did not [illegible] though there were [illegible] the volunteers [illegible] of the work. We also [illegible] between the ditch and the railway cutting and

Archaeological work prior to the Beyond the Castle project

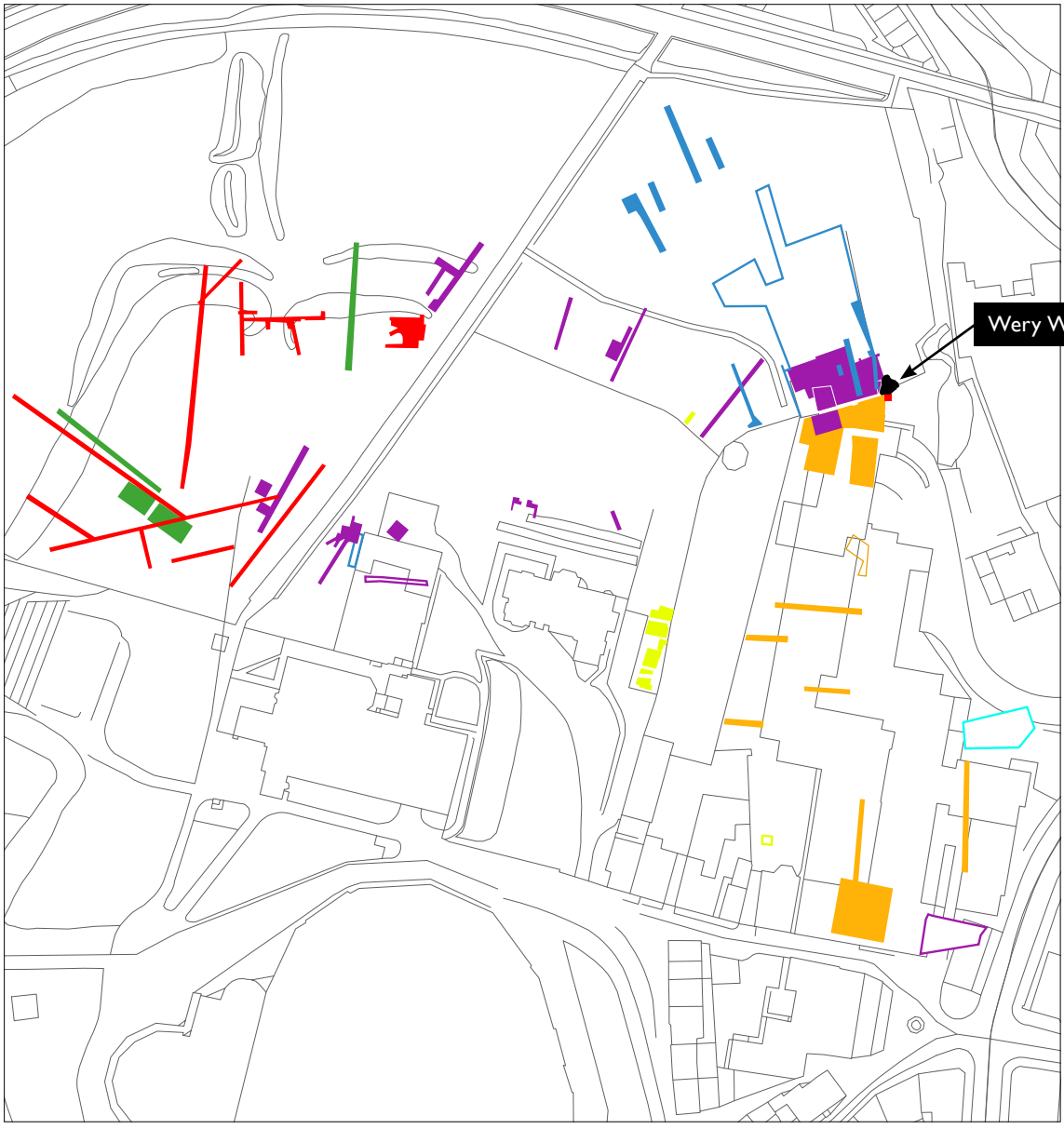
The first archaeological excavations took place in the late 1920s, mostly in Vicarage Field West, and explored the Roman and later earthworks and some internal structures of Roman and medieval date. In the 1950s and mid 1960s investigations by the eminent archaeologist Professor Sir Ian Richmond focused on the adjacent Vicarage Field East. Here he was able to examine the so-called Wery Wall – a characterless upstanding fragment of Roman masonry which had been the subject of much antiquarian comment – and uncover the remains of a large Roman Courtyard Building, as well as other Roman structures and ditches. The construction of Mitre House in the 1970s was the impetus for further exploration in both Vicarage Field West and East, as well as the Old and New Vicarages and the Mitre House site itself. This work established the locations of, and a chronology for, the successive Roman forts, and exposed the Courtyard Building's baths suite that can be seen today.

Because of the limitations of these historical investigations, there is much about Castle Hill's history that remains poorly understood. The strategy, survey techniques and publication drawings of the late 1920s excavations were inadequate by today's standards making the results less than conclusive and the discoveries difficult to interpret. Richmond's trenches were fragmentary as he was initially restricted to narrow paths between allotments and other 'non-sensitive' areas. There were compromises too because of the use of prison labour and other inexperienced workers, leading an exasperated Richmond to write in 1965: 'there were times when the volunteers drove me almost up the wall'. His thinking was also conditioned by his belief that he was excavating inside the Roman forts, rather than, as we now know, to the north of them. Finally, Richmond's work remains largely unpublished due to his untimely death. For the 1970s excavations the circumstances were sometimes far from ideal. The excavators often lacked adequate resources and time and there were problems with access, especially to the Mitre House site, meaning that work had to be undertaken in unfavourable salvage conditions and unsuitable weather. Overall, the picture is one of a multitude of small excavations from various parts of Castle Hill producing piecemeal evidence for structures and sequences that are not always easy to relate to one another. A list of the excavations is provided in the Appendix.

The following provides a critical review of all archaeological excavations and related work carried out on Castle Hill prior to the commencement of the Beyond the Castle project. In describing what was found the focus will be on the main Roman structural remains and their relative chronology as follows:

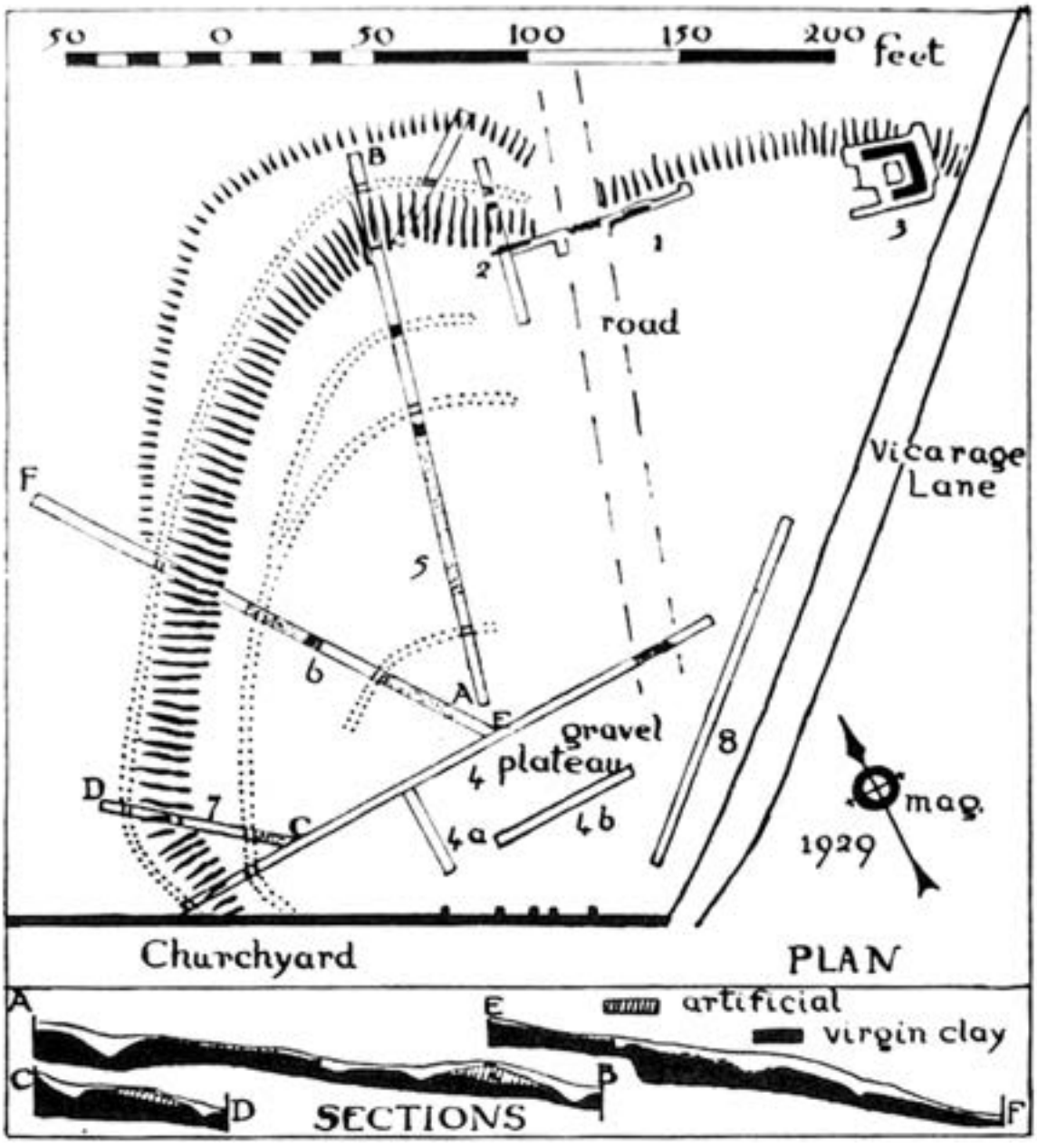
- Fort 1 – a first-century auxiliary fort
- Fort 2 – a larger late first/early second-century auxiliary fort
- Courtyard Building (and its baths suite) – a third-century official residence (including its second-century timber predecessors)
- Wery Wall – a fourth-century shore fort.

Key monuments on Castle Hill



General plan showing the location of all archaeological excavations on Castle Hill from 1927 to 1975

	Known position of trenches	Area of excavation but exact position of trenches unknown
Droop & Newstead (1927-29)		
Richmond (1950, 1958, 1965)		
Leather (1965-68, 1970, 1972-75)		
Jones & Wild (1971)		
Jones (1973)		
Jones & Leather (1973)		
Potter (1973, 1975)		



Droop and Newstead's plan of their 1927-29 excavations

Late 1920s excavations

Three seasons of excavations were led by Professor Percival Droop and Robert Newstead in 1927-29. Initially these focused on an examination of the stub of the Wery Wall in Vicarage Field East but soon progressed to the excavation of a series of long narrow trenches both across and inside the earthworks in Vicarage Field West. Three trenches were cut in 1927, five more in 1928 (Sites 1-5) and a further three (Sites 6-8) plus the completion of Site 5 in 1929. The exact locations and plans of the trenches are uncertain, as are the nature and date of the features discovered. In the sections across the earthworks, the remains of ramparts and ditches were recorded. These may relate to the north and west defences of Forts 1 and/or 2. A road and a stone-built room or 'turret', however, are more likely to belong to a medieval gate. In the trenches within the earthworks, no internal structures were identified. Later excavations alongside those of the late 1920s were carried out in 1971 and 1972 (see below). These allow Droop and Newstead's discoveries to be placed in better context and call for some reinterpretation.

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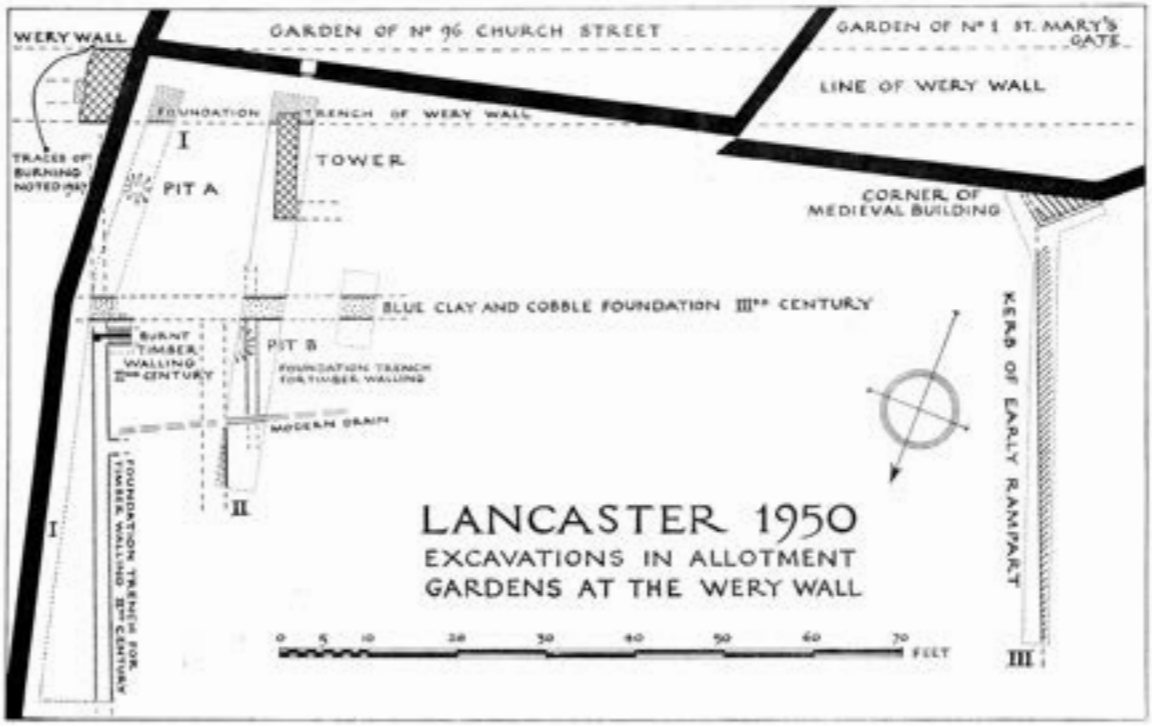
Droop and Newstead's 1928 excavations showing Gilbert Bland, the then Borough Librarian and Curator of the Lancaster Museum, standing inside the stone-built room or 'turret' now thought to be part of a medieval gate

Studying the Richmond archive at the Sackler Library, Oxford

1950s and 1960s excavations

Professor Sir Ian Richmond began excavating in Vicarage Field East in 1950 while at Newcastle University. He resumed his work after moving to Oxford University with subsequent seasons of fieldwork in 1958 and 1965. He published the 1950 trial excavation, but his more extensive work in 1958, and that in 1965 which was intended to resolve some unanswered questions posed in 1958, were never fully published as Richmond died shortly after the 1965 season. Thankfully his archive of notebooks, drawings and photographs relating to his work at Lancaster was deposited in Oxford University's Sackler Library and the Beyond the Castle project has been able to make copies of all the relevant material. Further notes and photographs were subsequently donated to the project by Alan Wilkins who assisted Richmond during the 1950 and 1958 excavations.



Richmond's plan of his 1950 excavation

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Richmond's 1950 excavation of the Courtyard Building's clay and cobble foundations over an earlier timber beam slot

1950s and 1960s excavations

1950
Vicarage Field East

In 1950 Richmond found evidence for second-century timber buildings, succeeded first by clay and cobble foundations dating to the third century and finally by the Wery Wall which he dated to the fourth century. He also interpreted a square hollow structure as a bastion or tower projecting from the line of the Wery Wall.

A selection of Roman pottery and glass from Richmond's 1950 excavation

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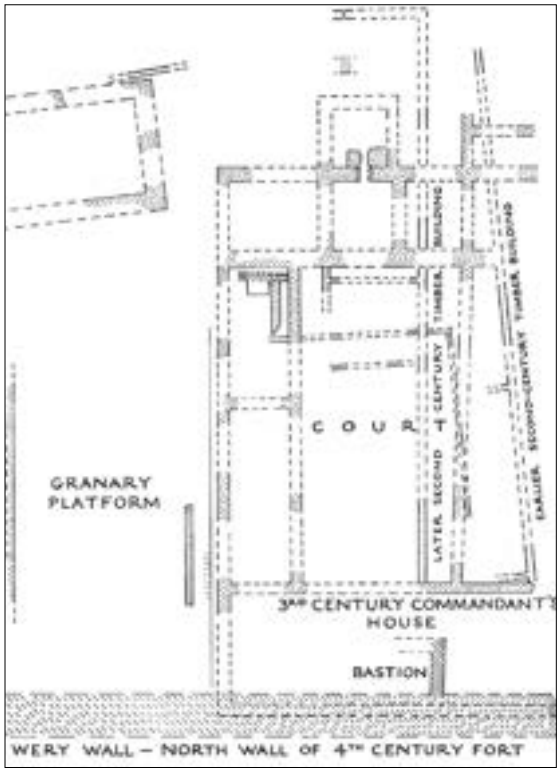

Richmond's plan of his 1958 excavation of the Courtyard Building

Richmond's 1958 excavation of the Courtyard Building's northern stoke-hole

Richmond photographing his 1958 excavation of the Courtyard Building and explaining the discoveries to visitors

ALAN WILKINS (3)

1950s and 1960s excavations

1958
Vicarage Field East

In 1958 much more of the plans of the superimposed timber and stone buildings were revealed. The remains of two phases of timber buildings, punctuated by destruction by fire, were excavated and planned. The first, which Richmond dated to the early second century, was on a different alignment to the second which extended slightly further north and dated to the late second century. The stone building consisted of a range of rooms around a paved open courtyard with a stoke-hole feeding a hypocaust at its northern end. In some places dressed masonry walls survived above the clay and cobble foundations, including in a substructure (perhaps a hypocaust channel) below one of the west range rooms. Third-century pottery and a coin of Salonina (AD 253-68) came from the courtyard surface further supporting the evidence from a pit excavated in 1950 'which dated the cobbled foundations … securely to third century and further indicated that they lasted until its close'.

To the west of the Courtyard Building Richmond encountered the eastern edge of a heavy foundation raft of clay and cobbles and some evidence of an internal sleeper-wall. Further north he excavated more clay and cobble foundations this time belonging to a series of long rectangular buildings arranged in rows – three securely placed, the position of a fourth inferred – on a slightly different alignment to the Courtyard Building. To the north of these long buildings, and on a different alignment again, Richmond traced the course of ditch which he dated to the early second century.

As Richmond believed he was excavating inside the Roman fort, he interpreted the Courtyard Building as the fort's commandant's house (*praetorium*) and the foundation raft and sleeper-wall as indicative of a granary, assuming the site of the headquarters building (*principia*) lay further west. The long rectangular buildings on different alignments he interpreted as barrack blocks or stables; their irregular planning imposed, he thought, by the local topography which he likened to the fort at Bewcastle.

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One of Richmond's 1958 trenches across his early second-century ditch

Richmond's 1958 excavation of the Courtyard Building's dressed masonry walls surviving above the clay and cobble foundations, including a substructure (perhaps a hypocaust channel) below one of the west range rooms

ALAN WILKINS (2)

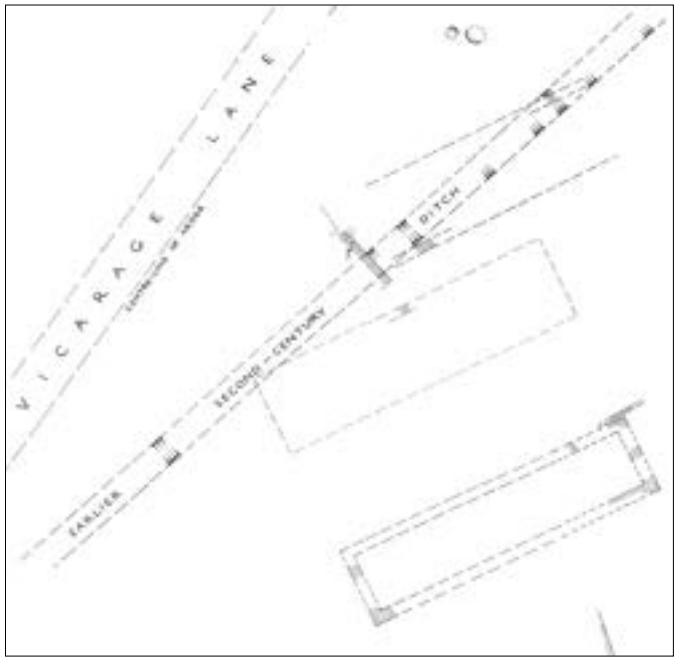
1950s and 1960s excavations

1965
Vicarage Field East and New Vicarage

In 1965 work concentrated on the northern part of Vicarage Field East. Here Richmond excavated three more narrow trenches across the line of the early second-century ditch and uncovered the remains of 'two more buildings (or pieces of them) belonging to the third-century fort'. The middle trench he extended almost as far as the railway cutting looking for the fort's northern defences but found nothing. He also resurveyed the field and added the new discoveries to his 1958 plan. Finally, in an attempt to trace the course of the Wery Wall beyond the site, Richmond took the opportunity 'to spot and measure a ditch outside the Wery Wall position' where the New Vicarage was being built. He also observed here part of a stone-lined drain which he considered Roman.

1965-68
New Vicarage

Prompted by this, in 1965-68, Geoffrey Leather led a series of excavations around the site of the New Vicarage and its garden. These works revealed the remains of what may have been a timber well, probably associated with Fort 1, and more of the Roman stone-lined drain, but no trace of the Wery Wall or ditch. Instead, a medieval wall of poor quality was recorded.



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Detail of Richmond's plan of his 1958 and 1965 excavations across the early second-century ditch and later buildings

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Jones' 1973 excavation at the northern end of the Mitre House site showing the 2.70m foundation raft of the Wery Wall

1970s excavations

1970
Vicarage Field East and Old Vicarage

In 1970 Geoffrey Leather excavated seven trenches, five in Vicarage Field East and two in the grounds of the Old Vicarage, with the primary intention of establishing the exact line of the Wery Wall. Trench 1 examined the upstanding fragment of the Wery Wall while Trench 2 uncovered the remains of its foundations and a ditch on its northern side. In the southern half of Trench 2 (technically within the Mitre House site) the foundation was found to be 2.70m wide above which were a few stones of the first course of the wall proper. Excavation in the northern half of the trench revealed a V-shaped ditch in front of the Wery Wall. The edges of the ditch were apparently faced with thin stone slabs, on one of which was found a coin of Constantine I dated AD 330. Leather affirmed that the ditch and wall foundation were on converging alignments and too close to each other for them to have functioned together. He therefore concluded that they were different dates, the Wery Wall being likely to be later than the ditch. He was also able to demonstrate that the 'bastion' interpreted by Richmond was not related to the Wery Wall but part of another stone structure – later identified as the Courtyard Building's baths suite excavated in 1973-75 (see below).

At the southern end of Trench 3 Leather excavated a V-shaped ditch, thought to be an outer ditch of Fort 1, and recorded the position of (but did not excavate) a larger ditch to the north of this. The latter presumably formed part of northern defences of Fort 2, being a continuation of the flat-bottomed ditch excavated in Trenches 4 and 5 (see below). Not recognised at the time but subsequently reinterpreted are the remains of Fort 2's stone revetment. The northern end of Trench 3 picked up the western edge of the heavy foundation raft, parallel to the eastern edge found by Richmond in 1958.

The southern end of Trench 4 again encountered Fort 1's V-shaped outer ditch and the substantial flat-bottomed ditch of Fort 2's northern defences. The later ditch appeared to be turning to the south, perhaps suggesting an opening through the Fort 2 defences to the west of this point. The northern end of Trench 4 also picked up a corner of one of Richmond's barrack-like buildings. The Fort 1 V-shaped ditch was also observed at the southern end of Trench 5, but not the flat-bottomed ditch, indicating that any opening through the Fort 2 defences lay close to Trench 5 in the vicinity of Vicarage Lane.

Having established in Trench 2 that the projected course of the Wery Wall was a few degrees south of that predicted by Richmond, Leather opened Trench 6, a small excavation in the grounds of the Old Vicarage, to see if any further remains of the Wery Wall survived on the new alignment further up Castle Hill. Two in situ facing stones were observed which Leather presumed to be the Wery Wall's north face.

Trench 7, also in the grounds of the Old Vicarage but north of the course of the Wery Wall, uncovered the remains of an east-west stone plinth carrying the first course of a rebuilt wall. The structures were undated but most likely relate to Fort 2.

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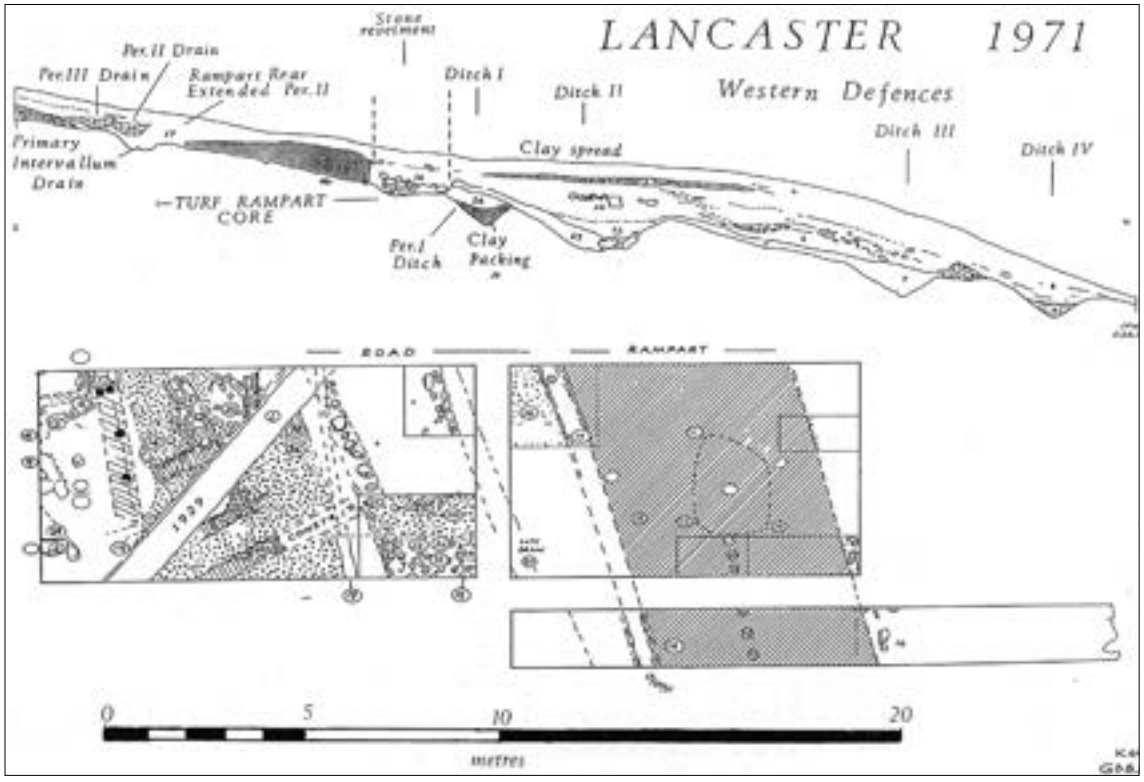
Jones and Wild's 1971 excavations within and across the western earthworks



Jones and Wild's plan and section of their 1971 excavations within and across the western earthworks

1970s excavations

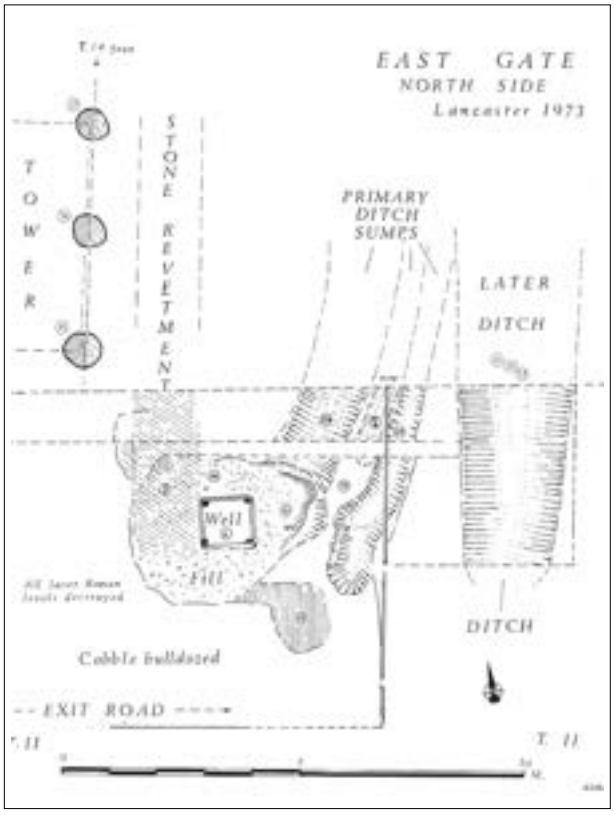
1971
Vicarage Field West

In 1971 Professor Barri Jones and Dr John Peter Wild directed excavations in Vicarage Field West. The main trench was cut across the line of the western earthworks, close and parallel to Droop and Newstead's Site 6, and also explored a larger area immediately within the earthworks, previously crossed by Droop and Newstead's Site 4. Remains belonging to Forts 1 and 2 were interpreted. For Fort 1 they consisted of the western clay and turf rampart, with a possible internal timber revetment, and at least one, probably two, defensive ditches. In the Fort 2 period, a stone revetment was inserted into the front face of the rampart and the ditch system was remodelled. Within the earthworks, five phases of metalled *intervallum* road, and three periods of Roman internal buildings, were recorded. The excavators also noted a slight trace of a medieval refurbishing of the rampart which may tentatively be related to the Priory precinct wall.

In a second trench, Jones and Wild sectioned the northern rampart close to the north-west corner of the earthworks, at a point midway between Droop and Newstead's Sites 2 and 3. Here they encountered further evidence for the Fort 1 outer ditch and Fort 2 stone revetment.

1972
Vicarage Field West

Further excavations took place in Vicarage Field West in 1972 under the direction of Geoffrey Leather. Two trenches were opened close to Vicarage Lane; Trench 1 slightly to the west of Droop and Newstead's Site 8 and across the eastern end of Site 4, and Trench 2 to the north-east of Droop and Newstead's Site 3. Trench 1 appears to have picked up Fort 1's northern rampart and ditch and some medieval features, while Trench 2 found Fort 2's defences overlying earlier structures.



Jones' plan of his 1973 excavation of the east gate, ditch systems and timber well at the southern end of the Mitre House site

An inscription dated to about AD 266 attesting to the refurbishment of a military bathhouse

Jones' 1973 excavation at the northern end of the Mitre House site showing the southern half of the tepidarium and remains of two phases of earlier buildings

Leather's 1974 watching brief at the southern end of the Mitre House site showing part of the possible southern counterpart of the Wery Wall

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1970s excavations

1973-74
Mitre House

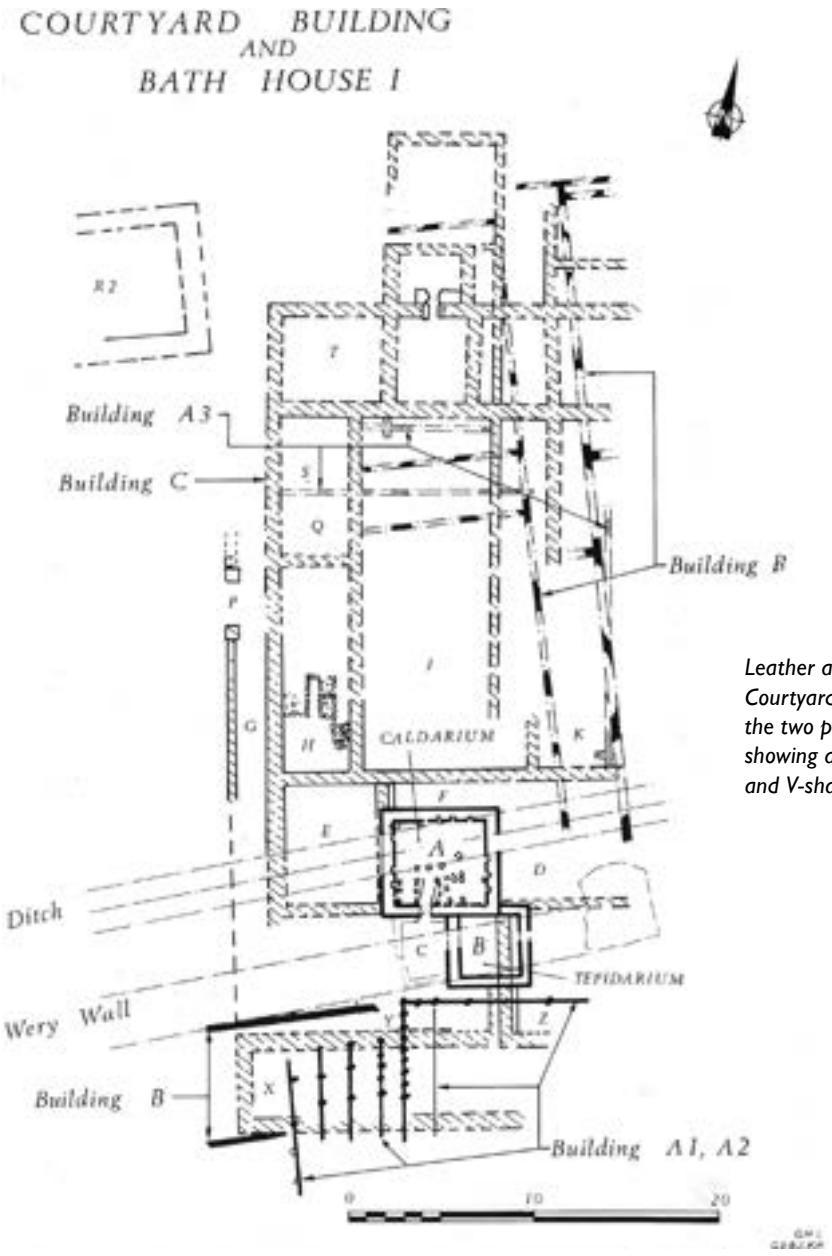
In 1973 various excavations in different locations were conducted during the construction of Mitre House. At the southern end of the site, Professor Barri Jones discovered the location of Fort 1 and Fort 2's east gate and associated ditch systems. The Fort 1 remains comprised the timber north gate tower incorporated within the rampart and the incurving butt-ends of a pair of ditches. In the Fort 2 period the rampart received a stone revetment and secondary ditches. Outside the east gate was a build up of road metalling leading straight out on to what is now Church Street, and also a perfectly-preserved well built of timbers reused from dismantled buildings, so probably relating to Fort 2. West of the gate, Dr Timothy Potter found traces of Fort 1's internal timber buildings, while north of the gate Jones was able trace part of the *intervallum* road and some adjacent buildings probably belonging to Fort 2.

At the eastern end of the Mitre House site Jones and Geoffrey Leather identified what appears to have been Fort 2's bathhouse with at least two stone phases. The refurbishment of a military bathhouse is attested in an inscription dated to AD 266 or a little earlier found close to this site in 1812.

At the northern end of the Mitre House site, outside Fort 2's north-east corner, Jones took the opportunity to re-excavate and extend the southern half of Leather's 1970 Trench 2. Here, like Richmond, he was able to identify three periods of building pre-dating the Wery Wall; the first of timber, the second thought to be of half-timbered construction and the third of stone. The first appears to be contemporary with Richmond's earliest timber structure below the Courtyard Building. The orientation of the half-timbered building suggests it formed the southern part of Richmond's second timber phase. The stone building proved to be the southern half of a *tepidarium* of the Courtyard Building's baths suite excavated in 1973-75 (see below).

Jones' further examination of the Wery Wall revealed that the upstanding stub was the core of a polygonal corner tower. The 2.70m foundation raft first uncovered by Leather was re-excavated but no mention was made of the first course of stones of the wall proper recorded in 1970. Dating evidence in the form of a coin of AD 326, recovered from the foundation levelling course, when taken together with the AD 330 coin from the ditch found in 1970, led Jones to propose a construction date for the Wery Wall and ditch during the second quarter of the fourth century. A problem remains, however, as Leather was of the opinion that the Wery Wall was later than the ditch due to their converging alignments and close proximity (see above). Jones again makes no mention of this and his published plans show the Wery Wall and ditch running parallel (but curiously on one plan they diverge).

Finally, in 1974, at the southern end of the Mitre House site, Leather believed he observed a short stretch of the southern counterpart of the Wery Wall, including a gateway.



Leather and Jones' plan of the Courtyard Building, its baths suite and the two phases of earlier buildings, showing also the line of the Wery Wall and V-shaped ditch

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Leather's 1973 excavation of the Courtyard Building's baths suite showing the caldarium truncated by the V-shaped ditch

1970s excavations

1973-75
Vicarage Field East

In 1973-75 attention switched again to Vicarage Field East. Geoffrey Leather returned to the site of the northern half of his 1970 Trench 2 to carry out more extensive excavations. The aim was to explore further the V-shaped ditch in front of the Wery Wall and to establish the nature and extent of the stone building that Richmond had proposed as a 'bastion'. Leather was able to demonstrate that the stone building was in fact the *caldarium* of a baths suite that formed the southern part of Richmond's Courtyard Building. The *caldarium* was attached to a *tepidarium*, the southern half of which had already been found by Jones during the Mitre House excavations (see above). The partial remains of a *praefurnium* were also uncovered. The baths suite exhibited a complicated development sequence with various refurbishments over an extended period. The initial structure appears to be part of Richmond's second timber building phase (Jones' half-timbered phase). The baths suite was then enlarged and modified when it became the southern part of the Courtyard Building, the whole structure eventually going out of use when the *caldarium* was truncated by the line of the V-shaped ditch.

To complement his excavations, Leather went back to Richmond's archive (then in Oxford's Ashmolean Museum, now in the Sackler Library) and using Richmond's original notes and measurements redrew plans of the Courtyard Building and its timber predecessors. In doing so, Leather was able to include details that Richmond had not incorporated on his own plans. In particular, this allowed for better interpretation of the two timber phases and the Courtyard Building's northern stoke-hole area.

Following the excavations, the stub of the Wery Wall, and the stone walls of the baths suite and southern parts of the Courtyard Building, were consolidated (and in some cases partially rebuilt) to improve their stability and permit them to be left permanently exposed for public view behind railings.

Finally, south-west of the Courtyard Building, just west of Leather's 1970 Trench 3, Dr Timothy Potter opened a further trench in 1973. This again encountered the V-shaped ditch thought to be an outer ditch of Fort 1.

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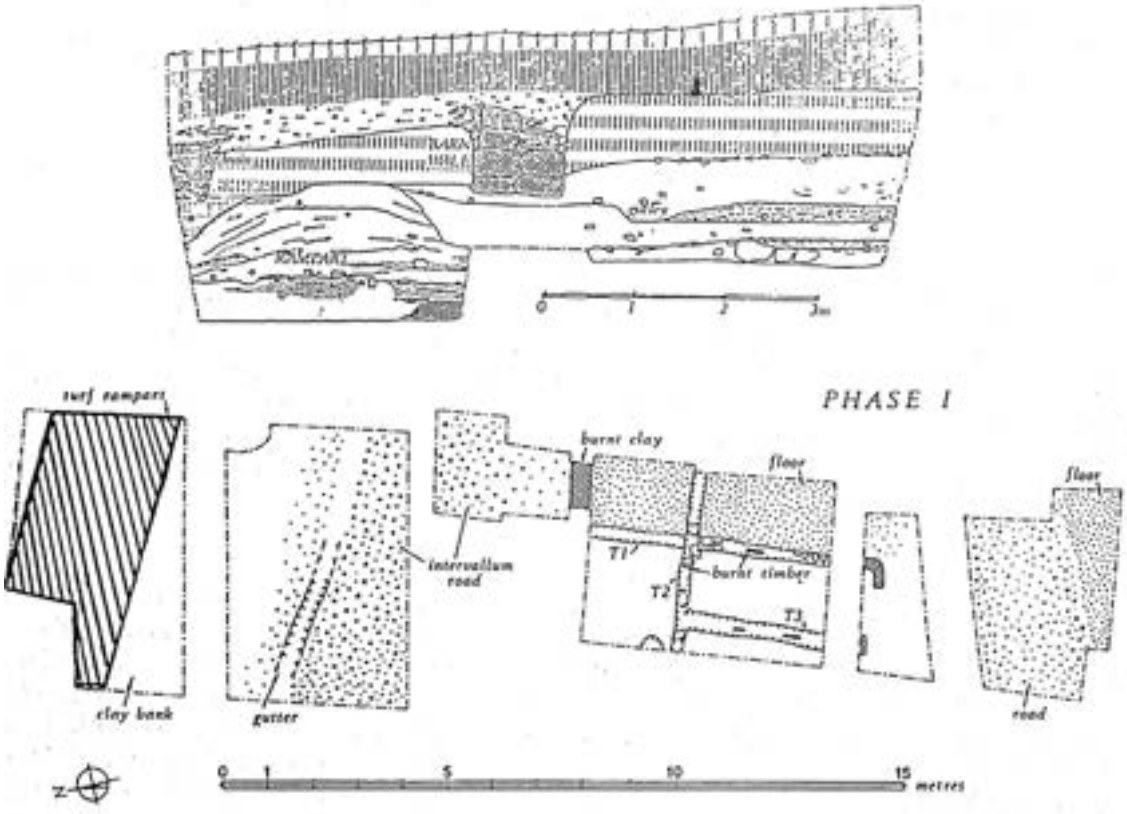
1975
Old Vicarage

Potter returned in 1975 to excavate a site east of the Old Vicarage. Here he found remains of a well-preserved clay and turf rampart, with a battered front face, belonging to the northern defences of Fort 1. Behind the rampart lay the *intervallum* road, part of an internal street and the burnt timbers and daub of a possible barrack block, apparently representing two phases of construction. A separate timber building was discovered overlaying the levelled remains of the Fort 1 rampart. This must have belonged to Fort 2.



Potter's plan of his 1975 excavation across Fort 1's northern rampart, intervallum road and possible barrack block

More recent excavations and surveys

2002-2004 & 2012
Judges' Lodgings

Small-scale excavations were undertaken by John Zant of Oxford Archaeology North to the rear of the Judges' Lodgings. These revealed a bank of clay-lined ovens, possibly housed within a timber structure, probably located immediately inside the eastern defences of Fort 2. When the line of the Wery Wall's southern counterpart, whose remains were excavated by Geoffrey Leather in 1974, is projected westwards from Mitre House, it passes through the northern part of the Judges' Lodgings site. No trace of the wall, however, was found.

2008
Vicarage Field East

Lancaster Young Archaeologists' Club undertook a project on the exposed remains of the Courtyard Building's baths suite. Work included a general clean up of the site, condition survey, photographic record and appraisal of the on-site interpretation. Further work was planned but appears not to have been taken forward.

2011
Vicarage Field East

In 2011 Oxford Archaeology North on behalf of the City Council completed a historic landscape survey report on the Wery Wall and baths suite. The work was required to provide a record of the exposed masonry in advance of stabilisation works and to inform future conservation, maintenance and on-site presentation.


What will we find?
HACK LANCASTER

Archaeological work by the Beyond the Castle project

OAN (2)

The topographical survey of the earthworks in Vicarage Field West and a photomontage of the same area

Archaeological work by the Beyond the Castle project

The following describes the recent investigations carried out during the Beyond the Castle project (2014-2020), including topographical surveys, geophysical surveys and excavations, explaining the methodologies, constraints and preliminary results.

2014-2016 topographical surveys

In May 2014 the Beyond the Castle project commissioned Oxford Archaeology North to produce a close-contour map and digital terrain model of Vicarage Field West and East. This was the first accurate topographical survey ever undertaken of the earthworks. Both areas were later re-surveyed in more detail in August 2015 and May 2016. The data were generated from numerous overlapping aerial photographs taken from a small drone.

The surveys revealed a well-preserved but confusing set of earthworks, especially in Vicarage Field West. Some are very likely to be early Roman, relating to ditches associated with the western defences of Forts 1 and 2. Others, however, appear to be post-Roman, forming a slightly obtuse corner close to an embanked track leading from a notch in the earthworks down the slope towards the river. These later earthworks probably relate to the medieval precinct wall of the Priory. The survey also picked out both wide and narrow ridge-and-furrow plough marks (the wider may be medieval), as well as former field boundaries and drains which are likely to be post-medieval. In Vicarage Field East several earlier backfilled excavation trenches could also be detected as shallow depressions.

OAN

The topographical survey of the earthworks in Vicarage Field East

The earthworks in Vicarage Field West

Survey drone

Resistivity survey, 2014

2014 geophysical surveys

Geophysical surveys were also commissioned from Oxford Archaeology North in May/June 2014. Again, this was the first time this kind of technology had been employed on any part of the site. The surveys focused on Vicarage Field West and East but also extended into Quay Meadow and areas around the Castle and Priory Church.

Three different techniques were used: Magnetometry (Vicarage Field West and East and Quay Meadow), Resistivity (Vicarage Field West and East and a sample area in Quay Meadow), and Ground Penetrating Radar (limited to restricted areas around the Castle and Priory Church). Combined, the results of the geophysical surveys revealed a remarkably extensive if bewildering pattern of buried archaeological remains, but with the potential for significant discoveries.

MAGNETOMETRY

This is the preferred technique for detecting 'positively magnetic' material such as features subjected to firing or burning like kilns or hearths and even brick walls and silted-up or backfilled pits – in other words, those parts of the subsurface that have had changes to their magnetic properties. Earthwork or embankment remains can also be identified as 'negatively magnetic' features.

RESISTANCE (RESISTIVITY)

A complementary technique to magnetometry, electrical resistivity is used where there is a strong presumption that buried structures or buildings may be present. Although the method senses variations in electrical resistivity, when used for mapping the results are commonly presented in terms of resistance. Solid features such as stone walls appear as high resistance anomalies, cut features that have been subsequently filled tend to be less resistant.

GROUND PENETRATING RADAR

This is a useful technique for detecting a wide variety of buried anomalies from air voids, foundations, ditches and large metallic objects. An electromagnetic pulse is sent into the ground and 'echoes' (from vertical changes in properties of the soil) are recorded. From knowledge of the speed of the electromagnetic wave in the soil the echo time can be converted to a depth. GPR surveys are normally carried out along transects to look for variability in the echo time. Parallel transects can also be combined to build a 3D-model of what lies below the ground.

Magnetometry survey of Vicarage Field West and East and Quay Meadow. For ease of reference the numbering of the anomalies follows that used in the OAN report with the addition of M12

2014 geophysical surveys

Vicarage Field West – Magnetometry

A potentially significant response was recorded at the foot of the corner of the earthworks (M6) which may be indicative of industrial activity. Other magnetic spikes are likely to be due to modern disturbance, although a square-shaped response (M7) may have a different origin. There are also numerous discrete positively magnetic responses, many of which are associated with the upstanding earthworks or buried features like M8, which may represent the north-west corner of Fort 1. A north-east/south-west linear positive response to the west of the earthworks (M9), also picked up on the topographic survey, is probably a field drain. Further west several weak positive and negative linear responses are due to the ridge-and-furrow plough marks.

Vicarage Field West – Resistivity

The most significant response is the high resistance right-angled feature situated at the foot of the corner of the earthworks (R2). The response is characteristic of buried structural features but the substantial nature and position of this anomaly is significant given that it sits outside the footprints of Forts 1 and 2. What is probably the north-west corner of the Priory precinct wall can be seen within the right-angled feature as another area of high resistance (not originally identified by OAN but now assigned R8). Running just to the west and slightly askew to the right-angled feature is a low resistance linear response suggestive of a ditch (R3). This probably relates to a relict field boundary identified from historic mapping and also picked up on the topographic survey. Further west medium-high resistance responses probably relate to the ridge-and-furrow plough marks (R4). Two positive linear responses in the north-east corner of Vicarage Field West (R5) may be structural remains of archaeological origin.

Vicarage Field East – Magnetometry

The survey yielded several responses of archaeological potential associated with the Courtyard Building and its baths suite, including areas of high amplitude magnetic disturbance characteristically due to the presence of furnaces, hypocausts and the spreading of burnt material (M10). To the north of these was a very strong east-west response (M11).

Vicarage Field East – Resistivity

Several high and low resistance linear responses are discernible in Vicarage Field East, the most obvious of which (R6 and R7) correspond with responses M10 and M11 seen in the magnetic data. These are probably representative of buried structures. The R6 response is situated within an area of magnetic disturbance suggestive of demolished structural remains but the linear responses here are more likely to be relict hedgerows.

Resistance (Resistivity) survey of Vicarage Field West and East and Quay Meadow. For ease of reference the numbering of the anomalies follows that used in the OAN report with the addition of R8

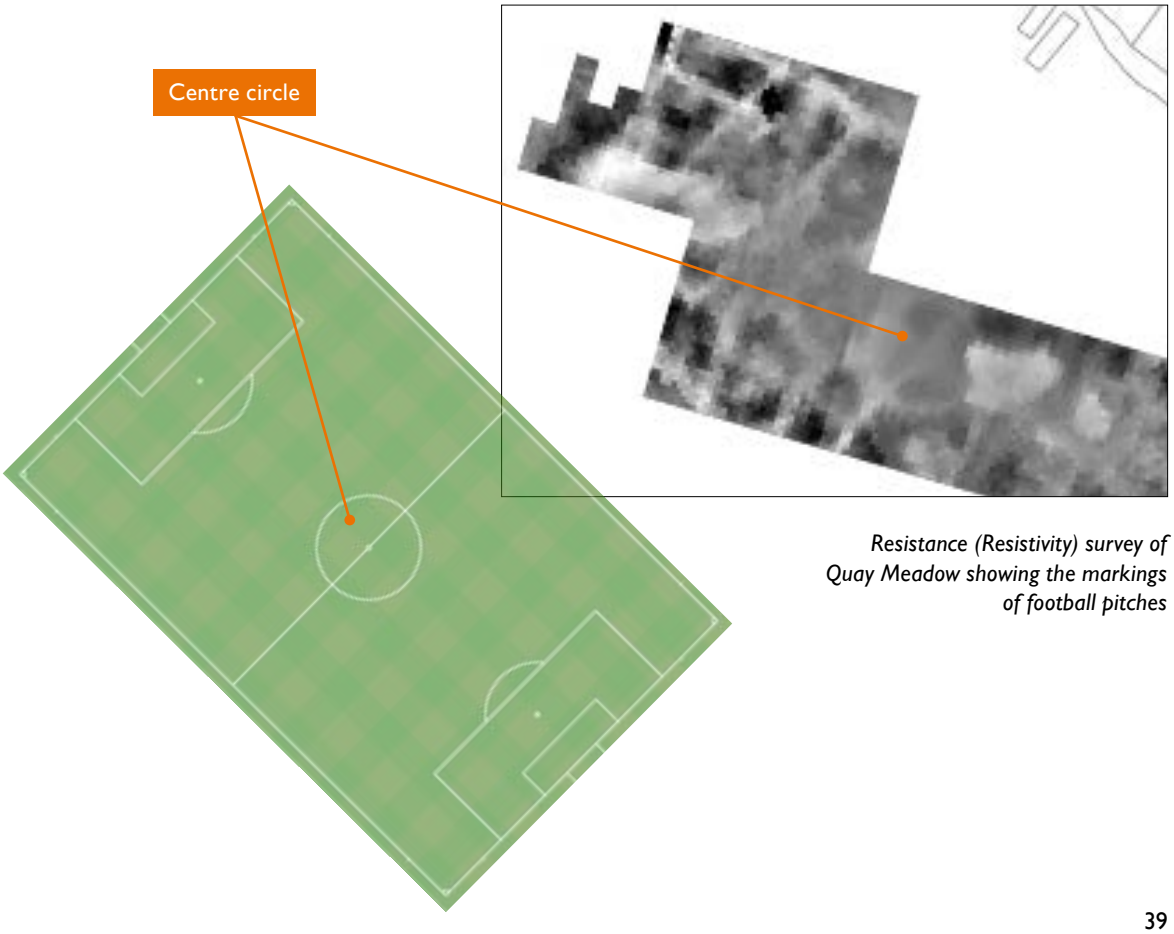
2014 geophysical surveys

Quay Meadow – Magnetometry

Quay Meadow yielded responses of potential archaeological origin, although much of the area contains modern magnetic 'noise'. There are two discrete areas of magnetic material (M1) which may be the result of the disposal of debris in spreads or pits. There is an east-west linear positive response (M2) that might be a wall or bank-like structure. A north-south linear response, this time negative (M3), is a possible structural feature, as is a rectilinear anomaly at the northern edge of the survey area (not originally identified by OAN but now assigned M12). Other discretely positive responses (M4) are possibly archaeological features or of geomorphological origin. Three linear low amplitude positive responses at the southern edge of the survey area may be archaeological features (M5).

Quay Meadow – Resistivity

There are three areas of low resistance (R1) that roughly correlate with the two areas of magnetic response (M1) and several low resistance linear responses, initially interpreted as possibly structural or geological. Closer inspection, however, revealed these linear responses to be the markings of two superimposed football pitches. The linear responses are probably due to structural changes in the soil resulting from liming. The discrete areas (R1/M1) would therefore appear to be spreads to level up the pitch and/or due to wear and re-turfing.



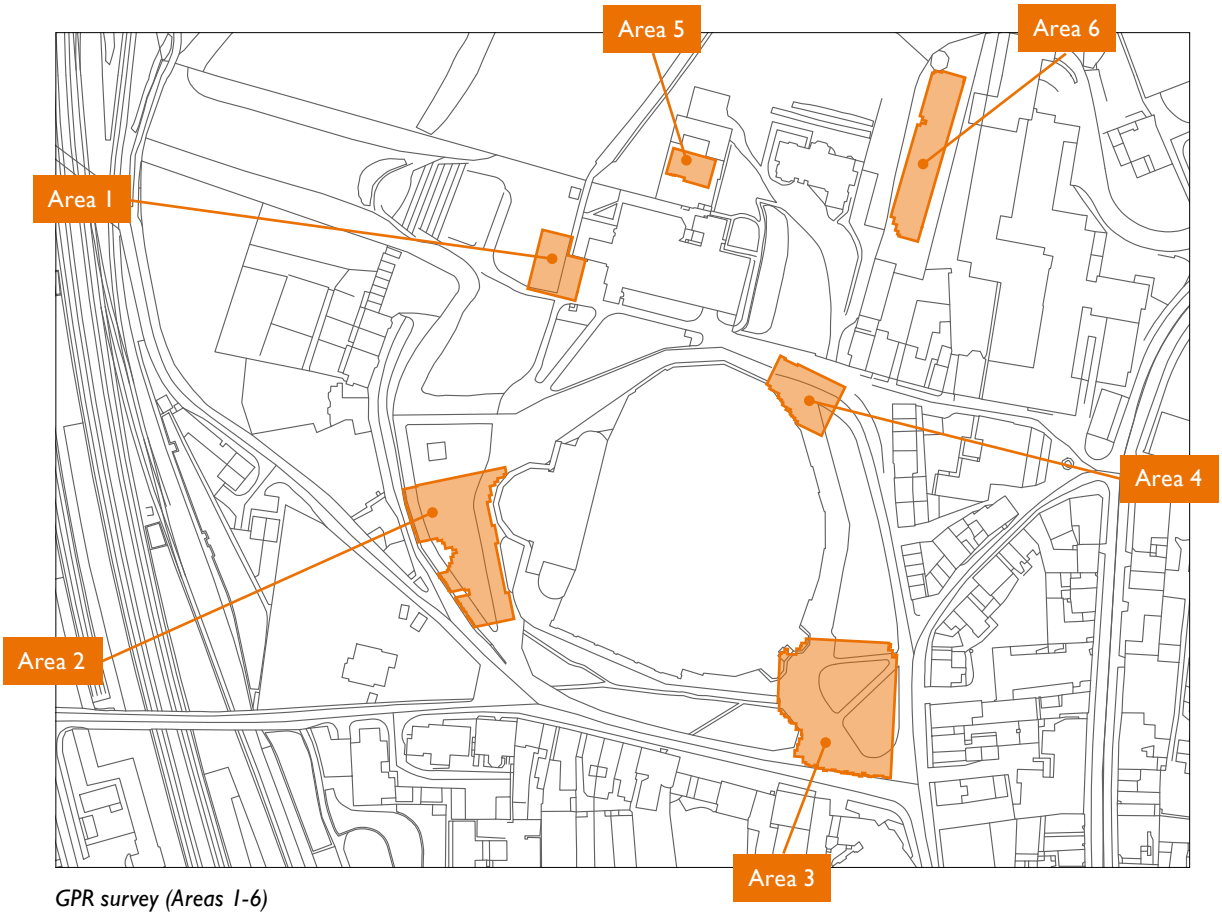
Resistance (Resistivity) survey of Quay Meadow showing the markings of football pitches

GPR survey in Areas 5 and 6

2014 geophysical surveys

Castle and Priory Church – Ground Penetrating Radar

Six sample areas were selected for GPR survey; three around the Castle (Areas 2-4), two around the Priory Church (Areas 1 and 5) and one in a private garden south of Vicarage Field East (Area 6). The surveys highlighted a number of responses that were indicative of buried structural remains, including fragmentary responses due to demolished structures and rubble, particularly in Area 3 where post-medieval buildings are known to have once stood. Those responses of potential significance are the dipping horizons in Area 2 to the west of the Shire Hall. These may be evidence of the position of the former moat or 'Castle Ditch' illustrated on historic mapping. Some of these dipping horizons, however, may simply be the reflection from the Shire Hall's foundations or due to made ground. More promising are the responses in Area 5 suggestive of buried walls, possibly associated with the former medieval complex north of the Priory. Also, a presumed void in Area 1 may represent a buried vault. In all areas, no responses associated with the defences or internal buildings of Forts 1 or 2 or the Wery Wall were visible in the data.



GPR survey (Areas 1-6)

Electromagnetic Induction

Ground Penetrating Radar

Magnetometry

2017-2020 geophysical surveys

In 2017-2020 more advanced geophysical surveys were carried out on behalf of the Beyond the Castle project by the hydrogeophysics team of the Lancaster Environment Centre at Lancaster University. The surveys focused on Vicarage Field West and East, Quay Meadow and Giant Axe Field – a new area never previously surveyed.

Four main techniques were used: Electromagnetic Induction (Vicarage Field West, Quay Meadow and Giant Axe Field), Electrical Resistivity Tomography (Vicarage Field West, Quay Meadow and Giant Axe Field), Ground Penetrating Radar (Vicarage Field East, Quay Meadow and Giant Axe Field) and Magnetometry (Giant Axe Field).

These techniques complemented those used in the 2014 surveys. The results both added to existing knowledge as well as revealing new archaeological features with even more potential for significant discoveries. As the Lancaster Environment Centre surveys took place after the trial excavations, the survey data will be assessed in relation to the excavation results (see below), except in the case of Giant Axe Field where no excavation took place.

ELECTROMAGNETIC INDUCTION

This technique uses the principle of electromagnetic induction to measure the electrical conductivity of the subsurface at different depths. High electrical conductivity equates to low electrical resistivity. No ground contact is required which allows much more rapid data acquisition. EMI is increasingly being used in archaeology for precisely mapping buried features and soil structures.

ELECTRICAL RESISTIVITY TOMOGRAPHY

This is a technique used for imaging subsurface structures from electrical resistivity measurements made at the surface. It is a robust minimally invasive technique allowing the collection of measurements as 2D-sections or 3D-models of subsurface variability in resistivity. Archaeological remains such as walls locally increase soil resistivity and can be mapped by this method.

Magnetometry survey of Giant Axe Field

ERT sections of Giant Axe Field

2017-2020 geophysical surveys

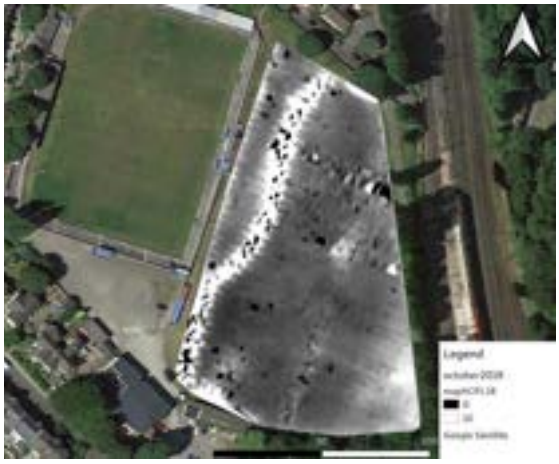
2019-2020
Giant Axe Field

In July and October 2019 Giant Axe Field was subjected to Magnetometry, Electromagnetic Induction and Electrical Resistivity Tomography surveys to gain a first idea of the archaeological potential of the site. These were followed by targeted Ground Penetrating Radar in January 2020.

The Magnetometry survey revealed a strong curved anomaly on the west side of the survey area. This was expected as historic mapping, aerial photographs and parch marks show the presence of an oval running track in this location. The responses were, however, distorted by an old Transco pipe that broadly follows the same path. The Electromagnetic Induction survey also picked out the running track and Transco pipe.

To the east of this the Magnetometry and EMI surveys showed an approximately north-south but intermittent linear response. This probably relates to a relict field boundary identified from historic mapping. Several Electrical Resistivity Tomography sections confirmed this, indicating that the feature was probably a backfilled ditch resulting from the removal of a hedgerow. A weak signal probably represents traces of another field boundary seen on historic mapping running east at right angles to the main one.

Two roughly square anomalies in the south-west quadrant of the Magnetometry survey area could not be accounted for from historic mapping or aerial photography and merited further investigation using high frequency GPR to obtain greater resolution. The results, however, suggested these were only localised anomalies rather than square or linear features.



LEC (2)

Magnetometry survey (left) and EMI survey (right) of Giant Axe Field

Parch mark in July 2018 show the location of the oval running track in Giant Axe Field


QM Trench 2
QM Trench 1
QM Trench 3
VFW Trench 2
VFE Trench
VFW Trench 1
VFW Trench 1x

2015-2016 trial excavations

Trial excavations in Vicarage Field West and East and Quay Meadow were conducted in 2015 and 2016. These were designed to 'ground truth' the 2014 geophysical surveys, establish the survival, nature and date of archaeological deposits and evaluate the potential for future exploration. As explained above, the Lancaster Environment Centre's subsequent geophysical surveys will be assessed for each of the three separate areas in light of the excavation results.








The predicted corner of the late Roman shore fort over the Resistivity survey in Vicarage Field West

The 2016 excavations in Vicarage Field West

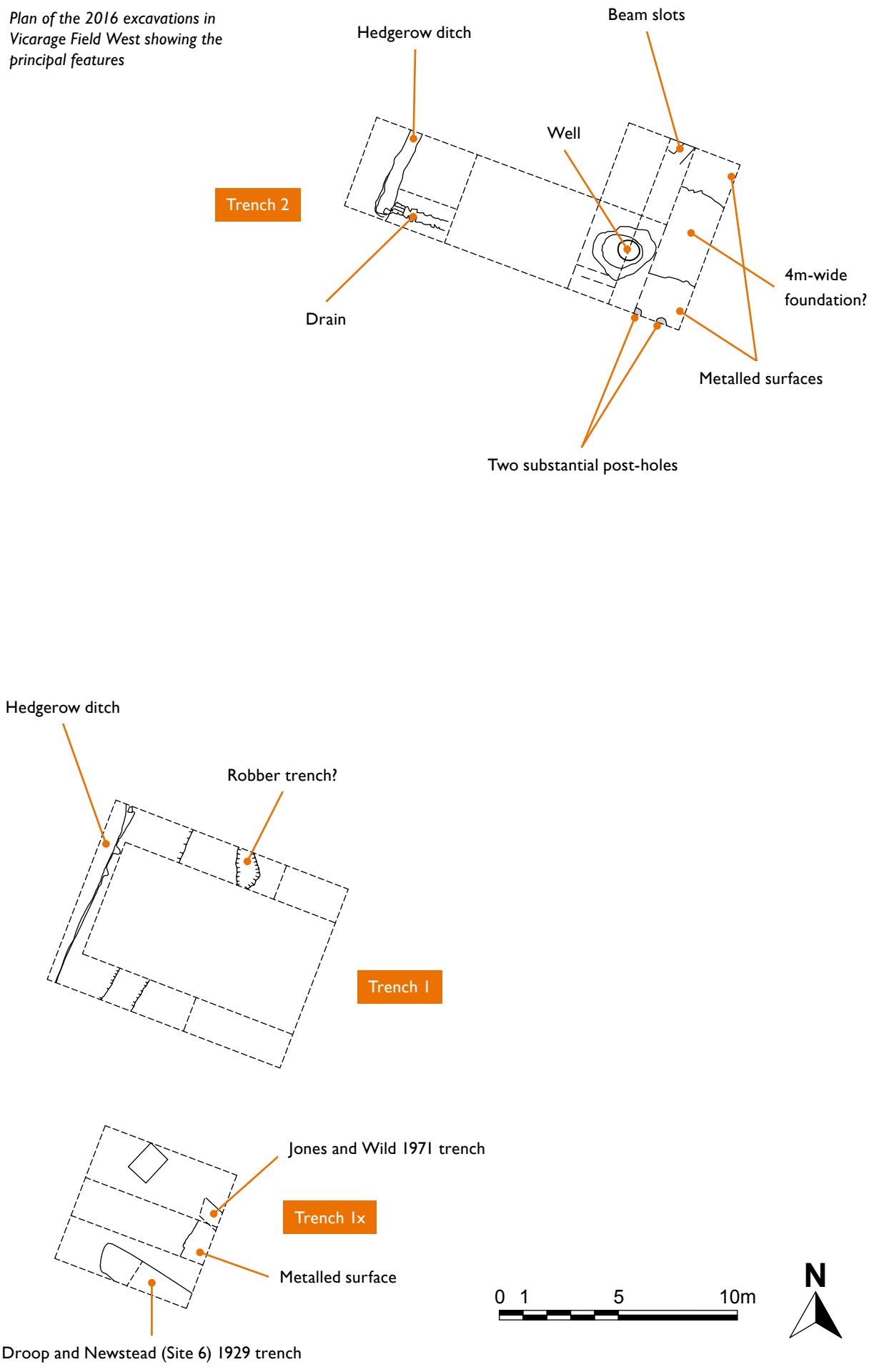
2016
Vicarage Field West

The high resistance right-angled anomaly situated at the foot of the corner of the earthworks was suggestive of a substantial masonry structure. Intriguingly, its position outside the footprints of Forts 1 and 2 gave rise to theories about a third fort in this location which potentially challenged the received opinion about the shape of Lancaster's late Roman shore fort and orientation of the Wery Wall. The significant magnetic response, possibly indicative of industrial activity, was also located here, and running slightly to the west was the low resistance linear response of the presumed relict field boundary.

Discoveries: In May/June 2016 two trenches were opened to explore all three of these anomalies (Trenches 1 and 2). In Trench 2 a section across the northern arm of the right-angled feature did indeed reveal masonry consisting of what appeared to be a 4m-wide foundation of cobbles and semi-dressed stones. Either side of this were metalled surfaces with two substantial post-holes against the southern edge of the trench. Immediately to the west was a large roughly circular area of disturbed ground, corresponding to the significant magnetic response. On excavation this proved to be a cone of earth and debris above the fill of a stone-lined well. The western arm of the right-angled feature and the north-west angle were less easy to trace. In Trench 2, at the north-west angle, the 4m-wide foundation may possibly survive below the later disturbance associated with the well or it may have been robbed away and the resistivity readings simply reflect the disturbance. Only further excavation will tell. In Trench 1 the foundation was substantially robbed. What may be a robber trench beside the internal edge of the foundation was partially excavated against the northern edge of Trench 1. The low resistance linear response was indeed a backfilled ditch resulting from the removal of a field boundary, probably a hedgerow. It was traced and excavated close to the western edge of Trench 2 and against the western edge of Trench 1. It is likely that the ditch, cut slightly askew to the right-angled feature, has partially removed part of the foundation. Also at the western end of Trench 2, where the right-angled feature turns south, the remains of a stone-lined drain were uncovered, with some of its capping stones still in place. This too was partially cut away by the hedgerow ditch.

Orthomosaic of the 2016 excavations in Vicarage Field West. This was created from photographs collected from a small drone. These were then processed using photogrammetry, joined together and corrected so that the scale was uniform (OAN)

Plan of the 2016 excavations in Vicarage Field West showing the principal features



The trench across the well and the layers of disturbance surrounding it. The top 3-4 courses of the well were rebuilt in the Victorian period when a draw pipe was sunk

The stone-lined drain

The two substantial post-holes

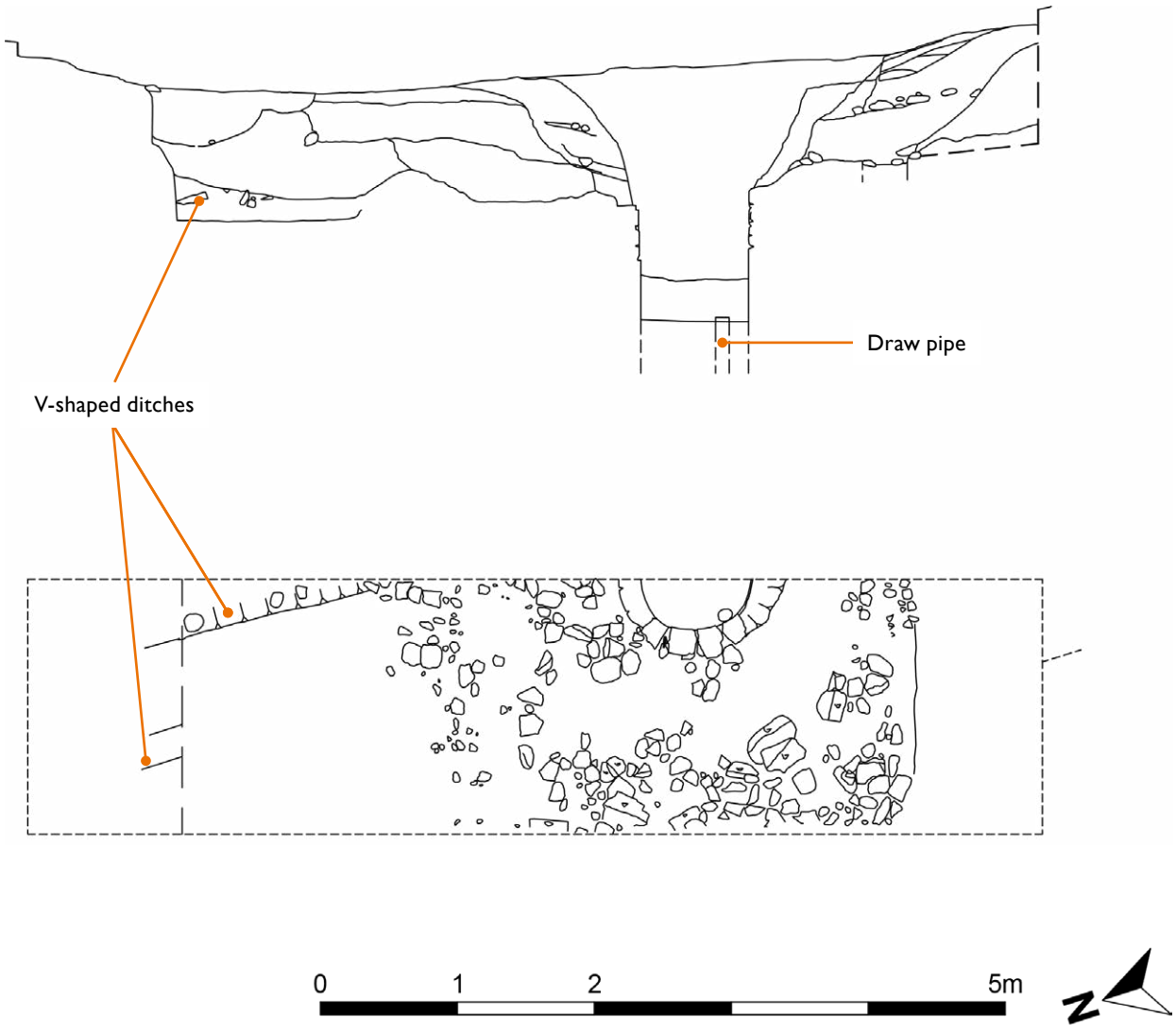
A section across the robbed remains of the 4m-wide supposed foundation with metalled surfaces either side

A small trench south-east of Trench 1 (Trench 1x) was located to confirm the positions and extent of two earlier trenches across the earthworks, the one excavated in 1929 by Droop and Newstead (Site 6) and the other by Jones and Wild in 1971. What appeared to be the toe end of the 1971 trench was re-opened. South of this, and not quite parallel to it, was the 1929 trench. This proved to be not as long as published plans of Site 6 depict as it unexpectedly terminated within Trench 1x. Its toe end was excavated. A new section between the two earlier trenches was opened and revealed what appeared to be a metalled surface against the eastern edge of the trench and what might be the start of another robber trench. Completion of the section must await future excavation.

In October 2016 Trench 2 was extended by cutting a north-south section across the diameter of the well and the layers of disturbance surrounding it. This section revealed quite a depth of disturbance above and below the top of the well's stone lining. Further investigation of the well itself provided evidence that the top three-four courses of the lining had been rebuilt and a draw pipe inserted. Below the rebuild, the courses changed in size and were set into the natural orange clay. Having reached the maximum depth before shoring was required, excavation of the section was halted. At the base of the trench at this depth was a spread of rubble and dressed stones that differed from the disturbed layers above but probably still represent an earlier phase of disturbance, possibly of the 4m-wide foundations.

What appeared to be the continuation of the stone-lined drain was recorded against the southern edge of the later disturbance. South of this, a V-shaped ditch cutting into the natural orange clay was recorded in the section forming the southern edge of the trench. Similarly, to the north of the disturbed area, were a pair of V-shaped ditches. These were also recorded in section but the base of the eastern ditch had escaped the disturbance so could be partially excavated in plan. Its orientation, when taken with the evidence in both sections, confirms that there were originally two parallel north-south V-shaped ditches running slightly askew to the long edges of the trench. To the east of these ditches, at the northern end of the trench, is what appeared to be the right-angled corner of two beam slots cut into the natural orange clay, on a different alignment to the ditches. The slots were filled with burnt material but as they lay outside the section cut across the well they were left for future excavation.

Also in October 2016, a small sondage (Trench 3) was opened at the top of the earthworks, south-east of Trench 1x. This revealed a spread of rubble with an edge aligned north-east/south-west.



Plan and section across the well

Interpretation and dating: The earliest features would appear to be the parallel V-shaped ditches, the right-angled beam slots and the two substantial post-holes. The metalled surfaces are likely to belong to this period but the northern one could be associated with the later 4m-wide foundations. The V-shaped ditches are of a military form typical of the first/second centuries. Their position and orientation are interesting. They lie outside the north-west corner of Fort 2 and on a different alignment to the fort defences. Similar non-aligned ditches have been found in Vicarage Field East (see below) and on other early Roman fort sites where they have been interpreted as demarcating an annex or militarised zone. The beam slots and post-holes are typical of first/second century timber buildings such as have been found both within and outside Forts 1 and 2. The metalled surfaces are similar to Forts 1 and 2's east gate road and *intervallum*.

The 4m-wide foundations probably carried a wall of stone and clay construction. Dating material was lacking although several unstratified late Roman coins were found in the topsoil across the area. Although not conclusive, it is tempting to interpret the foundations as promising evidence for the corner of Lancaster's late Roman shore fort (hereafter called Fort 3) but one on a completely new alignment to the Wery Wall. If so, then the wall superstructure was systematically dismantled, and the foundations partly robbed, at some date in the post-Roman period.

The dates of the stone-lined well and drain are problematic. Again no direct dating evidence was found. The well's depth and relationship to the 4m-wide supposed foundations have yet to be determined due to the degree of later disturbance. If the top courses have been rebuilt then a Roman or medieval origin cannot be ruled out. The drain would seem to relate to the well but again the relationships are unclear.

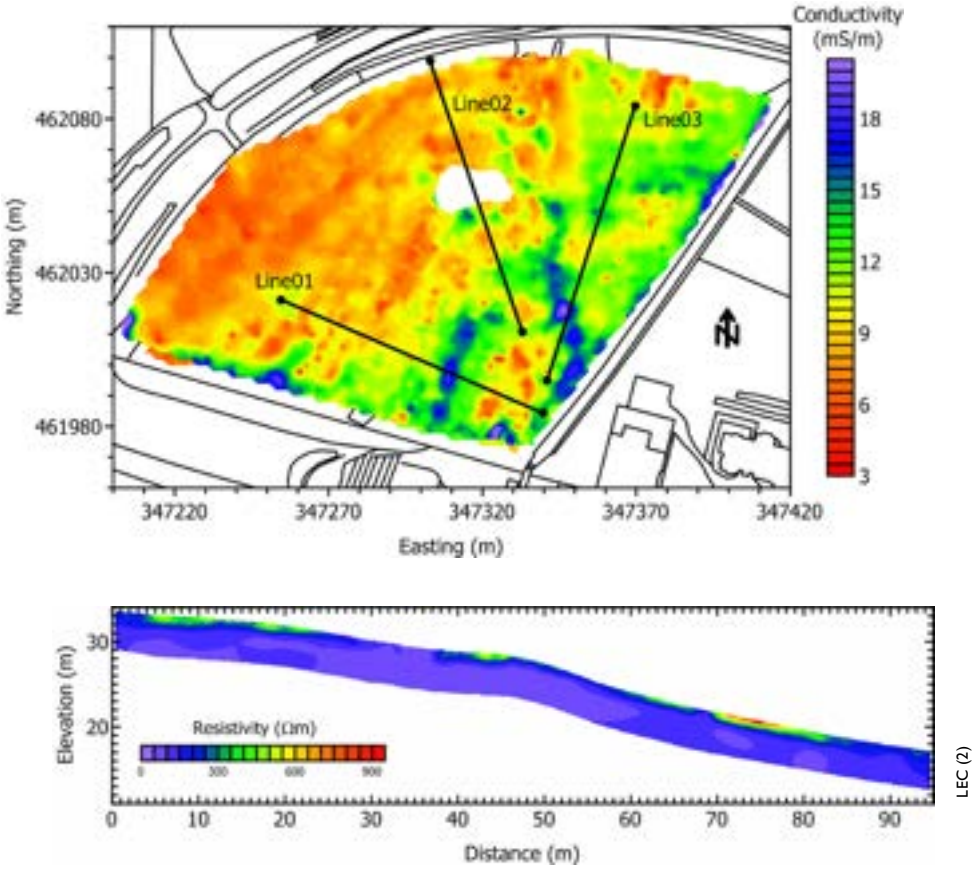
The spread of rubble in Trench 3 is probably post-medieval in date, as was the field boundary. Whether the hedgerow ditch was cut at this time or when the hedgerow was removed cannot be ascertained. All that can be said is that ditch cuts drain. Historic mapping shows that the hedgerow was removed during the last quarter of the nineteenth century which accords with the finds recovered from the ditch. This would appear to be when most of the disturbance occurred around the well and the draw pipe was sunk. A late Victorian map shows a pump in this location but according to a later map the pump was removed before the First World War.

A 1919 George V penny was recovered from the toe of Droop and Newstead's 1929 trench, as well as residual Roman and medieval pottery. The cone of earth above the fill of the well, and the topsoil across the site, contained a variety of late twentieth-century and residual material.

The group of unstratified late Roman coins, including a nummus *of Theodora, second wife of Constantius I,* Pietas Romana, *minted in Trier (AD 337-41) and ten others including a* Gloria Exercitus *with two standards (AD 330-35), two copies of a* Fel Temp Reparatio *with a falling horseman (AD 350-60), and a barbarous radiate (AD 260-80). The group is typical for a site starting in the later third century and running into at least the mid fourth century.*

A selection of Roman pottery and tile found during the 2016 Vicarage Field West excavation

EMI survey of Vicarage Field West



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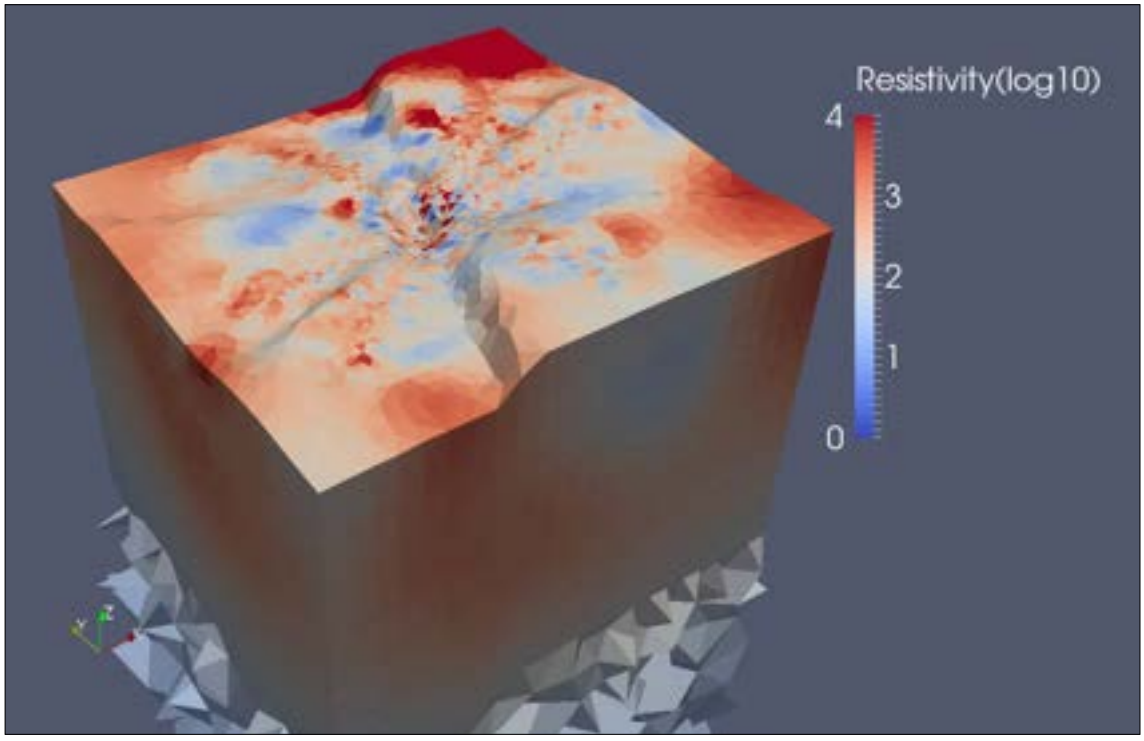
EMI survey showing locations of 2D-ERT sections

2017 geophysical surveys: In January and March 2017 Vicarage Field West was subjected to Electromagnetic Induction (EMI) and Electrical Resistivity Tomography (ERT) surveys to test the Fort 3 theory and depth of the well. EMI mapping for 1m and 4.2m depths showed a zone of lower conductivity (so higher resistivity) at the summit of the earthworks. These resistive features seemed to correlate with the position of Fort 2's stone revetment and/or *intervallum* road or possibly the Priory precinct wall. A high conductive north-south linear feature leading to the notch in the northern earthworks is probably a medieval track.

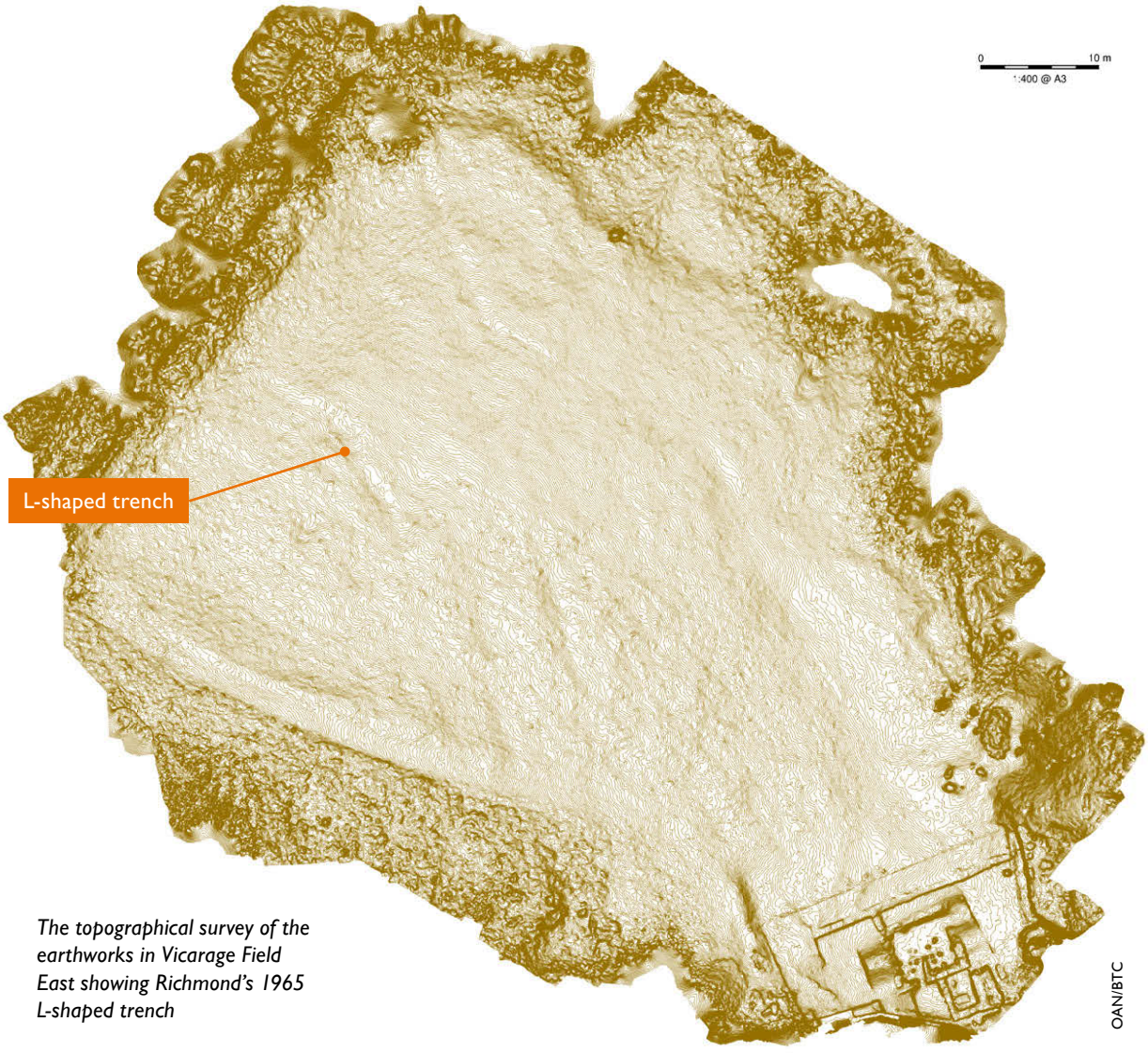
2D-ERT sections were surveyed across the projected lines of the northern and western defences of Forts 2 and 3. Again the resistive feature at the summit of the earthworks coincides with the location of the Fort 2 revetment and/or *intervallum* road. Lower down the slope, each section revealed a high resistivity anomaly in the upper metre of the soil profile, with a width of several metres. The elevation of the anomaly on each line was similar and the positions are close to the interpreted Fort 3 foundations.

To estimate the depth of the well, a 3D-ERT survey using three sections arranged in a 'star shape' was designed. The individual sections showed a large resistive anomaly beneath the exposed portion of the well to a depth of about 8m from the surface. More precise estimates were not possible due to the poorer sensitivity of this method at deeper depths and the relatively small size of the well.



LEC

3D-ERT of the well



The topographical survey of the earthworks in Vicarage Field East showing Richmond's 1965 L-shaped trench

The 2015 re-excavation Richmond's 1965 trench in Vicarage Field East

2015-2016 trial excavations

2015
Vicarage Field East

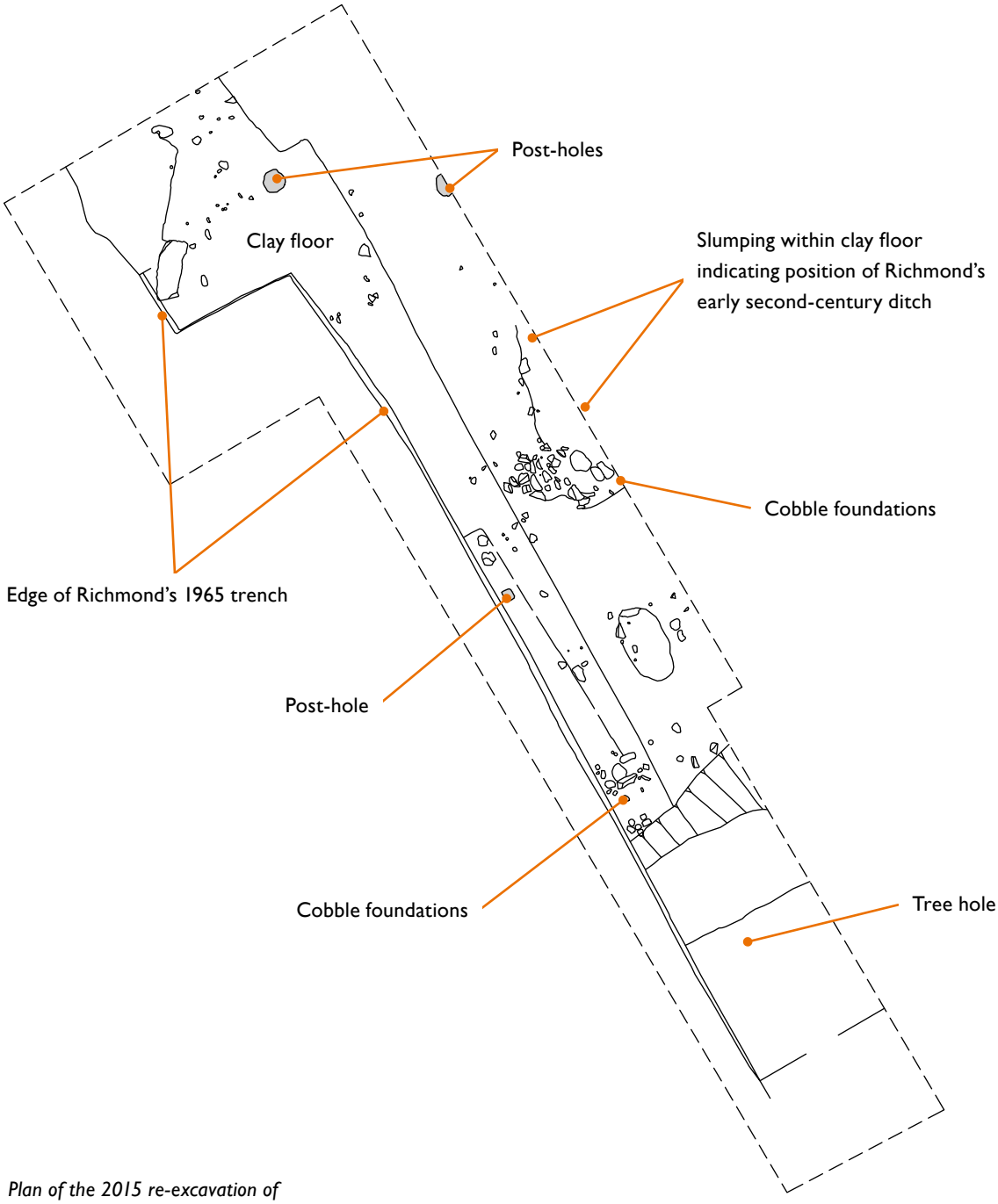
Despite an examination of Professor Sir Ian Richmond's archive, it still remained difficult to reconstruct his thought process and interpretation. In order better to understand what Richmond found, therefore, the Beyond the Castle project re-opened the southern most of the 1965 trenches across the line of what he had interpreted as an early second-century ditch and where he also encountered third-century buildings. Richmond's archive and later published plans by others, however, were at variance as to the trench's precise location and dimensions. Opportunely the position of its L-shaped outline could be readily identified from the close-contour topographic survey of the area. The work was carried out in October 2015 to mark the 50th anniversary of Richmond's death.

Discoveries: No excavation of undisturbed deposits was attempted: the aim was simply to remove Richmond's backfill and to record in detail the trench plan and sections. In the event no sections could be recorded as the surviving Roman deposits lay just below the turf. The L-shaped western edge of Richmond's trench was found but the eastern edge could not be traced; the shallowness of the trench must mean that the eastern edge was within the turf layer. It also transpired that Richmond had simply drawn a pre-excavation plan and chosen to excavate partially only one feature – a tree hole at the southern end of the trench.

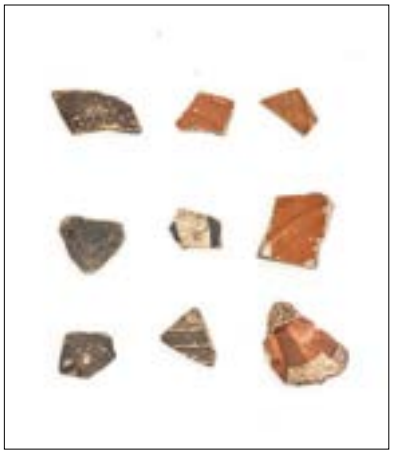
The main discoveries included the edge of a clay floor and associated post-holes and the cobbled foundations of two walls on different alignments. The southern foundations match those Richmond drew on his 1965 plan; in contrast, however, the alignments of the clay floor and northern foundations are different to the buildings he recorded. An area of slumping within the clay floor, and voids within the northernmost foundations, indicate the position of Richmond's ditch. This matches the alignment of the ditch he did excavate in a neighbouring trench to the east in 1958. Other trenches in 1958 and 1965 also recorded the same ditch but in these cases it is not known whether Richmond excavated the ditch or simply observed it in plan.

Othomosaic of the 2015 re-excavation of Richmond's 1965 trench in Vicarage Field East

PETER SCHOFIELD/OAN



Plan of the 2015 re-excavation of Richmond's 1965 trench in Vicarage Field East showing the principal features



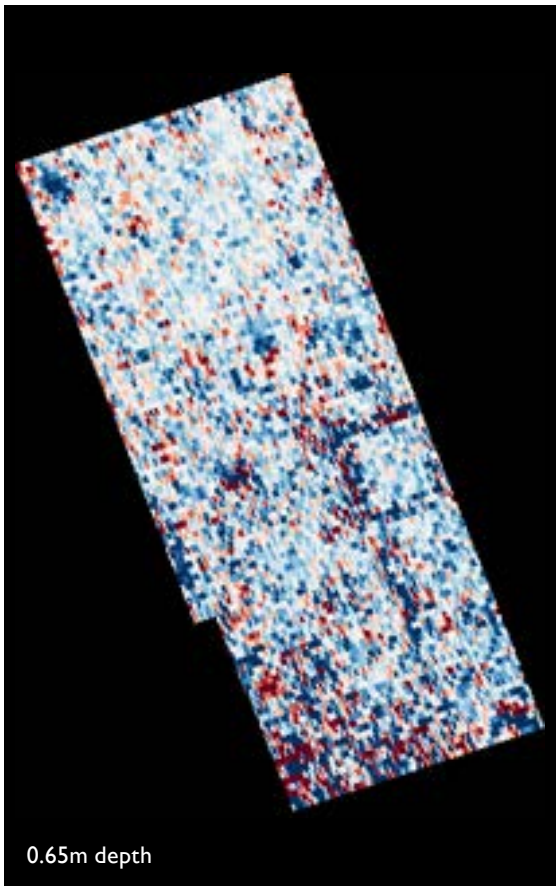
Roman pottery from Richmond's backfill

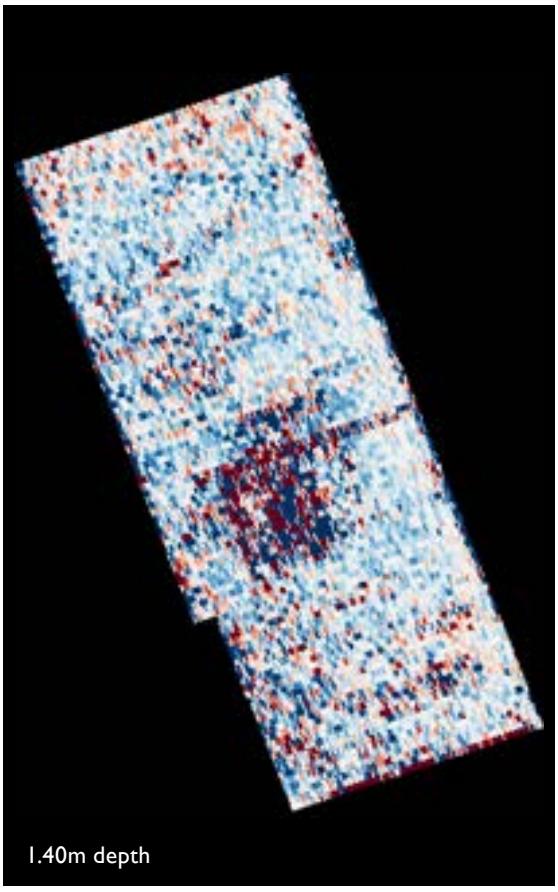
Interpretation and dating: If Richmond's dating of the ditch to the early second century is accepted, then the new evidence points to at least two further phases of Roman construction after the ditch was infilled. The clay floor and post-holes presumably belong to a timber building phase that was superseded by a building or buildings built of stone with cobble foundations. This sequence mirrors the latter two phases identified by Richmond in 1958 on the adjacent site of the Courtyard Building. A large quantity of pottery, brick, animal bone and ironwork was recovered from Richmond's backfill. This was almost exclusively Roman, the latest datable Roman find being a *nummus,* or low-value copper coin, of the House of Constantine, probably a copy and therefore dated to AD 335-45. The ironwork included what might be a carrying handle from the neck guard of a Roman helmet while the tree hole produced a small voussoir (possibly from an arched window) and other worked stone which imply nearby buildings of more elaborate character. Although unstratified, the date range of the finds is consistent with occupation from the early second century to the fourth. Other finds included post-medieval and modern pottery and fittingly one of Richmond's survey arrows that he accidentally left in the bottom of his trench.

The possible carrying handle from the neck guard of a Roman helmet

The nummus *of the House of Constantine, with the reverse design showing* Gloria Exercitus *(meaning 'to the glory of the army') with two standards. It is a type that was very commonly copied. If so, the conventional date-bracket for its production would be AD 335-45*

The small voussoir possibly from an arched window





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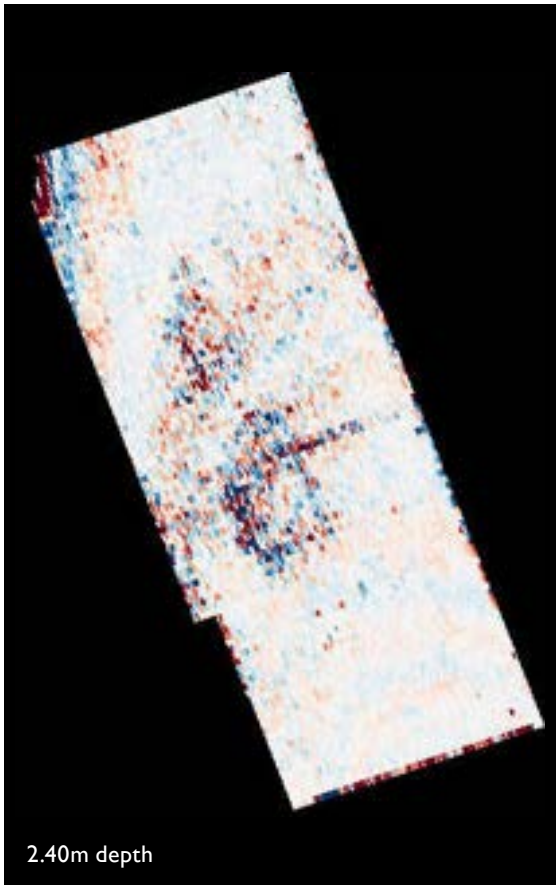


GPR survey over the north-west quadrant of the Courtyard Building

2018 geophysical surveys: In July and October 2018 Vicarage Field East was subjected to a full 3D Ground Penetrating Radar (GPR) survey using parallel 2D transects. This was designed to reveal the spatial pattern and depth of the buried remains and compare the GPR signature with the results of past excavations, especially those by Richmond and Leather.

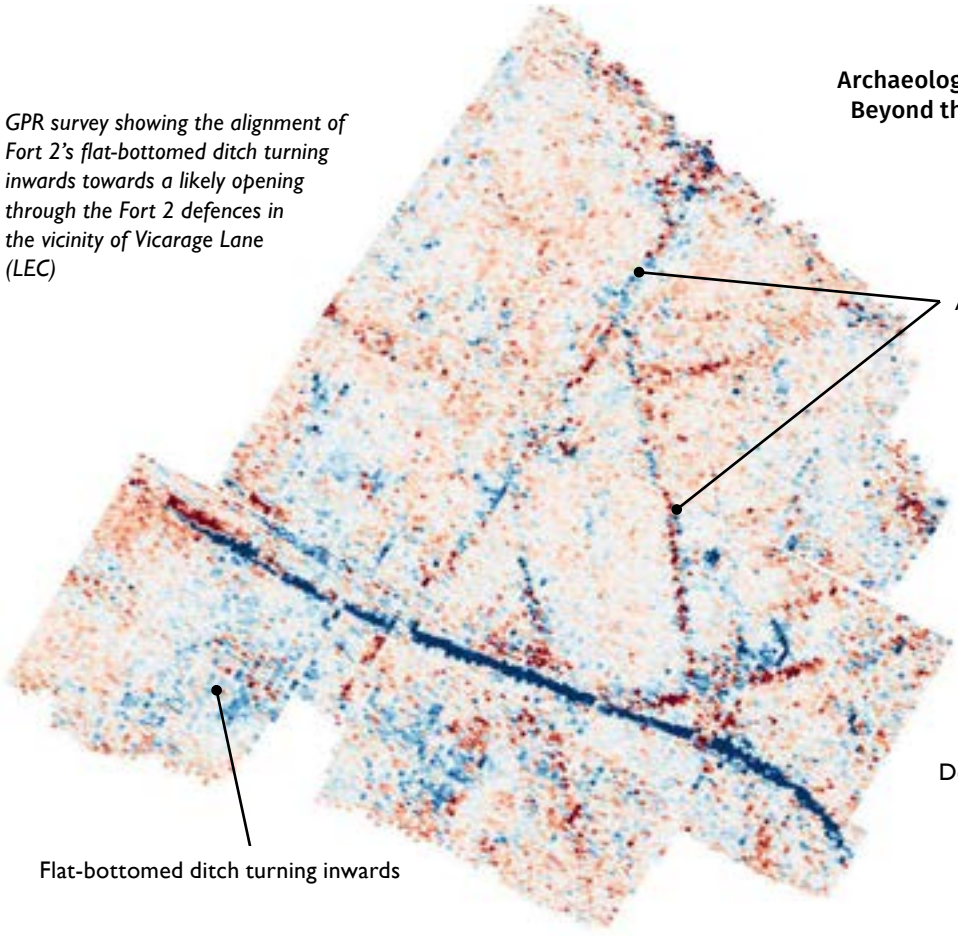
A detailed survey over the north-west quadrant of the Courtyard Building located the north and west ranges of rooms, including the stoke-hole area. These correlated well with Richmond's plan. The walls were visible down to a depth of about 1.90m in the stoke-hole area and about 0.75m in the rooms either side, with about 0.50-0.60m of overburden. Most of the GPR transects showed a linear reflection which, once the topographical correction was applied, appeared to be horizontal, presumably corresponding to surviving courtyard paving and/or floors of the rooms.

A good proportion of the remainder of the field was surveyed, only excluding the strips of land parallel to Vicarage Lane and adjacent to the southern boundary with the Old Vicarage which were both inaccessible. Because of this, the survey did not pick up the line of Fort 1's V-shaped outer ditch (sectioned in 1970 and 1973) which lies too close to the Old Vicarage boundary. It did, however, trace the alignment of Fort 2's flat-bottomed ditch (sectioned in 1970) at the relatively shallow depth of 0.40m. The survey also confirmed Leather's idea that the ditch turned inwards towards a likely opening through the Fort 2 defences in the vicinity of Vicarage Lane.

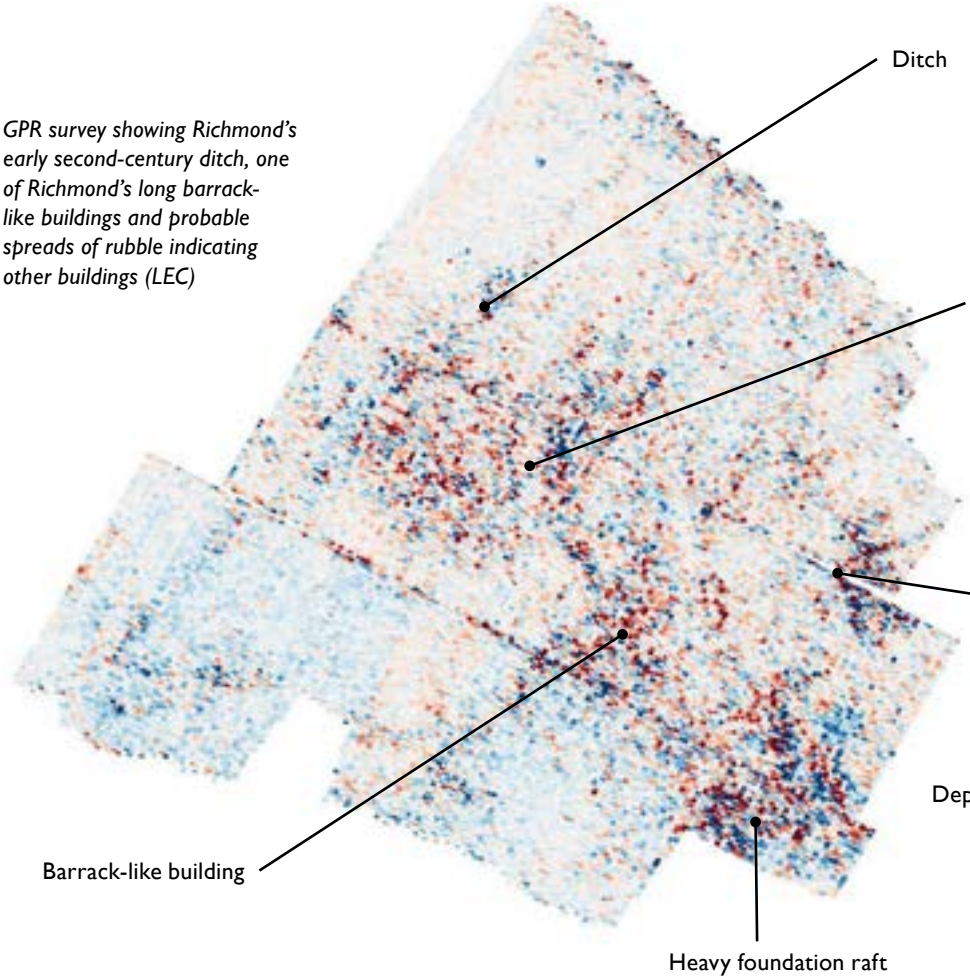
Richmond's early second-century ditch is clearly visible down to a depth of about 1.75m. Overlapping the ditch in the centre of the field is a large area of disturbance probably representing spreads of rubble and tree holes. This equates well with what is now known from re-excavating Richmond's 1965 trench, namely that there appear to be at least two phases of superimposed buildings in this location. The disturbance is also visible down to 1.75m which, given the shallowness of the remains in the 1965 trench, suggests a greater depth of stratigraphy and perhaps earlier phases of buildings or buildings with deeper foundations or even basements. Another area of disturbance lies to the west of the Courtyard Building where Richmond and Leather recorded a heavy foundation raft. The survey indicates a spread of rubble about 9m wide likely to be from the destruction of a masonry building. Between the two disturbed areas is a slightly more defined structure which corresponds to the position of one of Richmond's long barrack-like buildings. Finally, at a depth of 0.20-0.40m, the survey picked out a rectilinear pattern of diagonal lines which match the hedgerows that once divided the allotments that occupied the field until Richmond's day.

GPR survey in Vicarage Field East

GPR survey showing the alignment of Fort 2's flat-bottomed ditch turning inwards towards a likely opening through the Fort 2 defences in the vicinity of Vicarage Lane (LEC)



GPR survey showing Richmond's early second-century ditch, one of Richmond's long barrack-like buildings and probable spreads of rubble indicating other buildings (LEC)



Othomosaic of the 2015 excavations in Quay Meadow

2015-2016 trial excavations

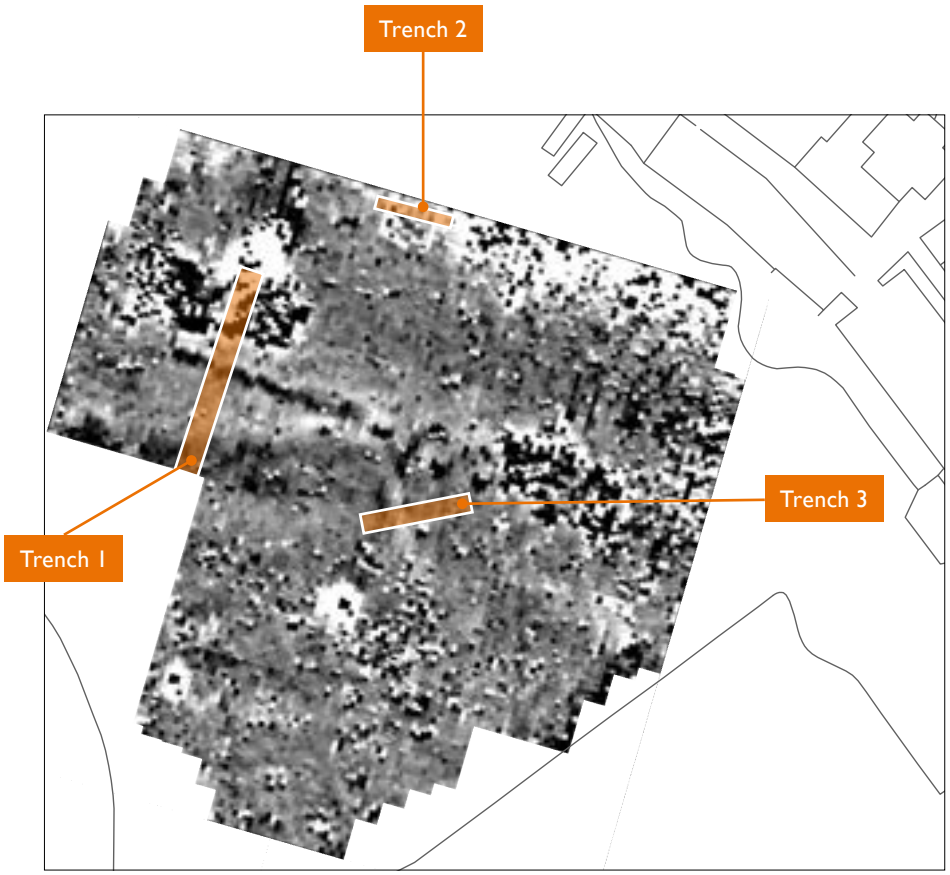
2015
Quay Meadow

The 2014 geophysical survey of Quay Meadow produced the most unexpected results. The site had never been previously investigated and was thought to be archaeological sterile. Early historic mapping of the area behind St George's Quay showed a largely featureless site except for the occasional field boundary, yet the survey revealed a number of anomalies some of which were likely to pre-date the Quay. From the late nineteenth century it is known that Quay Meadow was used for various sports, including rugby, whippet and greyhound racing and finally football. As discussed above, some of the anomalies clearly related to markings and levelling or re-turfing of two superimposed football pitches. Other anomalies, however, were likely to be archaeological or possibly geomorphological. Of potential archaeological interest were the east-west linear positive magnetic response and two negative magnetic responses – the rectilinear anomaly at the northern edge of the survey area and the north-south linear response in the centre of the survey area. All three anomalies were suggestive of structural features.

Discoveries: In September 2015 three trenches were opened to explore these anomalies and adjacent areas. The excavation was set up by the Beyond the Castle project, with the assistance of Dig Ventures, as a training dig for members of the newly created Lancaster and District Heritage Group and other volunteers.

A long, north-south trench (Trench 1) was sited either side of the east-west linear positive magnetic response interpreted as a wall or bank-like structure. The northern end of the trench was located over one of the discrete areas of magnetic material and low resistance thought to be spreads to level up and/or re-turf the football pitch. The southern end was designed to pick up one of the discretely positive responses interpreted as either archaeological or geomorphological.

A sondage in the middle of Trench 1, across the line of the linear response, revealed the cobble foundations and some facing of two east-west walls and three post-holes. The two walls were not parallel but diverged slightly. The core of the southern wall exhibited an integral post-hole. Two further post-holes lay to the north. The northern end of the trench revealed a large spread of clinker, the cause of the magnetic response, and two post-shoes set in concrete. A second sondage at the southern end of the trench cut across what was likely to be a geomorpholohgical feature. Here was found a good depth of alluvium, some natural and some possibly flood deposits.



The location of the three 2015 excavation trenches over the Magnetometry survey of Quay Meadow

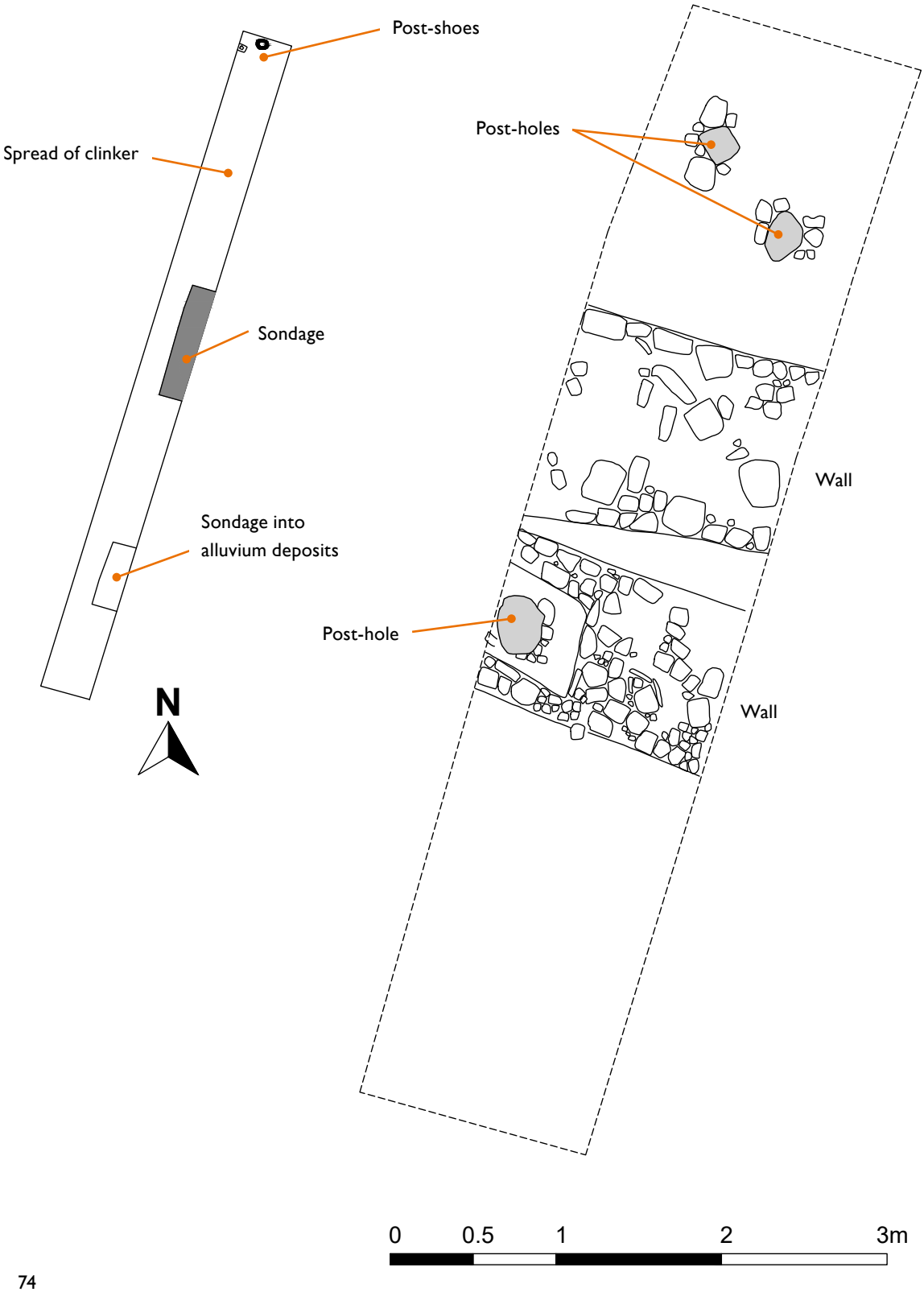
The 2015 excavations in Quay Meadow

An east-west section across the negative magnetic rectilinear anomaly at the northern edge of the survey area (Trench 2) revealed clay and cobble foundations and some facing of four parallel walls and seven post-holes. The magnetometry survey only identified the east and west walls of this structure and their return to form an incomplete south wall. Any northern return lay outside the survey area. The two inner walls were presumably not seen in the survey data because they were much narrower than the outer walls. The outer walls were 10m apart, while the inner walls were equidistant (1.25m) from the outer walls, and 3.5m apart. An unfinished section through the foundations of the western outer wall revealed at least six layers of clay and cobbles (0.65m deep). Fragments of stone paving were recovered from the central part of the structure, and some diamond-shaped slate roof tiles. The seven postholes formed two lines abutting the eastern outer wall.

A sondage within Trench 3 sectioned the north-south linear response in the centre of the survey area. Here was found the cambered cobbled substructure of a road, 3.22m wide. The top dressing of sacrificial metalling had eroded away. There was no evidence for road-side ditches.

BTC/LDHG

Plan of Quay Meadow's Trench 1 and sondages showing the principal features (shaded sondage detail shown on the right)



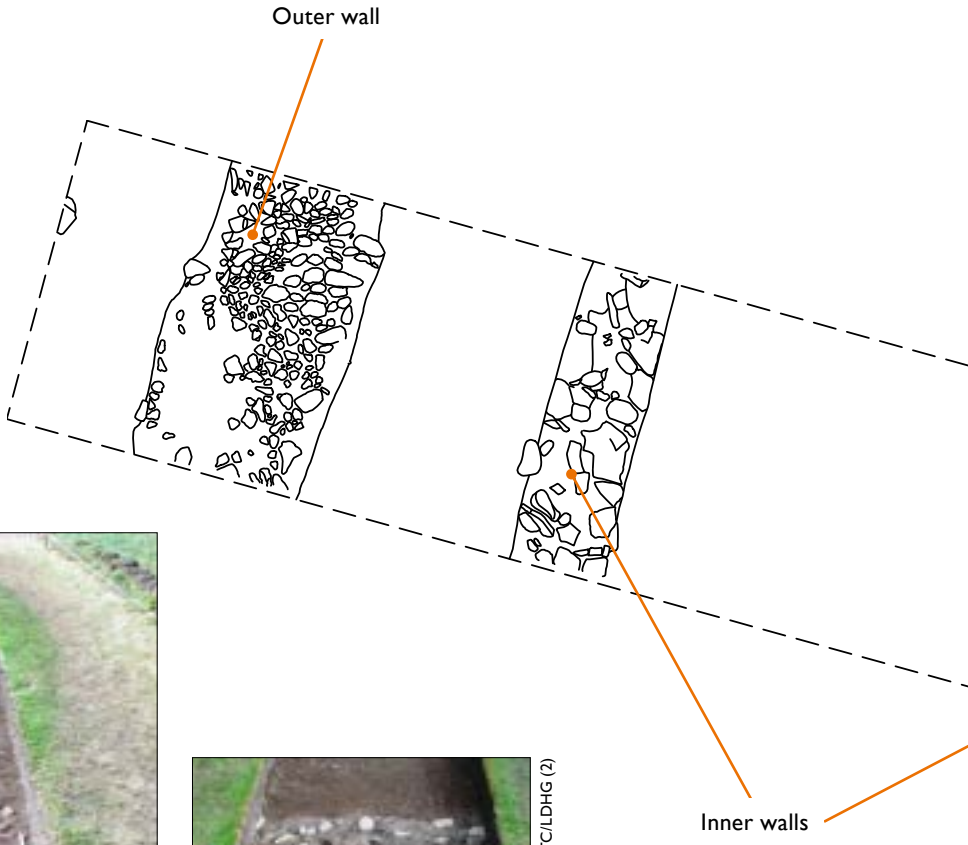
BTC/LDHG

Quay Meadow's Trench 1

BTC/LDHG

The two east-west walls, one with an integral post-hole

Plan of Quay Meadow's Trench 2 showing the principal features

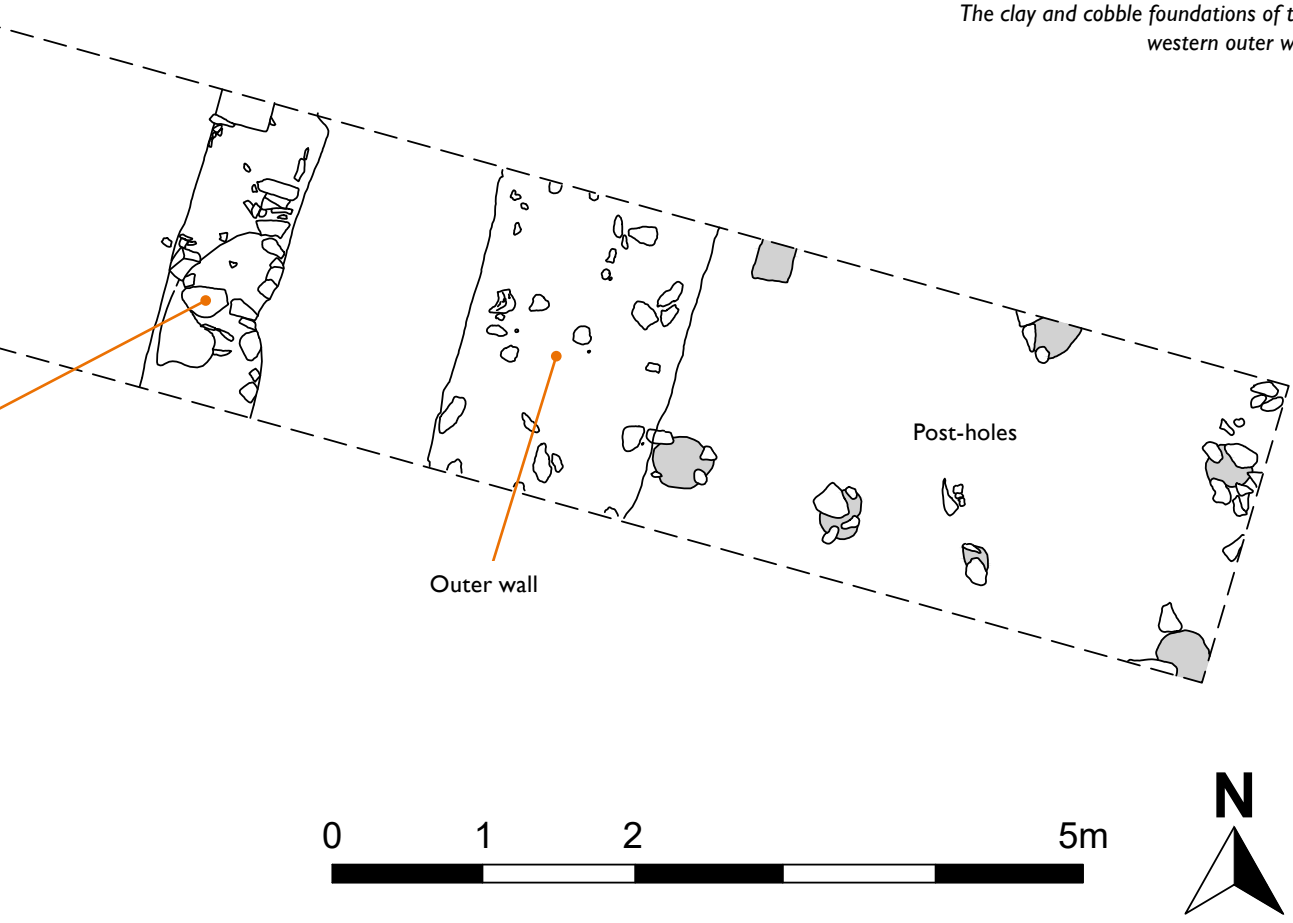


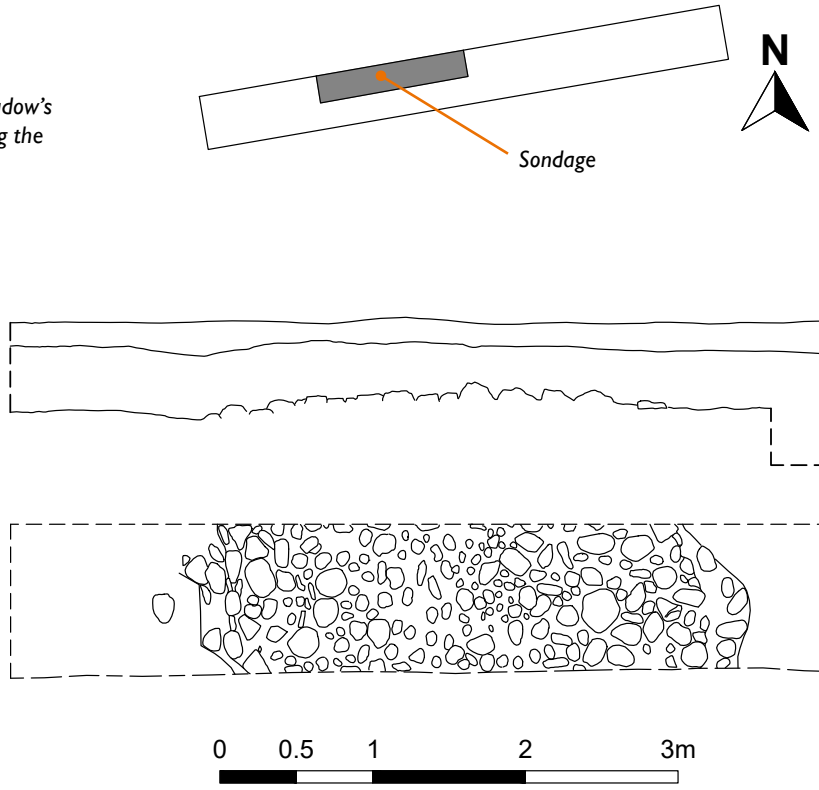
BTC/LDHG (2)

The foundations of the four parallel walls and two lines of post-holes

BTC/LDHG (2)

The clay and cobble foundations of the western outer wall





Plan and section of Quay Meadow's Trench 3 and sondage showing the Roman road

BTC/LDHG

The Roman road

Interpretation and dating: All three trenches revealed remains of Roman structures. The non-aligned wall foundations in Trench 1 indicated two phases of construction but no datable finds were associated with either the walls or the three post-holes. The wall with the integral post-hole might suggest a half-timbered structure. A similar construction style has been dated to the late second century elsewhere on the site (the second phase below the Courtyard Building – see above).

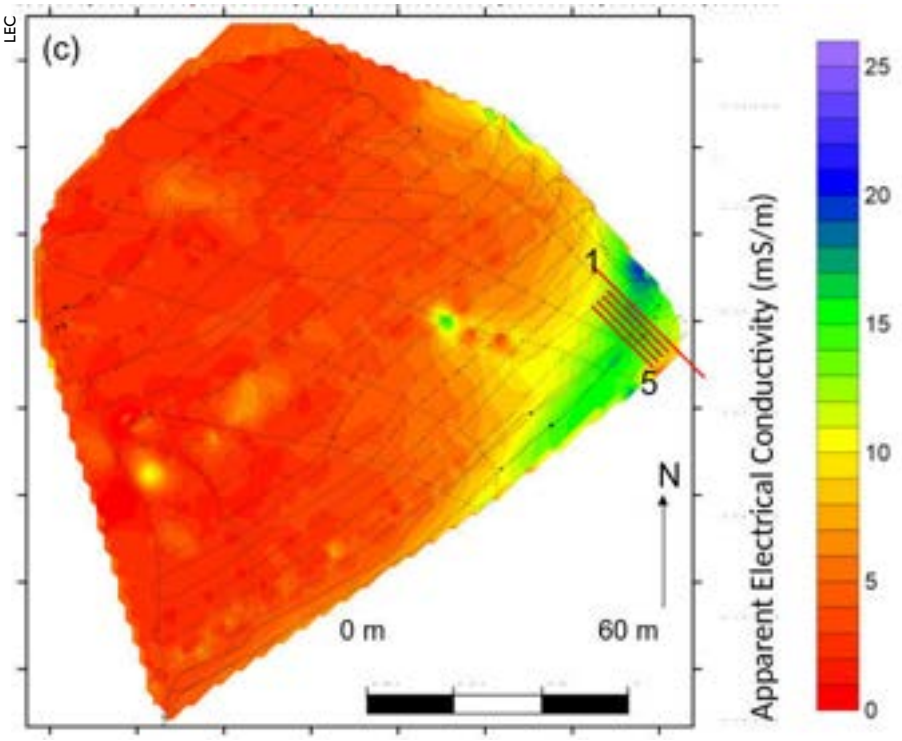
The arrangement and width of the foundations of the building in Trench 2 pointed to a stone structure with substantial outer supporting walls and narrower inner walls dividing a central space from aisles or corridors either side. Again no direct dating evidence was recovered. A very abraded decorated Samian pottery sherd dating to AD 80-110 was found against the internal edge of the eastern outer wall but its residual nature and the circumstances of its discovery (its precise context is unknown as it was found during cleaning for photography) means it cannot be relied upon for dating. A similar clay and cobble construction style has been dated to the third century elsewhere on the site (the Courtyard Building – see above). The fact that the four wall foundations do not appear to cut into the natural clay is suggestive of earlier deposits or buildings below. The two lines of post-holes could be evidence for an earlier building but they more likely belong to a later timber lean-to structure against the eastern outer wall.

Trench 2 was close to the tree line and break in slope at the northern edge of Quay Meadow. These are thought to mark the river edge before the present Quay was built on reclaimed land in the mid eighteenth century. The location of the riverfront in Roman times had been unknown but the surprising discovery of Trench 2's Roman building, just set back from the break in slope, strongly suggested that the river edge lay here. This also gave rise to hypotheses about the size and function of the building. Initially it was thought to be the southern end of a longer aisled building which invited interpretation as a waterfront warehouse or boathouse. Further geophysical survey, however, has led to a revision of this theory (see below).

Trench 3's cambered road also produced no dating evidence. The remains, however, are typical of Roman road construction. To judge from the magnetometry survey the road is heading up the slope straight for the corner of the Roman forts.

Across the site, the topsoil and subsoil contained a mix of post-medieval and modern pottery, metalwork, glass and clay pipes, with some residual Roman finds. Some of the post-medieval material is likely to have been deposited with manuring of the fields. The spreads of clinker used to create a level football pitch are probably residue from industrial activity nearby or derive from the railway. At least one of the two post-shoes set in concrete is on the touchline of the football pitch and is therefore thought to have once held a goalpost.

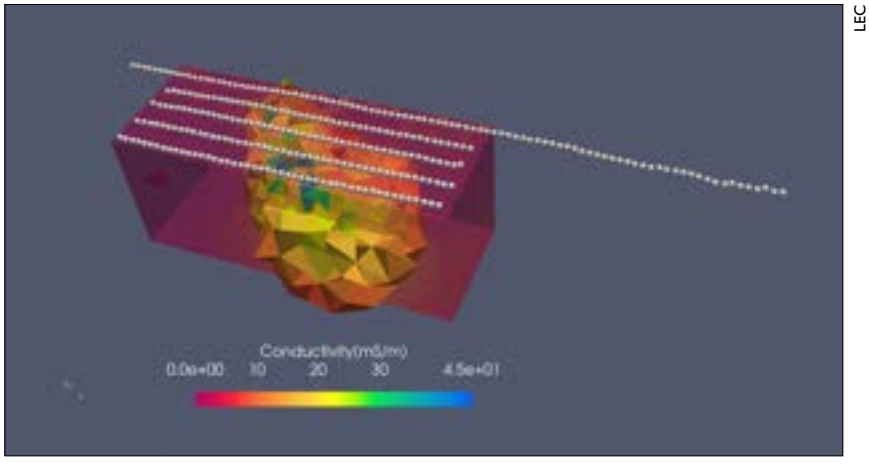
A selection of finds from the 2015 Quay Meadow excavation



EMI survey of Quay Meadow showing the anomaly at the eastern edge of the survey area and position of the 2D-ERT sections

EMI survey

GPR transect survey across the tree line and break in slope thought to mark the Roman riverfront



3D-ERT model of the suspected tidal inlet

2017-2020 geophysical surveys: In April 2017, October 2018, July and October 2019 and January 2020 Electromagnetic Induction, Electrical Resistivity Tomography and Ground Penetrating Radar were deployed on Quay Meadow. All revealed anomalies not identified in the 2014 Magnetometry survey.

The EMI survey revealed localised conductive anomalies in the centre and to the eastern edge of the survey area. The central anomalies correspond to the levelling and/or re-turfing of the football pitch but the eastern anomaly represents a new feature. To understand better this feature's full extent and depth, five 2D-ERT sections were surveyed across it in order to create a 3D-model. The feature is between 6-10m wide with its conductive centre at a depth of 3m. Also the anomaly was not polarisable so probably more saline. Its geometry, proximity to the remnant riverfront and material infill suggests a former hydraulic connectivity to the river. It would appear therefore to be a tidal inlet. How this inlet related to the Roman riverfront and how and whether it was used in the Roman period are unknown. Only excavation will tell. The alignment of the embanked track in Vicarage Field West would appear to lead to the inlet suggesting it was probably open and used in medieval times. The inlet must have been infilled either before or as a result of the creation of St George's Quay.

North-west of the inlet, twenty-seven GPR transects were surveyed across the tree line and break in slope that are thought to mark the suspected Roman riverfront. Despite the disturbance caused by tree roots the survey indicates the presence of a possible retaining wall and hard standing.

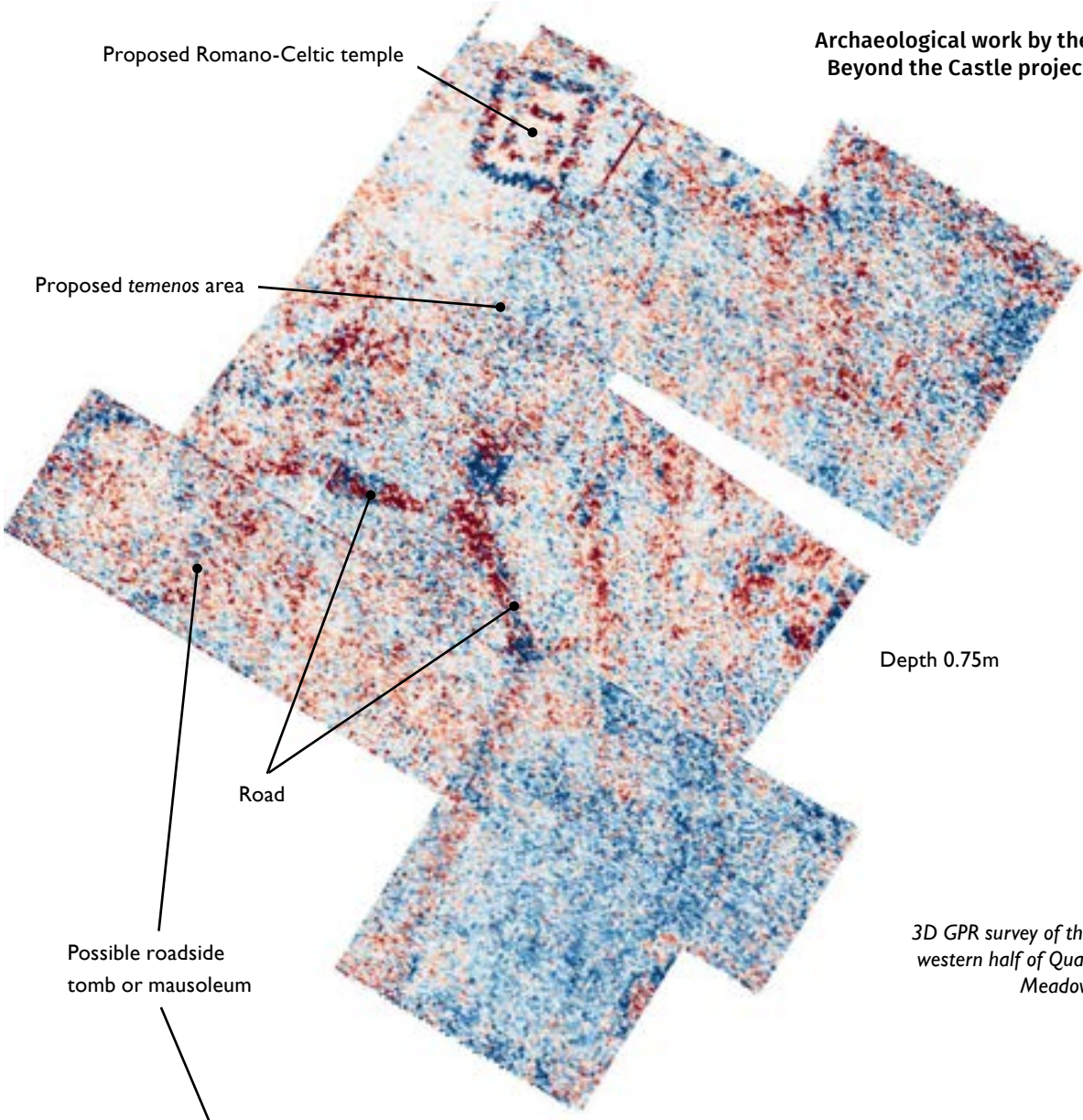
The western half of Quay Meadow, specifically the area between Trenches 1, 2 and 3, was submitted to a full 3D GPR survey, including high frequency GPR to obtain greater resolution over the site of the Roman building in Trench 2. The survey produced some unexpected and significant results.

The northern return of the outer wall of Trench 2's building was located proving that the structure was not long and aisled as first interpreted, but was in fact square. Moreover, the plan of inner walls could now be traced demonstrating that they too clearly formed a square within the outer walls. This concentric arrangement is typical of the plan of a Romano-Celtic temple.

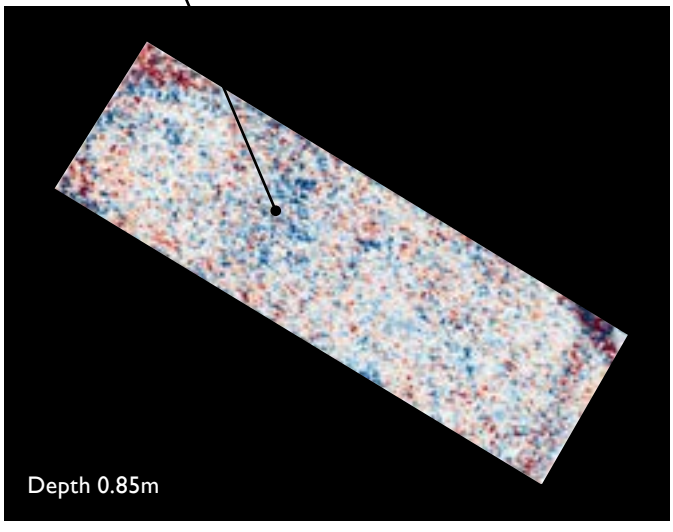
TYPES OF ROMANO-CELTIC TEMPLE

Three kinds of Romano-Celtic temple are known in Britain. Type I consists of a square tower-like shrine (*cella*) with clerestory lighting surrounded on all sides by a lower enclosed ambulatory or open portico; Type II has an all-over roof; and Type III is an open *cella* surrounded by a roofed ambulatory or portico. So, in all types, the inner walls enclosed the *cella* while the outer walls surrounded the ambulatory or open portico.

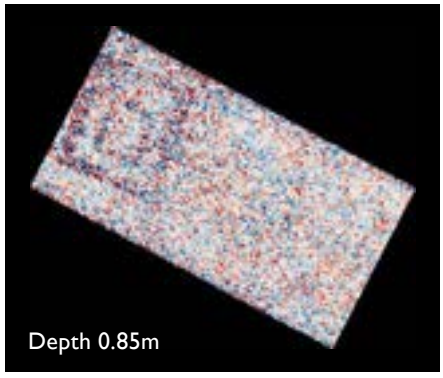
LEC



3D GPR survey of the western half of Quay Meadow



3D GPR survey over the site of the possible roadside tomb or mausoleum

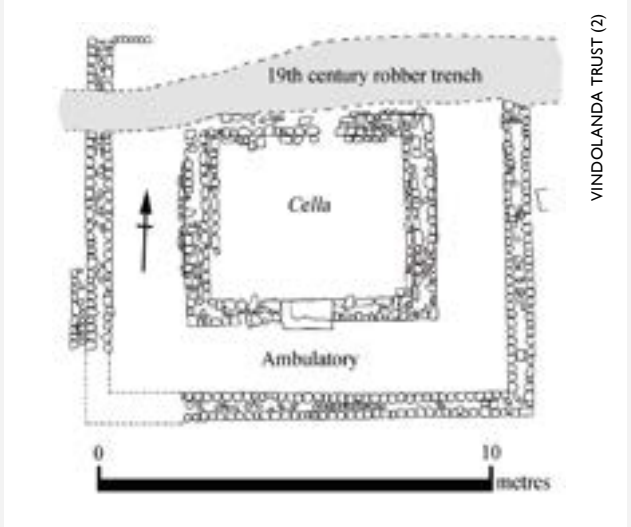


High frequency 3D GPR survey over the site of the proposed Romano-Celtic temple

LEC (3)

ROMANO-CELTIC TEMPLES IN BRITAIN

Romano-Celtic temples are by far the most frequently occurring type of temple in Roman Britain. Their distribution, however, is almost exclusively in the southern half of the province. Only one other definite Romano-Celtic temple has been found in the north, at Vindolanda near Hadrian's Wall, although another has been tentatively interpreted in the *vicus* at Manchester. Assuming the interpretation of the building on Quay Meadow as a Romano-Celtic temple is correct, then the example in Lancaster becomes only the second to be definitively identified in the whole of northern part of the province.



VINDOLANDA TRUST (2)

The Romano-Celtic temple at Vindolanda near Hadrian's Wall

WHAT IS A *TEMENOS*?

Romano-Celtic temples did not stand alone; at the very least they had precinct walls to demarcate a sacred enclosure (*temenos*). The temple building invariably faced east and was the focus of the site, although it did not necessarily occupy a central position in the *temenos*. There could also be more than one temple. Access to the *cella*, where the deity lived, was restricted to priests; access to the ambulatory was restricted to small groups of family or friends for private acts of worship. Many rites in Celtic religion, however, were performed in the open air, so in front of the temple there were altars for sacrifices and other 'furniture' such as columns, statues, screens, arches, sacred bushes and trees. Some *temenoi* enclosed other buildings, often substantial and built in materials and styles similar to those of the temple. These are generally interpreted as priests' houses, shops or guest houses for visitors and sometimes hospital-like buildings for those seeking cures.

The foundations of the inner walls are much narrower than the outer walls. This would seem to rule out the Type I arrangement as thicker walls would have been required for a tower-like *cella*. It appears, therefore, that the inner walls supported no more than a screen partition or perhaps columns while the outer walls carried the roof – ie a Type II or possibly a Type III temple. It also makes it likely that the outer walls were solid, probably pierced by windows, and enclosed an ambulatory rather than an open portico.

Also, it is now thought that some of the features in Quay Meadow, identified from both excavation and the subsequent geophysical survey, relate to a *temenos*. The first candidate is the wall with the integral post-hole in Trench 1 and its continuation eastwards as a linear positively magnetic response. The wall and anomaly lie some 30m from the proposed temple and their east-west alignment matches that of the temple. This would seem a good contender for a precinct wall demarcating the southern limit of the *temenos*. This suggestion is backed up by the GPR results which show the wall continuing further east and beyond the line of the cambered road seen in Trench 3. The road itself shows up very clearly in the GPR data. South of the trench it continues its course up the slope but north of the trench the road turns westwards through an obtuse angle and carries on parallel to the postulated precinct wall. A narrower spur at this turning continues north and crosses the line of the precinct wall. This strongly indicates that an entrance to the precinct lay here. The northern limit of the precinct was presumably the riverfront itself; the eastern and western limits presumably lie outside the survey area. Within the precinct the GPR survey revealed traces of other buildings and structures. East of the proposed temple there is a linear feature behind the riverfront and between this and the temple possibly the rear of structures but the data is obscured by later disturbance, as also seen in the Magnetometry survey. Parts of other buildings are discernible in the area south-west of the temple, close to the proposed southern precinct wall, but again definition is lacking. The northern of the two walls excavated in Trench 1 and its associated post-holes may relate to these buildings. Outside the proposed precinct wall, west of the road turning and slightly set back from the road's southern side, is what appears to be a solid square structure. Its shape and location are suggestive of a roadside tomb or mausoleum.

Post-2000 vertical aerial photograph showing the hexagonal parch mark and the same feature on Jonathan Binns' Map of the Town and Castle of Lancaster *(1821)*

Finally, just outside the survey area, a parch mark on a post-2000 vertical aerial photograph shows what appears to be a solid hexagonal feature at the western edge of Quay Meadow close to the tidal inlet and the end of the embanked track. The same feature is depicted on Jonathan Binns' *Map of the Town and Castle of Lancaster* (1821) but is otherwise absent from the historical record. This could of course be a relatively modern feature, but if it is Roman then it could also be a tomb or mausoleum or even, if it proves to be within the confines of the *temenos*, another temple or shrine analogous to the hexagonal example recently found at Meonstoke, Hampshire. If, however, the feature lay outside the *temenos*, and is not a tomb or mausoleum, then there is the intriguing possibility that it could be a lighthouse or *pharos*, similar in shape and size to that at Dover Castle.

This theory reopens discussion about the location of the Roman military port or harbour. It was originally postulated that the Trench 2 building was a waterfront warehouse or boathouse. This gave rise to the idea of a port or harbour in this area. The existence of a port or harbour is still suspected but in light of the re-interpretation of the Quay Meadow remains as a probable temple and *temenos*, the position of a port or harbour must be looked for elsewhere. The area around and to the east of the tidal inlet is one possibility, especially if the hexagonal feature proves to be a *pharos*. This location is closer to the site of the Roman forts and the likely bridging point over the river. There is also anecdotal evidence from the 1930s that part of a Roman wharf was found during construction work on what is now the Lune Square apartments on Damside Street. Against this idea, however, is the relative small size of the area and its closeness to the tidal limit of navigation. Another equally plausible candidate is to the west of the temple and *temenos* on the Luneside East site or further downstream. Again there is only anecdotal evidence, this time for the discovery of boat timbers during the recent development of Luneside East. This location would make sense as the destination of the westbound Roman road that skirts the temple precinct's southern wall. It is of course possible that both these sites were used as ports or harbours at different times during the Roman period.


PISCARI
OSTREA

New archaeology, new stories

New archaeology, new stories

The following discussion builds on previous narratives for early Roman, late Roman and post-Roman Lancaster (see Further reading). It provides a new narrative and revised timeline based on the latest discoveries and ideas emerging as a direct consequence of the survey and excavation results, and re-interrogation of earlier work, undertaken to date by the Beyond the Castle project.

The focus again is on Castle Hill and the successive Roman forts and their related military structures. The new evidence, however, for a probable Romano-Celtic temple and *temenos* invites broader discussion. To complete the picture mention will also be made of the Roman civilian settlement (*vicus*) and its cemetery, even though there have been even less sporadic opportunities to excavate these.

For the early Roman period discussion will include brief descriptions of Forts 1 and 2 and their garrisons, the military bathhouse and the growing evidence for annexes or militarised zones, the Courtyard Building and its association with a suspected military port or harbour, the proposed Romano-Celtic temple and *temenos* and its connection to the fort, and passing references to the bridge over the river, the *vicus* and its cemetery. For the late Roman period discussion will focus on Fort 3 and the Wery Wall, the likely location of a military port or harbour and the fate of the Romano-Celtic temple and *temenos*. Finally, for the post-Roman period, there is a short discussion regarding the pre-Conquest monastery or minster and Priory precinct, and some thoughts on the origins of the Castle.

STEVE SOUTHERN (3)

Fort 1 computer models

Early Roman

Fort 1

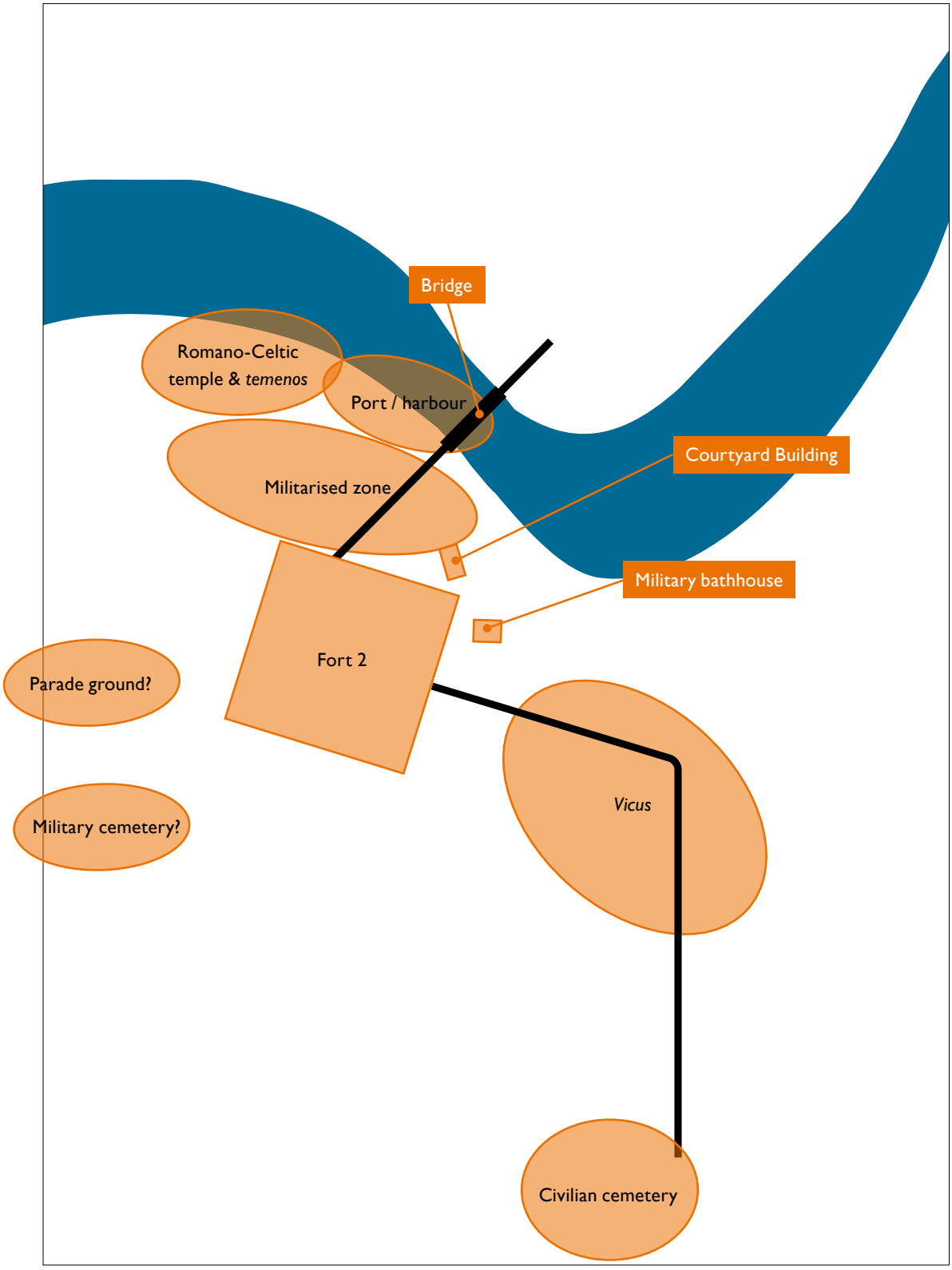
A first-century turf-and-timber auxiliary fort was established on Castle Hill, very probably between AD 71 and 74. The fort, of the conventional playing-card shape, occupied about 2.25 hectares and was draped astride the crown of the hilltop taking full advantage of the natural sloping ground. The defences included four gates and a series of towers mounted on the ramparts, the whole perimeter surrounded by ditches. Internal structures would have included a headquarters building (*principia*), commandant's house (*praetorium*), granaries, stable-barracks, etc. The garrison was evidently a cavalry unit, the *Ala Augusta Gallorum Proculeiana*, comprising a substantial number of horsemen recruited from the tribe of the Treveri who lived around Trier in modern Germany. The horse and rider or 'Reiter' memorial stone to Insus, found in 2005, was from this unit.

Bridge and *vicus*

A ford or timber bridge over the river was probably located north of the fort's north gate or possibly further east. No remains have been found. In all likelihood, a small *vicus* or civilian settlement grew up outside the fort's east gate.

ROSS TRENCH-JELLICOE / LANCASTER CITY COUNCIL

The horse and rider memorial stone in honour of Insus from the Ala Augusta Gallorum Proculeiana*, found in 2005*



A schematic plan of Roman Lancaster in the second and third centuries

Early Roman

Fort 2

A very large late first/early second-century auxiliary fort was built over the site of Fort 1. The fort appears to have been square in shape, occupying about 4 hectares and was one of the biggest of its kind in Roman Britain. Initially of turf-and-timber, it was subsequently partially rebuilt in stone after a short period of abandonment. It probably had a similar layout to Fort 1 but was perhaps re-orientated through 90 degrees, including many more stable-barracks and even a cavalry training hall (*basilica equestris exercitatoria*) attested in the inscription dated to about AD 266. In the second and third centuries the garrison was evidently another Gallic cavalry unit, the *Ala Gallorum Sebosiana*. Because of the large size of the fort, it could have held a double garrison – the *Ala* and perhaps a naval unit of bargemen, the *Numerus Barcariorum*.

Military bathhouse

A stone-built military bathhouse stood outside the eastern rampart to the north of the east gate. It underwent at least two phases of construction, one probably being the refurbishment attested in the inscription dated to about AD 266.

Bridge and militarised zone

The bridge is likely to have been rebuilt in stone and a militarised zone probably lay outside the fort to the north and west, perhaps undefended but demarcated by ditches. The area between the fort and the river/bridge appears to have been occupied by an increasing number of buildings, first in timber from the second century and later in stone from the third century, like the Courtyard Building (see below).

*The Roman altar found in 1797 dedicated by Lucius Vibenius, a high-ranking officer (*beneficiarius consularis*)*

Early Roman

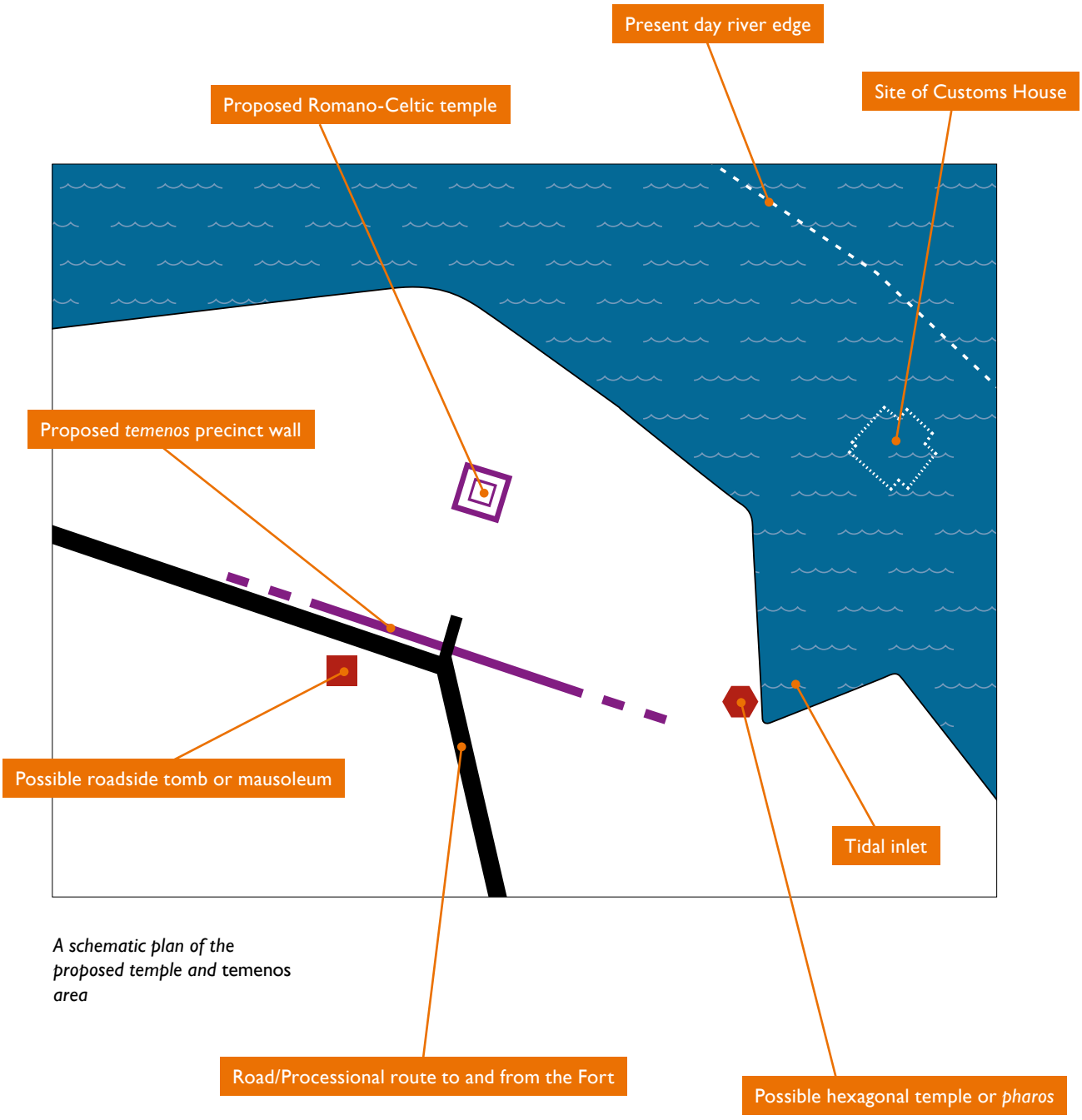
Courtyard Building

On the eastern edge of this militarised zone was a substantial stone Courtyard Building containing a baths suite. In scale the building occupied almost the same-sized footprint as the Priory Church. Built in the third century on the site of second-century timber predecessors, its alignment differed significantly from the line of the fort defences. This grand and unusual structure was sited close to the edge of the slope overlooking the river/bridge and very close to fort's north-west corner, yet it appears essentially civilian in character. What was its function and relationship to the fort? Given its location in a militarised zone and away from the *vicus* further east, it is tempting to see this as a quasi-military building, perhaps a *mansio* or official inn for use by visiting senior military or civilian personnel, or even the retirement home of a previous commander. Intriguingly, an altar found in 1797 inside the fort area (and now in the Castle) records the presence in Lancaster at this time of Lucius Vibenius, a high-ranking officer (*beneficiarius consularis*) out-posted from the provincial governor's staff, probably to serve as a tax collector or customs officer for a military port (see below). Was the Courtyard Building his official residence?

Military port or harbour

It is well known that medieval and post-medieval Lancaster flourished as a trading port. There is now growing evidence to indicate that this maritime function existed in Roman times, and that Roman troops, visiting officials and supplies were just as likely to arrive in and depart from Lancaster by sea as by road. Logically, evidence for a military port or harbour must be looked for downstream from the bridge. Initially it is tempting to see a port being developed on the riverfront to the north and north-east of the fort and close to the bridge. The location of the Courtyard Building, and its suggested use as the residence of a customs officer, might strengthen this idea, as would the tidal inlet and identification of the hexagonal feature as a *pharos*.

Lancaster may also be the site of *Portus Setantiorum* (Port of the *Setantii*) recorded in the second-century *Geographia of Ptolemy* and supposedly on the north-west coast. The precise location of *Portus Setantiorum* has never been found and has been the subject of some debate. Lancaster, at the head of the sheltered Lune estuary, could be a contender but the idea has its detractors. If the identification with the location of *Portus Setantiorum* is correct, then the port or harbour facilities must have been of a substantial size by the second century to be mentioned by Ptolemy.



A schematic plan of the proposed temple and temenos *area*

Early Roman

Romano-Celtic temple and *temenos*

There is now evidence for a riverside Romano-Celtic temple, and possibly a second hexagonal temple or shrine, within a *temenos*. This sacred space contained other structures likely to be associated with religious activities and hospitality and was enclosed by a precinct wall pierced by a road leading to and from the site of the fort. Close to this, outside the *temenos*, lies at least one suspected road-side tomb or mausoleum.

The choice of a liminal location, between water and land and it would seem between elite burials and occupation, must have been deliberate. Though relatively close to the fort, and witnessing the frequent passage of people entering and leaving the militarised zone and port or harbour, this was a distinctly 'religious' zone, spatially defined and differentiated, but linked by the road which presumably served as a processional route or sacred way, especially during specific festivals, rituals and funerary rites.

Vicus

The *vicus* continued to develop along what are now Church Street, Cheapside and Penny Street. Its full extent and course of its development are unknown but excavations off Church Street have revealed evidence for multi-phase timber and stone buildings

Cemetery

A Roman cemetery lay to the south of the *vicus* around the southern ends of what are now Penny Street and King Street. There is some evidence that the cemetery expanded northwards suggesting it was initially well beyond the accepted edge of the civilian settlement, and certainly at some distance from the fort.

The late Roman shore fort at Portchester Castle

Late Roman

Fort 3

A very large fourth-century shore fort was built in stone over the site of Forts 1 and 2, almost certainly re-using much of Fort 2's stonework. Based on the geophysical survey and excavation in Vicarage Field West, this is now suspected to be square in shape with 4m-wide walls and projecting towers and occupying an area possibly in excess of 4 hectares. The fort's internal arrangements are unknown. The garrison (probably the sole garrison) at this period was the *Numerus Barcariorum*.

Lancaster was part of a chain of late Roman shore forts built around the coast of Britain (and in northern France/Belgium). Initially, from the late third century, these forts were sited along Britain's east coast and on both sides of the Channel, and formed the *Litus Saxonicum* (or 'Saxon' Shore); Portchester Castle in Hampshire is probably the best-preserved example. During the fourth century, the chain was extended to the west coast, forming a hypothetical *Litus Hibernicum*. Lancaster, together with Cardiff Castle and the much smaller Caer Gybi (Holyhead), appear to be part of this later system. Lancaster's Fort 3 corresponds very closely to the shore fort at Cardiff.

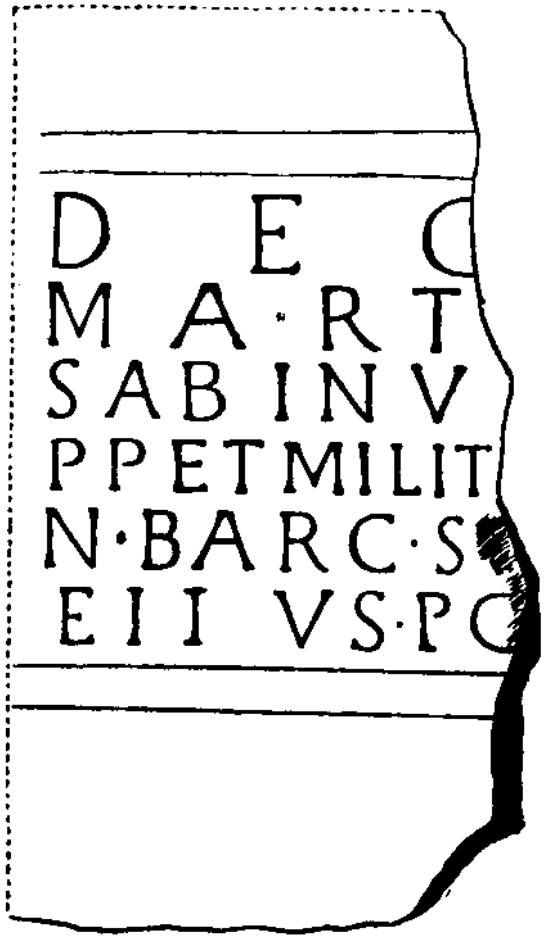
The Wery Wall, built over the site of the Courtyard Building's baths suite, has been long thought to represent the remnants of a projecting tower at the north-east corner of a late Roman shore fort. The previous consensus was that the shore fort was smaller than Fort 2, of irregular shape and differently aligned, and intended to face a port or harbour to the east. The evidence, however, is questionable.

A review of the published evidence casts doubt on the postulated alignments of the shore fort's north wall and that of its southern counterpart. There is the question of the uncertain relationship of the ditch beside the Wery Wall and the lack of collaborative evidence for the alignment of the south wall. In any case, topographically and militarily these supposed walls make no sense as they ignore the natural contours of the hilltop cutting diagonally across the line of the slope. Their eastward extension as far as the river would have caused an unreasonably large area of the *vicus* to have been levelled. They leave no trace in the landscape and have no effect on later property boundaries (unlike the earlier forts and *vicus*) and are absent from cartographic and other pictorial sources (again unlike the earlier forts). Moreover, early written accounts of the Wery Wall, particularly by the antiquarians William Stukeley and Father Thomas West in the eighteenth century when a greater part of it survived, describe the remains as having purportedly taken in the whole circuit of the hilltop and later served as a boundary to the north of and below the Priory Church. These descriptions do not fit well with an irregular and smaller plan. Furthermore, it is now thought that the port or harbour lay to the north or west of the fort, sensibly downstream of the bridge, rather than to the east, which makes the proposed plan even less plausible.

While the Wery Wall remains to be explained, it is much more likely that Fort 3 simply reclaimed the site and shape of Fort 2, albeit on a slightly expanded scale.

JOE WITCOMBE

A reconstructed Mainz-type lusoria *or troop carrier similar to the vessels probably used by the bargemen*



An inscription recording the unit of Numerus Barcariorum *found at Halton Hall*

Late Roman

Military port or harbour

The presence in the fourth century, if not before, of the *Numerus Barcariorum* unit of bargemen (in effect, marines), and the construction of the late Roman shore fort, are indicative of the growing importance of coastal defence and maritime communication. Both presuppose the existence of a naval installation of some significance, with perhaps berthing facilities for warships as well as the fast, shallow-draft sailing vessels favoured by the bargemen. In Lancaster's case, the original Roman port or harbour, perhaps located north of the fort, may have been expanded. If so, then expansion westwards was the likeliest option, assuming that the temple and *temenos* had by now gone out of use (but see below). A site further downstream, west of the temple and *temenos*, is a conceivable alternative offering a straight stretch of river frontage accessible by the westbound road.

A late Roman port or harbour at Lancaster has been identified by some authorities with the site of *Olenacum*, recorded in the *Notitia Dignitatum* which lists units in the Roman army and officials as they existed around the start of the fifth century. If so, then another cavalry unit, the *Ala Herculea*, must have been in garrison in the fourth century. This identification, however, is now thought to be incorrect.

Romano-Celtic temple and *temenos*

It is not known whether the Romano-Celtic temple and *temenos* were still active in the fourth century. Even though Christianity had begun its transition to the dominant religion of the Roman Empire, it was not officially recognised until AD 380. Having said that, only a few Romano-Celtic temples in Britain show evidence of use after AD 350.

Re-imagining Roman Lancaster

The obvious geographical and strategic advantages offered by the elevated site at the lowest bridging point and tidal limit of a navigable river were significant reasons for the long duration of the military presence in Lancaster. Compared to the area occupied by the successive forts, militarised zone and port or harbour, the *vicus* appears relatively small. Very few stone buildings have been identified as civilian in character as opposed to those with a military or quasi-military function. Moreover, the basic simplicity of the cemetery and paucity of grave goods perhaps indicate a low-status civilian population.

It would seem therefore that Roman Lancaster was fundamentally a military concern rather than civilian. To judge by the longevity of Roman occupation, the unusually large size of Forts 2 and 3 and the emerging evidence for a maritime function, Lancaster probably had a wider, regional significance, certainly by the late Roman period if not before. In essence, it appears to have been a garrison town and base for naval operations and supply – the Roman equivalent of say modern-day Catterick or Devonport – and presumably a very important command between Chester and Hadrian's Wall.

Post-Roman

Pre-Conquest monastery or minster and Priory precinct

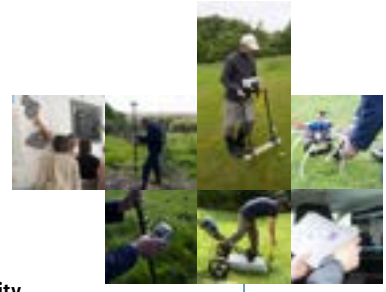
The suspected corner of Fort 3 lies partially under later earthworks on the north side of Vicarage Field West. As the topographical survey demonstrated, these earthworks form a slightly obtuse corner close to the embanked track. They may relate to the unnamed pre-Conquest monastic settlement thought to have occupied site of the Priory Church at some date between the seventh and ninth centuries. Or, more likely, they were associated with landscape remodelling to create the Priory's precinct wall after the Norman invasion.

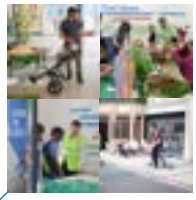
Origins of the Castle

The idea of a large square late Roman shore fort occupying virtually the whole of Castle Hill is intriguing. It may help to explain not only the location of the pre-Conquest monastery or minster but also the origins of the Castle itself. The fort's presence combined with the site's good communications would have made Lancaster a likely location as an ecclesiastical and political 'central place' in the immediate post-Roman era; its symbolism would have helped to legitimate religious and political authority up to and during Norman times.

Lancaster's first castle, built in the late eleventh century, was almost certainly of earth-and-timber construction. The Normans sought strategic locations on which to erect their castles – all the better if they could simply take advantage of existing defences and appropriate traditional places of power. Lancaster offered both a strategic hilltop and, if the theory holds, the standing remains of a Roman square wall circuit. It was here then that Lancaster's first castle was built; a situation mirrored again at Cardiff and Portchester, where medieval castles still survive and late Roman walls were retained as outer defences. At Lancaster, it appears that an outer defence was deemed unnecessary. Once the decision was made to rebuild the castle in stone in the early twelfth century, presumably on or very close to the site of its earth-and-timber predecessor, the Roman walls would have provided a ready source of material. Those parts of the circuit not systematically dismantled at this time might have been repurposed as an element of the Priory's northern precinct wall, some of which survived to be seen by Stukeley and West in the eighteenth century.

Community engagement and outreach





2012
PROUD Project at Lancaster University

Engaging 900 citizens in co-designing a vision for the future of the Castle Hill site.

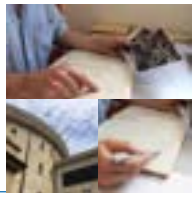
Geophysical Survey

A comprehensive archaeological survey around Lancaster Castle.

Popup Shop in the City Centre

Sharing the story of the project as it emerges, inviting people to be a part of it. Nurturing a vibrant online community, inviting interaction, interpretation and insight.

2014



Summer Programme of Planting, Landscaping, Training, Walks and Talks

Providing a safer, more usable space right in the heart of the city and giving people the knowledge and skills to maintain the site.

Research at the Sackler Library, Oxford

Publishing archival material through social media and crowdsourcing interpretations.

Landscape Management

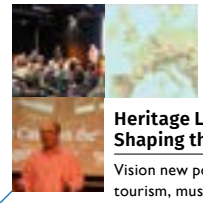
Drawing local citizens into the long term planning and management.

2015

HackLancaster

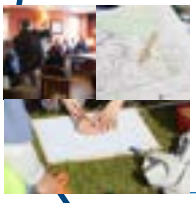
Engaging local people in working with archaeological data and creating new ways to understand and explore it.

Working with artists and technologists to bring emerging ideas to life.



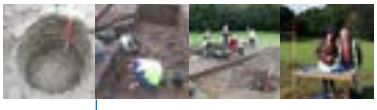
Heritage Lancaster Shaping the Future

Vision new possibilities for tourism, museums and public learning with experts and citizens.



Quay Meadow Excavation

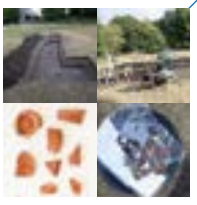
Working with a community group to ground-truth geophysical survey data. Funded by the Duchy of Lancaster.



Crowd-funded Well Excavation

Exploring new business models linking the current history of Lancaster with the process of discovery.

2016

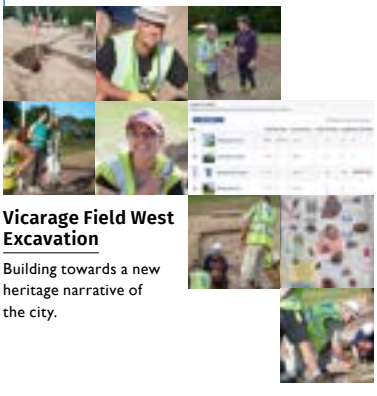


Vicarage Field East Excavation

Reopening trenches first excavated by Sir Ian Richmond in the 1960s.

European Association of Archaeologists Conference

Chairing a conference session to share innovation, learning and expertise with practitioner and academic audiences.



Vicarage Field West Excavation

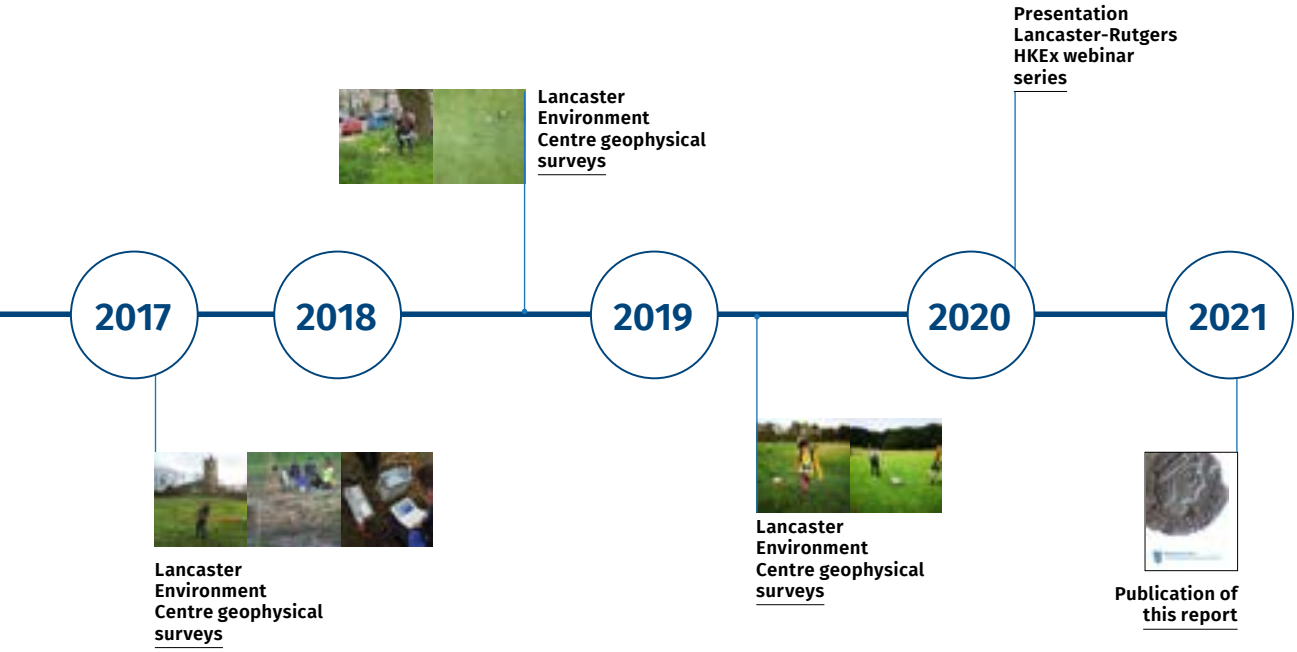
Building towards a new heritage narrative of the city.

Community engagement and outreach

The Beyond the Castle project has engaged in an extensive programme of community mobilisation, staging lively events and exhibitions, developing new narratives and publishing digital archives and videos that reached out to national and international audiences, growing an online community through social media, supporting citizen-led interest groups and using crowd-funding to enable new work.

The innovative approach across all facets of the project, but especially through the archaeological work, has achieved real success with the Beyond the Castle team presenting at international conferences, garnering media coverage on local radio, national television and in the national press, attracting volunteers from Europe and beyond, and receiving the firm endorsement of leading academics and specialists.

From the outset, this was a project that deeply engaged local people and sought to communicate with them in real time, bringing together professional archaeologists and the public, sharing data at regular meetings and events, inviting participation in a range of activities and specifically providing training in archaeological excavation and other techniques. This innovative work has resulted in a growing community invested in the site and made the process of archaeological discovery something anyone can participate in.









HACK







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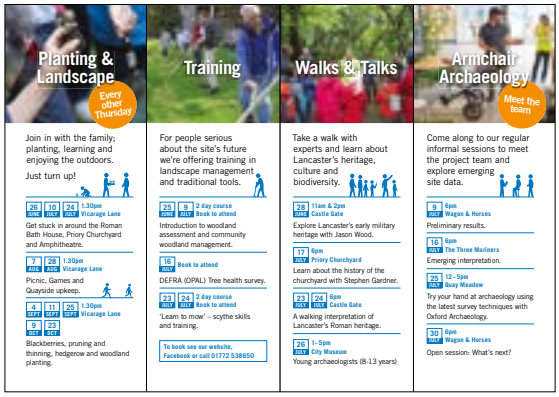
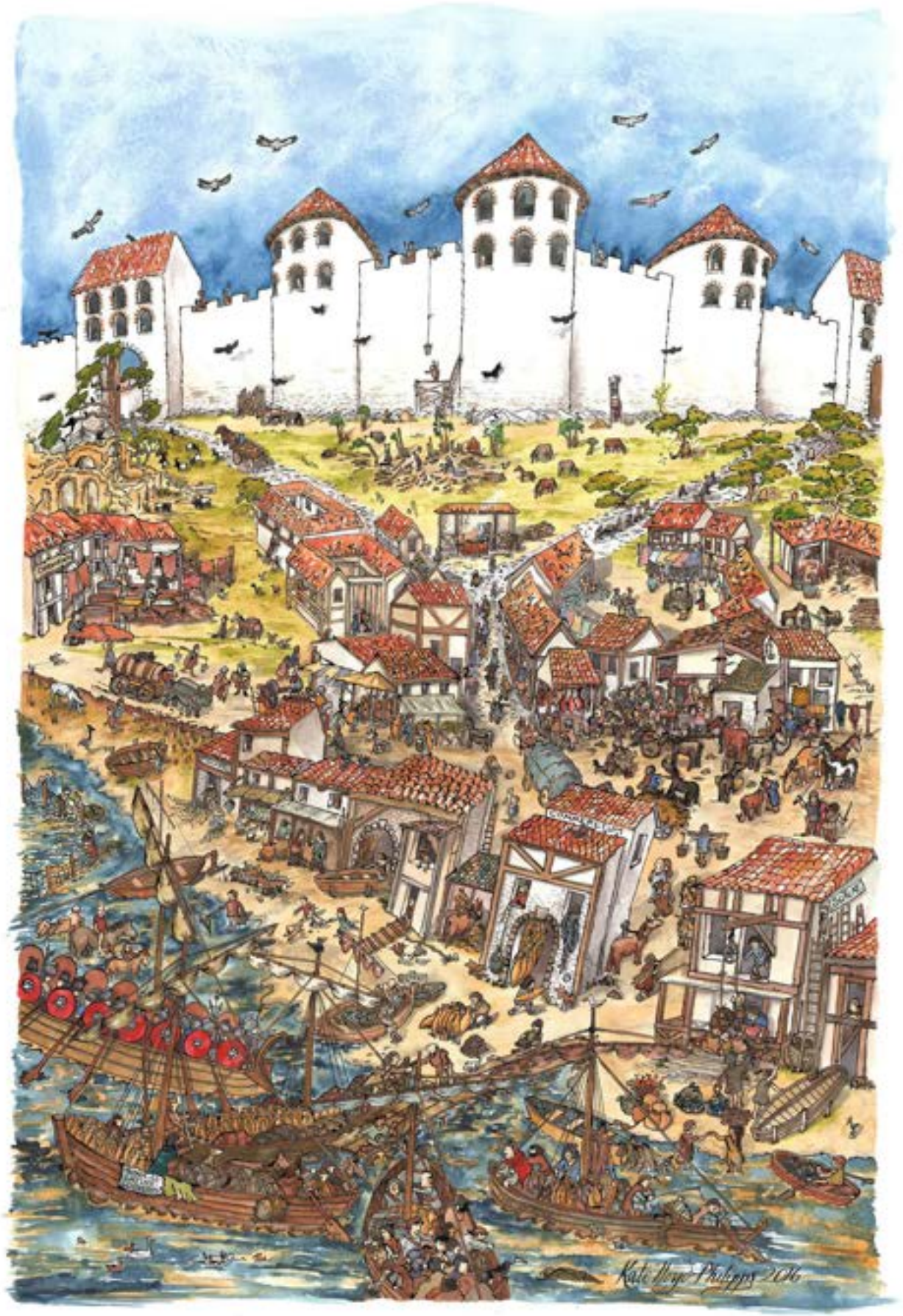
What
will
we
find?


At the beginning of the project in June 2014, over 1000 people dropped in to a popup shop in St Nicholas Arcade to learn about the project and ambitions for the future. Throughout the summer and autumn of 2014 a variety of guided tours of the site attracted residents and visitors alike. School visits for Key Stage 2 pupils (aged 7-11) were particularly popular as Lancaster's Roman heritage is a valuable resource for National Curriculum programmes of study and offers a diversity of learning opportunities.

During the Quay Meadow excavations in September 2015, Dig Ventures undertook an audience evaluation survey that revealed huge support for community-based archaeology and opportunities to mobilise latent interest among local people. In May/June 2016, over 2000 people visited the two-week excavation in Vicarage Field West. Over 50 volunteers from the local community, but also from elsewhere in the UK and as far away as Canada and the USA, took part in the dig. The excavation also attracted extensive television and other media exposure, including live broadcasts during the BBC Breakfast programme. The follow up week-long excavation of the well area in October 2016 was made possible through local sponsorship and a crowd-funding campaign hosted by Dig Ventures.



Some of the event brochures produced by the Beyond the Castle project



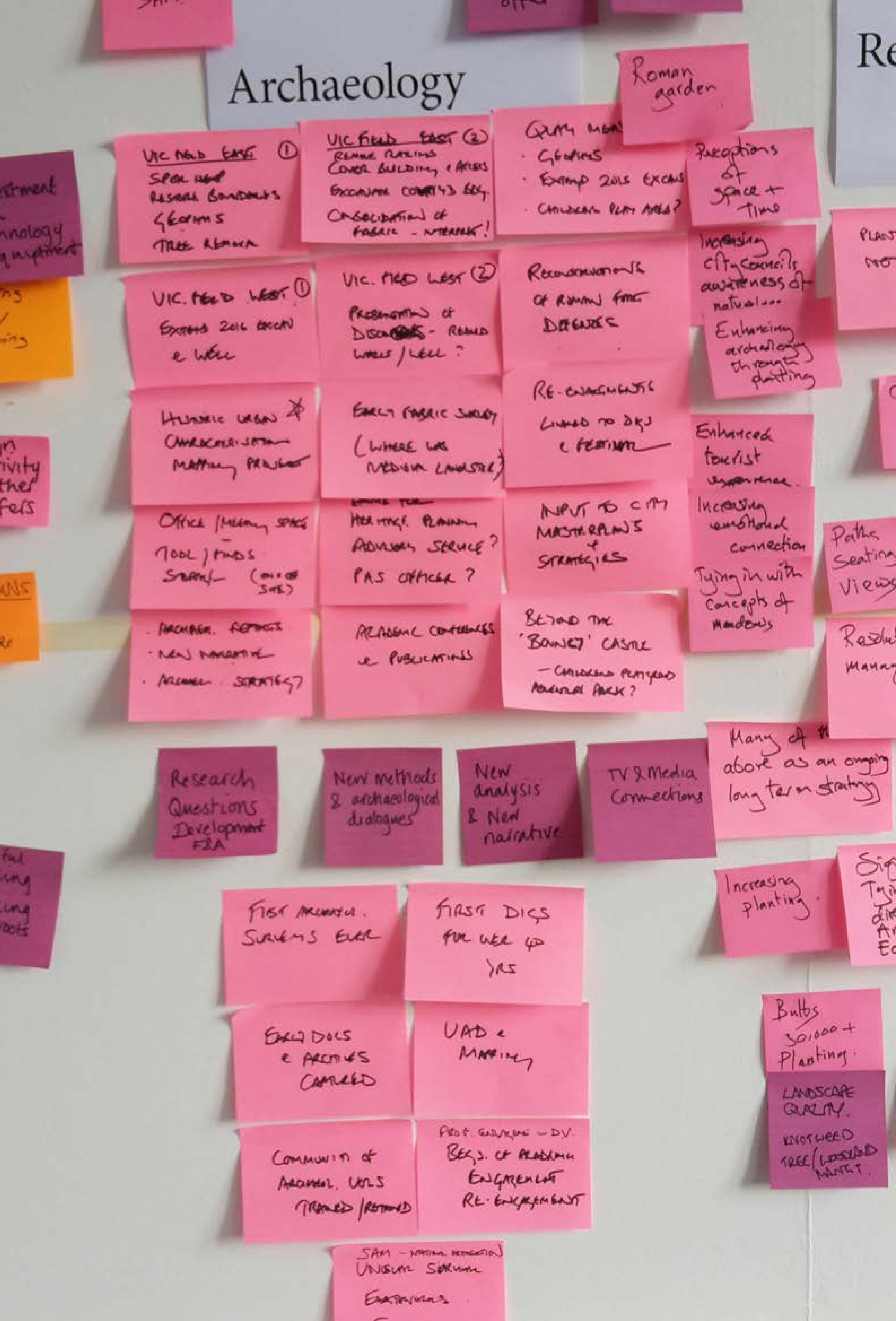
KATE LLOYD-PHILIPPS

This colourful and fun reconstruction drawing of the late Roman shore fort and port was commissioned to capture the imagination of younger audiences

Existing academic dialogues with Lancaster University have been maintained and new ones developed. In November 2014, in association with Imagination Lancaster, the Beyond the Castle project organised probably the world's first archaeological hackathon – Hack Lancaster. Over a 24-hour period at Lancaster Castle, teams of coders and makers explored digital presentation and connection of the archaeological, historical and social data newly released by the project. The hackathon produced novel apps, websites and data visualisations, running alongside a public exhibition enabling direct interaction with local citizens. Since 2017, the University's Lancaster Environment Centre has undertaken advanced geophysical surveys of the site as a post-graduate training opportunity and the project has also worked closely with the University's Regional Heritage Centre in organising events.

Professional partnerships were also developed to consider how to make Lancaster's Urban Archaeological Database available online, to explore the latest computer technology to generate 3D-models of the site and, working with the artist and cartographer Kate Lloyd-Philipps, to create colourful and fun reconstruction drawings to capture the imagination of younger audiences.

Ways forward


Archaeology
Roman garden
Perceptions of space + time
Increasing City Council's awareness of natural...
Enhancing archaeology through planting
Enhanced tourist experience
Increasing emotional connection
Tying in with concepts of meadows
Paths Seating Views
Many of the above as an ongoing long term strategy
Research Questions Development
New methods & archaeological dialogues
New analysis & New narrative
TV & Media Connections
Increasing planting.
Bulbs 30,000 + Planting.
LANDSCAPE QUALITY.
FIRST DIGS FOR OVER 40 YRS
UAD & MAPPING

Ways forward

The following section identifies potential ways forward to test theories and address gaps in understanding as part of a future archaeological research framework and agenda; to contribute to improved environmental management and conservation of the site; and to inform the city's museum and tourism offer.

Archaeological research framework and agenda

Although situated within the urban fabric and fringed by the historic city, the Beyond the Castle site has been largely spared from later development. This is because a significant proportion of it remained open space as land whose rental supported the Vicar of Lancaster (hence the name Vicarage Fields). Consequently, there is little overburden and the archaeological layers lie untouched just below the surface at a relatively shallow depth compared to other parts of the city. The site therefore represents significant potential in terms of what archaeology can contribute to our understanding of the importance of Lancaster from Roman times through to the medieval period.

Before the start of the Beyond the Castle project in 2014, Lancaster had suffered from an archaeological approach that had been largely ad hoc and piecemeal, driven by the random availability of sites rather than a programme designed to answer specific research questions. The last six years, however, have seen the delivery of a premeditated and systematic approach to help unlock the archaeological complexity of Castle Hill and its environs through new surveys and targeted excavations designed to advance understanding.

This report has set out the knowledge to date and how the Beyond the Castle project is beginning to transform our appreciation of the early history of Lancaster. As well as prompting some reinterpretation of previously held views, the new discoveries and emerging theories will also invite challenge and further questions.

There remain significant gaps in our knowledge but now is the time to take stock, before any long-term programme of further archaeological investigation is progressed. This calls for the development and approval of an archaeological research framework and agenda for the site and its environs in order to guide a programme of future surveys and excavations over the next five years and to secure the necessary funding.

The framework and agenda could also support the development of a field skills curriculum offering accredited training, with participants encouraged to log their progress in a 'Skills Passport' with the potential to build this towards a professionally accredited qualification.

Potential research questions

The following briefly outlines some potential research questions posed already by the archaeological work to date. It should be remembered, however, that the geophysical surveys also present their own technological research questions about the sophistication and accuracy of the methodologies employed. Some degree of archaeological excavation and analysis, therefore, would be beneficial to continue to 'ground truth' the survey data so that the technology and results may be verified and evaluated.

In Vicarage Field West, further excavation is recommended to complete safely and expand Trenches 1 and 2, especially to explore the early parallel V-shaped ditches, beam slots and post-holes and to establish the date and depth of the well and its relationships with the 4m-wide foundation and the drain. If the interpretation of the 4m-wide foundation as the corner of the late Roman shore fort proves correct, then the date of the wall's dismantling and relationship with the later earthworks need to be established. The date of the later earthworks is also unknown as is their relationship to the medieval remains found by Droop and Newstead. Re-excavation and expansion of their trenches in this area might help to provide some answers.

In Vicarage Field East, a trial trench across the width of the Courtyard Building and its timber predecessors would enable a better understanding of Richmond's plan and dating sequence, as well as establishing the depth and state of preservation of the remains. The trial trench should be positioned so as to re-open some of Richmond's excavations, especially in the northern stoke-hole area, in addition to some undisturbed areas in between. The findings would also be important because the future full excavation of the Courtyard Building offers huge potential as a significant part of a revised visitor offer and possible home of a new museum for Roman Lancaster (see below). Richmond also recorded traces of buildings to the west and north of the Courtyard Building as well as what may be an annex ditch. The nature and dating of these various structures cannot be properly established from Richmond's archive but the 2015 re-excavation of one of his 1965 trenches, and the subsequent 3D GPR survey, have shown that there is clearly more complex archaeology here. Opportunity could also be taken to re-excavate or expand the trenches excavated by Leather in 1970 and Potter in 1973 against the southern boundary of Vicarage Field East in order to investigate further the ditch systems associated with Forts 1 and 2, and whether there is more evidence for an opening through the northern defences on Fort 2.

In Quay Meadow continued 3D GPR survey is recommended to cover the whole area completely and hopefully establish the eastern and western limits of the *temenos* and the location of other internal structures, including a possible second temple. 'Ground truthing' through further trial excavation would target the proposed Romano-Celtic temple, the probable entrance through the southern *temenos* wall, the possible square tomb or mausoleum, the hexagonal feature, riverfront and tidal inlet. Such work would be necessary to give further weight to considerations to extend the area of the current Scheduled Ancient Monument to include Quay Meadow.

If opportunities arise, sites to the east and west of Quay Meadow should be investigated for evidence of the Roman port or harbour. In addition, the Old Vicarage site still holds the key to resolving the issue of the Wery Wall's alignment and the relationship with the ditch beside it, so 3D GPR might help here as well.

Away from Castle Hill, other research questions related to findings by the Beyond the Castle project include the locations of the military cemetery and cavalry parade ground. The Reiter memorial stone to Insus of the *Ala Augusta* is one of the most striking of its type in Roman Britain. Although found in the *vicus* cemetery this is not thought to have been its original placement. This poses the question: given the size and permanence of the garrisons at Lancaster, where was the military cemetery? Presumably closer to the site of the forts? Perhaps the burials recorded during the construction of Westfield Memorial Village on West Road are an indicator of the military cemetery's location? Or, if the identification of a tomb or mausoleum close to the *temenos* proves correct, then the cemetery, or an elite component of it, might be found here? Also, given that the garrisons were almost exclusively cavalry, there must have been a large enough place for parades, manoeuvres and grazing. Where was this? Presumably on the flatter ground to the west of the forts in the Giant Axe Field area which, according to the geophysical surveys, appears to have always been a relatively open space?

The Archaeological Research Framework for North-West England (published in 2006-07 and currently under review) sets out a number of initiatives that are applicable to taking forward an agenda and strategy for Castle Hill and its environs. These call for greater understanding of the chronologies and construction techniques of Roman forts and the identification of Roman ports. Specifically, investigations are recommended of late Roman coastal defences, ports or harbour works and other river-edge development, in tandem with programmes of environmental research aimed at improving understanding of coastal and estuarine change and the extent of tidal reaches and river navigability. Environment sampling is also recommended wherever Roman ramparts or ditches are excavated in order to recover buried soils, turves and similar deposits likely to preserve environmental indicators of past vegetation, water quality and landuse. Evidence for Roman religion and specifically religious buildings is scant, and any opportunity to investigate such sites is deemed a priority, linked to studies of Romano-Celtic deities, rituals and festivals to understand their topographical impact on the landscape. Centres of power that proved their strategic importance in both the Roman and medieval periods are good candidates for significant early medieval activity. Yet excavations to date on Castle Hill's Roman fort site have so far failed to find any traces of early medieval occupation. It is necessary therefore to ensure that methods of excavation of late Roman deposits are appropriate for recognising, characterising and dating early medieval material. Finally, for the medieval period, not enough attention has been focused on monastic precincts. It is recommended that monastic outer courts, ancillary buildings and boundary walls should be investigated through survey and excavation, incorporating palaeoenvironmental sampling.

Woodland management and hedgelaying

De-vegetation and cleaning of the Wery Wall and baths suite, August 2017

Stock piling of masonry in Vicarage Field East

The collapsing boundary wall between Vicarage Field East and the Old Vicarage

Environmental management and conservation

The Beyond the Castle project has shown the regenerative value of improved management of the natural environment of the site, and the accompanying benefits of reducing antisocial use of the area and engaging local volunteers and social outreach programmes in the process. The work has removed invasive species like Japanese Knotweed and trees and shrubs encroaching on archaeologically sensitive areas. New planting and grassland and woodland management schemes have transformed the site and hedgelaying and scything courses have provided learning opportunities. All these activities have enhanced accessibility, gradually resulting in greater diversity in both human and wildlife use. For the historic environment, remedial works have included rebuilding the walls either side of the bottom of Vicarage Lane and the stock piling of fallen masonry and clearance of rubbish under the trees at the eastern edge of Vicarage Field East.

Now that this first phase of the project is complete, however, it is recommended that the City Council continue to develop and implement a sustainable and integrated approach to the site's management and conservation to an agreed programme and budget.

In the first instance there is a pressing need for other remedial works. In particular there are several discreet issues that should to be addressed in Vicarage Field East where the condition of the Wery Wall, the Courtyard Building's baths suite and adjacent boundary walls are causes for concern. In August 2017 the Beyond the Castle project undertook some de-vegetation and cleaning of the Wery Wall and baths suite and recommended various consolidation works. To these could be added the rebuilding of the post-medieval wall that once formed the eastern boundary of the field (using the stock-piled masonry). A major worry, however, is the state of the southern boundary wall with the Old Vicarage which is collapsing below the tree line and is in danger of exposing the remains of the Roman fort walls and earthworks at this point and therefore threatening irreversible damage to the Scheduled Ancient Monument. This needs urgent action in collaboration with the adjacent landowner. The work would be alleviated by removal (under archaeological supervision) of the old spoil heap from the 1973-75 excavation of the Courtyard Building's baths suite. There would then be an opportunity to answer potential research questions (see above) by re-excavating and completing the excavation of Leather's 1970 Trench 3 and Potter's 1973 trench, both of which lie under the site of the spoil. This work in turn could be followed by re-landscaping to restore the original ground profile.

In Quay Meadow the woodland management scheme should now include removal of a small parcel of trees and shrubs immediately north of the Romano-Celtic temple so as to avoid their root systems causing further damage to the temple's north wall and associated deposits.

The City Council's museum and tourism offer

There is widening recognition that Lancaster has the potential to be a significant Roman archaeological site. This creates new possibilities to refresh the city's museum and tourism offer as a Roman heritage destination and place of discovery. Telling the story of the Roman archaeology, therefore, through further excavation, interpretation and display, could be an essential ingredient and pulling factor in maximising the city's visitor economy. The popularity of voluntary participation in excavations, and the support for this through crowd-funding, demonstrate the captivating attraction that being part of discovery can bring. Examples of successful Roman heritage sites such as Vindolanda attract large numbers of paying visitors and hobby archaeologists and have developed successful business models to finance long-term excavations.

There is a huge opportunity for sustainable engagement with local people as well as visitors. The site is largely public open space and has the potential to give local communities persistent ownership and a sense of pride in the history and heritage of their city. The Beyond the Castle project is a proven model of innovative public sector practice delivering a new way of integrating the meaning and value of local places with the potential to reach out to global audiences, deeply engaging people in the process of discovery and in constructing aspirations for the future. This is a growth area with organisations like Dig Ventures pioneering the use of crowd-funding, crowd-sourcing and digital methods to nurture community engagement as well as assisting with some level of financial efficiencies.

There is also growing potential through links with Lancaster University, the creative industries and not-for-profit (and for-profit) delivery partners to develop new technologies and products to tell and animate the (hi)story of Lancaster and to weave these alongside contemporary narratives (arts, crafts, trade, faith, etc) into the visitor offer and civic programme.

The Beyond the Castle project, working with key heritage anchors such as Lancaster Castle, the Priory Church and the city's museums, can be the glue to integrate the heritage of Castle Hill as a vibrant component and key driver of Lancaster's tourist offer, delivering research and development, destination development, planning, regeneration and investment across partners and communities. In particular there is the potential for the project to rejuvenate Lancaster's museums and develop new museums concepts, combining buildings with outdoor activities. Live participatory archaeology, mobile exhibitions, Roman festivals, re-enactments, Roman gardens, reconstructed forts, 3D-printed artefacts and archaeology holidays could combine in making Lancaster a heritage attraction, all just minutes away from national transport links. This fluidity compliments the solid and unchanging features of the city's architecture.

The Beyond the Castle project continues to spawn many innovative and transformative ideas and ambitions, often interlinked and overlapping with the strategic vision and aims of the City Council and other organisations. Summarised below are two viable initiatives that build on the track record for the project. Assuming the necessary investment can be secured, the first of these could be pursued in the short to medium term as the infrastructure to support it is largely present and accessible. The second initiative is more long term requiring new infrastructure but could be a significant income generator.

A 'Discovery Centre' for Roman Lancaster

The Beyond the Castle project's work to date shows the value and potential of new recreational and learning experiences around Lancaster's Roman heritage. A new form of museum or 'Discovery Centre' is proposed, with a physical base proximate to the site (perhaps in the Customs House/Maritime Museum), but with offers and experiences that reach out across the city and beyond. This would provide a year-round offer for visitors and a novel means of exploring the site's history and the process of archaeological discovery. It could include archaeological lab space to show the processing of finds and the wider procedures of planning and undertaking excavations, and perhaps an Escape Room attraction to engage visitors with the problem-solving processes of archaeological investigation. During the summer months, a regular programme of excavations could offer attractions for visitors and opportunities to train and participate. Accompanying these could be special events, including festivals, re-enactments etc, making the 'Discovery Centre' and the site a key experiential and commercial element of the city's tourism offer.

The Beyond the Castle project has developed effective digital infrastructures, reaching out through social media and integrating digital records of Lancaster's past. In parallel with the physical infrastructure and activities on the site, digital infrastructures could be created to share the process of discovery and the continually unfolding narrative. Online access of existing and live archaeological data, 3D-computer models, aerial imagery, digital mapping, laser scans of finds, video interviews, documentaries and artistic interpretations could enable the public to engage directly with everything known about the site, as well as providing a rich resource for researchers, students and school children. A dedicated web presence could also facilitate collaborative information sharing and planning for organisations and groups with an interest in the site and provide a platform to engage an online audience with crowd-funding for excavations, promoting upcoming events and supporting visits to the site from outside of the region and country.

A good example of this approach is the museum at Périgueux in France, opened in 2003. Designed in a contemporary style by the renowned architect Jean Nouvel, the building both protects and brings to life the remains of a large Roman house and also displays the city's collection of Roman inscriptions, architectural fragments and other finds. The museum is the departure point for a tour around the city's Roman heritage sites. Lancaster should aspire to achieve something similar.

A new permanent museum for Roman Lancaster

Inaccessible behind railings, and without adequate preservation or interpretation, the baths suite in Vicarage Field East currently offers a somewhat underwhelming glimpse of what is only a small part of the unusual and substantial Courtyard Building that was partially excavated in 1958 but then reburied. This location has great potential to be developed as a significant part of the city's visitor offer, and eventually could provide a permanent home for Lancaster's Roman heritage. A new structure over the whole footprint of the Courtyard Building would unlock year-round excavation and visitor experiences. In time the shell of this structure could be converted to a new museum in which to display and store all the material from Roman Lancaster (presently in the collections of the City Museum and Maritime Museum). Some of the functions of the 'Discovery Centre' could also be transferred. The new museum could be readily complemented by other offers to excavate, preserve and present the archaeology of the remainder of Vicarage Field East as an 'Archaeological Park'. A pay perimeter around this area (made feasible by local topology) could provide the mechanism for a paid visitor offer. A Roman garden could provide a year-round focal point for visitors, engage local volunteers in its maintenance and provide a context for special events. Finally, interpretive way-finding could link Vicarage Field East with historical interpretation and with visitor experiences on and adjacent to the site.

View of the baths suite site today

Archaeology
results
Lottery
County
business
Meadow
responsibility
military
work
one
owned
recognised
appropriate
Quay
parcels
Interregfunded
related
leading
roughly
Council
Priory
Communities
critical
Benevolent
regeneration
large
single
archaeological
Duchy
railway
value
triangular
seen
future
2012
point
2016
period
codesign
AD
Lancaster
land
public
area
order
activities
England
firm
investment
river
use
access
made
site
case
1970s
way
Roman
east
unit
part
came
space
visitor
wishes
Georges
may
even
Centre
port
maximise
strategy
full
Trust
urban
Castle
summit
evaluates
important
basis
imagining
fort
gave
Church
Coastal
reference
enabled
survey
remains
Project
Post
began
review
short
2005
planning
open
improved
managed
lead
2017
key
vicus
north
Beyond
Field
distinct
separated
research
programme
connect
now
later
prior
kind
PROUD
funding
Vicarage
Hill
wider
line
2015
late
2014
areas
bid
square
Ala
Wall
creative
Routes
community
excavations
focus
time
residents
enhance
page
Early
gate
St
2020
report
900
cycle
Councils
successful
better
City
forts
likely
originally
Imagination
led
Code
Mitre
engaged
also
plan
brand
rejuvenate
Wery
former
first
stone
1965
less
New
mostly
act
landscape
heritage
medieval
mandate
West
well
date
Understanding
structures
house
known
green
details
divided
aspiration
originated
earlier
little
1920s
building
earthworks
designated
support
potential
probably
response
novel
passed
continued
facilitate
Fund
three
small
intended
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engagement
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Quo vadis Beyond the Castle?

There is significant scope in the short to medium term to enhance the heritage value of the site, facilitate better public access, appeal to a variety of potential audiences and users, develop new commercial opportunities and contribute to the wider visitor economy. In the longer term there is huge potential to aspire to even more. A credible business case for future investment in facilities, amenities and resources required to support development of the site and associated activities is beyond the scope of the present document. In planning ahead, it is recommended that the City Council appoint suitable consultants to explore the fundraising options and investment requirements alongside the potential income generation and commercial opportunities with short, medium and longer-term perspectives and comparators.

In the meantime the City Council wishes to establish an expert project board to coordinate strategic thinking and steer decision making. The board is expected to include at least one representative from Lancaster University, given the institution's sustained involvement in the project to date, as well as specialists from elsewhere drawn from relevant disciplines. Initially the board will help set out a five-year archaeological research framework and agenda for the site and assist in developing academic, heritage, scientific research and funding partnerships. As for a delivery model, a Community Interest Company could be established to partner or lead on funding bids and provide capacity on the ground to work with community groups and the commercial sector.

Taking the project forward will require a mix of expertise and clarity of vision, a highly innovative approach and an agile team skilled in collaboration across a multitude of disciplines and able to seek wider connections with communities, businesses, the third sector, schools and universities; to shape aspiration and project design, build capacity across archaeology, landscape, digital, planning and regeneration; and actively pursue new ways of working and open participation above all.

This report has reviewed all archaeological work to date on Castle Hill and set out a new narrative for Roman Lancaster and a compelling vision for the future. The Beyond the Castle project is only the beginning of an exciting journey of discovery about Lancaster's origins but it is clear the site has already shifted rapidly in historical significance. There is great potential for Lancaster to become a leading destination for heritage tourism, with new discovery at the heart of the identity.

Appendix: List of excavations on Castle Hill

This appendix lists the main excavations on Castle Hill, their place of publication and the location of relevant archaeological finds where known.

1927 (Vicarage Field East and West)
Excavators: Professor Percival Droop and Robert Newstead (for Liverpool University)
Publication: J P Droop and R Newstead (1928), 'Trial Excavations at Lancaster', *Liverpool Annals of Anthropology and Archaeology* 15, 33-40
Finds: Lancaster Maritime Museum

1928 (Vicarage Field West)
Excavators: Professor Percival Droop and Robert Newstead (for Liverpool University)
Publication: J P Droop and R Newstead (1929), 'Excavations at Lancaster, 1928', *Liverpool Annals of Anthropology and Archaeology* 16, 25-36
Finds: Lancaster Maritime Museum

1929 (Vicarage Field West)
Excavators: Professor Percival Droop and Robert Newstead (for Liverpool University)
Publication: R Newstead and J P Droop (1930), 'Excavations at Lancaster, 1929', *Liverpool Annals of Anthropology and Archaeology* 17, 57-72
Finds: Lancaster Maritime Museum

1950 (Vicarage Field East)
Excavator: Professor Sir Ian Richmond (for Newcastle University)
Publication: I A Richmond (1953), 'Excavations on the Site of the Roman Fort at Lancaster, 1950', *Transactions of the Historic Society of Lancashire and Cheshire* 105, 1-23
Finds: Lancaster Maritime Museum

1958 (Vicarage Field East)
Excavator: Professor Sir Ian Richmond (for Oxford University)
Publication: I A Richmond (1959), 'Roman Britain in 1958', *Journal of Roman Studies* 49, 106-08
Finds: Lancaster Maritime Museum

1965 (Vicarage Field East)
Excavator: Professor Sir Ian Richmond (for Oxford University)
Publication: Unpublished
Finds: whereabouts unknown ('a good deal of pottery' was recovered but this has not beeen found in either Oxford or Lancaster)

1965-68 (New Vicarage)
Excavator: Geoffrey Leather, assisted by Ben Edwards and John Colgan (for Lancaster Archaeological Society)
Publication: G M Leather (1973); *Roman Lancaster: Some Excavation Reports and Some Observations*, Preston
Finds: whereabouts unknown (presumed Lancaster Maritime Museum)

1970 (Vicarage Field East and Old Vicarage)
Excavator: Geoffrey Leather (for Lancaster Archaeological Society)
Publication: G M Leather (1973); *Roman Lancaster: Some Excavation Reports and Some Observations*, Preston
Finds: Lancaster Maritime Museum

1971 (Vicarage Field West)
Excavators: Professor Barri Jones and Dr John Peter Wild (for Manchester University)
Publication: G D B Jones and D C A Shotter (1988), *Roman Lancaster: Rescue Archaeology in an Historic City 1970-75*, Brigantia Monograph 1, Department of Archaeology, University of Manchester, 26-30
Finds: Lancaster Maritime Museum

1972 (Vicarage Field West)
Excavator: Geoffrey Leather (for Lancaster Archaeological Society)
Publication: G M Leather (1973); *Roman Lancaster: Some Excavation Reports and Some Observations*, Preston
Finds: Lancaster Maritime Museum

1973 (Mitre House)
Excavators: Professor Barri Jones (for Manchester University), Geoffrey Leather (for Lancaster Archaeological Society) and Dr Timothy Potter (for Lancaster University)
Publication: G D B Jones and D C A Shotter (1988), *Roman Lancaster: Rescue Archaeology in an Historic City 1970-75*, Brigantia Monograph 1, Department of Archaeology, University of Manchester, 46-60, 72-76, 80-84
Finds: Lancaster Maritime Museum

1973-75 (Vicarage Field East)
Excavators: Geoffrey Leather, assisted by Robert Bellis and Geoffrey Shackleton (for Lancaster Archaeological Society) and Dr Timothy Potter (for Lancaster University)
Publication: G D B Jones and D C A Shotter (1988), *Roman Lancaster: Rescue Archaeology in an Historic City 1970-75*, Brigantia Monograph 1, Department of Archaeology, University of Manchester, 43-45, 61-71
Finds: Lancaster Maritime Museum

1975 (Old Vicarage)
Excavator: Dr Timothy Potter (for Lancaster University)
Publication: G D B Jones and D C A Shotter (1988), *Roman Lancaster: Rescue Archaeology in an Historic City 1970-75*, Brigantia Monograph 1, Department of Archaeology, University of Manchester, 31-37
Finds: Lancaster Maritime Museum

2002-04, 2012 (Judges' Lodgings)
Excavator: John Zant (for Oxford Archaeology North)
Publication: John Zant, Paul Clark, Christine Howard-Davis and Sean McPhillips (2016), 'Archaeological Excavations at the Judges' Lodgings, Lancaster, 2002-4 and 2012', *Contrebis* 34, 43-59
Finds: Lancashire Museums Service

2015 (Quay Meadow)
Excavator: Jason Wood, assisted by Dig Ventures (for Beyond the Castle and Lancaster and District Heritage Group)
Publication: Jason Wood (2017), 'Roman Lancaster: The Archaeology of Castle Hill', *British Archaeology* 157, 38-45
Finds: Lancaster Maritime Museum

2015 (Vicarage Field East)
Excavator: Jason Wood (for Beyond the Castle)
Publication: Jason Wood (2017), 'Roman Lancaster: The Archaeology of Castle Hill', *British Archaeology* 157, 38-45
Finds: Lancaster Maritime Museum (awaiting accession)

2016 (Vicarage Field West)
Excavator: Jason Wood (for Beyond the Castle)
Publication: Jason Wood (2017), 'Roman Lancaster: The Archaeology of Castle Hill', *British Archaeology* 157, 38-45
Finds: Lancaster Maritime Museum (awaiting accession)


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ROMAN LANCASTER
RESCUE ARCHAEOLOGY IN AN HISTORIC CITY 1970-75
Roman Fort
and
Town of Lancaste
by
David Shotter and Andrew White

Further reading

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Acknowledgements

The Beyond the Castle project was made possible by financial support from Interreg – the European Regional Development Fund, the Heritage Lottery Fund, Lancashire County Council, Lancaster City Council, Lancashire Environment Fund, Coastal Communities Fund, Post Code Lottery Trust and the Duchy of Lancaster Benevolent Fund, with support in kind from the Lancaster Environment Centre at Lancaster University. A debt of gratitude is owed to all these funding bodies and institutions.

Delivering the project was a huge collaborative effort involving many organisations and individuals. The core project team comprised Lucia Marquart, former Senior Environmental Projects Officer at Lancashire County Council (project manager); Loura Conerney, DACA Studio (digital media consultant); David Redmore, Garden and Landscape Design Ltd (landscape consultant) and Jason Wood, Heritage Consultancy Services (archaeology and heritage consultant). Overseeing the project and steering decision making was a project board drawn from representatives of the County and City Councils and chaired by Rachel Cooper, Director of Imagination Lancaster at Lancaster University.

At Lancashire County Council, thanks are due to Councillor Gina Dowding for her continued support; to Roy Halliday, Senior Environmental Projects Officer, for his initial input to the project; and also to Peter Iles, former Specialist Advisor (Archaeology); Daniel Holden, Technical Support Officer, Community Projects; and Mark Reynolds, Environment Projects Officer.

At Lancaster City Council, thanks are due to Eileen Blamire, former Leader of the Council, Councillor Darren Clifford, former Cabinet Member for Leisure, Culture, Tourism and Climate Change and Oscar Thynne, former Councillor for their support and encouragement; to Anne Marie Harrison, Economic Development Manager for taking the project under her wing; and also to Will Griffith, Public Realm Manager; Carolyn Dalton, Museum Development Manager; Stephen Gardner, former Senior Conservation Officer; Tom Brown, Economic Development Officer; Ann Wood, Estates Surveyor; and Steve Shaw, Cemeteries Operations Manager.

At Lancaster University thanks are due to Roger Whitham, Lecturer in Interaction at Imagination Lancaster for his support and help organising the hackathon; to Andrew Binley at the Lancaster Environment Centre and his hydrogeophysics team of post-graduate students, especially Guillaume Blanchy and John Ball for their remarkable geophysical surveys over the past three years; and to Sam Riches, Academic Co-ordinator at the Regional Heritage Centre for help organising a series of public talks about the project.

On the archaeological side, thanks are due to Andrew Davison, Principal Inspector of Ancient Monuments at Historic England for facilitating various consents and licences; to Jamie Quartermaine at Oxford Archaeology North for all the topographical surveys and the othomosiacs of Vicarage Field West and Quay Meadow; Karl Taylor, formerly of Oxford Archaeology North for the 2014 geophysical surveys; Peter Schofield, formerly of Oxford Archaeology North for the orthomosaic of Vicarage Field East, and also to Jo Cook of Astun Technology Ltd who set up a computing interface to allow participants of the hackathon to access data from the Lancaster Urban Archaeological Database.

The Beyond the Castle project was well represented at the session 'Communicating and Democratising Archaeology through Digital Transparency' held during the European Association of Archaeologists conference in Glasgow in 2015. The speakers included Loura Conerney, Roger Whitham, Christian Butterworth, Jo Cook and Brendon Wilkins, and was organised and chaired by Jason Wood. Also in 2015, the project organised 'Shaping the Future', an open visioning event facilitated by Dee Hennessy of Creative Exchange. This brought together leading specialists in Roman archaeology and medieval castles including David Breeze, Simon Esmonde Cleary, John Goodall, Andrew Pearson, Jason Wood and John Zant, and was chaired by Gill Hey, CEO of Oxford Archaeology. All the participants are thanked for their valuable contributions.

The project benefited from the support of Chris Newlands, Vicar of Lancaster and, at the Duchy of Lancaster, of Graeme Chalk, Head of Project Management and Chris Selkirk, Lancaster Castle's Events Manager. Access to the Richmond archive at the Sackler Library was kindly arranged by Graham Piddock, and Alan Wilkins is thanked for his generous donation of further records relating to Richmond's work. Thanks are also due to Steve Southern for his 3D-computer modelling and Kate Lloyd-Philipps for her wonderful reconstruction illustration.

Duane Alexander is thanked for his unstinting assistance during the Vicarage Field West and East excavations, and also, as the project's very own Roman soldier, for his informative school visits. Dot Boughton, the Portable Antiquities Scheme Finds Liaison Officer (Cumbria/Lancashire), provided finds support and York Archaeological Trust Conservation Laboratories undertook the finds conservation. Identification of the Roman coins was kindly made by Simon Esmonde Cleary. On the Vicarage Field West excavation a number of volunteers deserve to be singled out: Tenaya Jorgensen for her field drawings, Chris Birkett for his entertaining guided tours, Gary Taylor for finding and excavating the well and Terry Harvey and Lorraine Watson for their help with metal-detecting. The machining was undertaken by Frank Huddleston. Subsequent to the excavations, funding was secured via the Fairfield Association for archaeological supervision of environmental management and conservation works in Vicarage Field West and the de-vegetation and cleaning of the baths suite in Vicarage Field East.

For the Quay Meadow excavations, the project is grateful to Brendon Wilkins and Lisa Westcott Wilkins of Dig Ventures for assistance in setting up the training dig for the Lancaster and District Heritage Group. The fieldwork was supervised by Raksha Dave and Nigel Steel. The machining was undertaken courtesy of John Wareing Plant Hire Ltd.

Last, but not least, a great debt of gratitude is owned to the many volunteers who worked enthusiastically and tirelessly during all three excavations.

This report is written by Jason Wood in his capacity as archaeology and heritage consultant to the Beyond the Castle project and lead archaeologist for all the fieldwork described. The 'Ways forward' section largely derives from discussions between the core project team at visioning meetings kindly facilitated by Roger Whitham. The design and layout of the report is the work of Loura Conerney of DACA Studio.

Beyond the Castle:
The Archaeology of Lancaster's Castle Hill

Text: Jason Wood

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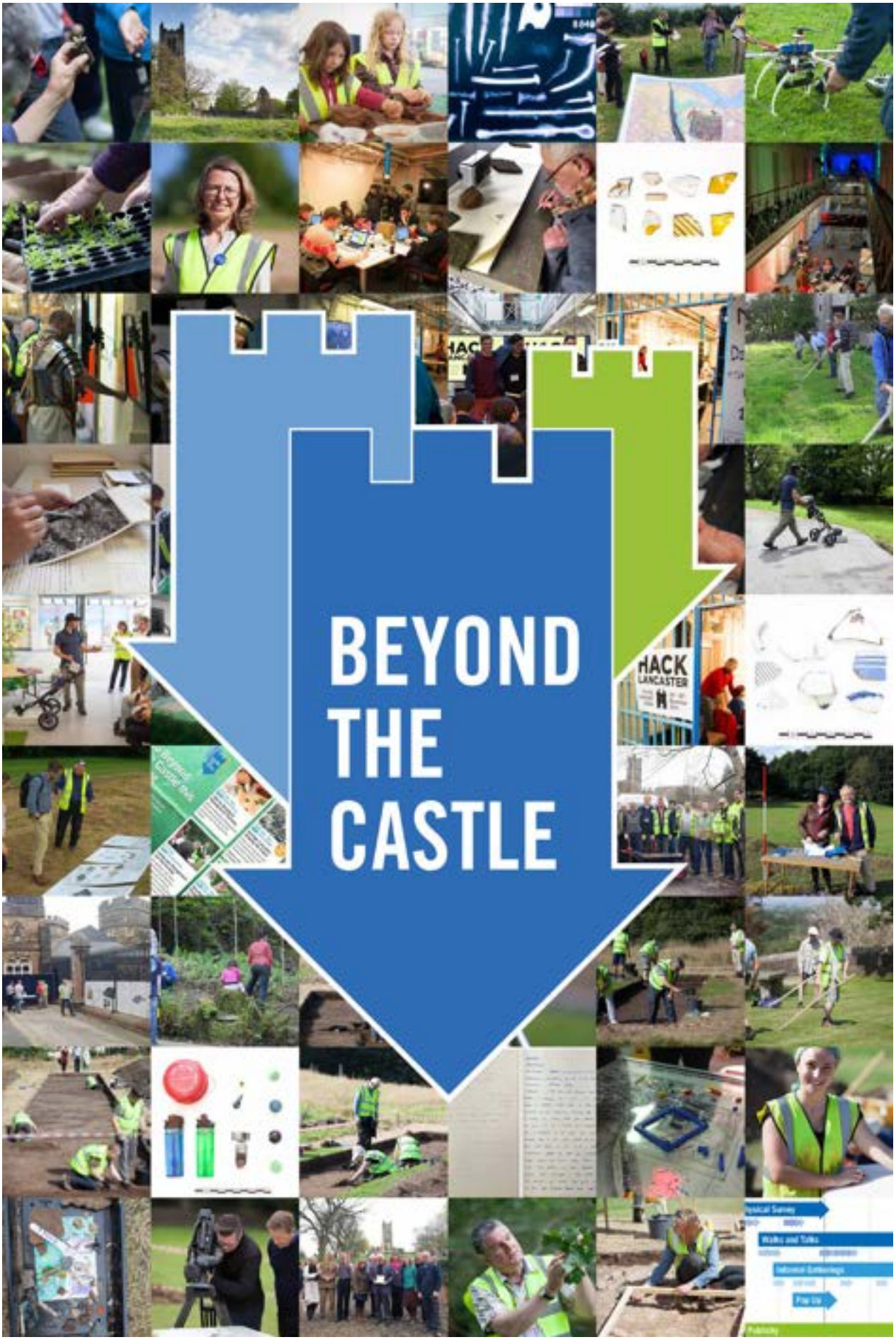
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