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A ROMAN CAMP AT BRADFORD ABBAS, DORSET AERIAL INVESTIGATION AND MAPPING

ARCHAEOLOGICAL REPORT

Helen Winton and Damian Grady



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SUMMARY

This report describes the main archaeological features and technical details of the air photo survey of a small area around the possible Roman temporary camp first noted in 2010 by English Heritage aerial reconnaissance. The form and location of the camp conform to the expected criteria associated with Roman temporary camps in Britain. The discovery of a previously unknown Roman camp in the south-west of England is highly significant as it is one of only four examples known in the region and it could be associated with the Claudian campaign against the local Iron Age population.

CONTRIBUTORS

Helen Winton, Aerial Survey and Investigation, English Heritage, carried out the aerial photograph assessment and transcription and report writing. Damian Grady carried out aerial photography and edited the report.

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INTRODUCTION

This report describes the main archaeological features of a survey from aerial photographs of a Roman camp and environs at Bradford Abbas, near Yeovil. The camp was recognised for the first time by Damian Grady during archaeological aerial reconnaissance on the 28th of June 2010. Detailed site descriptions, including source photographs are available on the PastScape website.

PROJECT AREA

The project area comprises fields around East Farm and Coombe to the north of the village of Bradford Abbas (Fig 1). The Roman camp is situated to the west of East Farm and prehistoric or Roman enclosures and boundaries are also visible as cropmarks nearby.

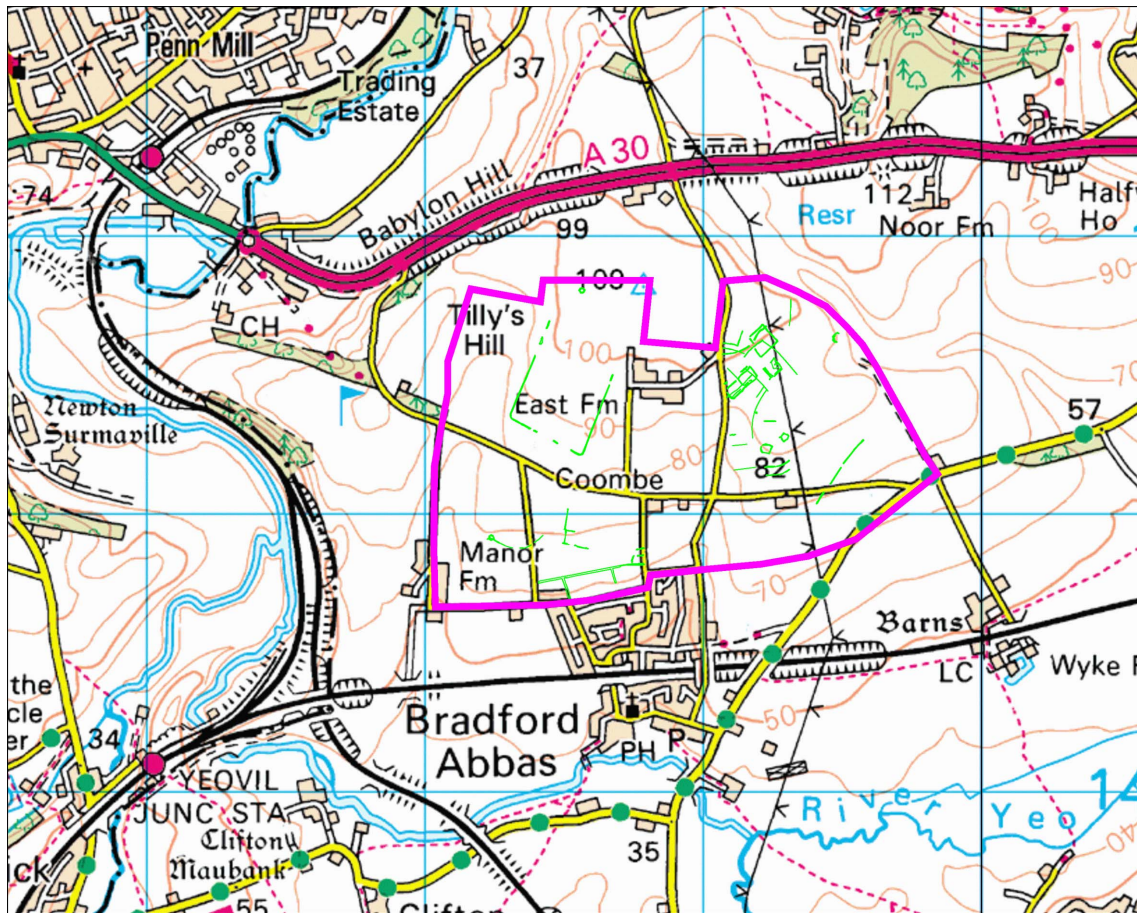


Figure 1 Project area (in pink) and archaeological features (in green). 1:50,000 scale base map ©Crown Copyright and database right 2013. All rights reserved. Ordnance Survey Licence number 100024900

The project area is situated to the south-east of the outskirts of Yeovil. The river Yeo curves around, about a kilometre away, on all but the east side of the area. The ground slopes, between 100m and 70m above Ordnance Datum, to the south-west and south-

east between combes which extend along the west, centre and north-east of the project area. At Babylon Hill, to the north-west of the camp, there are vertical sandstone cliffs up to 30 feet high (Heath 1997, 9).

The project area is near the centre of what is described by Natural England as the Wessex Vales Natural Area (Natural England 2013b). This is not a designation but an area that can be identified by the 'physical attributes, wildlife, land use and culture' that give somewhere a sense of place (Heath 1997, 5). The Wessex Vales NA is defined as the rolling hills and vales, hidden valleys and coastline between the Chalk escarpment of Dorset and Wiltshire, the Somerset hills to the west and the Oxford clay to the north (Heath 1997, 6-12). It is an area of pastures and meadows enclosed by a network of tall thick hedges with numerous small copses and ancient woods' (Heath 1997, 6).



Figure 2 Looking north-west from the location of the camp (left of the farm) towards Yeovil and beyond up the Yeo river towards Ilchester 26818/6 20th October 2010 © English Heritage

The Wessex Vales includes four Natural England National Character Areas (NCA) and the project area is in NCA 140 Yeovil Scarplands (Natural England 2013c). The NCAs are areas defined by 'natural lines in the landscape' to provide a framework for decision making on the Natural Environment (Natural England 2013d). The Yeovil Scarplands NCA is a 'very varied landscape of hills, wide valley bottoms, ridge tops and combes united by scarps of Jurassic limestone' where rivers drain from the higher ground cutting an intricate pattern of irregular hills and valleys' (Natural England 2013c). The NCA is

mostly in pasture but the area to the east of Yeovil is a mainly arable area except near the river Yeo.



Figure 3 Aerial photograph showing the camp and non-archaeological cropmarks. PGA ST5815 1st July 2009. Aerial Photography: Licensed to English Heritage for PGA, through Next Perspectives™

The solid geology to the north of the village of Bradford Abbas comprises the boundary between Inferior Oolite Group – Ooidal limestone and Bridport Sand Formation (sometimes called Bridport and Yeovil Sands) with a number of fault lines, mostly extending north-south clustered around and north of Bradford Abbas village (British Geological Survey Geology of Britain Viewer, British Geological Survey of Great Britain Solid and Drift 1:50,000 scale Sheet 312, 1975 edition). Broadly speaking, the limestone corresponds to the combes which extend north-south in the project area and the Bridport Sand forms the ridges and the hill to the north. The changes in geology and topography seem to be indicated by north-south bands of different colour in the crops seen on aerial photographs, perhaps due to different soil depths. For example, a broad mark in the crops extends north-south through the Roman camp and the field to the south – seen on a variety of photos taken at different times. (Fig 3). There are extensive geological cropmarks recorded in the fields to the east of East Farm in the midst of the

archeologically derived cropmarks. Similar cropmarks, thought to be geological in origin, were recorded in the area to the north of the camp (Fig 4).

Most of the project area is covered by the ELMTON 2 Soil Association, comprising shallow, well drained brashy calcareous fine loamy soils over limestone (Soil Survey of England and Wales 1:250,000 scale Sheet 5, South West England, and Legend, 1983 edition). About half way between the A30 and Coombe, the soil type changes from ELMTON 2 to SOUTH PETHERTON which is described as deep well drained silty soils, some over soft rock with a risk of water erosion (Ibid). The eastern and southern parts of the survey area are covered with part of a band of SHERBORNE Soil Association type soils, similar to the ELMTON 2 (Ibid).



Figure 4 Aerial photograph showing the camp (mid-background) and cropmarks thought to be geological in origin (right- foreground). North is to the bottom of the photograph. 27755/22 16th July 2013 © English Heritage

LAND USE

The field pattern recorded on the earliest available aerial photographs taken in 1947 is the same as that depicted on the Ordnance Survey 1888 25" 1st edition Dorset sheet. A curving boundary to the north of the camp was removed sometime between the 1940s and 1970s but remains as a slight bank visible on aerial photographs and lidar.



Figure 5 Aerial photograph showing most of the project area in 1947. RAF CPE/UK/1974 2208 11th April 1947 English Heritage RAF Photography

The small quarry on the southern side of the camp first appeared on the 1928 2nd edition Ordnance Survey map. The golf course was laid out in 1919-20 on former common land. – bunkers are visible top left on Fig 5. East Farm has gradually expanded since the 1940s and agricultural buildings were built across the road to the south-east.

Steam ploughing is reported by Professor Buckman to the east of East Farm in the context of the discovery of Roman material described in the 1878 volume of the Devon Natural History and Antiquarian Society (Buckman 1878). Subsequent archaeological reports mention further damage caused by ploughing to the Roman remains there although a complete Iron Age vessel was recovered from pre-Roman contexts (Bean 1955, 1958).

Figure 5 shows the fields in pasture to the west and south of East Farm, with some evidence of liming, and the arable fields beyond. The 1943 Land Utilisation Survey Sheet 130 –Yeovil and Blandford (1:63360 scale) shows a field by field pattern of land use recorded by volunteers in the 1930s. It depicts a different arrangement of arable and grassland, to the 1947 photograph around East Farm, indicating that the fields were probably in rotation between arable and grass in the 1930s and 1940s (Source: Vision of Britain website). Aerial photographs taken in 1947, 1970, 1976, 1996 and in the last decade show most of the fields around East Farm in arable. The background of one of the photographs from the Cambridge University Collection of Aerial Photography (CUCAP) shows the field with the northern portion of the camp, north-east of East Farm, being used for pig farming. Further work is required to ascertain the detailed nature of the farming regime in the last 50 years to see if it could potentially have affected the sub-surface remains of the Roman camp, for example if there has been any deep ploughing for root crops or conversely if minimal tillage has been applied. Application of methods used during the COSMIC (Cultivation of Sites and Monument in Cultivation) project could establish this and would include discussions with land managers. See Appendix I for a list of photographs and land use.

The fields around the farm were put into an Entry Level Environmental Stewardship (ELS) Agreement in 2010. These agreements are part of an agri-environment scheme run by Natural England to fund farmers and land managers to promote good environmental management. ELS aims to maintain land in good agricultural and environmental condition including protection of the historic environment (Natural England 2013a).

AERIAL PHOTOGRAPHS AND LIDAR

All aerial photographs held by the English Heritage Archive (formerly the National Monuments Record, NMR) were consulted. This comprised specialist oblique and vertical photographs from various sources. The Cambridge University Collection of Aerial Photography (CUCAP) had two oblique aerial photographs of the area east of East Farm. Although in Dorset, the area was photographed by the Devon Council reconnaissance team, on behalf of Somerset Council, in 1989 and the photographs were deposited at the NMR. Dorset County Council Historic Environment Record supplied a vertical photograph of the area.



Figure 6 Vertical aerial photograph showing the west side of the camp as dark marks in grass and the east side as cropmarks. OS 70216 345 14th June 1970 © Crown copyright. Ordnance Survey

The area was photographed for non-archaeological purposes a number of times from the 1940s onwards. Parts of the Roman camp and other archaeological cropmarks were serendipitously recorded on some of these. In particular, Ordnance Survey photographs taken in 1970 record some of the archaeological remains in the fields east of East Farm and part of the Roman camp (Fig 6). The 2009 true colour and 2006 infra-red aerial photographs provided by Next Perspectives through the Pan Government Agreement (PGA) also recorded cropmarks of the camp, some of the features east of East Farm and geological cropmarks (Fig 3).

The 1989 Devon/Somerset Council photos recorded boundaries and enclosures in the fields to the east of East Farm. These photographs also record extensive geological cropmarks to the east of East Farm. The English Heritage reconnaissance visits in 2010, which first noted the presence of the camp, also recorded archaeological cropmarks to the east of East Farm, including some new discoveries.

The 2009 PGA photograph is included as a layer on Google Earth (GE). Hints of the camp, and the other cropmarks, can also be seen on GE vertical aerial photographs layer dated 2006 (the precise dates on GE appear to be approximate). Other GE layers dated 2001, 2002 and 2005 mainly show cropmarks which appear to be geological or natural in origin. The Bing maps website has what appears to be a 2013 vertical aerial photograph of the area but no archaeological features are showing, and it also has the 2009 PGA photograph as a layer.

Environment Agency lidar data was supplied as ASCII surface data and was viewed using the Quick Terrain reader. The lidar data (labelled June 2006) was clearly collected when the fields had mature arable crops and was therefore of limited use in determining if there are any surface remains of the camp. There are hints of undulations in the surface on the 1970 Ordnance Survey vertical photographs, where the west side of the camp is in grass on the edge of the combe, but these appear more like to be relatively recent disturbance.

It is unusual that the EH Archive do not hold 1950s and 1960s vertical aerial photographs for the project area, although the areas just outside are covered. The proximity of Yeovilton airfield, also the location on the edges of any 'county' archaeological prospection, may partly explain the lack of specialist oblique cover but it is not clear why the non-archaeological cover is sparse in the 1950s-1960s. However, as mentioned above, there is good recent cover.

Aerial reconnaissance in 2013 recorded cropmarks to the north and north west of East Farm for the first time (Fig 4). These included numerous geological cropmarks and a recent former boundary (showing as cropmarks of a segmented ditch) recorded on the 1940s vertical photographs (Fig 5) to the west of East Farm. Archaeological cropmarks included a possible extension of the north-west side of the camp and a prehistoric pennanular ring ditch. There are further archaeological cropmarks to the north of the project area including boundaries and a feature similar to part of a causewayed enclosure.

ARCHAEOLOGICAL BACKGROUND

Professor Buckman first noted the presence of quantities of Roman material in 1878 in the area to the east of East Farm (Buckman 1878). Subsequent work there included surface collection over a number of years and some excavation, mainly by Mr C E Bean from the 1950s onwards (Bean 1950, 1955, 1958; Ross 1992, 78). This resulted in some remarkable finds including five Neolithic 'Greenstone' axes and numerous other stone tools with a date range from the late Mesolithic to the early Bronze Age (Ross 1992, 78-81). Ross analysed the archive of CE Bean and carried out surface collection of prehistoric artefacts in fields to the north, south and east of East Farm, to attempt to find a causewayed enclosure and other areas of prehistoric occupation (Ross 1992). The enclosure was not located but the study established a distribution of material with a date range from the later Mesolithic to the early Bronze Age. Ross notes that aerial photographs were consulted but this does not seem to have yielded any with archaeological evidence (Ross 1992, 78).

Mr Bean excavated the late Roman buildings to the south of the field immediately east of East Farm (Bean 1958). Large quantities of Iron Age and Roman material were recovered during excavation including a complete 'Durotrigian' pedestal bowl (Ross 1992, 78). This area was scheduled as a Roman Villa and has an Old County Number designation (National Heritage List for England Entry 1002414, RSM-OCN DO 787). Amounts of Roman pottery are reported by CE Bean in 'the fields overlooking Yeovil' in particular 2nd century material (Bean 1950). He also describes the discovery, during ploughing, of quantities of stone in an area near Yeovil Golf Club between Potter's Leaze Plantation and Leaze Lane. Partial excavation suggested the site of a villa although little dating evidence is reported (Bean 1958).

Mainly 19th century investigations identified a number of other Roman villas in a wider area. A winged corridor villa between Bradford Abbas and Thornford, on the south side of the River Yeo, was further investigated in the 1960s (Buckman 1877; Leach 1965). A further two villas are situated at Chessels, West Coker and Dunnock's Lane, East Coker to the south of Yeovil. A Roman site, now on the outskirts of Yeovil near the airfield, was excavated in the early 20th century. This was thought to be a villa but has been suggested to be more like a Roman small town or settlement but further work is required to establish this (Leach 1985). A substantial, probably early-mid 4th century, hoard of Roman coins was found at Nether Compton to the north of Bradford Abbas in the late 1980s (Keen 1989). Geophysical survey at Nether Compton found evidence of a complex of late prehistoric or Roman enclosures (Oswin 2010, 2012).

The evidence for a Roman presence near Bradford Abbas is part of a cluster of remains known in north-west Dorset (Putnam 2007, frontispiece) and is perhaps part of a wider pattern of relatively late development of 'Romanised' settlement forms in the south-west of England (Holbrook 2008, 151).

PREHISTORIC AND OTHER REMAINS

Most of the archaeological features seen in the fields near the Roman camp have a wide potential date range from the Neolithic through to the Iron Age and Roman periods. There were extensive geological cropmarks, including linear marks and pit like features and these sometimes obscured the archaeological cropmarks.

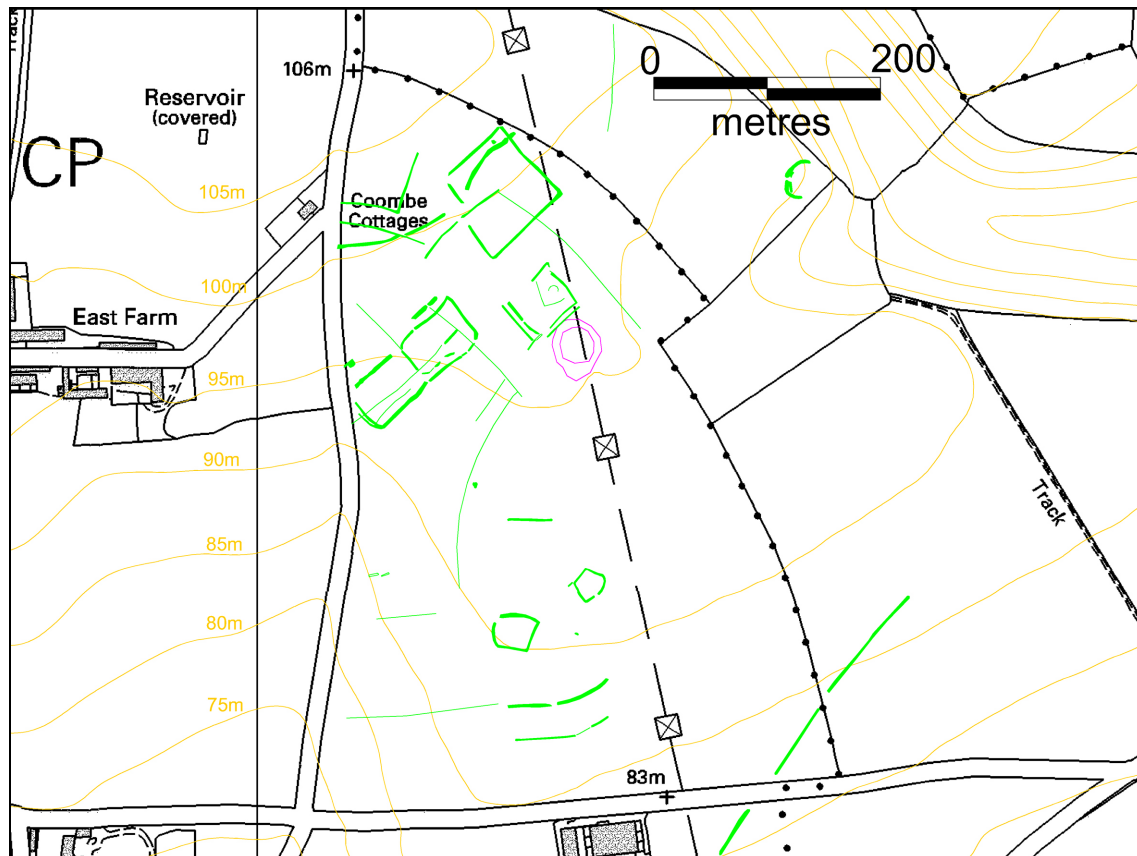


Figure 7 Plan of the archaeological cropmarks east of East Farm. Green indicates a ditch, pink uncertain features. 1:10000 scale base map ©Crown Copyright and database right 2013. All rights reserved. Ordnance Survey Licence number 100024900

To the east of East Farm, at the north end of the field, ditched enclosures and boundaries probably represent several phases of settlement and land division (Fig 7). It is likely that the enclosures and boundaries are Iron Age or Roman in date but a much earlier, Neolithic or Bronze Age, date should not be ruled out. A large dark sub-circular cropmark is situated to the south east of the enclosures (marked in pink on Fig 7, centre top Fig 8). This appeared regularly as a cropmark and although ring-like on Fig 8, on other photos it appears as a solid mark probably indicating the buried remains of a large depression or cut feature. It is not clear if this represents an archaeological feature. Even if it is not man-made, perhaps a sink hole or some other kind of natural hollow, it is possible that it could have been the focus of attention in the prehistoric period.



Figure 8 Aerial photograph of archaeological cropmarks east of East Farm. 26650/38 28th June 2010 © English Heritage

The partial remains of a double ditched curvilinear enclosure are situated in the corner of a modern field and only the western half of the enclosure appears to show (below the scale bar on Fig 7, bottom left Fig 8). The enclosure has a west facing entrance and is defined by broad ditches, about 2m wide, which appear slightly wider at the terminals at the entrance. A possible internal ditch flanks the entrance. This enclosure could be a late Neolithic henge, a Bronze Age settlement enclosure or even be of Iron Age date.

The features at the southern end of the field to the east of East Farm coincide with the location of the scheduled area associated with the Roman villa. There is no evidence to suggest that they are directly linked to the villa site but it is possible. Cropmarks of numerous pits are visible across the area but it is not clear if they are archaeological in origin.

Further boundaries and a ring ditch, possibly indicating a Bronze Age barrow ditch, are situated to the south of the project area between Coombe and Manor Farm. As previously mentioned there is a prehistoric pennanular ring ditch to the north of the Roman camp and further archaeological cropmarks to the north of the project area including boundaries and a feature similar to part of a causewayed enclosure.

The wide potential date range of the features around the camp makes it difficult to ascertain whether the immediate area was occupied when the camp was constructed.

THE ROMAN CAMP

The cropmarks near Bradford Abbas are interpreted as indicating the buried remains of a Roman camp (Fig 9). This is based on comparison with the form and location of other sites in Britain (Welfare and Swan 1995; Jones 2012). Roman camps are thought to have been used for short periods, usually as part of military campaigns or training.



Figure 9 Extract of an aerial photograph of the cropmarks of the Roman camp. The 'playing card shape', rounded corners and entrance are typical of plans of Roman camps in Britain. 27264/22 5th July 2010 © English Heritage

The camp at Bradford Abbas is situated on a south-west facing slope between 85m and 95m above Ordnance Datum just below the crest of a knoll 109m high. The WNW facing side of the camp overlooks a steep sided, mostly N-S oriented, dry valley and slopes, which extend down to the river Yeo. There is a south-west facing entrance, visible as a gap in the ditch, just to the west of the modern field boundary. Part of the south-west facing side has not formed a cropmark, and is possibly obscured by a band of possibly deeper soil, or change in geology, as discussed above. The northern end of the camp is not visible but could be established through geophysical survey or aerial photography in suitable conditions. The known extents of the camp measure 265m NW-SE and at least 350m NE-SW (Fig 10). A 3:2 proportion is suggested as an ideal for Roman camps but was not always achieved (Welfare and Swan 1995, 10). At Bradford Abbas if the camp extended, as might be expected, to near the crest of the knoll behind, it would be relatively large and long but not atypical of Roman camps in England (cf Welfare and Swan 1995, Figure 6).

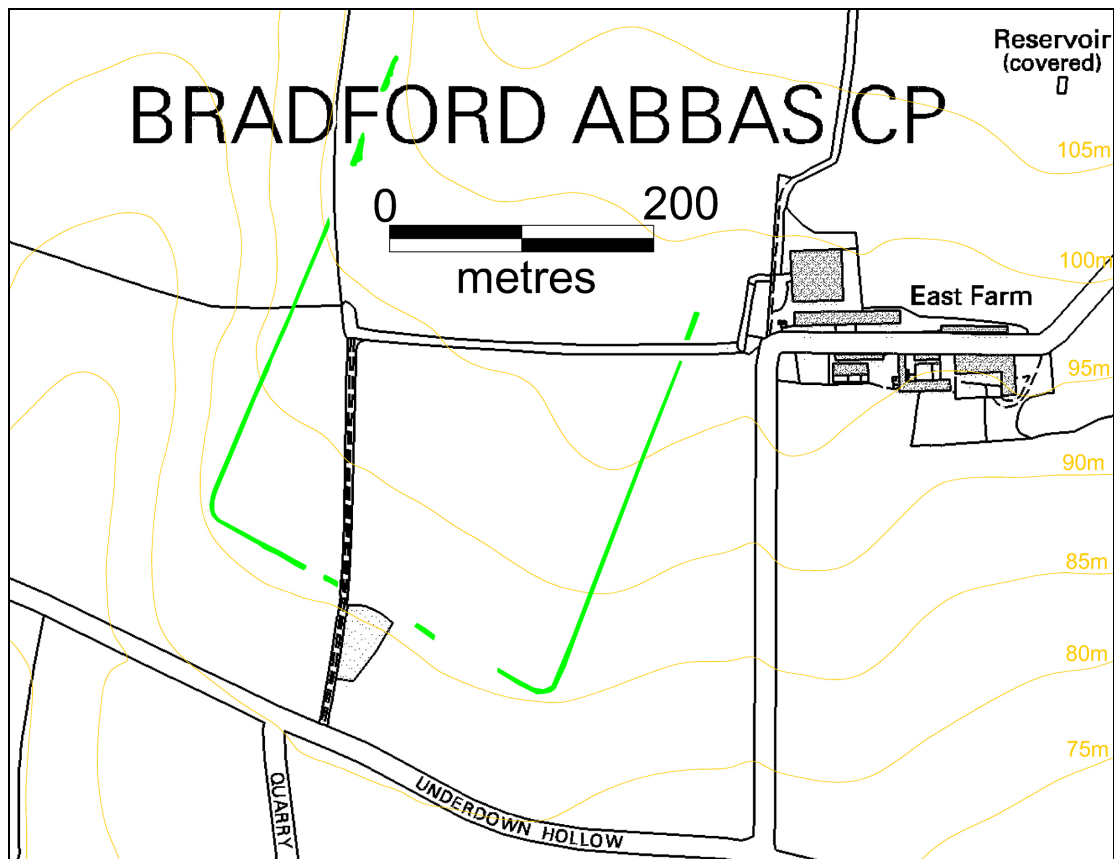


Figure 10 Plan of the cropmarks of the Roman camp. 1:10000 scale base map ©Crown Copyright and database right 2013. All rights reserved. Ordnance Survey Licence number 100024900

The camp at Bradford Abbas is defined on three sides by ditches which measure 4m wide. There is no trace of an accompanying bank visible on aerial photographs. Literary references suggest the bank, topped by wooden stakes, was the key defensive structure and archaeological evidence supports the assertion that the bank could be constructed from turves, or a mix of materials (Welfare and Swan 1995, 17). The *Epitoma Rei Militaris*, compiled by Vegetius in the 4th century, suggests that a ditch was dug, with a rampart on the inside, only when local materials could not be cut into compact blocks to form a bank (Ibid).

The military context dictated the size and location of a Roman temporary camp, depending on how many men were in the military unit, the needs of the campaign, exercise, or progress of transit to a more permanent military base. The field evidence, and literary references, show that a naturally defensive location is required, if not always achievable due to local ground conditions, whenever a stop-over was necessary (Welfare and Swan 1995, 7). The ideal position seems to have been on a gentle slope with entrances facing towards the enemy or line of advance, and the rear, at the top of the slope with commanding views (Ibid). An entrance in each side, or multiple entrances on the long sides, appear to have been the norm but the field evidence varies considerably (Ibid, 18). The location of the camp at Bradford Abbas matches these criteria.

DISCUSSION

The camp is located just over 3km north-east of the supposed route of the Dorchester to Ilchester Roman road and Ilchester is a further 9km to 10km along this. The camp seems rather far away, and across a river, to be associated with construction of the road. Roman military activity, which could be relevant for the Bradford Abbas camp, is indicated by archaeological evidence at a number of nearby sites such as Ham Hill, South Cadbury and the probable early Roman fort, and later town, at Ilchester (Holbrook 2008, 160; Leach 1994, 4). The excavators at Ilchester also suggested the possibility of a political or social centre there in the late pre-Roman Iron Age (Leach 1994, 3; Leach 2010).

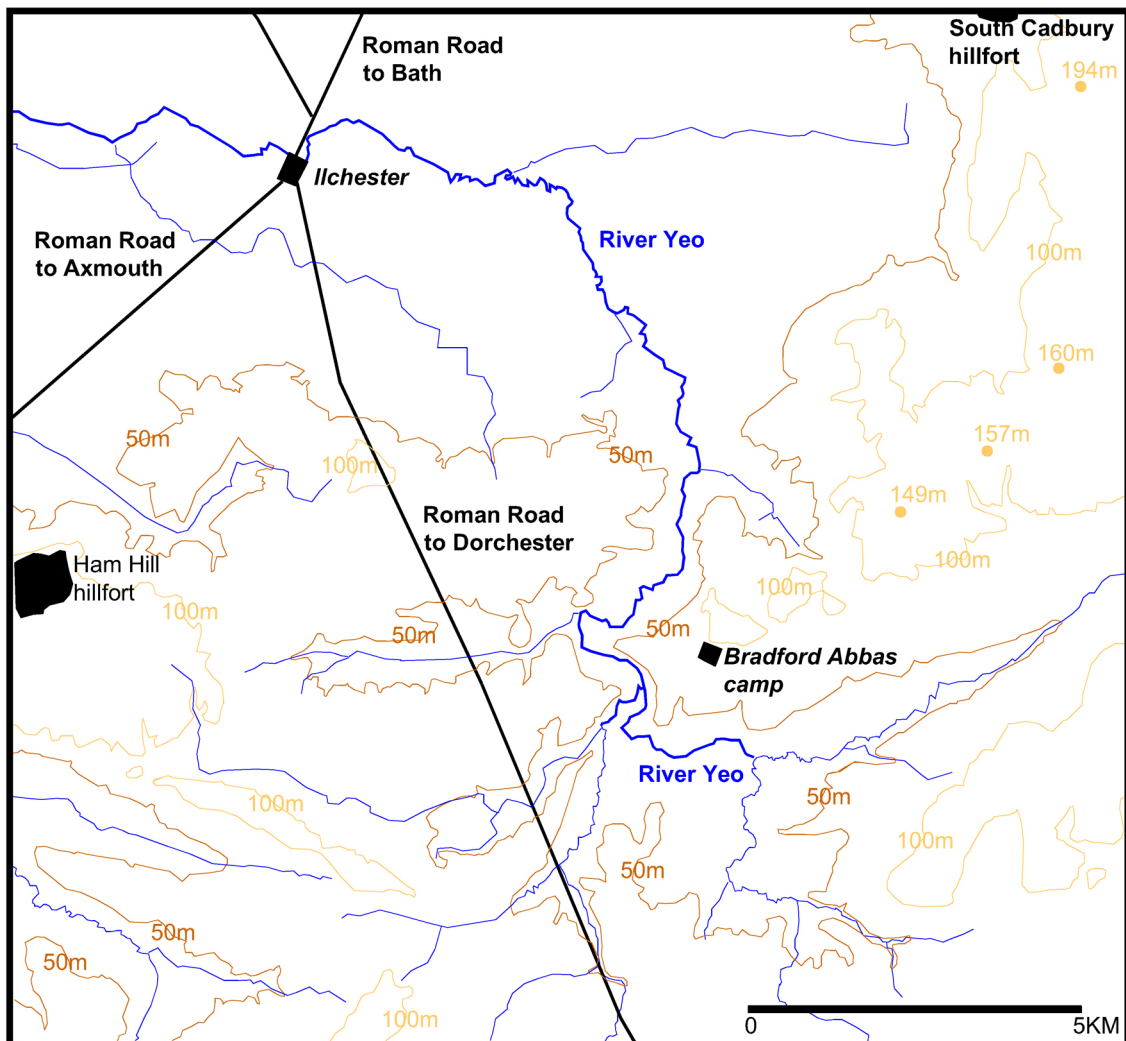


Figure 11 Location of the temporary camp in relation to hillforts, Ilchester and supposed routes of Roman roads in the region. Topographic information derived from 1:50,000 scale map ©Crown Copyright and database right 2013. All rights reserved. Ordnance Survey Licence number 100024900

The exact nature of the military presence in the south-west of England is not really known although there have been efforts to create a narrative from the scarce written sources for

the 1st century AD campaigns (Putnam 2007; de la Bedoyere 2010). The general pattern can be seen in the archaeological record and gleaned from the written sources (Holbrook 2008, 160; Jones 2012 13-17). The landing place of the invasion, led by Aulus Plautius in the reign of the Emperor Claudius in 43 AD, is not known and is postulated as in Kent or Sussex. The Roman military presence is then thought to have spread from the south-east to the north and west of Britain although probably in a complex series of campaigns and movements over decades rather than a linear progression (Ibid).

It is therefore possible that the camp at Bradford Abbas was established some time in the middle to late decades of the 1st century AD as part of a local military campaign. Alternatively it may have been established by a Roman unit in transit to the west, possibly heading for Mendip or even Wales, perhaps prior to the establishment of the fort at Ilchester. Further work is required to establish a convincing chronology and context for construction of the camp.

SIGNIFICANCE

Although less well studied than more substantial and permanent military installations, such as forts and frontiers, there is considerable evidence of the use of temporary Roman camps throughout the Roman Empire and in Britain in particular (Jones 2012 9-12). The military reasons for the construction of the camp at Bradford Abbas may never be known. However, the camp is a rare find in the south-west of England and is a valuable addition to the scanty evidence of Roman military activity in this region in particular as it may be part of an early military campaign (Holbrook 2008, 151; Jones 2012, 16 Figure 2).

Jones notes that the national distribution of known Roman camps in Britain highlights the recorded trouble spots in Wales, northern England and Scotland where significant clusters are found (Jones 2012 17 Figure 2). That very few are known in the southern and western parts of England does not indicate a lack of Roman military activity as this would contradict much of the documentary and archaeological evidence. The lack of evidence of camps could be due to a lack of archaeological prospection. However the south of England has large areas with topography and land use conducive to discovery of buried remains through aerial photography and is where, for example, numerous Roman villas have been found. There are also upland areas in the south of England where well preserved earthworks survive (or are recorded on early aerial photographs), including Roman settlements, but where no camps have been identified. In contrast, aerial photography greatly enhanced the known distribution of camps in central and southern Scotland and the Welsh Marches (Jones 2012 64-67).

The discovery of a previously unknown Roman camp in the south-west of England is highly significant as it is one of only four positively identified in the region. It is possibly a rare survival of a site associated with some of the earliest military campaigns of the Claudian period (43 AD onwards) possibly linked to overthrow of the local political centres at Ham Hill and South Cadbury.

METHODS

The EH aerial reconnaissance was carried out in a Cessna 172 in summer 2010. Aerial photographs were taken using Canon 1Ds MKII digital cameras. The camp was recorded on the English Heritage Monuments database, AMIE. Dorset HER and the EH Regional team were notified. It formed part of the EH Press release on aerial discoveries in 2010.

All available aerial photographs were consulted for the mapping and analysis. All prints of vertical air photos were viewed using a hand held stereoscope to enable the site to be viewed in 3D. This provided useful details on the topographical setting of the site. Transformed and georeferenced photographs (true-colour and infra-red) were supplied through the Pan Government Agreement. Digital photos were viewed and manipulated when necessary in Adobe Photoshop. Online sources were viewed in a web browser.

Born digital oblique and scanned oblique and vertical photographs, with archaeological information, were transformed to a plan view and georeferenced. The air photo transformations were carried out using the University of Bradford Aerial5 photo rectification program. Control information was taken from the OS 1:2500 scale base mapping. The height differences across the area were compensated for with a digital terrain model derived from Pan Government Agreement 5m interval contours. The digital transformations used for the plot are therefore accurate to within +2m to the base map and so will be typically within circa 5m of true ground position depending on the accuracy of the base mapping.

The air photo transcription was produced in AutoCAD by tracing the archaeology from relevant transformed and georeferenced aerial images.

Monument descriptions for the main elements of the site, and an event record, were created in the English Heritage database, AMIE. Monument Records are available online via the PastScape database on the Heritage Gateway.

<http://www.heritagegateway.org.uk/gateway/>

The plan, monument records and this report are available from the English Heritage Archive.

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APPENDIX I LIST OF AERIAL PHOTOGRAPHS OF CAMP AND LAND USE

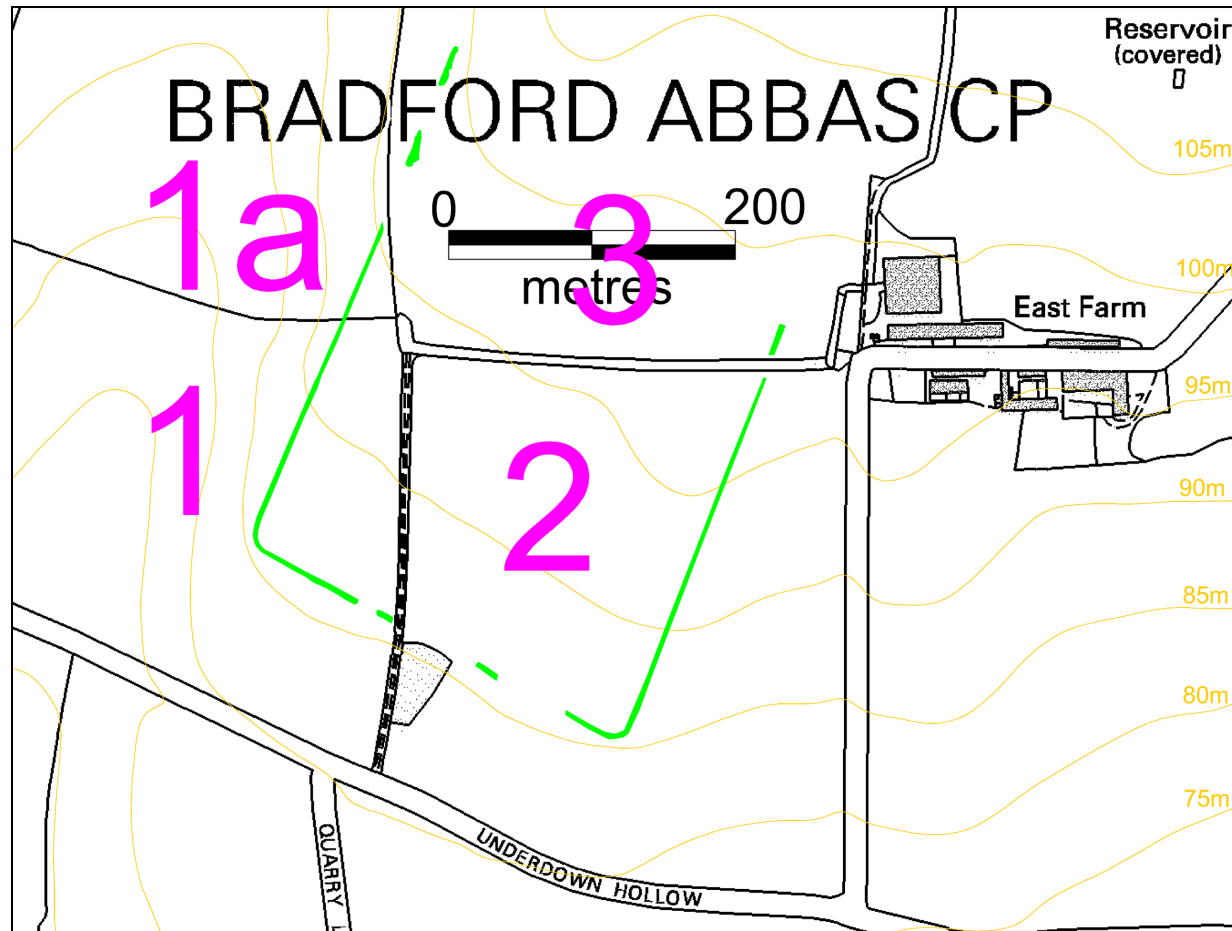


Figure 12 Plan showing field numbers used in table detailing land use. 1:10000 scale base map ©Crown Copyright and database right 2013. All rights reserved.
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The following table lists all aerial photographs of the camp. It lists the land use in each of the fields (as numbered above).

Reference Number/Sortie	Frame/file	Date/GE layer	Camp visible?	Field 1	Field 1a	Field 2	Field 3
1943 land use survey map	N/A	1930s	N/A	Meadowland or permanent grass	Meadowland or permanent grass	Arable (including fallow, short ley, rotation grass, market gardens)	Meadowland or permanent grass
CPE/UK/1974	2207-2009	11-APR-1947	N	Bare soil and tractor in field.	Pasture	Pasture	Pasture
CUCAP	AKJ 76	01-JUL-1964	N	Not in photo	Not in photo	Unidentified crop	Pigs
OS70216	344-46	14-JUN-1970	Y	Grass	Cereal crop	Cereal crop, barley?	2 unidentified crops
OS70267	427-428	13-JUL-1970	Y	Grass	Cereal crop	Cereal crop	2 unidentified crops
MAL76020	68-69	20-SEP-1976	N	Grass	Grass	Active cultivation	Grass
OS96601	209-210	06-JUN-1996	N	Hay?	Bare soil	Half arable/Half (north) ?hay	Pasture
PGA True colour	ST5815	24-MAY-2001	Partly	Cereal crop	Cereal crop	Oil seed rape (germinating)	Grass
Google Earth	Duplicate of above	2001&2002	Ditto	Ditto	Ditto	Ditto	Ditto
Google Earth	N/A	2005?	partly	Cereal crop	Cereal crop	germinating crop	Cereal crop
PGA Infra-red	ST5815	03-JUN-2006	Y	Cereal crop	Cereal crop	Cereal	Unidentified germinating crop
Google Earth	True colour	As above 2006	Y	Ditto	Ditto	Ditto	Ditto
PGA True colour	ST5815	01-JUL-2009	Y	Cereal crop	Cereal crop	Cereal crop	Maize?
Google Earth	Duplicate of above	2009&2010	Ditto	Ditto	Ditto	Ditto	Ditto
PGA True colour	ST5815	23-MAY-2010	Y	Cereal crop	Cereal crop	Cereal crop	Cereal crop
English Heritage	26650/01-11	28-JUN-2010	Y	Cereal crop	Cereal crop	Cereal crop	Cereal crop
English Heritage	27264/16-23	05-JUL-2010	Y	Cereal crop	Cereal crop	Cereal crop	Cereal crop
English Heritage	26818/01-4-8	20-OCT-2010	N	Bare soil	Bare soil	Stubble	Stubble
English Heritage	27755/19-24, 30-1	16-JUL-2013	Y	Cereal crop	Cereal crop	Cereal crop	Cereal crop



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