

Berryfields

Iron Age settlement and a Roman bridge, field system and settlement along Akeman Street near Fleet Marston, Buckinghamshire

by Edward Biddulph, Kate Brady, Andrew Simmonds
and Stuart Foreman

with contributions by

*Enid Allison, Paul Booth, Lee G Broderick, Lisa Brown, Michael Donnelly,
Mark Gibson, Damian M Goodburn, Christof Heistermann, Lynne Keys, Lauren
McIntyre, Julia Meen, Quita Mould, Rebecca Nicholson, Cynthia Poole, Mairead
Rutherford, Ian R Scott, Ruth Shaffrey, Wendy Smith, Elizabeth Stafford,
Lena Strid and Helen Webb*

Illustrated by

Sophie Lamb, Charles Rousseaux and Magdalena Wachnik

Oxford Archaeology Monograph No. 30

2019

The publication of this volume was generously funded by the Berryfields Consortium

Published by Oxford Archaeology as part of the Oxford Archaeology Monograph series

Designed by Oxford Archaeology Graphics Office

Edited by Andrew Simmonds

© 2019 Oxford Archaeology Ltd

Figures 1.1 to 1.4 contain Ordnance Survey data © Crown copyright 2018 OS 94533119 © Crown copyright and database rights 2019

Figures 6.2 and 6.3 are based on data from the digital map presented by the Rural Settlement of Roman Britain: an online resource (Allen et al. 2015), which is provided courtesy of the Digital Atlas of the Roman Empire (DARE) project (<http://dare.ht.lu.se>) under a CC-BY-SA licence

Front cover: Pottery from pit 3067, with site plan in background

Back cover: A lion head stud, an egg of domestic fowl and on-site conservation of a wooden basket

ISBN 978-0-904220-85-8

Typeset by Production Line, Oxford

Printed in Great Britain by Page Bros, Norwich

Contents

List of Figures	v
List of Tables	viii
Summary.....	x
Acknowledgements.....	xii
Chapter 1: Introduction	1
Project background	1
Location, topography and geology.....	8
Archaeological background.....	8
Fieldwork methodology.....	10
Presentation of the site sequence and phasing.....	11
The archive	12
Chapter 2: Archaeological sequence	15
Phase 1: Early prehistoric to Bronze Age	15
Phase 1/2: Late Bronze Age/early Iron Age or middle Iron Age	18
Phase 2: Later Iron Age.....	19
Phase 3: Late Iron Age or early Roman.....	23
Phase 4: Early Roman	23
Phase 5: Middle Roman	34
Phase 6: Late Roman	40
Phase 8 and 9: Medieval and post-medieval	50
Undated structure	50
Chapter 3: Finds	51
Prehistoric pottery <i>by Lisa Brown</i>	51
Late Iron Age and Roman pottery <i>by Edward Biddulph</i>	55
Medieval pottery <i>by Edward Biddulph</i>	80
Clay pipe <i>by Kate Brady</i>	80
Ceramic building material <i>by Cynthia Poole</i>	80
Fired clay <i>by Cynthia Poole</i>	83
Worked stone <i>by Ruth Shaffrey</i>	86
Flint <i>by Michael Donnelly</i>	89
Roman coins <i>by Paul Booth</i>	91
Metal and glass objects <i>by Ian R Scott</i>	97
Iron slag and related high-temperature metalworking debris <i>by Lynne Keys with a contribution by Edward Biddulph</i>	103
Leather shoes <i>by Quita Mould</i>	104
Woodwork <i>by Damian M Goodburn</i>	105
Chapter 4: Human remains <i>by Lauren McIntyre, Mark Gibson and Helen Webb</i>.....	155

Chapter 5: Environmental evidence and radiocarbon dating	121
Animal bone by Lee G Broderick, with a contribution by Lena Strid	121
Avian eggs by Rebecca Nicholson	127
Fish remains by Rebecca Nicholson	128
Marine molluscs by Rebecca Nicholson	128
Land and freshwater molluscs by Elizabeth Stafford	129
Insects from pit 3067 by Enid Allison	131
Charred plant remains and charcoal by Julia Meen, with a contribution by Wendy Smith	137
Waterlogged plant remains from pit 3067 by Julia Meen	142
Pollen by Mairead Rutherford	148
Auger survey by Christof Heistermann	152
Radiocarbon dating by Edward Biddulph	152
Chapter 6: Life on the Roman road	153
Prehistoric period	153
Roman period	157
After the Romans	172
Appendix 1: List of coins	176
Appendix 2: Insects and other invertebrates from pit 3067	194
Bibliography	201
Index	215

List of Figures

Chapter 1

1.1	Site location.	2
1.2	Plan showing results of geophysical survey (GSB 1999) and location of evaluation trenches	3
1.3	Detailed view of three areas of settlement revealed by the geophysical survey (GSB 1999)	4
1.4	Plan showing investigation areas	5
1.5	The AYLBER07 area after initial soil stripping, looking east	6
1.6	View across the AYLBER10 area of excavation	7
1.7	General view of the ABPR08 area of excavation	7
1.8	Geology of the Aylesbury area	9

Chapter 2

2.1	Location of early prehistoric to Bronze Age features (Phase 1)	16
2.2	Plan of early prehistoric to Bronze Age features (Phase 1)	17
2.3	Location of late Bronze Age/early Iron Age and Iron Age features (Phases 1/2 and 2)	18
2.4	Plan of waterhole 9204 and associated features (Phase 1/2)	19
2.5	Plan of prehistoric activity in the north-west of the site	20
2.6	Sections and plan of groups SG8093, SG8094 and SG8095	21
2.7	Location of early Roman features (Phase 4)	24
2.8	Multi-phase plan of features in south-east of site to north and south of Akeman Street	25
2.9	Sections through Akeman Street, with photographs showing road surface	26
2.10	Burial 3340 within fill of ditch SG8137	26
2.11	Plan of posthole structures SG8031 and SG8159	29
2.12	Multi-phase plan of features in east of site (Aylesbury Vale Parkway)	30
2.13	Sections through ditches SG332 and SG356 (G6; Phase 4)	31
2.14	Plan of early Roman field system (G6) in the north-west of the site	32
2.15	Multi-phase plan of features in central part of site, including ladder settlement.	33
2.16	Sections through G24 enclosure and roundhouse	34
2.17	Location of middle Roman features (Phase 5)	35
2.18	Section through ditch groups SG8053 (G23) and SG8054 (G11)	35
2.19	Plan and section of 4117/4118	36
2.20	Multi-phase plan of features in north-east tip of site.	37
2.21	Plan and sections of features in groups G10 (pond 3062, pit 3067 and associated features) and G18 (field ditches)	38
2.22	Plans of burials 3000 and 3003.	39
2.23	Location of late Roman features (Phase 6)	41
2.24	Plan of late Roman ditches (G12 and G23) to south-east of ladder settlement	42
2.25	Plan of pit 3067 (G10)	43
2.26	North-west-facing section through pond 3062 and pit 3067 (G10), showing locations of monoliths and incremental samples.	44
2.27	Excavation of pit 3067	44-5
2.28	Stone-lined pit 3270	45
2.29	Sections through ditch SG358 and tree-throw hole 630 cut by plough furrow 628	47
2.30	Distribution of Roman coins in the southern part of the Aylesbury Vale Parkway area.	48
2.31	Plan of graves 424 and 436.	48
2.32	Location of medieval and post-medieval features (Phases 8 and 9)	49

Chapter 3

3.1	Prehistoric pottery, nos 1-11	56
3.2	Prehistoric pottery, nos 12-16	57
3.3	Complete or near-complete pottery from pit 3067	67
3.4	Butt-beaker in grog-tempered ware from Phase 3 pit 3059	69
3.5	Scattergram plotting ceramic assemblages of landscape groups based on the relationship between mean sherd weight and 'completeness' (mean EVE)	71
3.6	Scattergram showing the comparative proportions of jars and open forms (bowls and dishes) in phased ceramic assemblages from settlements on Akeman Street, based on quantification by EVE	72
3.7	Roman pottery, nos 1-13	76
3.8	Roman pottery, nos 14-36	77
3.9	Roman pottery, nos 37-59	78
3.10	Roman pottery, decorated samian and a mortarium stamp	79
3.11	Ceramic building material	82
3.12	Fired clay	85
3.13	Worked stone	88
3.14	Worked flint objects	90
3.15	Metal objects, nos 1-22	98
3.16	Metal objects, nos 24-28	99
3.17	Metal objects from Aylesbury Vale Parkway	103
3.18	Leather shoes	104
3.19	Abandoned oak saw baulk (timber 2685), with two planks still joined at the axe cut 'felled end'	106
3.20	Diagrams showing three stages in making the late Roman saw baulk (timber 2685): A) felling the small parent oak, B) axe-squaring (hewing) the parent log, C) the saw baulk set up for the 'tripod sawing' method to make planks	107
3.21	Two representative stakes from the edge of the later Roman waterhole: A) radially cleft ¼ log stake 2684, B) cleft half ash pole stake 2715	108
3.22	Late Roman basketry tray, SF 2687: A) the basket exposed <i>in situ</i> , B) Dana Goodburn-Brown conserving the basket, C) the basket being prepared for lifting	109
3.23	Detailed drawing of late Roman basketry tray (SF 2687), showing the split oak or 'spelk' base and the willow rod sides, and other wooden objects	110
3.24	Drawing of small Roman ash mallet head (SF 2678)	111
3.25	Oak piles 5667 and 5668, probably once part of a bridge carrying Akeman Street across the River Thames	113

Chapter 5

5.1	Condition of identified animal bone specimens per phase, as a percentage of NISP	123
5.2	Proportions of livestock mammals (by NISP) for phases with greater than 100 mammal specimens	123
5.3	Withers heights of horses (in mm), following May (1985, 368-82)	123
5.4	Log ratios of domestic cattle metapodials (NISP), using Gill Mill Phase 4b (Strid 2018) as the standard	124
5.5	Log ratios of Phase 2 caprine metapodials (NISP), using Gill Mill Phase 4b (Strid 2018) as the standard	124
5.6	Coracoid bone of chicken (<i>Gallus gallus</i>) from pit SG8114	124
5.7	Chicken egg SF 2615 from pit 3067	127
5.8	Proportions of terrestrial beetles and bugs representing selected ecological groups	131
5.9	Single-grained spikelet of spelt, dorsal view (left) and side view (right)	142
5.10	Double-grained spikelet of spelt, side view (left) and dorsal view (right), in which the attached coleoptile and the germinating grain can be clearly seen	142

List of Figures

5.11	Proportions of waterlogged seeds from different ecological groupings in incremental samples from pit 3067	143
5.12	A) <i>Beta vulgaris</i> , beet; B) <i>Coriandrum sativium</i> , coriander; C) seeds of <i>Anethum graveolens</i> , dill; d) seeds of <i>Brassica rapa ssp. campestris</i> , wild turnip	147
5.13	Pollen diagram, pit 3067	148-9
 Chapter 6		
6.1	Pit alignment, ditch, trackway: three successive prehistoric landscape features	156
6.2	Berryfields MDA in its archaeological context	158
6.3	The network of Roman roads and minor roads at Fleet Marston (data based on Allen <i>et al.</i> 2015)	160
6.4	View of the River Thames looking north-west along the line of Akeman Street	173
6.5	The line of Akeman Street preserved as an open space within the Berryfields development, looking south-east towards the River Thames	174

List of Tables

Chapter 1

1.1	Investigation areas, with context number ranges.....	6
1.2	Description of major landscape groups.....	12

Chapter 3

3.1	Quantities of late Iron Age and Roman pottery by phase.....	55
3.2	Quantification of the late Iron Age and Roman pottery by fabric.....	58
3.3	Quantification of the late Iron Age and Roman pottery by form.....	60
3.4	Late Iron Age/early Roman pottery (Phase 3). Quantification by estimated vessel equivalent (EVE).....	64
3.5	Early Roman pottery (Phase 4). Quantification by estimated vessel equivalent (EVE).....	64
3.6	Middle Roman pottery (Phase 5). Quantification by estimated vessel equivalent (EVE).....	65
3.7	Late Roman pottery (Phase 6). Quantification by estimated vessel equivalent (EVE).....	66
3.8	Pit 3067: vessel class by context. Quantification by estimated vessel equivalent (EVE).....	67
3.9	Pit 3067: ware group by context. Quantification by sherd count.....	67
3.10	Pattern of pottery deposition by feature type.....	69
3.11	Pattern of pottery deposition by major landscape group.....	70
3.12	Types of burning or blackening by form. Quantification by count of vessels.....	74
3.13	Quantification of fired clay by form and fabric.....	83
3.14	Quantification of fired clay forms by phase.....	84
3.15	Quantification of fired clay fabrics by phase.....	85
3.16	The flint assemblage. Quantification by count of objects.....	89
3.17	Quantification of coins by issue period and phase.....	92
3.18	Coin assemblages from local sites and selected regional roadside settlements.....	93
3.19	Coin assemblages from selected regional rural settlements.....	94
3.20	Summary quantification of the metals assemblage by object function and site phase (object count).....	97

Chapter 4

4.1	Disarticulated human bone.....	117
4.2	Summary of cremation burial 455.....	118
4.3	Summary of cremation burial 2995/2999.....	119

Chapter 5

5.1	Total NISP (Number of Identified SPecimens) and NSP (Number of SPecimens) figures per period.....	122
5.2	Animal bone specimens recovered from sieved environmental samples and hand-collected (unsieved samples).....	123
5.3	Number of identified animal bone fragments per species from Aylesbury Vale Parkway.....	125
5.4	Marine molluscs.....	128
5.5	Land and freshwater molluscs from pit 3067.....	129
5.6	Habitat and food preferences of strongly plant-associated beetles and bugs.....	132
5.7	Charred plant remains from early Bronze Age posthole 1637, early Roman grave 3003 and late Roman ditch 2635.....	135
5.8	Charred plant remains from pit 3067.....	136
5.9	Estimates of total chaff in each sample from pit 3067, based on fractions quantified.....	140

List of Tables

5.10	Charcoal from early Neolithic pit/posthole 1637.....	140
5.11	Charred plant remains from feature 459, Aylesbury Vale Parkway	141
5.12	Waterlogged plant remains from pit 3067	144
5.13	Radiocarbon determinations	151

Chapter 6

6.1	List of finds from pit 3067	168
6.2	List of objects from soil layer 3082	170

Summary

Archaeological investigations were conducted by Oxford Archaeology to the north-west of Aylesbury in Buckinghamshire between 2007 and 2016 prior to the construction of housing and related infrastructure within the Berryfields Major Development Area. The fieldwork recovered evidence for human activity spanning the early Neolithic to the post-medieval period, with significant elements relating to a middle Iron Age settlement and the agricultural hinterland of the nucleated Roman settlement of Fleet Marston situated on the major Roman road of Akeman Street.

A pit dated to the early Neolithic period was one of the earliest features on the site. Radiocarbon dating of hazelnut shells recovered from the feature shows it to be one of the earliest Neolithic features in the region. The feature fits the general pattern of intermittent occupation by people moving across the landscape, possibly following the course of the River Thames. An enclosure relates to limited occupation during the middle Bronze Age, while funerary activity of the same period is represented by two ring ditches, likely to be the remains of disturbed barrows.

A pit alignment, a form of territorial boundary, was established between the late Bronze Age and the middle Iron Age and was succeeded by a boundary ditch. This was in turn replaced by a trackway, probably in the late Iron Age, which survived into the initial decades of the Roman period before being abandoned. The middle Iron Age settlement was characterised by roundhouses, enclosures and four-post structures. The settlement's economy was mixed, with both arable and pastoral farming practised, but the emphasis appears to have been on grazing and the rearing of livestock. Cattle, sheep and horses were the dominant species represented, the last recorded in sufficient quantity to suggest a specialist horse farming element, perhaps involving trading or ranching and exploiting the location of the site on an important routeway.

No other evidence that certainly dated to the late Iron Age was discovered, and it seems that the Roman-period roadside settlement of Fleet Marston, or at least that part uncovered at Berryfields, was established with no late Iron Age predecessor soon after Akeman Street was laid out. An extensive system of fields and enclosures was set out along the road and extending back from it. While a small number of military-related objects was found, the presence of a Roman fortress at Fleet Marston could not be corroborated, and it is likely that the objects post-date the invasion period and relate to the

movement of soldiers along Akeman Street in the Claudio-Neronian period. Two timber piles found at the junction of Akeman Street and the River Thames represent the remains of a Roman bridge that carried the road over the river.

The early Roman economy at Berryfields, like that of the middle Iron Age, was based mainly on livestock, with cattle, horses and sheep again well represented. Wheat was grown and so too were fodder crops. The site may have played a specialist role in the supply of horses to the army and the region, and the presence at Fleet Marston of a *mutatio* or changing-post is not implausible.

An array of conjoined ditched plots or a so-called ladder settlement was established along a minor road during the 2nd century AD, if not before. Other minor roads were laid out, and over time Fleet Marston found itself at the intersection of routeways that took travellers into the countryside and on to major towns. The 2nd century also saw deposition in a wetland area that formed a natural pond of sorts by the side of Akeman Street. This served as a waterhole, but it may also have seen some ritual deposition, with passers-by attracted by its watery, liminal character. By the later 3rd century AD, a pit was cut into the pond, which by that time had dried up. The pit breached the underlying water table, providing a supply of water for a roadside malting and brewing complex comprising a stone-lined pit, connecting channel and an oven.

Such activity joins other industrial activity from the site that is likely to have catered for traffic passing through Fleet Marston along Akeman Street. Woodworking and metalworking workshops were set up along the road to provide objects for trade, repairs and spare parts. A spread of coins across roadside fields speaks of the establishment of markets at this important crossroads. Pottery arrived via the road network from across southern Britain and beyond, and the presence of briquetage and marine shells identify trade connections with coastal regions.

When the malting and brewing activity ceased, the pit that was dug into the pond received a range of material, including coins, wooden tools, a basket, whole chickens' eggs, remnants of shoes, whole ceramic vessels and exotic plant material, the organic material preserved in the pit's waterlogged environment. Some of this evidence is likely to represent ordinary waste, but from the quantity of coins and association with highly unusual objects, the eggs in particular, it is difficult to avoid the conclusion that the pit saw ritual deposition. The

Summary

sacred nature of the pit and the marshy environment around it is strengthened by some of the objects from an amorphous soil layer, among them numerous coins, brooches and a fragment of a Bronze Age socketed axe. Elsewhere in the late Roman period, activity at Berryfields was confined to farming near the ladder settlement.

Activity ceased by the late 4th century. No evidence was recovered for activity in the Anglo-

Saxon period. Agricultural activity resumed in the medieval period, with extensive evidence for ridge-and-furrow cultivation identified, some of it aligned with the former Roman roads. A late medieval or post-medieval enclosure, probably an oxpen, was recorded. The recovery of a medieval ampulla may potentially be related to pilgrimage to the well of St Osyth, located by historical sources further along the road to Aylesbury.

Acknowledgements

The archaeological fieldwork, post-excavation programme and publication were funded through the generosity of several organisations. Archaeological work at Aylesbury Vale Academy was funded by BAM Construction, while the work at Aylesbury Vale Parkway was funded by Aylesbury Vale Parkway Ltd. The bulk of the funding has been provided by the Berryfields Consortium, which has been responsible for excavations across the Berryfields MDA in 2007 and between 2010 and 2012 and for interventions in 2013, 2014 and 2016 and subsequent watching briefs, as well as the post-excavation of those phases and the overall publication programme. Oxford Archaeology is indebted to all of them. The authors would like to thank in particular Stuart Grant of Cooper Grant Consulting, acting on behalf of the Berryfields Consortium, and Ashley Gierth of John Laing plc (Aylesbury Vale Parkway) for their support.

Special thanks are owed to Ben Stephenson of BSA Heritage, who monitored the fieldwork and post-excavation project on behalf of the Berryfields Consortium. The authors are also grateful to Sandy Kidd, formerly Senior Archaeology Officer at Buckinghamshire County Council, and Phil Markham, the current Senior Archaeology Officer. Their assistance and advice have been very much appreciated.

The archaeological fieldwork (AYLBER) was managed by initially by Tim Haines, then by Nicholas Shepherd, with Stuart Foreman managing the latter stages. The fieldwork was supervised at various times by Annie Bingham, John Boothroyd, Alexandra Latham, Steve Leech, Jim Mumford, Mike Sims, Lee Sparks, Ashley Strutt and Peter Vellet. Bob McIntosh supervised additional trenching in 2016. Ian Cook supervised the fieldwork at Aylesbury Vale Parkway, which was managed by Tim Haines. The post-excavation programme was managed by Edward Biddulph, while Stuart Foreman retained overall management of the project after fieldwork. Support was provided by Leigh Allen (finds management), Magdalena Wachnik (graphics management), Matt Bradley (geomatics management), Louise Loe (burials management), Elizabeth Stafford (geoarchaeological management), Rebecca Nicholson (environmental management), Nicola Scott (archives management), and Leo Webley (project monitoring). Charles Rousseaux prepared the figures for Chapters 1, 2 and 6 and, with Sophie Lamb, prepared the finds illustrations. Photographs of the finds were taken by Magdalena Wachnik.

The project could not have been completed without the hard work of the many other Oxford Archaeology staff who contributed to the project, both in the field and during the post-excavation programme. The authors extend their thanks to the following staff for their contribution to the project during and after fieldwork: Rebecca Allen, Natalie Anderson, Katrina Anker, Robert Bailey, Robin Bashford, Magdalena Benysek, Tom Black, Claire Bland, Jody Bloom, Harriet Bloore, Anne-Laure Bollen, Thomas Booth, Ceridwen Boston, Thomas Brook, Richard Broome, Ralph Brown, Sergio Carvalho, Carl Champness, Nathan Chichen, Julia Collins, Ian Cook, Sharon Cook, Renata Correia, Nicholas Cox, Geraldine Crann, Helen Crossman, Brian Dean, Mark Dodd, Markus Dylewski, Gary Evans, Adam Fellingham, Matthew Fenn, Margaret Feryok, Felicia Fricke, Robert Friend, Peter Gane, Mark Gibson, Andrew Ginns, Lee Grana-Nicolaou, Rose Grant, Rebecca Griffin, Jacek Gruszczynski, Leo Heatley, Christof Heistermann, Will Hewson, Anna Hodgkinson, Luke Howarth, Victoria Hughes, Jonathan Hutchings, David Jamieson, Gary Jones, Lisa Kennard, Hannah Kennedy, Mike Kershaw, Anne Kilgour, Laura King, Nikolay Kolev, Aaron Kulakiewicz, Neil Lambert, Paul Leader, Mark Littlewood, Ros Lorimer, Peter Lovett, Sarah Lucas, Wajdan Majeed, Panagiota Markoulaki, Javier Martinez-Jimenez, Ben McAndrew, Robert McIntosh, Michael McLean, Janice McLeish, Dave McNicol, Julia Meen, Juliette Michel, Kev Moon, Matthew Morgan, Wendy Morrison, David Mullin, Paul Murray, Richard Palmer, Conan Parsons, Mark Patenall, Andrea Paylor, Rebecca Peacock, Benn Penny-Mason, Chris Pickard, Olivia Pierpoint, Mattias Pihlwret, Emily Plunkett, Dawn Powell, Emma Powell, Kay Proctor, Meirion Prysor, Muhammed Quadir, Adam Rapiejko, Susan Rawlings, Antonio Reis, Christopher Richardson, Dave Roberts, Thomas Rose-Jones, Rachel Scales, Victoria Skipper, Benjamin Slader, Jane Smallridge, Chris Standish, Gemma Stewart, Daniel Strachan, Laura Strafford, Nicholas Swift, Dan Sykes, Martin Thorburn, Jennifer Thurstan, Mariangela Vitolo, Leanne Waring, Dan Watkeys and Alistair Zochowski.

Thanks are owed to Tom Clarke, who carried out the metal detector survey of the Phase 2 excavation at Aylesbury Vale Parkway. Edward Biddulph would like to thank Joanna Bird for identifying a piece of decorated samian and Dana Goodburn-Brown for the cleaning and conservation of the

Acknowledgements

Roman coins and metalwork and the examination of lead fragments. Julia Meen is grateful to Ruth Pelling and Denise Druce for their assistance in the identification and quantification of spelt rachis from the site.

Drafts of the monograph text were read by Bob Zeepvat, Leo Webley and Paul Booth, whom the authors would like to thank for their very helpful comments and suggestions. Any errors, however, remain the responsibility of the authors.



This publication is dedicated to Steve Leech, who died unexpectedly just before the volume went to print. Steve was one of the principal project officers on the Berryfields excavation and oversaw much of the fieldwork. The coherence of the story presented in this volume is testament in no small measure to Steve's thorough archaeological knowledge and the meticulous on-site recording undertaken by him and the staff under his supervision.