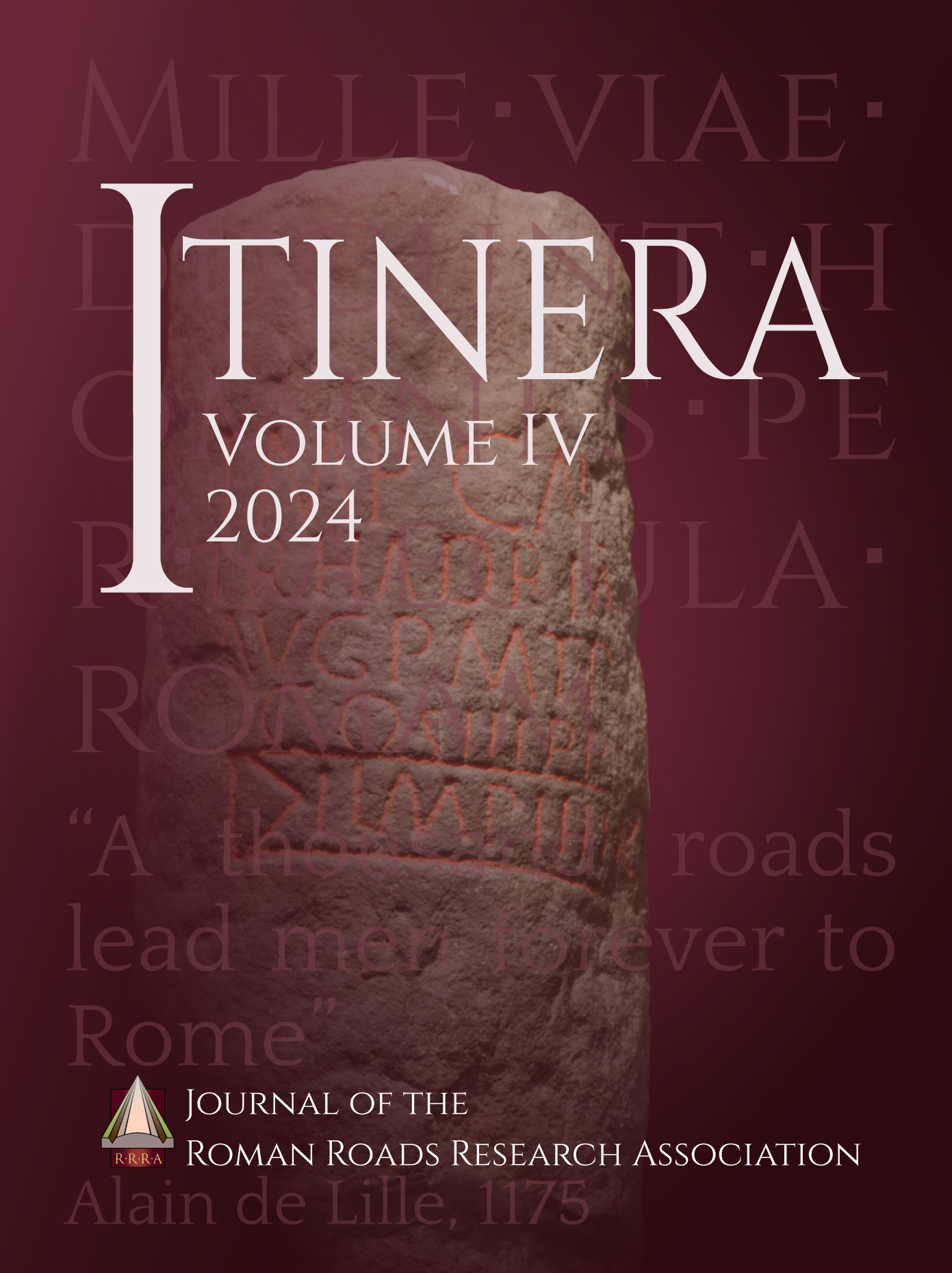


ITINERA

Volume IV
2024

"A thousand roads lead men forever to Rome"

Alain de Lille, 1175

Journal of the
Roman Roads Research Association

ITINERA

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About the Association

by Mike Haken



The late Hugh Toller and I founded the Roman Roads Research Association to provide a focal point for what we thought was a fairly small group of individuals with an interest in the study of Roman roads and connectivity throughout the former Roman province of Britannia. I'm not sure that Hugh, who sadly died in 2016, could have imagined that at the end of April 2024 we would have an international membership totalling 556, a figure that continues to grow. We are a very broad church, ranging from those with just a general interest in the Roman period, through to professional archaeologists from both commercial and academic sectors, not forgetting those those like myself who have had a lifelong passion for the subject (some might say obsession!). The Association welcomes all new members, whatever their background.

The continuing growth in membership may well have been fuelled, at least in part, by some of the things we have achieved. For example, we have just concluded the fourth season of our online lecture series, which we launched in 2021 during the pandemic. As part of our key policy of ensuring that our work is always made as accessible as possible, our talks are open to everyone, are always free of charge, and regularly attract audiences of 200 people or more from across the world. Another excellent programme for our fifth season is being prepared by our Secretary, Dave Armstrong, and details will be released soon. You can catch up with previous seasons on our YouTube channel.

Since 2018, we have conducted over 200 Ha of geophysical survey with our own gradiometer cart, accurately identifying the course of many roads and examining Roman period sites along them. Our most recent survey, assisted by a group of local volunteers from Southwell (SCAG), was near East Stoke (*Ad Pontem*) in Nottinghamshire. This confirmed the location of the junction of RR59(x) from Ancaster with the Fosse Way, making the existence of RR59(x) now beyond dispute. We always welcome suggestions for other potential survey sites, no matter where in the country they might be.

Above all, however, our greatest achievement is *Itinera*, the only journal in the world dedicated to the study of Roman roads and transportation infrastructure. Published entirely in house by our large team of volunteers, we are proud that our standards are as high as most academic publishing houses. Indeed, As Rob Entwistle points out in the following Editorial, it is a measure of our growing credibility that *Britannia*, a journal of the Roman Society, guides authors of reports on Roman roads that would have previously been published in *Britannia* towards *Itinera* instead.

Looking forwards, the wealth of new research and discoveries that have been reported by *Itinera* have, if nothing else, highlighted the urgent need for an accurate map that reflects the true state of knowledge of the Roman road network in Britain, and the sites it served, since the national maps that do exist are either decades out of date or simply inaccurate and misleading. To rectify this situation we will soon be recruiting volunteers to assist with a nationwide project which aims to accurately redraw the map. In line with our Open Access policy, the results will all be made freely available.

Finally, I am sure that our enthusiastic membership will enable us to continue to expand and develop our activities, ensuring that the next decade is even more productive than our first decade has been.

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Editorial

Robert Entwistle



The late Hugh Toller, co-founder of the RRRA with Mike Haken, was sadly lost to Roman road research when the Association was only a year old. Earlier I had become aware of his work through his part in identifying the long-sought line of the Lune valley Roman road out of Lancaster, my native town. Identifying it through Lidar and on foot, he followed its route up and over Lancaster Ridge towards Caton and the southern flank of the Lune valley.

It is therefore a pleasure to see David Ratledge's contribution to this volume of *Itinera*, a memorial to Hugh's work in the Exeter region, developed in the light of further studies. It is appropriate that this same volume contains a significant paper by Mike Haken identifying *viae vicinales* in the north-east Midlands which perhaps should no longer be regarded as somehow 'lesser' or 'minor'.

Itinera has a record of examining different aspects of Roman road studies, not necessarily restricted to our corner of the Roman empire. The 2024 volume sees a new contribution from the Spanish archaeologist and presenter, Isaac Moreno Gallo: the first publication in English of his work analysing road construction methods and transport development. His trenchant views provide a counterbalance to other accounts, reminding us that the evidence of the trowel is always subject to interpretation.

A new departure for this volume is the incorporation of a 'Focus' section with multiple papers exploring a single theme. The subject is the Devil's Causeway – a road which branches off Dere Street just north of Hadrian's Wall to head (via Learchild fort) determinedly towards modern-day Berwick and the mouth of the Tweed – where no Roman site is known. This theme originated in a 2023 conference held in Berwick-upon-Tweed and coordinated by Dr Lindsay Allason-Jones and the Border Archaeology Society with support from the RRRA, exploring the riddle of the road. Expert presentations have been developed into these papers. We would be happy to repeat, in future volumes, similar suites of papers focused upon a single theme or aspect: suggestions for themes and contributors would be welcomed by the Editor.

As always, this volume treats different geographical parts of Britannia, ranging from the south-west (Exeter) to the north-east (Berwick). Paul Booth explores aspects of the Roman road network in the Oxford area, Mike Holmes considers issues around the River Glynde in East Sussex, and Nigel Rothwell examines the possibilities for a Thames crossing linking St Albans and Silchester.

In a full volume, however, we regret the lack of papers on Wales and Scotland, even though these countries are represented in our annual round-up across Britain. Potential contributors suggesting interesting papers on these areas of would find us warmly receptive. *Itinera* continues to welcome every submission from contributors established or new, and if necessary, will endeavour to advise authors where further work is needed for key improvements. A short proposal to the Editor of what is intended, before making a full submission, is often helpful.

Editorial

We take pride in a professional standard of production maintained entirely through the work of volunteers: our editorial board (Mike Haken, Dave Armstrong, Mike Bishop and Paul Booth, all of whom contribute endless hours to the production of each volume); our academic advisor (Pete Wilson); our index compiler (Chester Forster); and postmaster (Chris Webb). Without the dedicated work of the whole team Roman studies would be the poorer.

We are greatly heartened by the respected position that *Itinera* has achieved in the short period of its existence. The long-established journal, Britannia, acknowledges this in specifying that submissions on Roman roads for their annual update section should be limited to brief summaries of the main points of interest if accounts are also published in *Itinera*, with our journal cited for those fuller reports.

An important part of our role, alongside publicising research, is (through the RRRA) the regulation and classification of new discoveries, as Margary's original system of nomenclature strains to adapt to an expanding known road network. This volume therefore contains a list of newly attributed numbers and a proposal from Mike Haken on the classification of non-standard Roman roads.

This year we have taken the decision to slightly reduce the font size to bring *Itinera* more into line with other similar journals and to control printing costs. Even so, readers will find that 2024 marks a bumper issue: the largest volume we have yet produced.

We trust that RRRA members and all readers will enjoy and profit from this 2024 volume of *Itinera*.

Robert Entwistle

(Hon Editor, *Itinera)*

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Aspects of the Roman Road Network in the Oxford Region

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Abstract

Recent work has provided evidence that helps to clarify aspects of the evolution of the road networks around Alchester and Dorchester-on-Thames in the Oxford region. This relates mainly to Akeman Street at and north of Alchester and to parts of RR160 which connects Alchester and Dorchester and then continues south from the latter to Silchester. The exact course of the approach of RR160c to Dorchester from the south is confirmed but problems of alignments and other relationships remain within the area of the walled settlement. At Alchester a tentative scheme for the development of the route of Akeman Street is proposed. The line of Akeman Street west of Alchester certainly postdated the north-south road RR160a, the latter related to a probable early Long-Distance Alignment from the north. Whether this also predated Akeman Street reaching Alchester from the east is, however, much less certain.

Introduction

The principal components of the Roman road network in the Oxford region, particularly east and north of Oxford, have been well-known for many years, but many points of detail concerning these roads have remained uncertain, if not problematic. Recent work, particularly around Alchester (near present-day Bicester) and Dorchester-on-Thames (hereafter simply Dorchester), has helped to clarify some of these problems, though some remain unresolved and new questions arise. The present contribution attempts to summarise the main points resulting from this recent work and discuss the new evidence in a regional context. (Fig, 1)

This is an area of considerable significance in the early Roman period since the two sites already mentioned have produced almost the only direct evidence for early Roman military installations found in this part of central Southern England. The two principal roads that concern us, and which meet at Alchester, are Akeman Street (Margary RR16), running in a broad east-west arc from *Verulamium* (with some uncertainties) to Cirencester (at a junction with the Fosse Way) with Alchester at its most northerly point, and a south-north road, the local components of which (RR160c from Silchester to Dorchester, RR160b from Dorchester to Alchester) form part of a more extensive route from the south coast (eg via RR155 from Chichester) running (as RR160a) north from Alchester as far as Towcester on the line of Watling Street.

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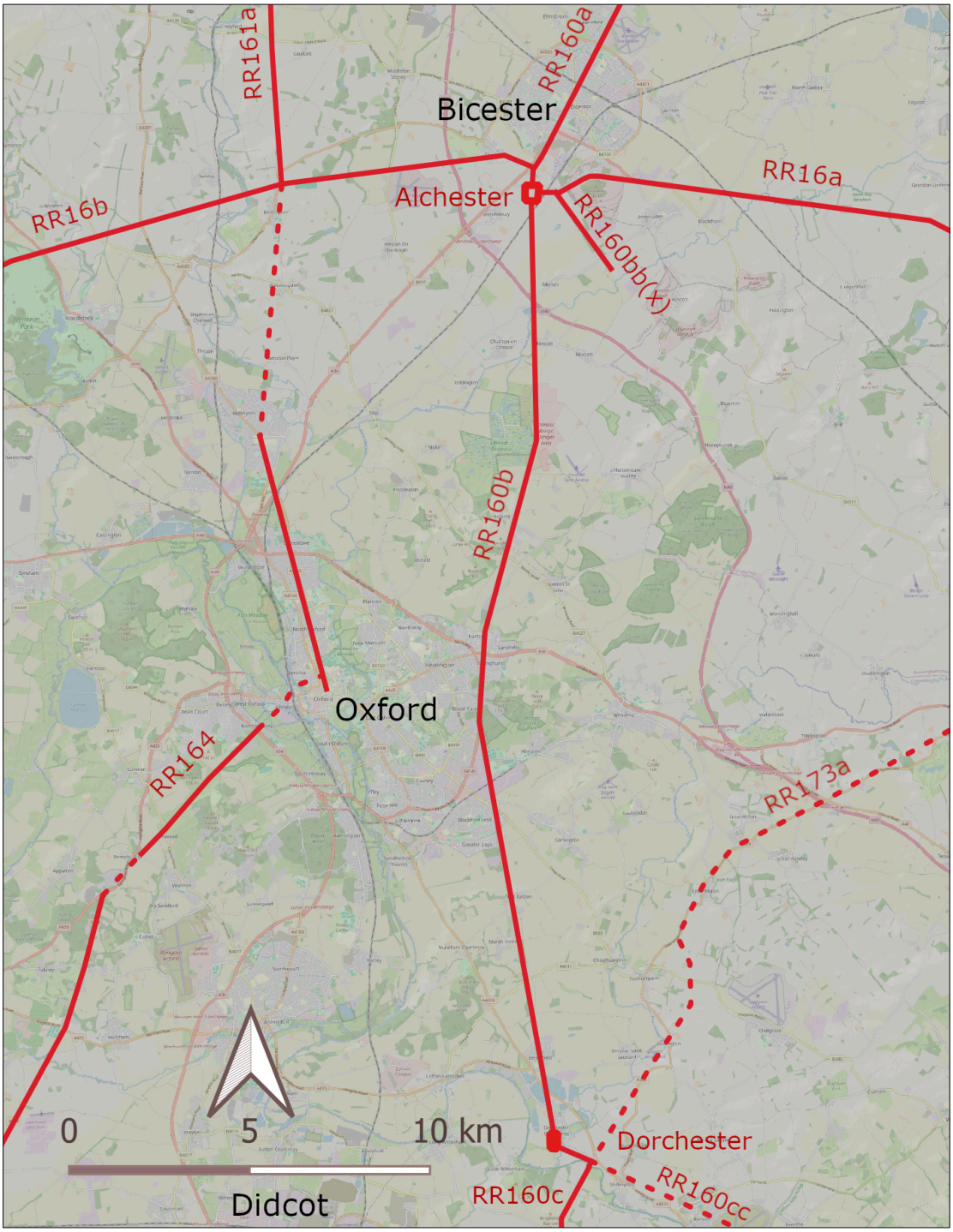


Figure 1. Location of principal road alignments around and between Alchester and Dorchester-on-Thames. Map data © OpenStreetMap Contributors 2020, made available here under the Open Database License (ODbL) v1.0

Alchester and Akeman Street

At Alchester, as is now well known, there is unequivocal (and rare) evidence for a substantial very early Conquest-period military presence, revealed in excavations from 1998 to 2004. Immediately west of the later Roman walled settlement were features that probably belonged to an annexe to a fort or fortress, the latter interpreted as underlying the walled 'small town' (Sauer 2000; 2002). The generic term 'fort' will be used here; if the unusual approximately square configuration of the later walls can be used as a guide to the form of the early establishment, which is plausible, it is notable that they enclose an area of *c* 10.5 ha, very roughly half the size of a typical 1st-century legionary fortress (e.g. Manning 2000, 74; Fischer 2019, 250) and very similar to the size of the early 'vexillation fortress' at Longthorpe (10.9 ha, Frere and St Joseph 1974, 6). Waterlogged timbers associated with the gateway into the annexe enclosure produced a dendrochronological date indicating felling in the period autumn AD 44-spring 45, though Sauer (Sauer 2001, 72) opted for a construction date at the end of AD 44. On the basis that this gated enclosure, which included structures including possible barracks (Copeland (2009, 81-83) notes the rapidly changing interpretation of some of these structures), was in fact an annexe to a (probable) legionary 'fortress', it was suggested that the latter was potentially earlier in date and might perhaps be assigned to the initial Conquest year, AD 43 (Sauer 2002, 84; 2006, 11). However that may be, the presence of the fort by AD 45 at the latest seems fairly certain. Moreover, it can potentially be attributed to the Second legion Augusta, since the fragmented tombstone (RIB 3121) of a veteran of that legion was found incorporated in the foundations of the later west wall of the 'small town' (Sauer 2005). While not absolutely conclusive evidence, and while perhaps not quite as early as claimed (Tomlin *et al.* 2009, 128 suggest that the pre-Flavian date proposed for the tombstone by Sauer is '*unlikely*'), the presence of this tombstone supports the suggestion that Alchester was a base of the Second legion. It does not necessarily follow that this was the case as early as AD 43/44/45, but there is no clear hint of modification to the military structures that would likely have followed a change of garrison, so it is more likely than not that the Second was garrisoned at Alchester from the beginning. It may not have been resident for long, as it is generally supposed to have been deployed in South-West England from an early stage (e.g. Russell *et al.* 2021; Stewart *et al.* 2020), but that is less important here. The point is that Alchester was apparently home to the largest military force in this part of Britain in the immediate Conquest period. This would have been very significant for the population of the immediate area (a couple of sites in the vicinity of Alchester are amongst the very few in the region where the occupation sequence seems to have been disrupted in the mid-1st century (Henig and Booth 2000, 106; Simmonds *et al.* 2018, 264)) but this presence must also have been felt 26 km south at Dorchester, where the late Iron Age 'enclosed *oppidum*' of Dyke Hills at the confluence of the rivers Thames and Thame was probably one of the most important centres of power in the region (see further below).

Given the early date of the Alchester fort, clarification of its relationships with the adjacent roads is key to understanding the development of the regional infrastructure in the 1st century. Can we establish the absolute and relative chronologies of the two principal roads? It is notable that the line of RR160b directly references one of the principal axes of the 'small town', and therefore probably of the earlier fort, though the fact that this particular part of the road line south of Alchester was probably not achieved in physical form until the end of the 1st century (see below) raises a number of questions. By contrast, the line of Akeman Street, conventionally considered to be the primary major route in the region (e.g. Henig and Booth 2000, 49) is not aligned closely on the early military complex but passes north of it. This must be a consequence of the geographically determined road

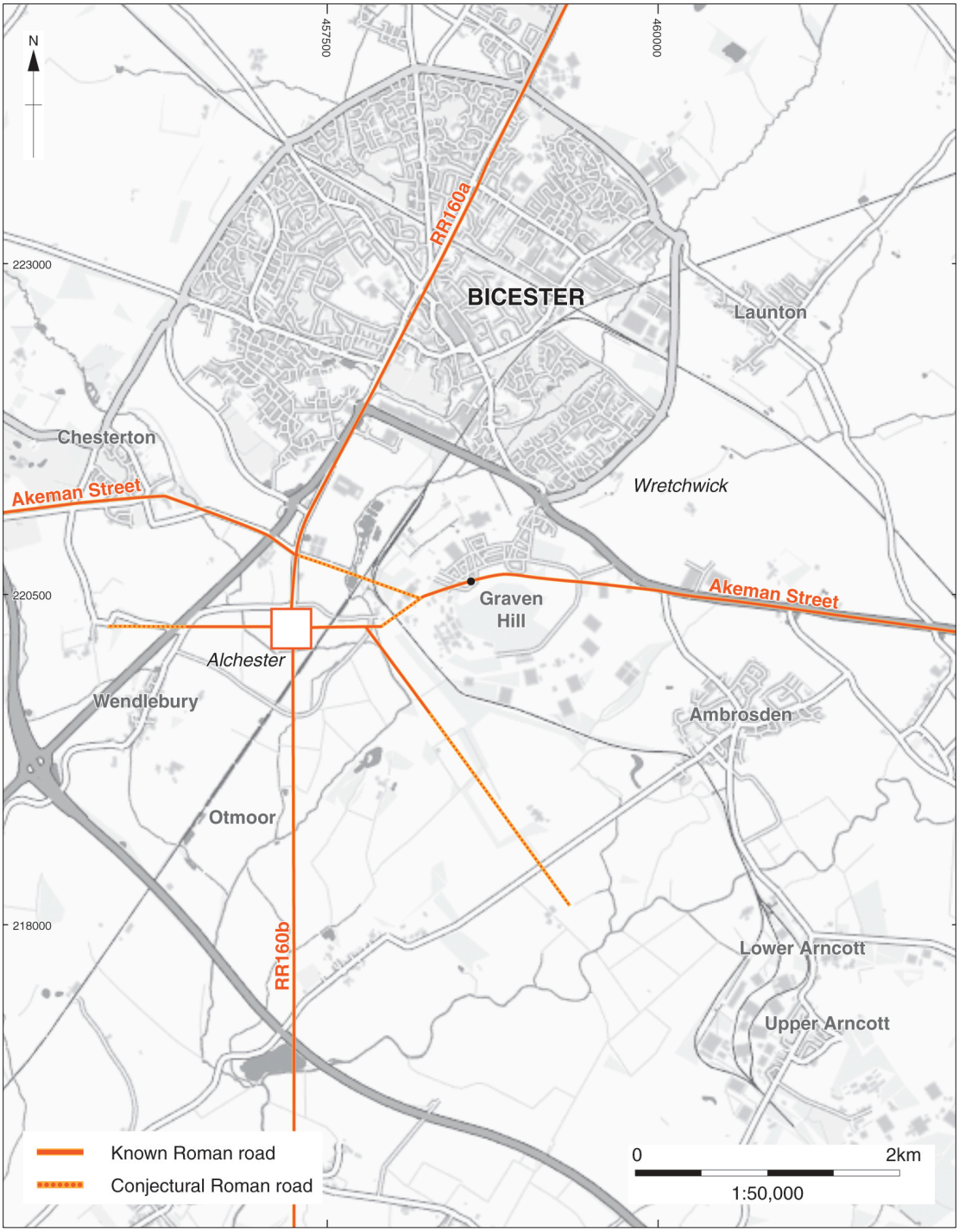


Figure 2. Main elements of the Roman road network around Alchester. The dot on the line of Akeman Street at Graven Hill is the location of the 2015 excavation. Based on Allen et al 2023 fig. 1.1 with additions. Base OS mapping © Crown Copyright, AL 100005569.

line which bends round the north side of Graven Hill, a significant local landmark immediately south of Bicester (not Arncott Hill, as given by Copeland (2009, 7), which lies further south), before turning westwards in the direction of Cirencester. The overall course of Akeman Street here may have combined geographical considerations, such as avoidance of low-lying Otmoor and the Thames valley, with arguably more important socio-political ones, perhaps illustrated most clearly west of Alchester by the routing of the direct line of the road through the middle of the important North Oxfordshire Grims Ditch complex, almost certainly a significant focus of high status activity in the late Iron Age and also later (e.g. Copeland 1988; 2021; Blair 2021). However, the course of Akeman Street to the north of Alchester is not straightforward, and it now seems most unlikely that there was a single line which, once established, was maintained throughout the Roman period.

Access from Akeman Street to the site of Alchester itself was achieved via a turn to the south-west from the north side of Graven Hill (Fig. 2) leading to an east-west line leading into the east gate of the walled settlement and presumed earlier fort (this road lies beneath part of the present-day Langford Lane and so has not been examined archaeologically). The south-westerly turn towards Langford Lane has been considered to represent a spur road from the principal Akeman Street alignment, but this leaves unresolved the question of where that principal (and primary) alignment lay. Put another way, why did the line of Akeman Street north of Alchester, uncertain in detail, apparently run in a WNW direction from a point half way along the south-westerly 'spur' alignment (as e.g. Booth *et al.* 2001, 3, fig. 1.2)? Such a line might perhaps have been determined by specific drainage problems in the area of the roughly north-south aligned Langford Brook and related lesser streams north-west of Graven Hill, but even so it would have been odd for the principal Akeman Street alignment to have assumed a flattened-S plan from which the 'spur' road to the east-west Langford Lane alignment was a branch.

Excavation in 2015 and 2016 in advance of development demonstrated the exact line of Akeman Street on the north flank of Graven Hill (Allen *et al.* 2023, 42-45). In Area A of this excavation it was confirmed that the road line did indeed curve towards the south-west (ibid., figs 3.1 and 3.2), thus forming the start of the 'spur' into the fort and 'small town' complex; the existence of the proposed WNW alignment passing north of the settlement remained '*conjectural*' (e.g. Allen *et al.* 2023, fig. 1.1). More recent work, however, has shown a more complicated picture. Lidar now reveals paired roadside ditches on an alignment just north of west surviving to the west of the Langford Brook in an area not impacted by modern development (Fig. 3; Richard Oram pers. comm.). The eastward projection of this alignment (unfortunately through an area obscured by 20th-century features) would have met the line of Akeman Street precisely at the top of its curve round the north side of Graven Hill in an unexamined area just east of the 2016 Area A excavation. At their west end the ditches shown in the lidar align exactly with features revealed in a 2021 excavation by Cotswold Archaeology (CA) on the site of the former Faccenda Chicken Farm (Figs 3 and 4; CA 2023a; for earlier small-scale work on this site see Foreman and Rahtz 1984). The possibility that these ditches, which are approximately 25m apart, might represent a primary alignment of Akeman Street is intriguing but does not seem to be supported by the stratigraphic evidence at the Faccenda site, which suggests that they post-date a number of earlier Roman features on this site and are assigned to a phase dated at least to the 2nd century AD.

It is notable that the line taken by the parallel ditches heads towards the south-west corner of the Faccenda site, very close to the point where the previously projected line of Akeman Street (suggested in the Faccenda site by a dominant ESE-WNW ditch alignment encountered both here, by



Figure 3. Alchester roads and other features. Based on Simmonds and Lawrence 2018 fig. 6.1 with additions. Base OS mapping © Crown copyright 2018 OS 93526924.

CA and Foreman and Rahtz, and in the more extensive A421 excavations of 1991 a short distance to the west, see further below) would have met with the line of RR160a heading north from Alchester towards Towcester.

The convergence of different alignments of Akeman Street at the same point can be argued to suggest chronological primacy for the alignment of RR160a north of Alchester. Such a case has been made recently in the identification of a probable 'Long Distance Alignment' (LDA) represented by part of RR160a north of Alchester and also incorporating parts of RR164 south-west of Oxford and defined as a 'Littlecote to Fringford' alignment (Poulter 2022, 38-39; see Fig. 5 below, where this is shown as alignment 1). This alignment was probably integral with (and may have been set out from) a survey line from Colchester to Leicester (Entwistle 2019, 52; Poulter 2022, 37-39) that was noted long ago (e.g. Jones and Mattingly 1990, 94-95). The 'Littlecote to Fringford' alignment is strikingly parallel to the line of the Fosse Way from Leicester to Cirencester shown to have been another early LDA (Entwistle 2019, 49-52; Poulter 2022, 35-36). The exact chronology of any of these alignments is of course uncertain, and the establishment of an alignment will not necessarily have been followed by the rapid construction of roads (if at all, as the apparent absence of related road alignments between Towcester and the line of RR57a (Gartree Road, part of the Colchester-Leicester road) to the north seems to suggest). Putting the question of detailed chronology to one side, however, we may note that the ESE-WNW alignment of Akeman Street indicated by multiple ditches at the southern margin of the Faccenda site (features which can again be shown to belong to the middle and later part of the site sequence) — and by indications of an apparent *agger* in the hedgerow immediately to the south — were surely secondary to the line of RR160a). This point is supported by the evidence from the A421 site to the west. Here there were complex arrangements of ESE-WNW aligned ditches, exactly as in the Faccenda site, but none of the ditches lined up precisely, suggesting that they were laid out in relation to the pre-existing line of RR160a, which separated the two sites (Fig. 4). At the A421 site this alignment was in place by the Flavian period at the latest but interpretation at the time of excavation was based on the premise that the ESE-WNW features represented the primary alignment of Akeman Street and were therefore potentially of the mid-1st century rather than later (Booth *et al.* 2001, 425-426). While the association of these ditches with 'primary' Akeman Street can perhaps be discounted (but see below), an early chronology remains possible. Figure 4 does suggest, however, that at a later stage Akeman Street did run continuously across the line of RR160a, indicated by the correspondence of the (admittedly estimated) alignment reconstructed from the A421 (1991) excavations to the west and the raised feature surviving just south of the Cotswold Archaeology excavations to the east. This correspondence forms the basis of the stage 4/6 alignment shown on Figure 5.

There have been few opportunities for detailed examination of RR160a as it lies beneath the modern lane (Wendlebury Lane, in fact the main road from Oxford to Bicester up to *c* 1940). Two small trenches were excavated within the road line just over 300m apart in 2010 (Milbank 2010; Lewis 2010) but the associated dating material was all of late Roman date. More importantly, work by Cotswold Archaeology at the western margin of the Hybrid Application Site, Catalyst Bicester (adjoining the north side of the Faccenda site) in 2020-2021 revealed part of the road surface and a complex sequence of ditches on its eastern margin extending over a distance of *c* 130 m from a point roughly 200m north of the potential junction between RR160a and Akeman Street. The ditches indicate use of the road line through the post-medieval period and perhaps continuously from the Roman period to the present day. There appears to be no close dating evidence for the earliest road surface and ditch, but detailed analysis has still to be undertaken (CA 2023b).

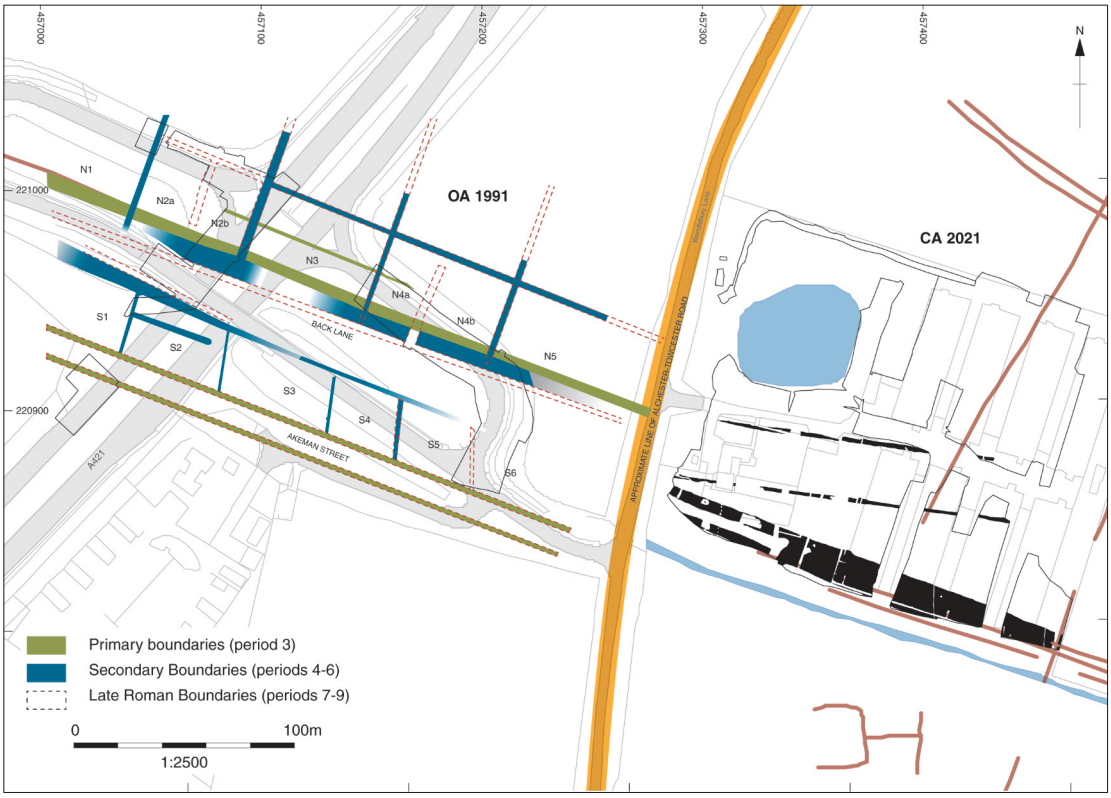


Figure 4. The RR160a and Akeman Street junction north of Alchester showing the mismatch in alignments between features west and of RR160a. The former are extrapolated from evidence from the A421 (1991) excavation (Booth et al. 2001 fig. 5.2), the latter based on CA 2023a fig. 3. In the CA site the key roadside ditches are shaded black. The blue line at the south of the CA site lies outside the excavated area and is the estimated line of Akeman Street based on surface indications. Base OS mapping © Crown Copyright, AL 100005569.

Collectively this evidence suggests a speculative revised interpretation of the sequence of roads immediately north of Alchester: (Fig. 5)

1. The establishment of the NE-SW LDA reflected in part by sections of the lines of RR160a north of Alchester and RR164 further south-west. The fort may have been established in relation to this alignment (in which case a very early date for the latter is essential) but did not lie directly upon it. The LDA appears to pass by the north-west corner of the civilian defences (and the presumed underlying fort) and is only joined by the known line of RR160a at a location very roughly 600m north of the north gate of the 'small town'. The significance of these points remains unclear. It is unlikely that any part of the LDA was developed as a road in this early stage.
2. The laying out (and primary construction?) of Akeman Street from the east. The fort is already in place and is the primary objective of this road, which curves round the north side of Graven Hill, turns south-westwards and then due west to access the fort (See Figure 2). At this stage there is no 'bypass route' north of Alchester, though the construction of a westerly extension of the line of Akeman Street towards Cirencester might already have been anticipated.

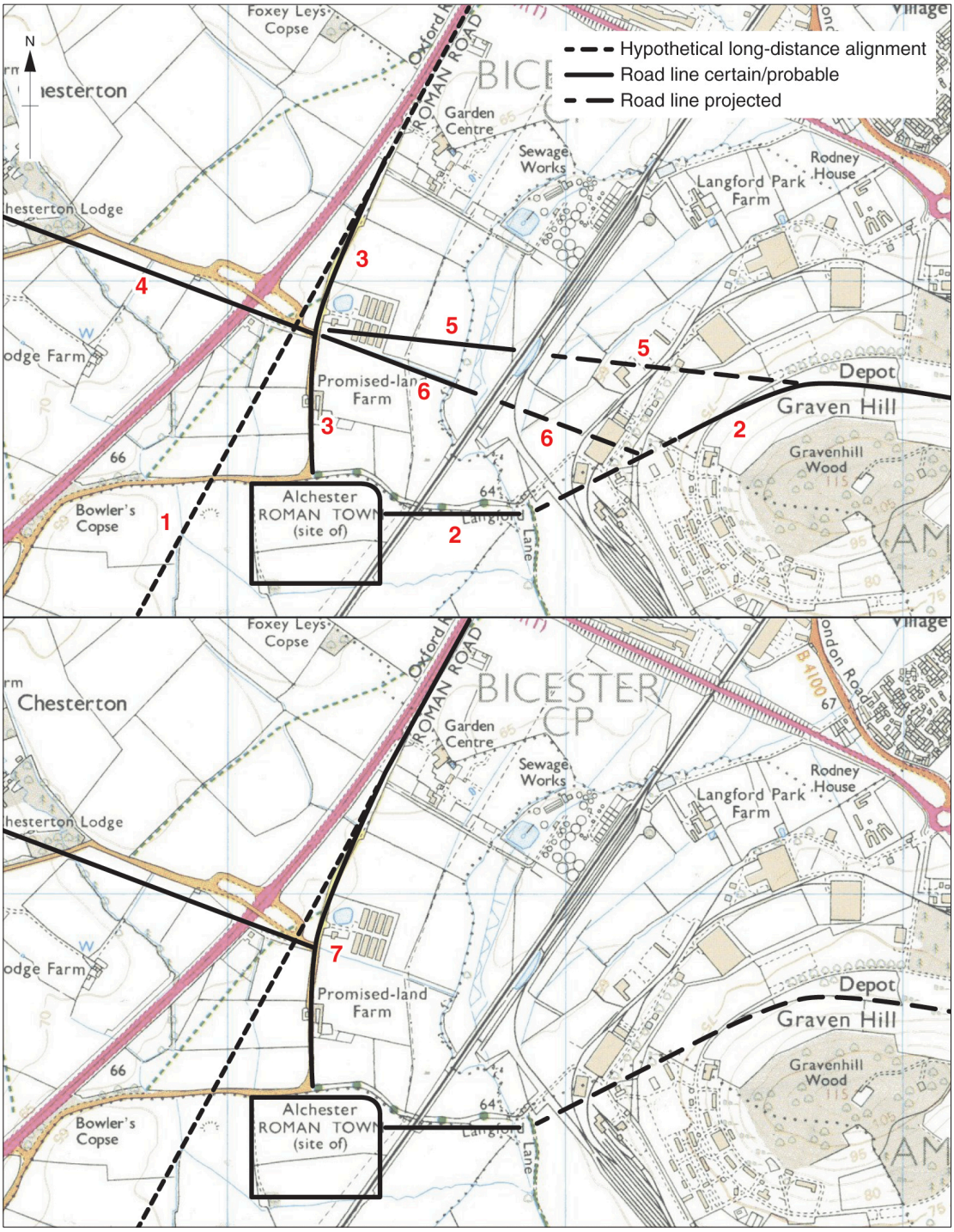


Figure 5. Schematic development of the Roman road sequence north of Alchester. Base OS mapping © Crown Copyright, AL 100005569.

3. The establishment of a road (RR160a) using the primary LDA. This road diverges from the alignment to enter the north gate of the later walled town (and, by implication, the north gate of the underlying fort).

4. The establishment of a western section of Akeman Street. This may have taken the line of RR160a as its starting point, possibly on the ESE-WNW alignment projected at the A421 site. The implication of this is that the proposed stage 3 construction had already taken place. Alternatively, the use of the LDA as the point of origin for the westerly extension of Akeman Street would mean that stages 3 and 4 could be reversed. The exact course of Akeman Street between this junction and Chesterton to the north-west is unknown at this time. There might still have been no through 'bypass route' north-east of Alchester. This stage is essentially hypothetical.

5. A probable fairly early northern line for Akeman Street may be represented by the double ditched alignment (see Figure 3) running almost due west from the northernmost point of Akeman Street on the north flank of Graven Hill (this part of the line is lost) and forming a junction with RR160a in the position of the modern road junction at the south-west corner of the Faccenda site. By this stage a westerly continuation of Akeman Street towards Cirencester should already have been in place.

6. The stage 5 road (of which no surfaces survived, suggesting only a short period of use, though the reason for its abandonment is unknown) is replaced between RR160a and the direct approach of Akeman Street to Alchester from the north-east by a road on the ESE-WNW alignment seen at the southern margin of the Faccenda site. The eastern part of this line, crossing the Langford Brook, is unknown, but the projected alignment would have branched off the south-west trending length of Akeman Street as it approached Alchester from the east. On reaching the line of RR160a the line of Akeman Street becomes continuous with the westward alignment established in stage 4.

7. The lines of both RR160a and Akeman Street remain in use throughout the rest of the Roman period, and beyond in the case of RR160a. The stage 6 bypass alignment of Akeman Street is lost east of the line of RR160a, perhaps owing to difficulties with drainage near Langford Brook. West of RR160a a version of the Akeman Street alignment survives as Chesterton Lane. Its more directly westerly alignment (towards Cirencester) survives in the modern road alignment from c SP 561 212 and has been confirmed archaeologically 200m west of here, with surfaces having a combined depth of 0.51m and a minimum width of 6.50m (Parkinson 1993). Elements of Langford Lane and Akeman Street round the north side of Graven Hill appear to survive as local trackways.

There may have been other as yet undetected stages in this scheme, required inter alia by the chronological tensions between stages 2 and 5, where it still seems unlikely that the chronology of the double ditched (stage 5) alignment can be reconciled with an early westerly projection of Akeman Street and therefore prompts the addition of the hypothetical stage 4 to the sequence. Questions of absolute chronology remain: 'early' dates are required for stages 1 and 2 of this scheme, and presumably also for stages 3 and 4. It is not clear if any of the stages should be linked to the abandonment of the fort site, which probably took place '*no later than the first half of the A.D. 60s at the latest*' (Sauer 2005, 124), but stages 1-4 should have been long completed by this time, even if the proposed date of *c* AD 47 for the appearance of Akeman Street at Wilcote well west of Alchester (Hands 1993, 11) is, as Copeland (2009, 78) remarks, '*hopelessly optimistic*'. One question raised by any

scheme concerns the passage of east-west 'through' traffic in and around Alchester. In the (likely) absence of a primary alignment of Akeman Street north of Alchester did this require, from stage 4 (and perhaps even stage 3) onwards, traffic to pass through the fort?

As for the approach to Alchester from the south, the early 'East Otmoor road' (see below) could perhaps have followed closely on stage 2, though a slightly later date is also possible. The dating evidence for the main route of RR160b puts its construction not before the end of the 1st century. This was clearly subsequent to stage 4, but its relative chronology in relation to later stages is uncertain.

Alchester to Dorchester

The Alchester to Dorchester road, RR160b, was the subject of a classic study by Hussey, *An account of the Roman road from Alchester to Dorchester*, published in 1841 (albeit that he was diverted at times by *The description of Britain*, attributed to Richard of Cirencester and not yet known to be a forgery). Much of the detail of the route as recorded by Hussey is uncontroversial and does not require review. He could not know that the sequence of development of the road was not quite straightforward. The straight south-north course of the road carried across the low-lying ground of Otmoor on a causeway formed the central axis of the Roman settlement of Alchester as noted above, but it now seems that this was not an original feature across Otmoor. The key evidence comes from timbers belonging to a bridge structure across the River Ray examined on the line of the road at Fencott with Murcott, 3 km south of Alchester, in 1979, which produced a dendrochronology date of '*soon after 95 A.D.*' (Chambers 1986a, 35). The bridge, estimated to be some 4.5m wide (ibid.), was considered to be a primary feature in the road line and thus to indicate a date at the end of the 1st century or a little later for its construction. Evidence from excavation of the road between Fencott and Alchester is not completely conclusive but a lack of clearly associated 1st-century material (e.g. Chambers 1987) may support this date. The most recent excavation in this area was in 2014 at Langford Lane South, an East West Rail project site. Here the presence of stream channels prevented the excavation of a straightforward section across the road, but again 1st-century material was scarce and the initial road, between ditches 16-20m apart, was assigned to a late 1st-early 2nd-century phase (Simmonds *et al.* 2018, 40). This site lay within a zone of rectilinear enclosures and other boundaries (mostly) perpendicular to the line of the road extending for over a kilometre south of the south gate of Alchester. At Langford Lane South these features may have been integrated with the primary roadside ditches, but this was not certain. The limited associated dating evidence was comparable with that already mentioned. Altogether this evidence is potentially consistent with the view that the road here was not in place before the end of the 1st century, but it is not absolutely conclusive.

The poorly-drained ground of Otmoor was a substantial obstacle to road construction on the direct line south from Alchester and the dating evidence reviewed above strongly suggests that it must have been bypassed in the early Roman period. The northern end of what seems most likely to be such a bypass route to the east of Otmoor, close to the line of present-day Langford Lane, is now well-established. This was even suggested as the line of Roman road by Hussey (1841, 25), though without understanding that it was probably a predecessor of the road to Dorchester. What has now been termed the 'East Otmoor road', RR160bb(x), was examined close to its northern end in 2015 in work relating to the East West Rail project at the Langford Lane East site (see Fig. 3). Here the road, running south-south-eastwards from the east-west approach to Alchester, had a metalled surface 9.5m wide closely flanked by ditches (and fronted by structures on the west side) (Simmonds *et al.* 2018, 21-35).

Slightly further to the south two further trenches were excavated in 1998 (Sauer 1999, 295). In the more northerly of these, closely adjacent to the 2015 excavation (see Simmonds *et al.* 2018, 247, fig. 6.1 for location), metalling was still in place, but in the second trench, some 400m further SSE, Sauer noted that the road surface had been '*removed in antiquity*' (Sauer 1999, 295). This rather unusual characteristic is supported by aerial photographic evidence which shows a substantial linear 'negative' feature (centred *c* SP 580199; e.g. HE (2015) AP references 29761_035, 036 and 042).

Dating evidence for the 'East Otmoor road' indicates an early origin, as would be expected, with mid-1st-century pottery in associated ditches towards its northern end (e.g. Sauer 1999, 295; Simmonds *et al.* 2018, 22). '*No evidence was found to indicate that the road continued in use beyond the early 3rd century*' (Simmonds *et al.* 2018, 34). The date *'in antiquity*' at which the road material was thought to have been removed further south has not been specified. The full course of the 'East Otmoor road' is not known. The SSE alignment can be projected for a further 3km beyond the point at which it was seen to have been dug out but there is no certainty beyond this point (see Fig. 2); its route to rejoin the main alignment, presumably in the vicinity of Beckley, is a matter of speculation. Nevertheless, the clear evidence for both an early origin and early disuse is consistent with the interpretation of this road as the primary iteration of the north-south route that was actively, though not necessarily immediately, decommissioned once the direct road across Otmoor was in place.

Cheetham (1995) suggested that there might have been a Roman route around at least part of the western side of Otmoor, based in part on pre-Roman trackways, but of the various lines he discussed none has direct evidence of a Roman date. This does not necessarily exclude a Roman origin for some, and the existence of local trackways here is plausible, but it seems less likely that there was a second formally laid out alternative to the early 'East Otmoor road'. The question of whether any of Cheetham's routes could have formed part of a road running between Alchester and the Oxford area to the south-west, perhaps related to the 'Littlecote to Fringford' LDA (Poulter 2022, 38-39, and see above) is beyond the scope of this paper, and there is little evidence that the LDA was used as a road line in the area immediately west and south-west of Alchester. The question of the Roman approach to Oxford itself from the south-west has been revisited recently (Crossley 2018; Booth 2021). Further aspects of a route south-west from Alchester have also been discussed by Brewer (2022).

The main route of RR160b south of Otmoor has seen relatively little recent work. Much of the line is obscured where it runs through the eastern margins of Oxford, but it has been encountered close to its crossing of the Bayswater Brook in Barton (Pine 2003) and some 500m further south at Bayards Hill Primary School (Lewis 2009). Two km further south, however, geophysical survey evidence for the road line at Brasenose Wood was equivocal (Harrison *et al.* 2020, 93-95). Approaching Dorchester the road line is quite well-established but has only been confirmed in intrusive work at one point about 1km north of the village (Chambers 1986b).

Late Iron Age and Early Roman Dorchester

Two factors have long been understood as of particular significance in explaining why the Roman settlement at Dorchester was situated where it is. First is its relationship to the enclosed site of Dyke Hills, and the second is its location close to the crossing of the Thames by a major Roman road. The Dyke Hills consist of two very substantial earthwork banks with an intervening ditch defining an area of approximately 40 hectares bounded on the west and south by the River Thames and on the east by

the River Thame, the earthworks themselves lying barely 500m south of the centre of the later Roman settlement (for a short summary, Lambrick *et al*. 2009 361-364). Dating of the Dyke Hills to the late Iron Age is based almost entirely on the form of earthworks as there has been no excavation of any part of the interior. The site is typically categorised as an 'enclosed *oppidum*' (e.g. Allen 2000, 22-25; Lambrick *et al*. 2009, 361-362); such sites characteristically occupy low lying locations where communication is an important factor. The contrast with the closely adjacent early and middle Iron Age hilltop fort of Castle Hill, Little Wittenham (Allen *et al*. 2010), is striking, but the proximity underlines the continued focal significance of this special landscape, expressed in different ways in successive periods. Enclosed *oppida* are usually seen as local centres of power, perhaps with significant numbers of inhabitants. Functions related to trade, industry/craft production and religious ritual are likely but not demonstrable in the case of Dyke Hills, although Cunliffe (2005, 192) described the site as a '*possible border market*' for the Dobunni, a late Iron Age tribal group whose territory probably lay entirely west of Dorchester. The earthworks could have served a strictly defensive purpose, but it is much more likely that they were equally important as a statement of power and authority. Even this is not certain, however, and as Moore (2020, 583) has pointed out '*While Dyke Hills [and analogous sites], Salmonsbury [Glos] and Abingdon can all be argued to have been major settlements and social foci, their socio-political roles remain unclear*.'

At Dyke Hills, aerial photographs and a partial geophysical survey carried out in 2016 show numerous but unevenly distributed internal features on the gravel subsoil in the northern part of the enclosed area. It is likely that these features represent activity of several different periods and that only some were broadly contemporary with the period of use of the earthworks.

Features that can be dated to the very late Iron Age, almost certainly within the 1st century AD rather than earlier, and therefore on the conventional chronology contemporary with the Dyke Hills, have been found north of that complex within Dorchester itself. They occur both in excavations carried out by Sheppard Frere in 1962, particularly in his trenches on the western and southern defences of the Roman settlement (Frere 1962, 117, 128-129, 132-134), and at the Discovering Dorchester Project (hereafter DDP) site at the north end of the allotments in the south-west part of the village and within which Frere's 1962 and 1963 excavations were also located (unpublished training excavation from 2008-2018, post-excavation analysis by the present writer is ongoing). The combined evidence is far too fragmentary to allow meaningful speculation about the extent and detailed character of activity represented here, but the quantity of finds indicates domestic occupation, and the pottery includes relatively high-status components such as cups and dishes in Gallo-Belgic wares (*terra nigra* and *terra rubra*) and fine white ware beakers. Gallo-Belgic wares are generally rare in this region, but the DDP pottery includes three potters' stamps from *terra nigra* dishes or platters of pre-Conquest date. Such material is consistent with the adjacent presence of the major Dyke Hills complex, but in the absence of direct evidence from the latter contemporaneity of pre-Conquest sites in the village and the Dyke Hills earthworks and related activity is not absolutely certain, nor is the nature of the relationship between activity within and outwith the earthworks if they were contemporary.

Silchester to Dorchester

Having discussed some of the evidence relating to the evolution of the northern end of RR160b near Alchester we shift the focus to the approaches to Dorchester from the south on RR160c. As already

mentioned, proximity to a Thames crossing was a significant factor determining the location of Roman Dorchester. The proximity of river crossings was presumably also fundamental for the position of the Dyke Hills complex in the late Iron Age (and was likely important earlier), but there is no direct evidence of this. In the early Roman period a Thames crossing was bound to be a key point for access between Silchester to the south and Alchester to the north. Within this framework the likely contemporary importance of the Dyke Hills complex made it almost inevitable that the crossing should be at Dorchester.

Silchester, documented as the *civitas* centre of the Atrebates from the early 3rd century AD and probably assigned that status in the later 1st (Fulford *et al.* 2020, 3-4) lay just over 30km south of Dorchester and was the nearest major late Iron Age settlement to Dorchester in that direction. Recent work suggests that Silchester was established about 20 BC and, remarkably, was primarily occupied largely if not entirely by an immigrant community from Gaul (Fulford 2021, 33-39), based within a very substantial ditched enclosure (the 'inner earthwork') of about 38ha. By about AD 25, however, the territory associated with Silchester seems to have been absorbed by the late Iron Age 'Eastern Kingdom' of the Catuvellauni (ibid., 31-32, 50). As a component of that kingdom Fulford speculates that Silchester, perhaps under the control of Caratacus (possibly a son of Cunobelinus) by the AD 40s, was occupied by the Roman army in AD 44 after the capture of *Camulodunum* (Colchester) and that the unit responsible was the Second legion Augusta (ibid., 54). A Roman military presence of some sort is attested by finds of equipment, but no certain military structures are known, though a substantial early timber courtyard building beneath the later forum might have had military associations (Fulford *et al.* 2020, 570). Given that the Alchester fort only accommodated part of (more probably) the Second legion the presence of a further detachment of that legion at Silchester is possible.

In view of this early activity the direct dating evidence from Silchester itself relating to RR160c is indicative but inevitably not as precise as might be wished. Within the later Roman town the road forms the principal north-south axis, defining the west side of Insula IV (containing the forum) and also the east side of Insula IX, the subject of the most extensive recent excavations. The north-south/east-west street grid of Silchester succeeded lanes on a very different orientation and was not established until the Flavian period, but the two principal axes, including the line of RR160c, are suggested to have been laid out '*in the later 40s onwards*' (Fulford 2021, 76). Such an early date seems to be required by the regional context. More particularly, it is implied by the north-south alignment of the closely adjacent pre-forum 'courtyard building' mentioned above – regardless of the precise interpretation of the function of this building (e.g. Fulford 2021, 55-57) it is now dated to the mid-late 40s (ibid., 55), though the original assessment was of '*a Claudian date, perhaps in the later 40s rather than the 50s for the initial construction*' (Fulford and Timby 2000, 43). The early date for RR160c is also implied in relation to Insula IX (Fulford *et al.* 2020, 571), though the earliest extant surface here might be as late as early Flavian in date (ibid., 156-158). Equally the earliest road surface and a roadside gully at the north gate were dated to the late first/early second century (Fulford *et al.* 1997, 91), though the broad dating probably reflects the accumulation of material over time rather than the specific date of the inception of construction. Just to the north, pottery underlying the road recorded in a pipe trench was dated '*to the first half and middle of the first century A.D.*' and was considered to give '*a reasonably secure terminus post quem*' for the construction of the road (ibid., 158) and combined with the North Gate evidence indicated a (rather broad) date '*in the second half of the first century*' for the laying-out of the road (ibid., 161). Davies (2002, 148) reads this as a mid-first-century date for the road; he may well be right, but this is not strictly what Fulford said.

Parts of the southern course of RR160c north from Silchester towards Dorchester are not very clearly understood, but have been considerably clarified in lidar-based analysis by Hugh Toller (Watson 2017, 412-414). The generally accepted course of the road up to Dorchester lies consistently west of the Thames but an alternative route, running east of the Thames northward from a postulated crossing of the Thames near Pangbourne, has also been suggested (Davies 2018, 60). Further north, the line of the westerly route is clear enough beyond the Goring gap and then northwards to Dorchester (Malpas 1987, 23-26; Coombs 2011; but see further remarks below). The direct course of the road to Dorchester, if projected from the very straight alignment seen west of Wallingford near Brightwell-cum-Sotwell, would have run across the ridge extending east of Castle Hill and descended a fairly steep slope to the bank of the Thames at a point very close to its confluence with the Thame. (. 6) This was clearly a highly unsuitable option on topographical grounds. Instead, therefore, on cresting the rise just north of Brightwell-cum-Sotwell the road turned to the NNE and crossed the Thames above Shillingford, perhaps by way of a ford (Margary 1973, 165; Grayson 2010, 6), documented in a Saxon charter as 'old street ford' (Grundy 1918, 133-134 – charter Birch 810/Kemble 1154). The documentary reference, however, need not tell us anything conclusive about the physical character of the Roman crossing (for which no direct evidence survives), and it is thought that important crossings of major rivers are more likely to have been achieved with bridges (e.g. Bishop 2014, 35). The NNE-aligned road was encountered south of the Thames at SU 58260 92071 during work on the Chalgrove to East Ilsley gas pipeline in 2003 and is described as a thin gravel surface 6.2m wide with no clear evidence for roadside ditches (Wilson 2008, 288). Work by Borders Archaeology in September 2023 in an area some 700-800m further NNE along this line produced no clear indications of the Roman road, but the trenches involved were rather short and absence is by no means conclusive. More broadly it can be noted that detection of roads on linear interventions (such as pipe trenches) does not always seem to be guaranteed, instances relevant in the present case (south of Brightwell-cum-Sotwell) including an absence of references in work on pipelines from Cleeve to Didcot and Fyfield (Ford 1990; Hart *et al.* 2012); while concealment beneath modern features can be an explanation this is not always made clear (Timby *et al.* 2005, 208 is a partial exception). Near Cholsey, Catherall et. al (1984, 47) note the absence of evidence for the road at the expected point, but the linear features which they suggest as possibly relevant are not convincing as indicating a different alignment.

About 150m beyond the Thames crossing the road turned through slightly more than a right angle to approach Dorchester from the south-east. This junction may have been a crossroads, with the NNE-ward alignment carried beyond this point, perhaps as the start of a road (RR173a) to a settlement on Akeman Street at Fleet Marston (Malpas 1987, 26-29; for Fleet Marston see Biddulph *et al.* 2019, and Biddulph 2023 on more recent work for HS2). The somewhat hypothetical RR160cc, on a WNW-ESE alignment heading towards Henley and perhaps beyond, might perhaps have had its starting point at the same junction. Recent (unpublished) work by Oxford Archaeology at Hale Road, Benson has located part of a surface and a potential roadside ditch at a point 3km east of the putative crossroads and in a location approximately consistent with the ESE alignment from that feature.

From the probable crossroads the approach of RR160c to Dorchester from the south-east was conclusively identified in the Meadside area on a geophysical survey carried out in 2010 (Ainslie 2021) (Fig. 7). This confirms that having crossed the Thames the Roman road headed to a crossing point of the Thame close to that of the location of the medieval bridge (as suggested for example by Frere 1962, 115 fig. 1), rather than the current Thame crossing, which was built in 1813-1815 (Bond 1985). The slightly more northerly line of this particular stretch of road suggested by Hargreaves *et al.* (1978) and also by Malpas (1987, 27, fig. 3, 33) and subsequently widely used is clearly incorrect. A notable

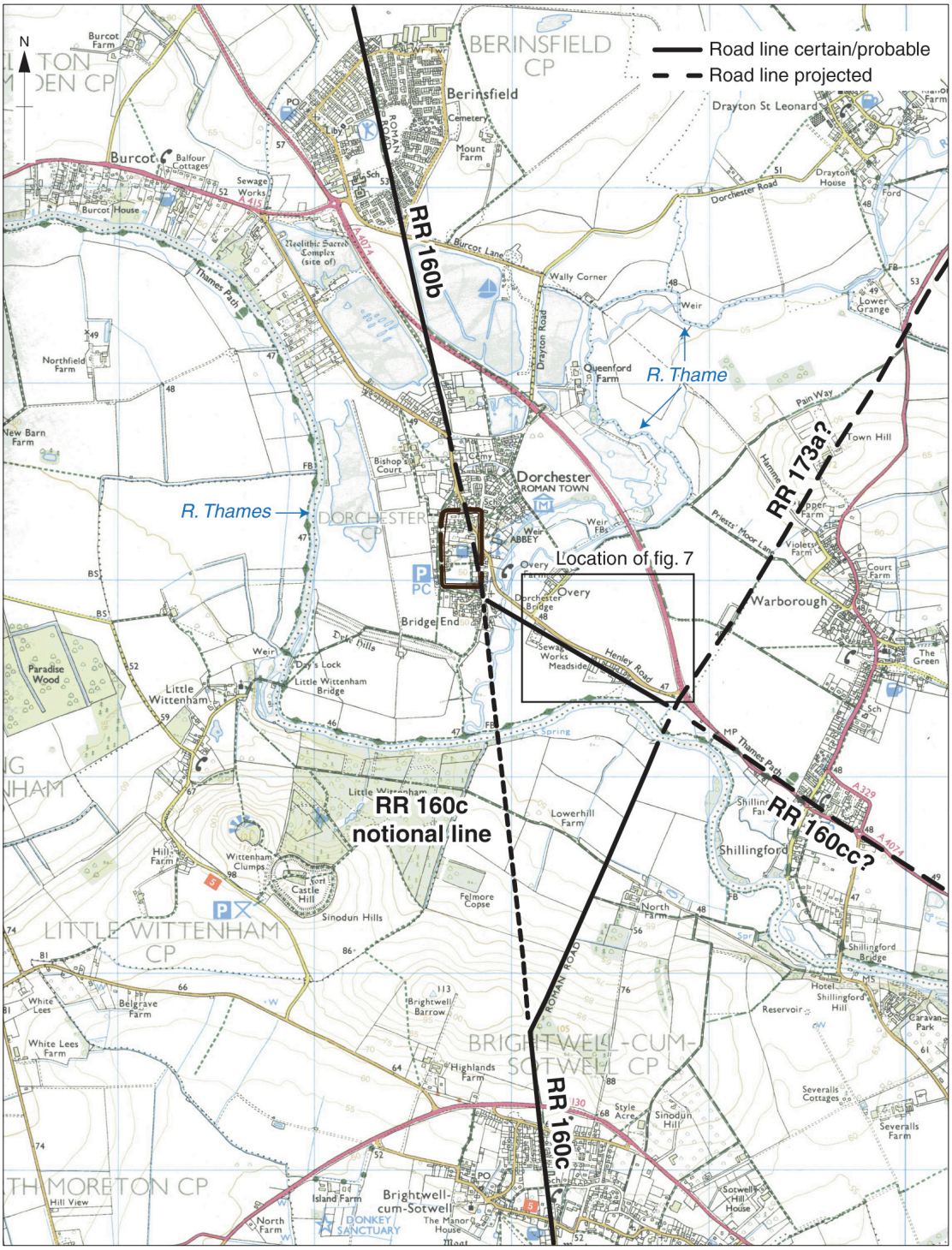


Figure 6. Principal road alignments in the vicinity of Dorchester. Base OS mapping © Crown Copyright, AL 100005569.

feature of the geophysical survey is a previously unsuspected road running east-north-eastwards from the line of RR160c defined by ditches roughly 16-18m apart. This can be traced for at least 500m from the point of junction with RR160c. The role of this road within the settlement complex is unclear but its width suggests that this is more than just a minor lane; perhaps it simply served as a short-cut between RR160c leaving Dorchester towards the south-east and the northward line of RR173a (see Fig. 6).

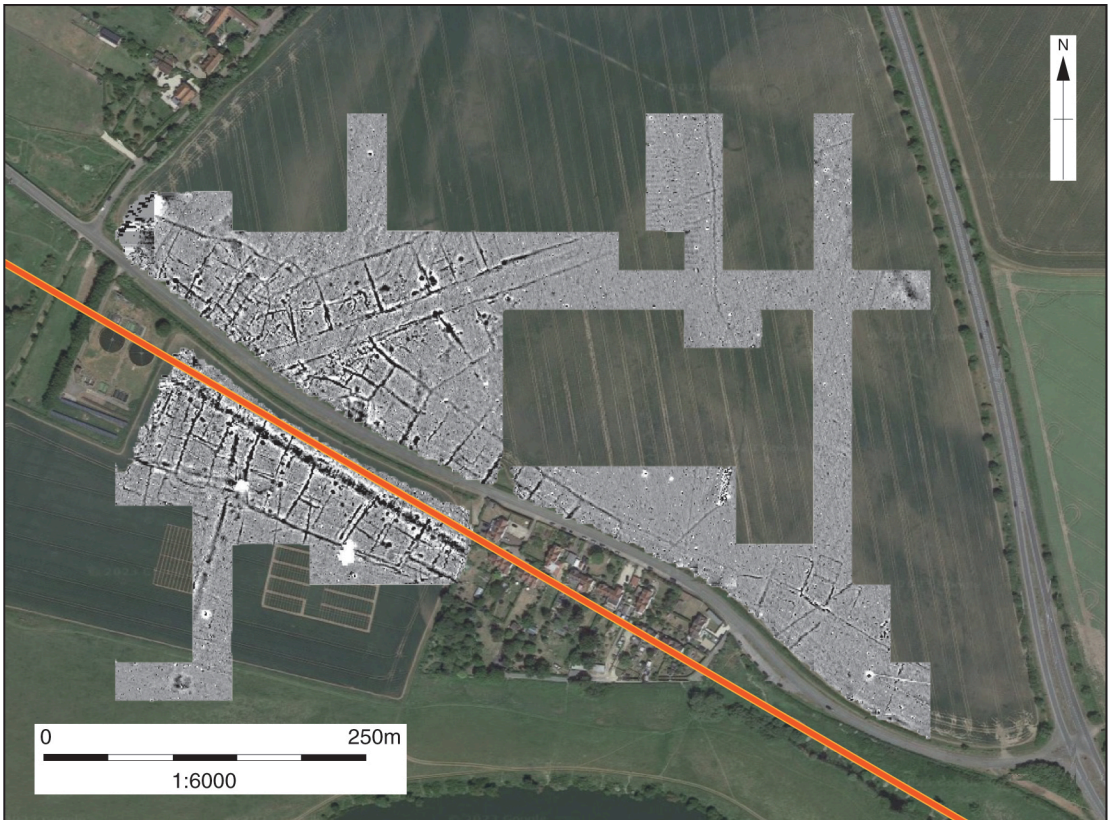


Figure 7. Detail of geophysical survey south-east of Dorchester at Overy/Meadside, showing north-west route of RR160c (in red) from near the crossing of the Thames, with a subsidiary road/track and roadside plots. For location see Fig. 6. Survey by Abingdon Archaeological Geophysics, 2010. Original image from GoogleEarth 12/2010, image © 2023 Getmapping plc.

Once across the Thame the course of RR160c in Dorchester is obscured by later buildings, but there are hints to its position. It is notable that there is a very slight but perceptible difference between the alignment of RR160c as it runs northward through Brightwell-cum-Sotwell (south of Dorchester) and the extant alignment of its continuation, RR160b, as it approaches Dorchester from the north, from Alchester. This is just one of a number of (mostly) minor adjustments to the broadly straight north-south line that connects Alchester and Silchester, adjustments that north of Dorchester represent responses to aspects of topography and drainage. At Dorchester the longer projected alignments, of RR160b from the north and RR160c from the south, neither of which referenced the Dyke Hills complex, intersect somewhere close to what would later be the south-east corner of the defences.

This location appears to correspond closely with the likely arrival point of the diverted road RR160c as revealed by the Meadside geophysical survey once it had crossed the Thames and Thame. Margary (1973, 165) realised that the basic alignments of RR160b and RR160c were continuous, but placed the incoming course of the diverted RR160c rather vaguely '*near the present bridge*' rather than close to the medieval bridge location. Identifying this point as the meeting of two relatively long alignments and one short one seems to be significant, but raises a number of questions. The most problematic aspect is in the location itself: it is relatively low lying and presumably not an ideal position for a survey point. In addition, at a later date the notional line of RR160b within the Roman settlement would have lain close and at a very oblique angle to that of the east side of the defences (see further below). If the road was ever constructed on that line it must have been significantly adjusted to accommodate the defences, and the exact configuration of its turn eastwards towards the crossing point of the Thame remains unknown (see Fig. 8 below). These are substantial but not necessarily insuperable difficulties. If this interpretation of the alignments of road RR160b/160c is accepted it explains some features of the axial north-south street through the settlement nucleus as revealed by Frere and in the DDP excavation. It is now clear that this was never a part of the main road alignment, as has tended to be generally assumed (though the distinction was made in a passing comment by Frere (1962, 121) who remarked that 'if produced northwards, this street [the axial north-south street] reaches the north gate *to intercept the Alchester road*.'; my italics; see also Frere 1962, 115 fig. 1).).

The Dorchester Fort and Internal Street Network

The axial street within the Dorchester settlement is of minor importance compared to the questions raised in relation to the main roads in the region, but it is not without interest. Its existence and likely significance were established in Frere's excavations in the allotments in 1962 and 1963, but with a focus on issues concerning the relationship of the street to the defences, to a number of roadside structures and to early military features; detailed questions of chronology were not given extensive treatment. Frere's conclusion, however, in the account of his 1963 Sites B and F, was that the street was '*probably laid down in the military period*' (Frere 1984, 113). The fort was considered to have been established in the aftermath of the rebellion of Boudica, with its terminal date perhaps in the late 80s (ibid. 105-106).

By contrast with the postulated course of the through road, the military features had roughly followed the more nearly north-south/east-west alignment of some of the late Iron Age and earliest Roman features. The DDP excavation partly overlapped with Frere's 1963 Site E, the area where he located military features. Further features of military character were identified within the DDP excavation. These were not primary in the DDP excavation sequence, and while dating evidence was scarce it is potentially consistent with Frere's suggestion that they perhaps related to a Boudican period foundation. Frere's proposed terminal date for the military phase potentially in the mid-late AD 80s, however, was ultimately based on analysis of the overall coin loss pattern from Frere's excavations by Richard Reece (1984) whereas the much larger assemblage from DDP suggests that on numismatic grounds there is no reason to date the end of the military phase later than *c* AD 80 (based on the known coin associations with military features), while associated pottery also appears to have an early Flavian emphasis.

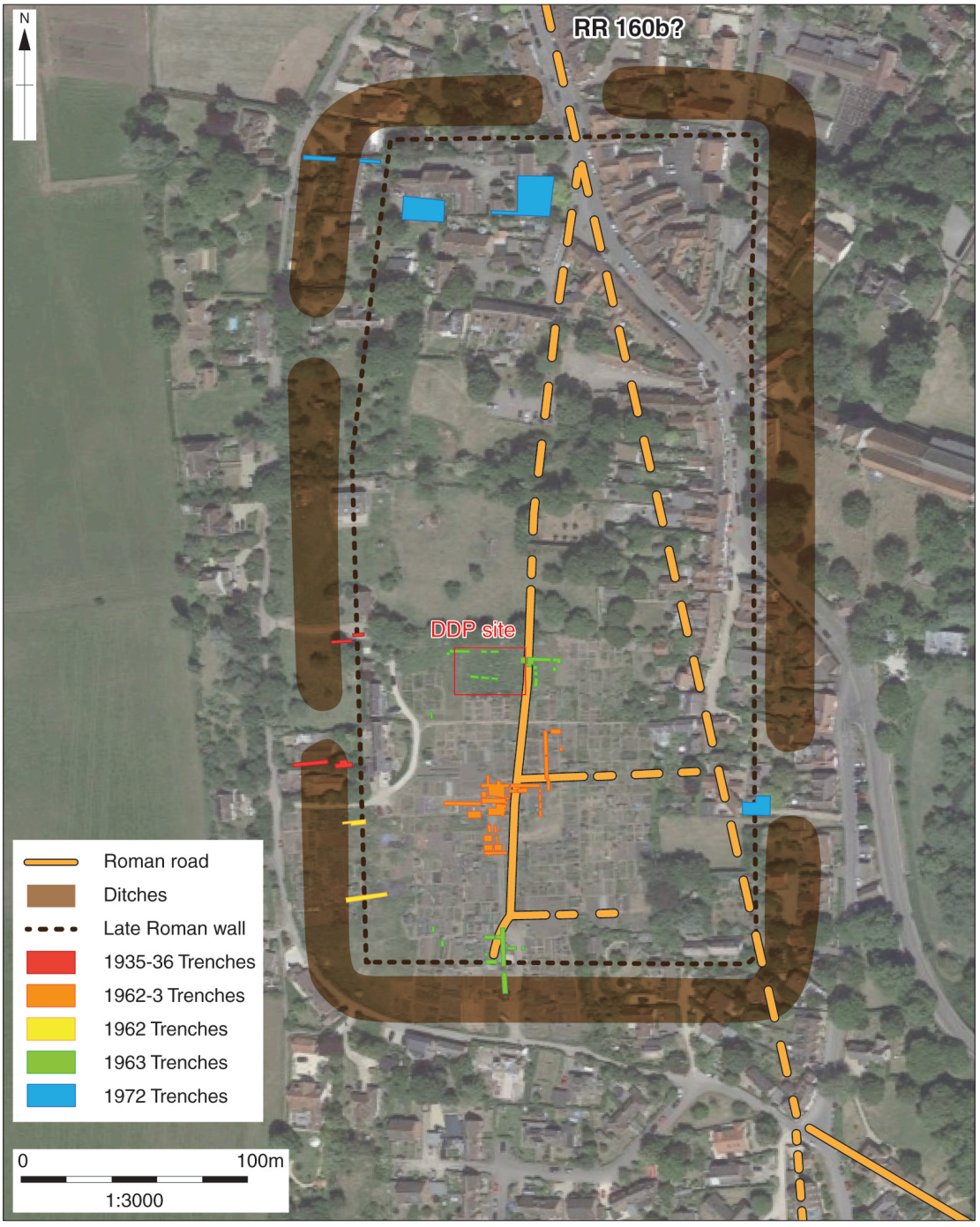


Figure 8. Dorchester: the defended area showing locations of excavated areas, main elements of internal road layout as currently understood and hypothetical alignments of RR160 in relation to the outline of the settlement defences. Original image from GoogleEarth 12/2010, image © 2023 Getmapping plc.

This is relevant to the axial street since in the DDP site levelling layers above the remains of demolished military-type structures were closely overlaid by gravel spreads relating to the primary form of the street; it is likely that road building commenced soon after the demolition (Fig. 9). The DDP site also included a series of very large pits occupying a north-south zone roughly parallel to the line of the road and set back approximately 10m from its western edge. Four pits in a northern group, of which three were dug sequentially, were from 2.75-3.85m across and ranged in depth from 1.35-2.0m. Their lower fills, at least, are consistently dated to the Flavian period, and in some cases specifically to the earlier Flavian. Each of the sequentially-dug pits must have been fairly substantially filled before its successor was dug, but the similarity of dating suggests that infilling was rapid. South of these pits was a larger roughly oval pit or pit group, up to 6.5m north-south by 3.5m east-west and again up to 2.0m deep. Although its primary fills were probably also of later 1st-century date the overall sequence of filling of this feature took place over a much longer period.

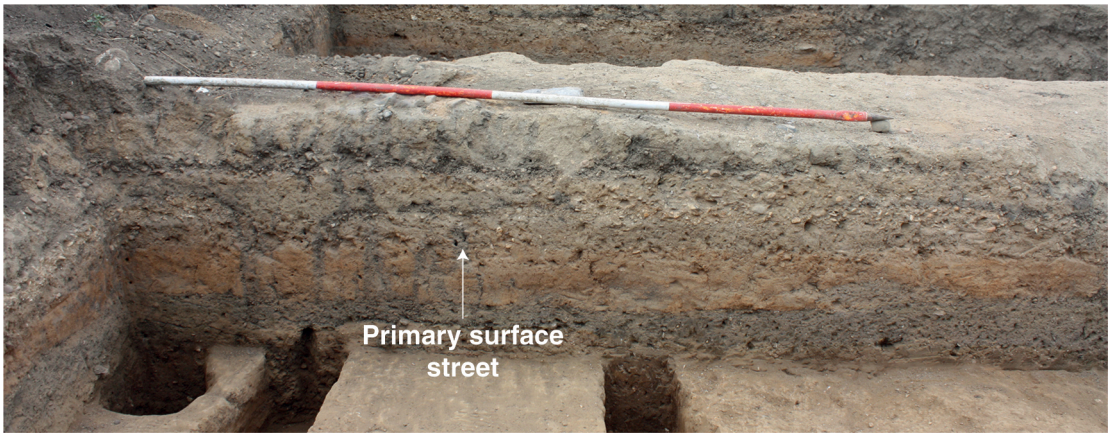


Figure 9. Dorchester, early military features at base of sequence overlaid by destruction and levelling deposits with axial street surfaces above. Dorchester Allotments excavation 2018, view south.

The depth of these pits strongly suggests that they were dug for extraction of natural materials, both gravel and the overlying brickearth, the latter potentially for use in clay or cob walling or as infilling in timber framed structures. The principal use of the gravel is likely to have been for the construction of the street close by to the east; a very rough estimate suggests that these pits might have yielded about 48 cubic metres of gravel. This would have been sufficient to surface almost a 70m length of 7m-wide street (based on the street width recorded further south, e.g. Frere 1962, 120, fig. 5; only the western half of the street was revealed in the DDP site) to a notional depth of about 0.10m and would thus have made a substantial contribution to the primary construction of the street. Additional material could have come from further pits in Frere's excavation (Frere 1962, fig. 4; 1984, 108-9, 121, 124 fig. 19, 127 fig. 21).

The evidence of the likely quarry pits is thus consistent with the stratigraphic record for the axial street itself in suggesting that the first surface of the latter was probably not laid before *c* AD 80. There may have been local variation in the details of street construction. In Frere's Site B, '*The earliest metalling of the north-south street ... was c. 6 in. (0.15 m) thick and was probably laid down in the military period. It lay directly on the natural brickearth, from which the topsoil had been stripped.*' (Frere 1984, 113). This

situation apparently contrasts markedly with the evidence from the DDP site. Amongst possible explanations one is that this part of the street lay outside the fort and, if correctly interpreted by Frere, was perhaps earlier in date than in the form excavated in DDP, and built specifically in relation to the fort, though this seems unlikely. A second point concerns levels. In the recorded section on which Frere's observation was based (Frere 1984, 117, fig. 14 section D-E) the base of the street surface, and therefore the top of the 'natural brickearth', was at about 48.30-48.35m aOD. This is a good 0.30-0.35m higher than the level consistently recorded for brickearth in the DDP site. Given that Frere's section lay some 50m south of the DDP site such variation is of course possible (though it is notable that the level on the top of the first street surface was almost identical in the two locations), but in parts of the DDP site there were widespread redeposited layers (including some, perhaps not coincidentally, of early Flavian date) which could easily have been mistaken for the 'natural', particularly in a narrow intervention. Perhaps Frere's street was laid upon such a deposit.

Much of the detail of the subsequent development and continued use of the axial north-south street is irrelevant here but a few points are worthy of note. There was no clear evidence for a ditch at the western margin of the street (though limitations on the extent of excavation and the presence of later features mean that in the DDP site this absence is not completely certain). The earliest gravel surface in the DDP site incorporated two narrow parallel voids extending at least 2.3m westward from the east baulk of the site aligned east-west. These are likely to have been the positions of wooden planks forming the sides of a narrow drain running across the line of the street. The drain was relatively short-lived, being completely sealed by later compacted street surfaces (a fact that allowed the *in situ* decomposition of the drain sides without the consequent voids becoming infilled). There was considerable variation of detail in the sequences recorded in a series of sections along a 12m length of the street in the DDP site, suggesting a rather piecemeal approach to construction and maintenance. Typically there were three principal surfaces, all of gravel, the overall sequence of surfaces and makeup layers ranging from *c* 0.45-0.55m in depth. It is likely that localised patching was a frequent occurrence. The latest surface has a *terminus post quem* of 388-402 (more likely 388-395) provided by a coin from its immediately underlying makeup layer. The street would presumably have been in continuous use from the time of its construction through to the end of the Roman period, and arguably beyond.

As already noted, it is assumed that the axial street extended through the northern part of the settlement to a junction with the line of the through road. This assumption is entirely reasonable, but it is important to note that at the most northerly point where the 'street' has been located it takes the form of a much more extensive spread of gravel, (see e.g. Frere 1984, 94 fig. 2). The western edge of the 'street', on the projected alignment, was traced through the DDP site, but the evidence of Frere's Site E trenches to the east suggests that gravelled surfaces, although possibly discontinuous, extended up to at least *c* 20m eastward from that line. Further north, gravel surfaces seem to have covered an area at least *c* 35m east-west, with a possible kerb on the western edge, which here lay west of the line of the street as seen in the DDP site and further south. Gravel surfaces more extensive than the likely width of the street were estimated by Frere (1984, 100) to have a north-south measurement of at least 37.5m. Interpretation of this area as a likely market place is plausible (e.g. Burnham and Wacher 1990, 120). It is uncertain whether the sequence and life-span of the 'market place' surfaces were comparable to those of the 'street'; though survival of the open area throughout the Roman period is implied. This would be consistent with the evidence from the 'street' sequence as seen in the DDP site, where continuity of use throughout the Roman period seems certain. Overall, it is most likely that the street simply ran through the 'market place' and beyond it up to the

postulated junction with the through road, but since this junction could have been some 200m distant there is much room for uncertainty; the line is therefore shown as such on Fig. 8.

Frere was concerned about his failure to find evidence for a gate at the southern end of the axial street where it met the southern side of the defences, the first (earthwork) phase of which can be assigned a *terminus post quem* of AD 160 on pottery evidence. It is likely, but not certain, that the axial street had originally continued south of the line of the defences; it is more certain that there is no trace of an opening in the rampart in this area. If the street was just an element of the internal layout of the settlement, albeit the most important one, it might have been considered expendable when it came to the construction of a defensive circuit, in a way that a through road could not have been. It is also likely that this street alignment had been more significant in its southern part in the early Roman period, perhaps providing a line of access to the Dyke Hills area, and was therefore of much reduced if not minimal importance by the second half of the 2nd century when the first (earthwork) defences were built, by which time the Dyke Hills complex was probably long out of use, but this is more speculative.

Apart from uncertain indications of east-west metalling in the area where the axial street met the line of the southern defences there is only evidence for one further street within the settlement, although this must reflect the overall paucity of excavation. A road ran east from the axial street from a point just north of the location in Frere's Site B mentioned above. Where examined in Site G this street was at least 2.28m wide and had three successive surfaces. The earliest of these overlay deposits which suggested a date of *c* AD 115-130 for its construction (Frere 1984, 107). The road was only traced for some 15m east of the axial street and its extent beyond this point is unknown, but its further line might be indicated by a likely (later) gate position in the eastern defences. This was located in a 1972 excavation behind the Old Castle Inn. Here a very large feature intruding into the south side of the excavation (Bradley 1978, 20-21, phase 4 feature 88, note that Bradley's plan has north at the bottom) might have been the northern terminal of the defensive ditch just outside a gate and therefore adjacent to a road at this point (Henig and Booth 2000, 59, 61). In parentheses it should be noted that the location of the east side of Dorchester's defensive circuit has been debated (e.g. Hogg and Stevens 1937, 44-45; Aston 1974, 4; Rowley 1985, 24; Rodwell 2009, 18-20), but there is no real reason to doubt the general line as shown for example by Hogg and Stevens (1937, 43), though their indicated 'gate' locations are much less certain and some of the detail of the east side can be regarded as uncertain. While their relative chronology is unknown, the roughly west-east side street seen in Frere's Sites B and G might have been aligned on the potential gate position seen in Bradley's excavation (or alternatively, have been on an alignment that subsequently helped determine the location of the latter). Furthermore, beyond the defences it is notable that the south-west projected alignment of a trackway identified on aerial photographs some distance to the north-east of the village coming from the direction of Queenford Farm could have run precisely to this location (e.g. Henig and Booth 2000, 60, fig. 3.4), but too much of the line of this feature is lost in the area north of and adjacent to the Abbey for this to be certain.

In summary, the locations of a north and perhaps an east gate at Dorchester can be suggested with varying degrees of confidence, with clear relevance for the position of roads but not necessarily for their primary alignments. The existence of other gates might reasonably be expected but the present lack of evidence leaves several unresolved questions. Most obvious is the question of the alignment of RR160c from the ESE once it had crossed the Thame. Did it turn north at the point of junction of the projected ideal line from Brightwell-cum-Sotwell with the projected line of RR160b from the north (as

described above), or was its WNW line continued further before turning north through what would later be the heart of the nucleated settlement, or did it follow some other course? Similarly, was the line of RR160b from the north simply projected through the area of the later settlement core, or was it modified in some way? Fig. 8 makes it clear that the imposition of a defensive circuit, not before *c* AD 160 at the earliest, renders this alignment completely unviable and would have required significant adjustments to the through road routes, but what form did these take? In an earlier period none of the principal alignments of RR160b or RR160c is reflected in the orientation of the Neronian-early Flavian military features, leaving questions of their spatial relationships (and perhaps chronological ones too, though primacy for the principal road lines is assumed) completely unresolved.

General Discussion

The broad courses of the two principal Roman roads in the region, Akeman Street (RR16a/16b) and the Alchester-Silchester road (RR160b/160c) are clear, but recent work has refined understanding of the routes of both. At the same time the complexity of the detailed evolution of these routes through time has been underlined, especially in relation to the two major sites with which they were connected. Both of these saw early Roman military occupation, that at Alchester being of particular importance because of its scale and initial Conquest-period chronology.

The dating of the roads themselves lacks precision, and arguments about a sequence of development based on strategic military considerations are inevitably speculative (wider consideration of the socio-political context of the early development of these roads is beyond the scope of this paper, see inter alia Copeland 2009; Entwistle 2019, 48-75; 2022, 55-60; Hingley 2022, 66-107). The time lag between establishment of a surveyed line and completion of a surfaced road may also have been variable depending on a variety of circumstances. Some chronological fixed points are provided by the occupation sequences at both Alchester and Dorchester. At the former, a substantial garrison was in place, on what may have been largely a greenfield site, by AD 45 at the latest (and probably earlier) while the associated Akeman Street may have initially been routed into/through the fort prior to the establishment of a 'bypass' road. At Dorchester, the major late Iron Age centre of Dyke Hills was bypassed, but obviously referenced, by the north-south road, the course of which may have directly impacted unenclosed settlement contemporary with and north of the Dyke Hills complex. Neronian-early Flavian military features in the same area must have lain very close to the through route of RR160b/160c, whatever the precise line that this took in what became the core of the subsequent nucleated settlement.

At the south end of RR160c Silchester was already a major settlement before the Conquest period and was accessed directly by that road. In view of the strategic importance of both Alchester and Silchester a very early date might be expected for the establishment of a direct road line between them. This seems to be borne out by the material associated with the 'East Otmoor road' discussed above, and is supported at Silchester by the association of the alignment of RR160c with the 'courtyard building', perhaps of the later AD 40s.

Silchester is thought to have been a significant focus for the network of Roman roads in southern England west of London perhaps from as early as the mid AD 40s (Fulford *et al.* 2020, 7). Alchester was arguably another key road junction by the same period, as discussed above, though despite its evident

importance, it (and Akeman Street) never appeared in any of the known routes of the Antonine Itinerary, whereas Silchester features in four – as the terminal point in three cases (ibid.; Rivet and Smith 1979, 166-7, 175-180, Itinera VII and XIII-XV; Davies 2002, 20 fig. 5 for a convenient graphical representation). Perhaps the particular importance of Akeman Street in the Conquest period was not sustained. While remaining a significant through road it had no special long term strategic significance resulting in incorporation within the Itineraries. This suggestion may be supported by the apparent absence of Alchester from name lists such as the Ravenna Cosmography (an identification with *Alauna* has occasionally been proposed, but this seems much more likely to be Alcester in Warwickshire; Rivet and Smith 1979, 244).

Questions remain about the early stages of the Alchester to Silchester road. Which 'end' was the starting point for the purposes of surveying the route? Given that both were important places by *c* AD 45, either is possible. As with the case of Akeman Street and the Alchester fort the fact that the road did not head directly to the intermediate Dyke Hills complex, though this could have been easily achieved from the north (in fact a direct southward projection of the north-south line across Otmoor from the south gate of Alchester would have run into the western part of the Dyke Hills complex, but it is not clear if this was at all significant) is probably to be explained in terms of topographical factors; it was close enough to allow ready access. It is indeed possible that the Dyke Hills complex had already been abandoned, or cleared by the Roman army, by the time that the road was built, but it is perhaps unlikely that this would have been the case when the route was surveyed, unless such clearance took place immediately in AD 43 or 44.

Although both Akeman Street and RR160c/160b must have been early roads the question of their relative chronology remains open. There is no indication that either formed part of a LDA (though see above for RR160a, the continuation of RR160 north of Alchester, possibly predating both the other roads). One sequential relationship that is fairly clear and potentially relevant, however, is that between the western end of Akeman Street and the Fosse Way at Cirencester, the latter being part of an early LDA (see above). Although the complex arrangement of roads around Cirencester has proved difficult to disentangle (e.g. Hargreaves 1998; Davies 2002, 146-147; Reece 2003; Holbrook 2008, 308-310; Entwistle 2021) the identification of the Leicester-Cirencester LDA should indicate primacy for the Fosse Way in this sequence, at least as far as establishment of surveyed lines was concerned, regardless of the sequence of later adjustments to the surviving roads. On this basis, the line of Akeman Street at Cirencester must have been secondary to that of the Fosse Way, though this leaves open the question of whether Akeman Street was surveyed as a single operation or in multiple stages. Copeland (2009, 83, 98) has suggested that the section of Akeman Street west of Alchester was later in date than the *Verulamium* to Alchester section. On slightly different criteria this suggestion has been adopted in the projected development scheme set out above, although in absolute terms the gap was probably very short.

John Blair (2020) has suggested that the development of Akeman Street west of Alchester was more complicated than has been thought, proposing evidence for two approximately parallel alignments over a distance of some 23km mainly between the rivers Glyme and Windrush, with the more southerly of the two lines, which he terms the 'lost road', closely related to a postulated 'surveyed baseline' of this part of Akeman Street (Blair 2020, 47; this road has been accepted as 'probable' and assigned the number RR16aa(x) (Armstrong 2021, 378)). Just east of the Glyme, Blair identifies the roadside settlement of Sansom's Platt as the place where the two road lines diverge, but the road layout in this settlement has been shown in recent geophysical survey by Magnitude Surveys (2022)

to be more complex than previously appreciated, to an extent that calls the argument about the divergence of the roads here into question. Rather than placing the eastern end of Blair's proposed 'baseline' at Sansom's Platt it might be better seen to lie slightly further east in the vicinity of Sturdy's Castle (c SP 4625 1935), the location of a very slight change in the developed line of Akeman Street. The relative chronology of these roads, which may have been in contemporary use over an extended period, is unclear, but Blair suggests that the 'lost road' may have been the primary course of the road, albeit that the more commonly accepted line was clearly established well before the end of the 1st century AD (Blair 2020, 64).

This body of evidence adds nothing substantive to the discussion of the date of Akeman Street west of Alchester vis-à-vis its eastern section. Identification of the possible function of the road may not help either. An old idea, still occasionally referenced, that it may have formed a frontier in the early Conquest period can be disregarded (e.g. Henig and Booth 2000, 35; Ainslie 2005; Copeland 2009, 95; Blair 2020, 47; with regard to the last of these (see Blair's fn 11) the present writer never thought this hypothesis likely, but it was accepted by his co-author! See Henig and Booth 2000, 47, fn 6). Davies (2002, 117, fig. 55) mapped Akeman Street as a 'penetration road' and both RR160 and the Fosse Way between Leicester and Cirencester as 'territory-holding roads', by definition built a little later. The identification of the Fosse Way and RR160a as elements of LDA of primary character would appear to invalidate this characterisation of Akeman Street.

As so often happens, the accumulation of new evidence, has raised more questions than it answers. At Alchester questions remain about the evolution of the line of Akeman Street and about its relationship to RR160, particularly just north of the main settlement focus, though the development scheme presented above attempts to make the best use of the evidence currently available. Clarification of the significance of the 'Fringford to Littlecote' LDA will be important here. At Dorchester the outstanding questions are of a more local nature, principally concerning the details of the alignments of the different elements of RR160 within the area of the Roman settlement and how these must have changed through time, particularly in response to the construction of defences in the later 2nd century AD. These are questions that can be addressed primarily only with more data from excavation.

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