OXFORD ARCHAEOLOGICAL RESOURCE ASSESSMENT 2011

ROMAN

Compiled by Ruth Beckley and David Radford

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Abbreviations

LAA Oxford Local Authority Area

OHER Oxfordshire Historic Environment Record

UAD Urban Archaeological Database (Event number unless otherwise stated)

Introduction

This assessment report summarises the Roman evidence from the Oxford City Council Local Authority Area (LAA) and forms part of the resource assessment stage of the Oxford Archaeological Plan. The aim of the report is to aid heritage asset management and inform field investigation and academic research.

The Oxford Resource Assessment is designed to complement the county level resource assessment produced as part of the Solent Thames Research Frameworks (Booth 2009). Earlier local overviews have been produced by Young (1977; 1986; 2000), Henig and Booth (2000) and from the 1997 Tom Hassall Lectures (Salway 1999). At a regional level overviews have been provided by the Solent Thames Research Framework (Fulford and Allen 2010) and in the recent *Thames Through Time* monograph (Booth et al. 2007). In addition the Oxfordshire Historic Environment Record (OHER) and the Oxford Urban Archaeological Database (UAD) have been consulted.

Nature of evidence base

Of the 162 records collated from the OHER and the UAD approximately 65 refer to Roman activity recorded from modern excavations and field walking projects. The remaining records include isolated find-spots and recorded observations made from the 17th century onwards including references to kilns or pottery spreads and features recorded during development. Archaeological evidence for the Roman period is dominated by pottery evidence notably from pottery production areas located east and south-east of the city (Figure 6). Further evidence comes from metalwork, predominately in the form of coinage. The OHER and UAD record ninety coins from 45 locations throughout the LAA (Figure 8). The Portable Antiquities Scheme (PAS) database records 19 coins from the Oxford LAA, but it is not possible to determine if these are duplicated in the archaeological database. Mainly recovered through metal detecting, they also predominately date to the 3rd and 4th centuries with two coins dating to the 1st century.

Key sites

Late Iron Age-Early Roman transition site

Bernwood First School, Barton (excavation)

Development of the pottery industry

- 1st century coarse ware production Churchill hospital (excavation interim reports only)
- 2nd century expansion of industry from introduction of Whiteware Mortaria at Blackbird Leys, Littlemore, St Luke's Road, Cowley, and possibly Rose Hill (published and unpublished reports and recorded observations)
- Evidence for expanding of shifting production St Lukes Road, Cowley (excavation)
- 3rd century expansion Churchill hospital site (excavation interim reports only)
- Evidence for workshops Churchill site excavation interim reports only)
- Evidence for wood supply Blackbird Leys (excavation)
 - 1st-4th century 'village' or grouping of rural farmsteads
- South Parks Road Zone (new chemistry lab, Mansfield College; Radcliffe Science Library sites – excavations)

Variations in mix of agriculture/horticultural patterns

Emmer and peas noted at Mansfield College site (excavation)

Agricultural settlement within the pottery zone

• Eastfield House, Brasenose Driftway (excavation)

Notable burials

- Bernwood First School Continuity of LIA pit burial tradition (excavation)
- Radcliffe Science Laboratory rural inhumations (excavation)
- New Chemistry Laboratory decapitation burial (excavation)
- Roadside cemetery Bayswater Hill (recorded observations and watching brief)
 Possible roadside settlement?
- Bayswater Hill (recorded observations and excavation)

The Landscape

<u>Inheritance</u>

The Roman period extends from the conquest of Britain in AD43 until and the collapse of Roman central authority in the early 5th century. The Late Iron Age to Roman transition is not easily identified in rural material culture as native traditions of grog-tempered pottery continued past the date of conquest. Nevertheless the balance of evidence from the LAA implies continuity of Late Iron Age rural settlement through the conquest period and beyond, although it is not possible to say with confidence that every site producing native 'Belgic' pottery originated in the pre-Conquest period. At the Bernwood First School, however, radio-carbon dating on inhumations placed in pits indicate the continuity of a local pit burial tradition from the Late Iron Age into the Early Roman period.

Key characteristics of the landscape

Excavation evidence and parch mark evidence suggests an extensive cleared mixed farming landscape on the 2nd gravel terrace. In the wider Upper Thames Valley the general pattern is for agricultural intensification until the mid-2nd century with more grazing on wetter areas of the floodplain and cultivation extended on to the higher areas of the floodplain (Booth et al. 2007: 21). An increase of seasonal flooding and alluviation led to an abandonment of some of these areas in the late 3rd and 4th centuries to the Late Roman period (*ibid*.: 26).

Roman land management practices in the Oxford area are poorly understood with only fragmented evidence from isolated sites. It has been suggested that the southeast and east Oxford kiln sites were not favoured locations for intensive agricultural activity due to the poor quality of the soil and the possibility of dense woodland cover in the area (*ibid*.: 307).

Woodland and fuel

The examination of pollen from the Minchery Farm site in Littlemore (Parker 1996) has indicated a long period of open landscape on the Corallian Ridge, with an expansion of grass and some woodland, from the Iron Age to Saxon period (Unit 3). This has to be squared with the demonstrable fuel requirements of the extensive Roman pottery industry in this area and emergence of Shotover Forest into the documentary record in the late Saxon period. Some woodland elements were present in the Minchery Farm sample with low quantities of oak, lime and hazel noted. It has been suggested that more woodland was present in the local area than is indicated by the pollen diagram because potentially the processes of pollarding and coppicing woodland for fuel could have drastically reduced the amount of flowering and hence pollen productivity (Rackham 1980). High quantities of microscopic charcoal were noted in samples from the Minchery Farm sample which may be related to wood utilised for the pottery industry. This interpretation is supported by the quantity of charcoal retrieved from kiln production sites like Blackbird Leys (Booth and Edgeley Long 2003).

It is clear that wood was the primary fuel used in the local kilns. This is a common pattern in the region and with Roman kilns in general. The Blackbird Leys charcoal assemblage indicated the presence of mixed deciduous woodland with ash, oak and elm. It is unclear whether significant woodland exploitation simply relied on natural regeneration rather than coppicing (*ibid*.: 260). To-date, these practices have not been confirmed in the archaeological record. The scale of the requirements for the Oxford pottery industry could suggests a managed system to provide an adequate fuel supply. However the results from Blackbird Leys suggests a lack of consistency of species in fuel wood supply and no conclusive evidence of woodland management has been recovered to-date.

Sweet Chestnut charcoal of 3rd century date was also observed at Blackbird Leys, which is of interest because this species was introduced by the Romans and may have grown on the better drained sands of the Blackbird Leys rather than on gravel or limestone. Challinor notes that this may be the first confirmed identification for Roman period sweet chestnut for the region (2003: 256).

Relief, drainage and soils

By the Iron Age, the Port Meadow area had become noticeably wetter with evidence of alluvial clay in the ditches of the Iron Age hut circles (Robinson and Lambrick 1984: 4). Alluviation during this period has also been recorded at Farmoor (Lambrick and Robinson) and Yarnton (Booth et al. 2007). At Mingies Ditch, woodland clearance was radio-carbon dated to 2800 BP \pm 90 with a low preservation of organic materials suggesting a low water table in the late Bronze Age; by the later Iron Age the ditches indicated a higher water table in around 2170 BP \pm 90 leading to peat formation in the late Iron Age (*ibid.*: 2).

The area around Oxford may then have seen seasonal flooding over a substantial area, leaving only small pockets of higher ground, which led to the creation of protochannels such as the Trill Mill Stream, the Blackfriars Mill Stream and the Shire Lake Channel (Robinson 2003: 374). By the middle Iron Age the changes to the seasonal flood patterns around Oxford led to a shift in permanent settlement patterns to the higher ground east of Oxford, with evidence for seasonal camps on the floodplains such as at Port Meadow and nearby Farmoor to the north-west of Oxford. At Yarnton there is evidence for the shift of permanent settlement from the floodplain to the 2nd gravel terrace as early as the Late Bronze Age (Hey forthcoming). In the Roman period, deposition of alluvial clay continued along the banks of the shallow lake at St Aldates filling much of the drown landscape (Booth et al. 2007: 19).

Evidence for cultivation and pastoralism

Evidence of agricultural activity has largely been gathered from development-led archaeological investigation. This has resulted in an evidence base comprising fragments of possible field systems and enclosures, with concentrations of pottery pointing to domestic settlement and the absence of excavated domestic structures. The evidence from the South Parks Road complex (see The South Parks Road complex below) is perhaps the most promising concentration of rural activity. Here the density of features and particularly rich environmental evidence suggest potential for further discoveries relating to a farming community or 'village' settlement nearby.

Plant remains

Charred plant remains have been investigated at a number of Roman sites in Oxford. Published reports include Chemistry Research Laboratory, 2-4 South Parks Road, (Challinor 2005), Mansfield College (Pelling 2000) and Ruskin College, Old Headington (Smith 2008). The principal wheat crop in Oxfordshire at this time was spelt wheat. Spelt wheat and six row hulled barley remained the principal cereals grown in the region although there was some cultivation of emmer wheat. The New Chemistry Research Laboratory site produced 2nd and 3rd/4th century AD charred plant assemblages that were particularly chaff-rich (spelt glume bases and indeterminate emmer/spelt glume bases) and was therefore consistent with the regional pattern (Challinor 2005); but at the nearby Mansfield College site four grainrich samples from a 3rd/4th century AD gully surrounding a building indicated that emmer grain (*Triticum dicoccum Schübl.*) was the dominant wheat in use in this area (Pelling 2000).

The Mansfield assemblage may indicate stored products (both emmer and spelt wheat spikelets, clean barley grain and pulses) rather than processing waste. It has therefore been suggested that New Chemistry Laboratory site was on the edge of the settlement at this time where de husking was carried out using fire before being

moved to Mansfield for storage (Challinor 2005: 178-9). However it is unclear whether the burnt emmer wheat resulted from a single event giving a distorted impression of its significance. Nevertheless the emmer was radio-carbon dated to the Roman period and was demonstrably grown locally. Notably Mansfield College also produced a significant assemblage of peas, which together with the emmer may make it an atypical example of agricultural/horticultural rural production.

At Ruskin College, Old Headington campus on the Corallian Ridge a grain-rich assemblage from a pit contained abundant hulled barley grains and also hulled wheat grains (primarily spelt (*Triticum spelta*). Spelt glume bases were also observed (Smith 2008).

Corn dryers

Also of note are four T shaped 'dryers' or 'corn dryer' recognised in association with pottery manufacturing compounds at the Churchill hospital site (Young 1972b: 16). The implication is that these structures were used for drying pots prior to firing, but cereal chaff was recovered from them and a dual use cannot be ruled out (Robinson and Wilson 1987).

Buried soils

Evidence of possible land surfaces or buried soils have also been recorded in several locations in the LAA in Summertown (Wolvercote Viaduct; Middle Way), Headington (Churchill hospital, Nuffield Centre; Stowford Road, Barton) Cowley (Rover plant site; Barracks Lane) and in Blackbird Leys (Minchery Farm; Blackbird Leys). For example at 24a St Michael's Street the upper fill of the Bronze Age barrow was comprised of successive layers of gravelly silt loam thought to represent a plough-soil surface of probable Roman date (Parkinson et al. 1996: 59). A series of Roman plough soils were also recorded to the north of the Churchill hospital in 1997 and 1998 (Norton 2000: 1).

Farming landscapes on the 2nd gravel terrace

The South Parks Road complex

Extensive parch marks recorded across the University Parks and a number of medium sized excavation undertaken around the University Science Area and Mansfield College indicate that a Middle-Late Iron Age farming landscape evolved into continuous Roman rural settlement, perhaps village-like in character. The evidence for this settlement consists of boundary and enclosure ditches and a small number of burials. Parts of this landscape have been investigated at the Radcliffe Science Library (Hassall 1972), Mansfield College Institute of American Studies (Booth and Hayden 2000), the new chemistry research laboratory site (Bradley et al. 2005), Halifax House (Anthony 2005b) and at the biochemistry laboratory (Cook 2006). The sites taken as a whole point to a migrating or relocated focus of activity beginning to the east of the Halifax House and moving westwards towards Mansfield College where 3rd-4th century features predominate. Alternatively this shift in activity could represent the period desertion or disuse of specific land holdings within an established complex of enclosures. A pattern of fields and enclosures used for crop and cattle management is evident.

At the Halifax House excavation the Late Iron Age to early Roman bone assemblage showed a clear predominance of cattle bones over sheep and goats. A pre-conquest field boundary producing settlement waste was noted. In the 1st century AD a field system (perhaps a paddock for stock management) was created on a different alignment. A subsequent Early Roman change of orientation reverted to the pre-conquest alignment. Neither pattern corresponds with boundaries noted at Mansfield Road to the west which appear to be later. The Halifax House site appears to have fallen out of use by the end of the 1st century. Here the charred plant remains point to

an open landscape with nearby marsh, presumably the Cherwell Floodplain (Cramp in Anthony 2005).

At Mansfield College an archaeological excavation and watching brief recorded two phases of rural settlement dating from the late 1st to mid-2nd century and from the late 3rd to 4th century (Booth and Hayden 2000: 291). The earliest phase of activity was to the south-east of the site and was represented by a series of small gullies and enclosure ditches and a possible early structure. The later phase of activity comprised larger rectilinear ditches across the entire excavated area and a larger rectangular structure. Charred plant remains recovered from Mansfield College indicate the presence of barley and spelt wheat, both common cereal staples in Roman Britain, but emmer wheat, a more unusual crop, is also present. The environmental evidence derived from gullies that formed three sides of a late Roman structure were particularly rich with large quantities of cereals and legumes (Pelling 2000: 327).

Archaeological investigations at the New Chemistry Research Laboratory site located just to the north-east of the Mansfield College site revealed further evidence of Roman settlement. An archaeological evaluation in 2000 recorded a number of ditches and post holes and a single rubbish pit dating to the 2nd to 4th centuries (Simmonds 2000: 7). The subsequent excavation in 2001 revealed two distinct phases of Roman occupation, first in the 2nd to 3rd centuries, and later in the 3rd to 4th centuries (Bradley and Charles 2005: 143). The earliest phase, broadly comparable to that recorded at the Mansfield College site saw the laying out of north-south boundary ditches with a few associated pits and post holes, but no structural evidence was recorded. There appears to have been some rationalisation of the land divisions on the site in the 3rd century. A group of inter-cutting pits of 3rd or 4th century date produced significant quantities of charred grain (*ibid*.: 148-9).

An archaeological watching brief some 120 metres north-west of the Mansfield College sites recorded further evidence of linear field boundaries or drainage ditches at the biochemistry building near the Pitt Rivers Museum (UAD 1693). Here a line of post holes may also represent a fence line but no clear dating evidence was recovered (Cook 2006: 11). A series of seven linear ditches were also recorded during a watching brief on land adjacent to the Pitt Rivers Museum that probably formed part of the Roman field system in the area (UAD 1735; Leech 2005: 7).

Middle Way. Summertown and Wolvercote viaduct

Roman activity to the north of the city, on the Summertown-Radley and Wolvercote gravel terraces, is demonstrated by stray finds and recorded observations from several sites and also from small excavations which have produced evidence for further farm complexes. Archaeological investigations at the northern fringe of the LAA along the line of the Wolvercote Viaduct have revealed evidence of Iron Age to Roman occupation (King 2008: 6.1). Here the earliest phase of activity comprised two large ditches that may have formed the northern corner of an enclosure or boundary. South of these ditches, five shallow features were identified including three possible post holes and two pits. In the 1st century AD the enclosure was re-cut and a second, parallel ditch was added. A further re-cut took place in the 2nd century and several features interpreted as possible pits were identified of this date. By the 4th century only single re-cut ditch was noted. Further south along the gravel spur formed by the Summertown Radley terrace an archaeological excavation at Middle Way, Summertown, recorded the periphery of a farmstead that was in use from the Late Iron Age to early Roman period through to the 2nd/3rd century AD. A group of post holes suggested a sequence of wooden buildings, perhaps granaries. Areas of compacted ground creating a 'hard standing' within an enclosure or enclosures were also noted (Williams 2007). Further evidence for Roman occupation (2nd-4th century Roman pottery) was found at St Edward's School, Summertown, in 1924 during the construction of a tunnel across the road (HER No 3814).

The Corallian Ridge

Evidence for Roman period field systems to the south-east on the Corallian Ridge is fragmentary. At the Churchill hospital excavation a system of drainage ditches were recorded that probably represents a field system predating the development of the major pottery production site at this location (Young 1973a: 213). At Blackbird Leys Zone C the development of pottery production in the 3rd century took place within a system of enclosures and boundaries that had been in existence for some time (Booth and Edgeley-Long 2003). An excavation in 1879 at Minchery Farm, Littlemore noted Roman field boundaries, aligned east to west and possibly demarking the northern extent of the Romano-British agricultural land with the marshy land associated with Northfield Brook. The ditches yielded 2nd-3rd century pottery (OHER 3845).

Headington School

Archaeological investigations for the new music building at Headington School uncovered early Roman boundaries forming part of a rectilinear plan. The majority of features encountered could be dated to the 1st century with a single residual flint tempered jar also pointing to Late Iron Age activity. The site appears to have been abandoned in the early 2nd century (Cass 2007).

Social organisation and settlement

<u>Urban settlement</u>

The nearest recorded urban settlements are located ten miles north-east of Oxford at Alchester (Bicester), where Roman occupation has been identified from the mid-1st century to the 4th century AD, and six miles to the south-east at Dorchester-on-Thames. Excavation in 1935 first identified the town's western defences built in the late 1st-2nd century AD (Hogg and Stevens 1937: 45) while a series of subsequent excavations in the area have provided substantial evidence of continued Roman settlement. The two towns were linked by the Dorchester-Alchester Road passing three miles to the east of Oxford via Headington and Blackbird Leys.

Rural settlement: a pattern of continuity

Late Iron Age settlement patterns along the Upper Thames generally display continuity over the conquest period and into the early 2nd century, at which point there is widespread evidence for the abandonment or relocation of rural settlement sites, the reasons for which remain unclear. This pattern is generally confirmed by evidence from the Oxford LAA.

Low-density rural settlement, sometimes subject to migration and re-modelling, but generally reinforcing an impression of continuity through the 1st-2nd century appears to be the dominant pattern across the LAA. This applies to both sites located on the higher ground to the south-east of the LAA (e.g. Eastfield House, Cowley) and to dispersed settlement located across the Summertown-Radley and Wolvercote Terraces (e.g. The South Parks Road Complex and Middle Way, Summertown). There is some evidence for early Roman sites being abandoned in the early 2nd century e.g. Headington School (Cass 2007) and a possible hiatus in activity was noted at the Wolvercote viaduct site (King 2008). To the south-east where a substantial pottery industry developed orientated on the Alchester-Dorchester road there is only limited evidence for rural settlement directly associated with the production areas; for example domestic assemblages have been recovered from boundary and enclosure ditches and burials have been found close to kiln sites; however there is currently no well excavated settlement evidence. There is also some evidence for roadside settlement activity at Bayswater Hill, Barton (Pine 2003: 263). To date no conclusive evidence for high status (villa or farm) occupation has been recovered from the LAA. The nearest higher status rural site lies beyond the boundary of the LAA (e.g. Headington Wick).

The Summertown Radley-Wolvercote gravel terrace

Wolvercote viaduct and Middle Way, Summertown

At the Wolvercote viaduct site a long-lived low status rural settlement was indicated by enclosure ditch and pits cut into the alluvium. Settlement activity spanned from the Late Iron Age/early Roman period to the 4th century with a possible break in activity between the mid-2nd and mid-3rd century (King 2008). The earliest features recorded were two ditches that appeared to form a small enclosure in the southern end of the site. Within the possible enclosure, two pits and three possible post holes were also recorded. Re-cutting of ditches into the 2nd century was noted. To the south, an archaeological excavation at Middle Way, Summertown on the Summertown-Radley terrace recorded the periphery of a farmstead that was in use from the Late Iron Age/early Roman period through to the 2nd-3rd century AD. Post hole groups suggested a sequence of wooden buildings, perhaps granaries, and associated areas of hard standing within an enclosure or enclosures (Williams 2007a). Further evidence for possible occupation site (2nd-4th century Roman pottery) was found at St Edward's School, Summertown, in 1924 during the construction of a tunnel across the road (OHER No 3814).

South Parks road zone

The most extensive evidence of Roman activity on the Oxford Summertown-Radley gravel terrace comes from the area immediately to the south of University Parks around the South Parks road area (see Farming landscapes on the 2nd gravel terrace above for evidence for the agricultural landscape). It is likely that an Iron Age to Roman field system and associated settlement zone extended over much of the science area and south of South Parks Road. This is likely associated with the cropmarks recorded in University Parks to the north.

At the Mansfield College and new chemistry laboratory sites the even distribution of domestic pottery may indicate a village type settlement rather than a settlement focused on a principal farm or villa, although no obvious settlement core has been identified (Biddulph 2005: 163). Booth and Hayden (2000) have suggested a modest agglomeration of farmsteads with a fairly unplanned layout of boundaries that was subsequently rationalised on a north-south axis. The small amounts of fine wares and imports point to average or low status activity with the increase in fine wares in the later Roman period likely to be connected to their local production rather than a transformation in the status of the settlement.

Small assemblages of Roman pottery were previously recorded at Parks Road in 1962 (UAD 201) and 1970 (UAD 726), at Keble College in 1971 (UAD 247), at Mansfield College in 1992 (UAD 362), the Rex Richards Building in 1993 (UAD 308), and between the physiology and zoology departments in 1949 (UAD 143). In 1933 several ditches of a probable Roman date were recorded during construction of the Worthington Wing of the Natural History Museum (UAD 740).

University science area and Radcliffe Science Library

In 1970-1 several Roman burials were recorded lying in ditches just to the front of the Natural History Museum during the construction of the Radcliffe Science Library, indicating low status settlement in the vicinity (Hassall 1972: 40). The evidence comprised a major ditch, possibly used as a boundary, dated to the 2nd century AD. A second ditch, possibly a re-cut of the first was also recorded within which three inhumations were recorded. In 1990 a further ditch some 2.5m wide and 1.5m deep on a similar alignment to those documented in 1970 was recorded during a watching brief at the Department of Earth Sciences (UAD 507). A subsequent watching brief in 2005 to the east of these sites and beneath the Pitt Rivers Museum recorded traces of two ditches approximately 20m apart on a north-south alignment with evidence of re-cutting in both ditches (Leech 2005: 5). At the biochemistry building slightly to the north-east of the Pitt Rivers site several more undated linear features were recorded in 2006 (Cook 2006: 10).

Mansfield College, new chemistry labs and Halifax House

As noted above excavations to the south of South Parks Road have recorded more substantial evidence of Roman activity. A series of investigations at Mansfield College in advance of development of the American Institute recorded evidence of at least one timber structure indicating a low status 4th century settlement (Booth and Hayden 2000: 330). At the adjacent new chemistry lab site in 2005 evidence for 2nd-3rd century activity included pits and boundary ditches but not structural evidence. In the late 3rd-4th century the complex system of boundary ditches was rationalised to produce a more coherent system. An inhumation was also recorded to the north of the boundary ditches (Bradley et al. 2005: 147).

The South Parks road complex was occupied throughout the Roman period, with the focus of activity shifting away from Mansfield College in the mid-2nd century when the chemistry laboratory site was incorporated into the settlement. Activity resumed at the Mansfield site in the 3rd century and intensified in the 4th century. The changing

patterns of activity could indicate that the settlement was expanding or migrating or simply that a particular land unit or property became temporarily unoccupied.

Central Oxford

At the southern end of the 2nd gravel terrace investigations within the medieval city have recorded limited evidence of Roman activity mainly comprising residual pottery. For example at Logic Lane (UAD 181) sherds of 4th century Oxford colour-coated ware were recovered from a Saxon pit (Radcliffe 1961/2: 43). Five sherds recovered from New College included a single sherd of Samian, two sherds of grey ware and two sherds of white mortaria of a probable 3rd century AD date (UAD 303; Booth 1995)

Finds hinting at the presence of more substantial Roman buildings have been recovered from the central area; tegulae and scored box tile were recorded at Church Street, St Ebbe's (Hassall et al. 1989: 196) (Fig 43); Roman brick from near the Castle (Jope 1952/3: 99-100); and mortar likely to be Roman in date from 24A St Michael's Street (Dodd 2003). The possibility that a slightly higher than average collection of residual and stray finds in the vicinity of Peckwater Quad, Christ Church and All Saints church may indicate Roman settlement in this area is noted by Blinkhorn (2007).

Recent substantial excavations at the Radcliffe Infirmary and St John's College, Kendrew Quad, St Giles sites did not produce significant Roman evidence. At St John's College a 1st century hearth was recorded within the upper fill of the Late Neolithic henge ditch along with a few sherds of early Roman pottery (Wallis 2010: 11). The extensive Radcliffe Infirmary excavation produced only a few sherds of residual Roman pottery.

The Corallian Ridge

The character of settlement in and around the pottery production areas is poorly understood (see Churchill site below).

Cowley

Some evidence of Roman occupation was recorded at Rose Hill, Cowley during an early salvage excavation at the kiln site on Annesley Road (Harden 1936: 99). In addition to the kiln evidence, several probable pottery dumps were recorded along with several possible domestic pits. These pits contained a layer of burnt stone and associated pottery and animal refuse suggesting they were used for cooking purposes (*ibid.*). A series of occupation layers comprising cobbled or limestone surfaces were also recorded in association with the domestic pits. Pottery from the domestic area indicate an even spread from the 2nd to 4th century. A recent evaluation at Barracks Lane, Cowley, recorded a ditch, gully and a quantity of Roman pottery perhaps indicating domestic activity nearby (Ford 2008). A small quantity of Roman pottery was also recorded in 1989 on land adjacent to the Cowley Road police station (Roberts and Durham 1989: 2).

Eastfield House, Brasenose Driftway, Cowley

At Eastfield House limited evidence of activity from the 2nd-1st century BC to the 4th century AD was recorded with several phases of remodelling to the network of ditches (Challis et al. 2005: 99). In the early Roman period (1st century AD) the evidence comprises a series of gullies that may have formed part of a field system. By the later Roman period some re-organisation of the field system had been undertaken with a possible rectilinear enclosure of a 3rd century date. The site finally fell out of use in the later 4th century. Human infant burials were also recorded in several ditches

Headington

Evidence of a possible Roman villa was recorded just north of the LAA at Wick Farm in Headington. Excavated in 1849 by Llewellyn Jewitt, the site comprised the substantial foundations, partially robbed, of a Roman building covering a large area (Salzman 1939: 318). Metalwork, several coins of a 3rd to 4th century date and a considerable amount of pottery were recovered, including mortaria of a similar date indicating a possible kiln production site in the immediate area (*ibid.*).

Manor Ground, Headington

Although no features of a Roman date were recorded at the Manor Ground (OHER 16974) a fairly large pottery assemblage indicates some activity in the area particularly in the late 3rd to 4th centuries (Hart 2003).

Bayswater Hill, road side settlement?

Several burials and a suggestion of wider settlement at Bayswater Hill were noted during the 1940s development (Atkinson and McKenzie 1946-7; 1948; OHER 3664). Three intact Romano-British pots were also recovered from the nearby Bayswater Brook in 1952 and were thought to have been associated with the possible occupation site (Case 1952-53: 222). Subsequently a small excavation in Stowford Road (OHER 16190), at the foot of the hill, pointed to 3rd century activity of low level rural character (Timby 2003), though the spread of finds at Bayswater Road taken in sum might suggest a more expansive road side settlement. An amphora fragment of South Spanish Dressel (olive oil) was found in only loose association with human remains and other pottery at 102 Bayswater Road in 1994 (Roberts 1994). Further sherds of Baetican Dressel amphora were recovered from the adjacent Stowford Road site (Timby 2003: 272). The presence of such vessels perhaps reflects the position next to a transport route and contrast with, for example, the Mansfield College site where only a single amphora sherd was recovered (Booth and Hayden 2000: 309). However it remains to be demonstrated whether this distinction is a genuine one.

The floodplains: 1st gravel terrace

There is only limited evidence for settlement activity on the Cherwell and Thames flood plains.

Binsey enclosure

It has been suggested that an earthwork enclosure surviving in part at Binsey could be Iron Age in origin (Blair 1988: 3). A potsherd sealed by the fill of the primary enclosure ditch was probably 5th or 6th century. Radio-carbon dates for the bones within the fill were AD 190-390 at 68% confidence, and AD 80-530 at 95% confidence (*ibid.*: 15). Blair suggests that the ditch could have been dug, or was still being kept clean, in the sub-Roman or early Anglo-Saxon period. It remains possible that the rampart and ditch were both Iron Age in origin, the latter scoured out in the early Anglo-Saxon period, or that an early Anglo-Saxon ditch was dug against the face of an Iron Age rampart (*ibid.*: 1988).

Ceremony and Religion

There are no recorded temple sites within the LAA. Small distributions of Inhumations and cremations in Oxford appear to be broadly grouped in several areas indicating rural cemeteries of various sizes. For example at Headington and Barton, Cowley and Rose Hill, and around South Parks road and Summertown (Figure 7).

The city and Summertown

Across North Oxford and Summertown approximately 18 burials have been recorded since the 19th century. The majority were noted during construction and therefore not archaeologically excavated. However a watching brief at 16 Kingston Road, Jericho, in 2006 recorded a coffined grave of probable 4th century date containing the remains of a young female, aged 25-30 years; and a sub-adult was recorded during a watching brief at 16 Kingston Road (Clough 2006). The most significant group of burials encountered to date were recorded on Parks Road in 1970 when several Roman ditches on a northeast-southwest alignment were exposed outside the entrance to the Natural History Museum (Hassall 1972: 40). At least seven inhumations were recorded during the excavation within the ditches. Of the seven individuals present, three were clearly female, one was probably male and the sex of the remaining three is unknown. Three of the individuals were in their late teens, two were young adults, and two were in late-middle age. Due to time constraints very limited evidence could be recorded, although 2nd century Roman pottery predominated in all the burials. Elsewhere in the South Parks road area a partial infant burial was recovered from a late Roman gully at the Mansfield College excavation (Boyle 2000: 320).

Decapitation burial

At the new chemistry research laboratory a 4th century decapitated inhumation was recorded in a grave-cut placed into an earlier backfilled ditch. The arms of the skeleton were crossed and the head had been removed and placed between the lower legs. In place of the head at the eastern end was an ancillary vessel of 4th century date (Bradley et al. 2005: 149). The individual was male, aged over 50, and of well above average height for this period. The decapitation burial fits with a pattern of 3rd-4th century burials of this kind associated with small rural sites along the upper Thames, although placing of the vessel is this manner is an unusual practice (*ibid*.: 183-4).

The Corallian Ridge

Bayswater Hill burials

Several burials have been recorded either side of the Alchester-Dorchester road at Bayswater Hill, with activity extending to the north of Bayswater Brook beyond the LAA boundary. In 1946-8 during the development of housing at Bayswater Hill 'numerous traces of Romano-British occupation' were found in the course of construction, including several inhumations and an urn cremation. Pottery suggested activity was focused in the 3rd and 4th century (OHER 3664, 3665, 3666; Atkinson and McKenzie 1946-7: 163, 165; Atkinson 1948: 67; Atkinson and Kirk 1949: 76). The cremation may have been of 1st or 2nd century date. There was a suggestion of settlement structures but no detailed records were made. In 1994 a salvage record was made of a further disturbed Roman inhumation burial at 102 Bayswater Road (Roberts 1994; OHER 16206).

Bernwood First School, Barton: early Roman pit burial

An early Roman pit burial at Bernwood First School is unusual in that it appears to have been placed within an Iron Age settlement and in close proximity to several inhumations of a probable Iron Age date demonstrating a similar burial rite (Gilbert 2005). The Bernwood burial has been scientifically dated to 20-240 AD cal (AA-

48341 (GU-9819) (95.4% probability) with 68.2% probability of 60AD, 56.4% of 140AD, 5.8% 180AD (ibid.: 30, 33).

Rose Hill

Fifteen burials are recorded in the Cowley/Rose Hill area from the 19th century onwards. During development in the Rose Hill area, four skeletons were recorded in 1937 at Ellesmere Road near the location of three kilns and a possible occupation area (anon 1937: 202). Other inhumations recovered in loose association with pottery kilns include two skeletons close to the stoke hole of a kiln and also the skeleton of 'an adult female dwarf' (OHER 3646, 3647). In 2002 disarticulated human skeletal remains were recorded during the excavation of gas service trenches at Beechwood Flats on the northern slope of Rose Hill near Iffley Turn (Witkin 2003). Previously human remains were discovered in the grounds of nearby Denton House (OHER 6633).

Cowley

In 1940, six burials of a probable Roman date (OHER 1852) were recorded near the railway at the Pressed Steel Works in Cowley (Musgrave 1941: 89). A number of Inhumations were recovered from a quarry immediately north of the Military College on Holloway; the accompanying pottery was described as Roman (OHER 3818, 9932). At Eastfield House significant quantities of 3rd-4th century pottery were also recorded in the fill of the drainage ditches. Here, bone from two infant skeletons as recovered in a Roman ditch and gully (Challis 2005: 101).

The Oxford Pottery Industry

The Roman pottery industry orientated on the Dorchester to Alchester road encompasses an area of production that stretches on a north-south alignment from the southern fringes of Otmoor as far as Dorchester, and on an east-west alignment for almost five kilometres. The evidence for Roman pottery production extends well beyond the Oxford LAA boundary and forms part of an extensive landscape of kilns, beyond the scope of this study. A summary of the known pottery industry was produced in 1977 by Young providing an overview of the distribution and setting of the industry as well as a detailed gazetteer of Oxford wares. The volume was updated and republished in 2000 (Young 2000). Young notes at least 30 kilns in the region, the majority of which were located in the Oxford LAA.

A more recent overview of the Oxfordshire pottery industry is provided in Booth et al. (2007). The broad trajectory of the industry is outlined below:

- 1st century AD: first evidence of coarse table ware production at the Churchill hospital site (fine grey and oxidised wares).
- Late 1st century AD: limited fine ware production is recorded in the Abingdon-Dorchester area including the earliest evidence of white firing clays for mortaria and flagons (Henig and Booth 2000: 163).
- 2nd century AD: 100-180. Fine table wares were mainly imported during this period, whereas specialised vessels such as mortaria and flagons were made in the province. The local industry expanded, notably at Littlemore, Cowley and Rose Hill, producing utilitarian reduced wares and also mortaria, flagons in white ware, a range of table ware forms in white and oxidised wares, and also bows and beakers in reduced ware. The mortaria were often stamped. The distribution was mostly local except for mortaria which achieved a distribution extending into the Severn Valley as well as eastwards down the Thames. The knowledge and influence of Verulamium potters reaches the area including evidence for complementary coarse ware forms (jars, bowls and dishes) made from the widely available iron rich clays that fired red or grey; some experimentation with use of glaze and colour coated beakers, although not commercially successful lines (Henig and Booth 2000:164; Young 2000: iv).
- Late 2nd- mid-3rd century AD: This was a period of decline for pottery industries generally, however local production survived with some kiln complexes going out of use (Littlemore, Ashurst Clinic) and some new sites established (Blackbird Leys and possibly Littlemore Mount Pleasant). The stamping of mortaria ceased, a pattern seen throughout Roman Britain.
- Mid-late 3rd century AD: major changes to the Oxford pottery industry with the introduction of the large scale production of red and brown colour coated fine ware replacing the dwindling supply of imported Samian wares and the increased use of potters stamps until the end of the century. 'It was clear hat from AD250 the Oxford industry was one of the major pottery producers of Roman Britain, on a par with other major industries such as the New Forest, the Nene Valley or Mancetter/Hartshill' (Young 2000: iii).
- Colour-coated wares in the Oxford tradition appear to have been made elsewhere in the province, e.g. at Harston near Cambridge, perhaps by Oxford potters who had migrated (Young 2000: iv).
- By the end of the century new sites primarily concerned with the production of mortaria and white oxidised wares were active at the Churchill, the Nuffield Orthopaedic Centre, Oxford School and Open Brasenose. Open Brasenose, Cowley and Rose Hill were also involved in colour-coated ware production.

- During this period there was an expansion in the range of fine wares being produced. A distinctive new range of mortaria was introduced. At the Churchill a range of white-ware flagons and oxidised beakers and jars were made. By the mid-3rd century introduction of white slip and white ware fabrics (so-called parchment wares) can be demonstrated by exports to London and Richborough. Although these wares were widely distributed across southern Britain, the earlier oxidised and reduced coarse wares never extended beyond regional markets.
- A significant development was the introduction of red and brown colour-coated ware by c.270.
- Late 3rd century AD: the range of white mortaria was simplified; thereafter the character of production did not change significantly during the 4th century. The distribution of Oxford wares achieved greater density and extent during this period, in the south west, south Midlands and East Anglia
- A noticeable feature of the late Roman industry is the consistency of products across a wide area suggesting a level of centralised commercial control.
- Oxfordshire production came to an end about AD400 (Young 2000: iii). The character and speed of the industry's decline is not well understood.

A summary of kiln sites in East Oxford

To date, 23 sites have provided evidence for the pottery industry in the LAA comprising 30 excavated kilns, five recorded observations of kilns during development and 22 possible kilns inferred from artefact densities and types (see Appendix 2: Gazetteer of kiln sites in Oxford). The recent Thames Through Time study has cited the physical remains of approximately 58 kilns from the wider Oxford industry including sites outside the LAA (Booth et al. 2007: 306). Pottery production sites are heavily concentrated in the historic parishes of Littlemore and Headington to the south-east of Oxford. At Littlemore, the development of the large housing estate at Blackbird Leys from the 1960s led to the excavation of 11 kilns across several archaeological sites while at Headington extensive excavations at Churchill hospital since the 1970s have recorded some of the best preserved evidence of the industry including possible associated settlement. The important Churchill hospital site was the subject of a series of interim reports rather than detailed publication with the exception of Young's comprehensive study of the ceramics (1977; 2000). Furthermore excavations of pottery manufacturing sites at Minchery Farm in 1996 have also not been fully published. There is much potential for a re-examination and synthesis of the previously excavated material.

Geophysics from nearby Lower Farm at Nuneham Courtenay outside the LAA provides the best indication of a manufacturing complex, consisting of large numbers of kilns grouped in enclosures of a trackway. Perhaps 40-50 kilns can be inferred from geophysical readings at Lower Farm, Nuneham Courtenay (Henig and Booth 2000: 166-7), indicating the wider potential for new discoveries. To date only the Churchill site has produced clear evidence of workshop structures.

The industry of the Oxford region appears to have begun as a cottage industry in the 1st and 2nd centuries before rapidly expanding into a major regional and national industry in the later 3rd and 4th centuries (Young 1972a: 106; 2000: ii). The evidence suggests that the early development of the local industry (spurred by the introduction of white ware mortaria into the repertoire in the beginning of the 2nd century AD) lay in south-east Oxford (Blackbird Leys, Littlemore and St Luke's Road, Cowley and perhaps Rose Hill), with a southward extension of activity towards Dorchester. The later further expansion of the industry in the 3rd century seems to have been northward towards Headington, with the Churchill hospital being the best studied site, and eastwards towards Hosrepath.

Clusters of kilns and workshops, some perhaps utilising pre-existing stock and agricultural boundaries, others in purpose-built enclosures, were located near water and fuel resources and receiving clay from the iron free deposits at near Shotover. The clay must have been carried over short distances (for example 4km from Shotover Hill to Blackbird Leys Zone C), presumably along Alchester-Dorchester road and a system of trackways. Similarly Shotover is known as a source of high quality yellow ochre that turns red with heat and may have been a source for local Churchill hospital and Horspath kilns, making parchment ware flagons with moulded head designs (Turner 1989: 399-400).

There is some evidence for shifting or migrating activity (e.g. St Luke's Road, Cowley) but it is unclear if this represents movement, as nearby fuel sources were consumed. As noted, large amounts of wood were required for fuels but to date there is no clear evidence for managed woodland (e.g. coppicing).

Headington and Marston

The northern part of the pottery industry in Oxford comprises the parish of Headington with Marston and includes nine sites primarily along the Corallian Ridge at Headington itself with one record from the Cherwell floodplains at Marston (Figure 1).

Evidence for the Oxford pottery industry was first recorded in the mid-19th century during excavations at Wick Farm villa site to the north of the LAA (Jewitt 1851; Salzman 1939: 304; Table 1: site 1). In addition to structural remains, the excavations also recorded some evidence of pottery production in the nearby area including areas of vitrified flooring. The substantial pottery assemblage recovered from the excavations also contained large quantities of mortaria as well as the mould for a mask (*ibid*.). Recorded evidence of possible kiln sites has been noted in several areas around Headington in the 19th century, but the evidence was based on information received by the authors as at the Harry Bear's Pit site (Table 1: sites 2a and 2b).

In 1935 during house-building on Cemetery Lane (now Dunstan Road) many potsherds, mostly mortaria, of pinkish-white and buff clay and other kitchen vessels of coarse ware of the late 3rd and 4th centuries were found possibly suggesting another kiln site (Salzman 1939: 338: Table 1: site 3) while quantities of pottery were recorded at The Rookery (now the Ruskin College Campus) Old Headington in 1964 (Sturdy and Sutermeister 1966: 191; Table 1: site 4). An evaluation at Ruskin College near the Rookery in 2008 produced further mortaria sherds suggestive of a kiln in the vicinity (Dodd 2008: 15). A large quantity of kiln debris, thought to indicate a nearby kiln site, was also recorded at Headley Way, Marston in 1960 (Case and Sturdy 1960: 133; Table 1: site 5). Elsewhere excavations at the Manor Ground Headington in 2003 produced an assemblage of mortaria of late 3rd-4th century date suggesting mortaria production nearby (Biddulph in Hart 2003: 40; Table 1: site 6). At Bayswater Hill a Roman burial and/or occupation site was recorded during development in the late 1940s. Although kiln evidence was not recorded, a substantial amount of 3rd-4th century Oxford colour-coated ware and coarse wares were noted (Atkinson and McKensie 1946-7; Atkinson, 1948; Table 1: site 7). This may be the site reported by Young at Poor's Land, Headington (1977: 249).

Nuffield hospital

Evidence from the site of the Wingfield, later Nuffield, hospital (Table 1: sites 8a and 8b) includes an early reference to a possible kiln site at the Wingfield Hospital in 1963 based on a scatter of pottery sherds (Sturdy and Case 1963: 92; Table 1: sites 8a and 8b). The following year another pottery spread was recorded nearby suggesting a Roman site approximately 365m x182m (OHER 3670). A subsequent watching brief carried out in 2001 to the east of this kiln noted a substantial pottery

assemblage of broadly 3rd century date including kiln waste indicating a further probable kiln site in the area (Bashford 2001: 3).

The Churchill hospital site

The potential for Roman kilns at the Churchill hospital site was first noted in the 19th century when several possible kiln sites were recorded during quarrying at Harry Bear's Pit (Table 1: site 2a). The evidence comprised several circular clay lined hollows of some 75cm in diameter with associated shallow flues and much pottery debris. Unfortunately the kilns were not subject to close examination or recording and were subsequently destroyed (Manning 1898: 19). Manning also suggests that further kiln sites have been identified near the brickfields at Headington (*ibid*.: 27; Table 1: site 2b).

In 1953 large quantities of Roman pottery were recovered from the hospital during building work for the Regional Blood Transfusion Unit (Case 1952-3: 224; Table 1: site 9a). Salvage excavations at the site revealed that one kiln had already been destroyed during building works. A second kiln was revealed and preserved *in situ*. The substantial pottery assemblage recovered from the salvage excavations included many examples of mortaria and indicated a period of use in the late 4th century (*ibid*.).

Between 1971-3 archaeological investigations took place in advance of extensive redevelopment of the excavated area extending to around 5000 square metres (Table 1: sites 9a-h; Figure 4). Magnetometry and archaeological excavation were both used on the site and a series of interim reports were published throughout the 1970s. The first season of excavation in 1971 concentrated on a large area immediately to the north of those recorded in 1952, revealing evidence of two phases of pottery production as well as occupation activity (Young 1972b). The second season of work in 1972 recorded a pottery drying area, ancillary structures and a kiln of a comparable date to the second phase of activity. Area I was extended to the south (Areas III, IV) while two new areas to the southwest of Area I were also excavated (Areas IV, V). The evidence suggests that the organised layout and scale of the first phase continued into the 4th century to the south-west in Area VI (Young, 1973a). A third season concentrated on the area between Area I and Area VI and identified a possible first century potters' area, containing two kilns and a well (Area VIII), and of further working areas of the late 3rd and 4th centuries, including possible buildings, pottery dryers and one kiln in Area VII (Young 1974). A summary of the finds and a description of features related to the manufacturing process is provided by Young (1977; 2000).

Early Roman

The 1973 excavation in Area VIII recorded some early evidence of 1st century pottery production (Young 1974: 8; 2000: 41; Table 4). Here a group of features containing pottery similar to the 'Belgic' levels at Dorchester-on-Thames with activity dated to the second half of the 1st century AD. The features comprised two ditches that may have formed part of an enclosure boundary enclosing an area containing a stone-lined well banked by one large and two small post holes. Also two oven-shaped features, one containing traces of a lining of fired red clay, were noted. Both contained much burnt material in their fills. It is possible that these features were just ovens, but they may have been simple surface kilns. If so their superstructures would have been of turf, perhaps utilising used prefabricated, portable, fired-clay kiln furniture (*ibid*.: 10). Reviewing the site in 1977 Young describes the 'oven' features as two type 1 kilns (Young 2000: 49, 243). No wasters were found. The manufacturing site went out of use by the end of the century and Young states that it was not in use for long (Young 2000: 49).

3rd century

After a century and a half of inactivity the Churchill site was once again used for pottery production. Analysis of the pottery from the site suggests two broad phases of activity, the first in the second half of the 3rd century and the second within the 4th century. Within each phase two distinct activity areas are evident which Young labels complexes A and B (3rd century) D and C (4th century). The topographical distinction between D and C was less distinct than for A and B and these could be part of the same production area or unit.

Complex A consisted of a possible rectangular stone building and a circular building with a cobbled floor, containing a pot dryer, a stone platform (probably used as a clay dump, and a well. The structures were 20 metres away from a row of four kilns. Complex B comprised of a rectangular enclosure containing three clay chess, another clay chest two pottery driers and a clay lined tank were located close by. Two kilns were associated with this complex. Complex C consisted of an insubstantial building containing three small pottery driers; outside was a clay chest, another drier and two kilns. The stoke hole of a third kiln found in 1972 and the kiln found in 1953 probably belonged to this group. Complex D overlay parts of complex V, and consisted of a possible sub-rectangular building forming one side of a yard containing two driers. Perhaps associated with this was a large kiln located 30 metres away (Young 2000: 49-50; 1972b; 1973a; 1974). The late 4th century saw the widespread dumping of pottery waste across the site. The presence of a coin of Valens (AD 368- 374) in one of the pottery tips showed that activity continued into the last quarter of the 4th century.

Reviewing the site, Young notes that there was evidently a clear division between preparation areas and firing areas. The labour force for each compound must have been small with accommodation space suitable for one or two potters, although the presence of undetected wooden structures could alter this assessment. The permanence of the noted buildings and the absence of any evidence for seasonal rebuilding of the kilns suggest all year round activity (Young 2000: 50).

Cowley and Iffley

The central part of the pottery industry in Oxford comprises six sites based around the Garsington/Cowley to Iffley area along the Corallian Ridge.

Former Cowley Marsh/joinery works area

Manning (1898: 19-20) suggested the presence of a kiln site at Cowley Marsh (OHER 3618; Table 1: site 10) based on pottery evidence including Basalt and Red wares similar to those found at Wick Farm in 1849. The possible site has not been excavated and the evidence remains limited.

Evidence for the pottery industry has also been recorded around the Horspath area (OHER 16300) to the east of Cowley Marsh where large quantities of Roman pottery including a mould was recovered from a single field north of the village (Hassall 1952-53: 231; Table 1: site 11). Evidence for late 3rd and 4th century activity from finds has also been recently excavated at the former Slade hospital in 2000 which produced small pottery assemblage including a significant proportion of mortaria suggesting a possible kiln site nearby (Moore 2000: 4).

At Southfield School to the north-west of Temple Cowley a further possible kiln site was identified during levelling work in 1948 (OHER 3630; Table 1: site 12). Large quantities of grey, white and red colour coated wares were reported suggesting a kiln production site nearby although the site was not excavated (Atkinson 1948: 67). Pottery typical of the Oxford kilns and dating to the 4th century has also been recorded here (Smith pers. comm.). At the former joinery works, Temple Cowley (OHER 15947) a possible stoke hole containing quantities of 2nd century pottery was

recorded during an archaeological evaluation in 1993 (Hardy 1993: 4; Table 1: site 13).

Rose Hill

The first complete kiln to be excavated in the Oxford LAA was recorded in 1935 during construction at Annesley Road, Rose Hill (OHER 3646; Table 1: site 14a). Here rescue excavation at the site recorded a partial kiln approximately 3.5m in length and 1.2m in width with evidence of a second kiln nearby (Harden 1936: 94). The excavated parts of the kiln included the stoke hole in-filled with later 4th to early 5th century pottery, a furnace chamber of puddle clay and a poorly preserved pot chamber. The pottery evidence suggested the kiln was in use during the late 2nd to early 3rd century and finally in-filled during the 4th to 5th century (*ibid.*: 98). A third possible kiln site was also located during further development work in 1937 at Ellesmere Road (OHER 3647; Table 1: site 14b).

A watching brief at the former King of Prussia site at Rose Hill identified at least one tear shaped kiln and a possible second kiln. Several of the associated pottery forms are not features in Christopher Young's summary of the Rose Hill kilns noted in the 1930s. The kilns were associated with fragmentary Roman ditches and may have been located within a discussed Middle and Late Iron Age enclosure. The recovered Roman pottery was predominantly mid 3rd to 4th century in date (Timby 2011)

St Luke's Road

Evidence for Roman activity at St Luke's Road, Cowley was first noted in 1936 when quantities of 2nd century pottery and a waster fragment was discovered during construction of the Conservative Club and was initially interpreted as a settlement site (Salzman 1939: 335; Table 1: site 15a). Subsequent excavations in 1940 recorded further evidence of three discrete groups of activity comprising a kiln, two puddling holes and a deep pit in the southern part of the site, two waster dumps, two puddling holes and a puddling table to the west and part of a second destroyed kiln, a waster dump, two clay dumps and an occupation floor to the north (Atkinson 1941: 10). A pottery assemblage of over 15,000 sherds was also recovered from the site, only a sample of which was catalogued, providing the only available dating evidence indicating a gradual increase in production activity from the late 1st century and reaching a peak in the late 2nd century. Production appeared to continue on site to a lesser extent until the late 4th century. Some evidence of occupation was also recorded at this site, indicated by a rough stone floor with a fragment of a 'cheese-press' (*ibid.*: 14).

The St Luke's Road site was partially investigated in 1972 when an archaeological watching brief was carried out during building works in the eastern part of the Atkinson site (Young 1973b; Table 1: site 15b). Pits dated to the 2nd and late 3rd century were recorded with evidence of red fired clay in the base that may have been the stoke hole and part of the flue of a kiln (Young 2000: 245). A small quantity of 2nd century pottery similar to that recovered from the 1939 excavations was also recorded in a pottery tip. The 3rd century pottery also included several examples of stamped mortaria bearing the mark of Vossullus (Young 1973b: 228).

A subsequent watching brief along Between Towns Road in 1981-2 produced further evidence of activity from the 2nd to 4th century including one probable 2nd century kiln, one probable 3rd century kiln and two possible sites (Green 1983; Table 1: site 15c). The first phase of activity recorded in 1981 dated to the 2nd century and comprised evidence of two waster dumps, a stoke hole, a series of ditches that may have formed an enclosure and an associated pit indicating a probable 2nd century kiln in the immediate vicinity (*ibid.*: 3). The pottery assemblage dating to this period includes numerous examples of stamped mortaria bearing the mark of Vossullus. The second phase of activity dated to the 3rd-4th century and comprised two stoke holes, a flue, a kiln, several ditches, a pottery dryer, a waster dump, a structure, five puddling tables

and several pits (*ibid.*: 5). A stoke hole containing 3rd century and a flue recorded adjacent to Between Towns Road indicate a possible kiln to the north-west. To the south-west of the main offices (beneath the current Raglan House), a second stoke hole was recorded further indicating another kiln. The evidence from St Lukes/Between Towns Road suggests the progressive southwards expansion or migration of the activity area in the late 3rd to 4th century.

Littlemore and Sandford

The southern part of the LAA including the parishes of Littlemore and Sandford comprises a wealth of evidence across seven sites comparable to that from the Churchill hospital area (Figure 1). In the Littlemore hospital area evidence is primarily based on 19th and early 20th century recorded observations and limited excavations. There have been several references to a possible kiln site at Mount Pleasant near Littlemore (Table 1: site 16) since the mid-19th century when Rev. Marshall first proposed the idea, noting several small kilns with the remains of Roman pottery (Marshall 1874: 156). Manning subsequently visited the area noting a layer of Roman pottery at a depth of about 30cm (Manning 1898: 22).

Building works in 1954 recorded evidence of a kiln at Littlemore Hospital comprising substantial quantities of Romano-British pottery of a broadly 1st-2nd century date and evidence of a stoke hole and kiln cut by the development and not fully excavated (Case and Kirk 1954: 118; Table 1: site 17). Excavations at Sandford Road, Littlemore in 1995 recorded only limited evidence of Roman activity although a single fragment of kiln daub was recovered indicating the possibility of a kiln site nearby (Ford 1995: 10; Table 1: site 18). Kiln waste was also noted in a trench at Armstrong Road, Littlemore (OHER 16121; Table 1: site 19). The evidence was limited to residual finds recovered from the topsoil however (Williams 2007b: 7).

A Romano-British kiln was recorded during the installation of an electricity sub-station just east of the former Roman road at the edge of Littlemore parish (OHER 1865; Table 1: site 20). The pottery recovered from the site was similar to that recovered from Minchery Farm in the 19th century (Case 1957: 82). Also recorded were several enclosure ditches. Kiln sites were reported during the construction of the Oxford Bypass in 1958 at Long Lane and west of the Henley Road (OHER 6191; Table 1: sites 21a and 21b). Neither site was excavated (Case 1958: 135).

Blackbird Leys/Minchery Farm

This area comprises the 1960s Blackbird Leys housing estate as well as the extensive 1990s extension and the adjacent Minchery Farm site. Evidence for the pottery industry at Blackbird Leys was first recognised in the 19th century when four kilns and a waster dump were excavated at Minchery Farm along with evidence of Roman agricultural activity nearby (OHER 3845; Table 1: site 22a). The pottery assemblage associated with the kilns indicated a production date of the first half of the 2nd century while the pottery from the field systems indicated a slightly later date of the late 2nd-3rd century (Salzman 1939: 304). In 1961 another kiln site at Sawpit Farm was recorded during the construction of Blackbird Leys estate, producing 3rd-4th century pottery (Sturdy and Case 1963: 337; Table 1: site 23a).

The most prolific period of archaeological investigation was during the 1990s involving extensive evaluation at the Recreation Ground (Tempus Reparatum 1995b; Table 1: site 23b), Zone D and D Extension (Tempus Reperatum 1995a) and several watching briefs at Windale First School where no significant evidence of Roman pottery production was recorded (Oxford Archaeological Unit 1995a: 5) and at the Peripheral Road (Oxford Archaeological Unit 1995b; Table 1: site 23c) followed by a series of excavations based on the results of the evaluation at Zones D and E by Tempus Reparatum (Kiberd 1996; Table 1: site 23e and 23f) and at housing area C2

including the Peripheral Road and Zone C (Table 1: site 23c) with subsequent salvage excavations at Zone C by Oxford Archaeological Unit (1995b; 1996).

Investigations at the nearby Minchery Farm were also carried out by RPS Clouston in 1996 (Table 1: site 22b) with only limited subsequent publication (see Booth and Edgeley-Long 2003 for a summary). More recently, investigations by Thames Valley Archaeological Services have also been undertaken at Fry's Hill in Blackbird Leys (Ford 1999; Table 1: site 23g).

Investigations at Windale First School revealed a 50 metre section of a track-way running parallel to the nearby stream (Oxford Archaeological Unit 1995a). Evaluations subsequently carried out at Site D adjacent to the peripheral road recorded substantial evidence of pottery production adjacent to the new road (Tempus Reperatum 1995a). The evaluation also revealed further evidence of a Roman field system with a number of ditches and gullies over a large area. While substantial quantities of Roman pottery was recorded during this phase of activity no kilns were excavated (*ibid.*: 16). Observations carried out during the excavation of geotechnical pits to the north did however reveal a substantial amount of Roman pottery together with evidence of burning indicating a kiln in the vicinity.

2nd century

Following the 1995 evaluation of the new housing estate, excavations (Zone C) revealed evidence of an early field system dating to the 2nd-3rd century comprising a sub-rectangular enclosure on a north-south and east-west alignment (Oxford Archaeological Unit 1996: 2). Archaeological evaluation at Minchery Farm in 1996 in advance of redevelopment for the Oxford United Football Stadium also recorded a kiln, three gullies and two post holes. The kiln was cruciform in shape with the stoke hole on the northern side of the kiln chamber. The backfill of the kiln contained pottery of an early to mid-2nd century date indicating a period of production ending in the mid-2nd century (RPS 1996a: 31). Further evidence for settlement activity in the vicinity of the kilns and a possible Roman sand quarry were noted during the construction of the Fry's Hill Gas Trench; and several features of 2nd century date with activity continuing into the 3rd and 4th centuries (Ford 1999).

3rd-4th centuries

Archaeological evaluation along the new peripheral road in August 1995 recorded some evidence of 3rd century activity indicating a possible kiln site nearby (Oxford Archaeological Unit 1995b). The evaluation recorded two shallow north-south aligned ditches some 1.3 metres apart containing late Roman pottery in the upper fills. Several pottery scatters were also recorded indicating a possible kiln site nearby. A subsequent watching brief carried out along the peripheral road also recorded high densities of mortaria of a 3rd-4th century date reinforcing the theory of a kiln site in the immediate vicinity (Booth 1995: 5). Geophysical survey at the Recreation Ground to the north of Site D revealed at least seven possible kiln sites in the south-west corner, and while subsequent evaluation did not reveal a definitive kiln site, a stone surface thought to represent a drying area and a possible flue containing 3rd century pottery were recorded (Tempus Reperatum 1995b: 12).

Excavations at Zone C revealed a second, more intensive, phase of activity in the 3rd-4th centuries represented by an enclosure field system, several pottery dumps and the remains of a probable kiln base (Oxford Archaeological Unit 1996: 4). A final phase of activity at Zone C post-dates the production evidence and comprises two large pits and a U-shaped gully of uncertain purpose (Booth and Edgeley-Long 2003: 221).

Excavations in Zone D adjacent to the peripheral road revealed more evidence of a field system as well as two kiln sites and a series of pits (Kiberd 1996: 18). The first kiln indicated at least three phases of re-cutting of the floor surface in the 3rd century

as well as the stoke hole and a single flue. The kiln was surrounded by a number of pits and gullies containing substantial quantities of 3rd-4th century pottery in their upper fills. To the south of the kiln, a second kiln site was located along with a possible puddling table, post holes and several contemporary ditches. Two stone lined rectangular pits with steep sides and flat bases were also recorded and may have been used to store raw materials (Booth and Edgeley-Long 2003: 259). Comparable pits were noted at the Churchill Hospital site and were thought to have been used for the short term storage of prepared clay (Young 1972b: 16-18; 2000: 16-18).

Excavations in Zone E adjacent to the recreation ground revealed evidence of three kilns of a mid-3rd to 4th century date as well as a series of ditches across the excavation area (Kiberd 1996). A group of eight pits and post holes in the south-east corner of the site may also represent an area of pottery manufacture adjacent to the kiln working site (*ibid.*: 16). As noted above the excavation of a gas trench at Guelder Road, Blackbird Leys, in 1999 produced a large quantity of pottery and associated features indicating some activity in the 2nd century with activity intensifying into the 3rd-4th centuries (Ford 1999: 4).

At Minchery Farm pottery production continued, represented by a kiln containing a backfill assemblage of pottery dating to the mid-late 3rd century (RPS 1996a: 31). Several features including two ditches and a post hole and several pits also produced pottery of a contemporary date to this kiln. Another phase of pottery manufacture was represented by a kiln within a ditched enclosure Here the fill of the ditch contained late 3rd-4th century pottery in the lower fills while the backfill of the kiln contained early-mid 4th century pottery (*ibid*.). The fabrics present covered most of the range of typical Oxford products; the dominant ware group was reduced coarse wares but oxidised wares, colour coated wares and white mortaria were also well represented (RPS 1996b). Subsequent watching briefs carried out in 2001 and 2002 recorded further substantial quantities of pottery and contemporary features (RPS 2002: 13).

Summarv

A substantial pottery assemblage of almost 20,000 sherds has been recovered from the Blackbird Leys sites alone. Although it has not been fully analysed, a concentration of white wares (including mortaria) and reduced coarse wares of a broad 2nd-early 3rd century date has been noted in representative samples (Booth and Edgeley-Long 2003: 261). Seven examples of stamped based wares were also noted among the fine ware assemblages (*ibid*.: 248).

The evidence may suggest that the early focus of the developed pottery industry (i.e. after the introduction of white ware mortaria into the repertoire at about the beginning of the 2nd century AD) lay in the Blackbird Leys area, encompassing Littlemore, St Luke's Road, with a southern extension as far as Lower Farm Nuneham Courtenay (located 2km to the south-west of Blackbird Leys). Later expansion of the industry, particularly in the 3rd century AD seems to have been principally in a northerly direction, with the Churchill being the most well known site to demonstrate this process (Booth and Edgeley-Long 2003: 262) producing the best evidence for nascent 1st century activity. Activity related to pottery production at Blackbird Leys continued at least to the middle of the 4th century.

The pottery assemblage from Minchery Farm indicates a broad period of pottery production between the early 2nd and mid-4th centuries with a significant peak in production in the late 3rd century (RPS 2001: 18). The degree of uniformity of the chronological range of pottery fabrics at Minchery Farm can be contrasted with the evidence from the Churchill site indicating a differing pattern of development.

There is some evidence to suggest that production took place within a system of enclosures and boundaries that may have pre-dated the manufacturing activity but

which evolved in relationship to the industry, comparable to the geophysical evidence from Lower Farm (Booth and Edgeley-Long 2003: 258).

Origins and identity of the potters

There is some evidence for either ovens or kilns associated with Belgic style 1st century AD pottery at the Churchill site. Similar 1st century kiln sites have been recorded at Hanborough, Cassington and Yarnton and may indicate the adoption of a new technology by local potters rather than the arrival of potters from the Roman Empire (Young 1974: 10; Henig and Booth 2000: 164). It has been suggested that kiln distributions may reflect the territorial extent of Late Iron Age tribal boundaries (Henig and Booth 2000: 170; Millet 1990: 166-8); however in the case of Oxford, which is thought to have been located on the western boundary of the Catevellauni tribal group, Young points out that the grit used for gritting mortaria must have come from west of the Thames (Boars Hill, Cumnor Hurst) and therefore if post-conquest production was under the control of Catevellaunian elites there must have been more complicated arrangements (Young 2000: v,12). From the early 2nd century early mortaria and flagon forms appear to be derived directly from the Verulamium industry (Henig and Booth 2000: 164; Young 2000: iv). It has been noted that the use of potters name stamps were less widespread in Oxford than in the parent industry and that literate stamps were notably rare (Booth et al. 2007: 304-11). Biddulph also notes that a course sandy grey ware waster from the Manor Ground site, Headington, had a sandy matrix which was reminiscent of Verulamium products (Biddulph 2003: 39). For further information on migrant potters see Bird and Young (1981).

A corpus of Oxford potters stamps (including imitation Samian stamps) is published by Young (1973b: 228-32). Numerous examples of mortaria wasters bearing the stamp of Oxford's only known potter to use a literate stamp (Vossullus) have been found at the Churchill hospital and St Luke's Road (Young 1973b: 228; Green 1983).

Evidence of the manufacturing process

(Summarised from Young 2000)

- Clay extraction: in general manufacturing sites do not appear to have been located close or on clay beds; clay was evidently transported to these sites. The white clay used for mortaria, found on Shotover was moved up to 4km (Young 2000: 16; Plot 1667: 66).
- Water supply: water appears to have been obtained from wells and water tanks; the manufacturing compounds do not tend to be found directly adjacent to streams (with some exceptions in the wider industry).
- Raw material storage: clay dumps were found laid on the ground surface at Cowley and on a stone platform at the Churchill site. Smaller amounts of clay were stored in small stone chests at the Churchill site, a number filled with white clay; possibly these originally had wooden covers. The reason for this practice is unknown.
- Preparation and mixing of clay: holes lined with puddle clay were recorded at Cowley, perhaps for mixing water into the clay or for the preparation of slips and glosses. Small stone platforms covered in puddled clay at Cowley may have been for the pounding of clay.
- Tools and equipment: at the Churchill sites large storage jars were present suggesting water storage. Rounded pebbles and quern stone fragments are common from Oxford kiln sites. The pebbles may have been used for burnishing pots. Other artefacts from Oxford kiln sites include a small stone socket, flint flakes, a rib bone cut at one end to form a right angled point, pots containing red pigment and a mould for making face masks for flagons, knife blades, a sickle and a bucket mount (Young 2000: 19).

- Pottery dryers have been identified at the 3rd-4th century Churchill complex, the recorded types consisting of a T shaped drier, a long-flued drier with rectangular ends, a long-flued dryer with ovate end, a drier with lobe-shaped ends, long troughs with rounded ends.
- Workshop buildings: traces of buildings have been found at several sites. At Rose Hill a number of hut floors were identified; it was unclear if these were commercial or domestic (Young 2000: 24). At Cowley a stone floor covered with ash, animal bone and pottery was recorded in 1940. At the Churchill four structures were recorded, all badly damaged by ploughing. The most substantial was circular, 9m in diameter with pitched stone footings which were laid flat stone slabs. Two doorways were evident from post hole settings and the interior was cobbled. The buildings contained two stone emplacements and a pottery dryer (*ibid.*: 24-6) suggesting a joint workshop and drying function.
- Demarcation of compounds: there is evidence from the wider industry that
 manufacturing sites were often located within ditched enclosures, which in the
 case of the Churchill site appear to have originated as an earlier field system
 (Young 1986; Salway 1999; Henig and Booth 2000; Young 2000).
- Firing: the following types of kiln have been identified in Oxford: first century surface kilns with no internal fittings (two examples at the Churchill site); single-flue up-draught kiln permanent floor with no support (3rd century, Churchill hospital); single flue up-draught kiln with permanent floor supported by a tongue pedestal (3rd-4th century, Churchill, Cowley, Rose Hill?).

The Wider Setting

Transport and communications

The most substantial Roman route way in the Oxford LAA, the Dorchester to Alchester road, ran north-south through the Headington and Cowley parishes, some three miles to the east of central Oxford. This is the only confirmed Roman road in the LAA, but a number of other routes have been proposed (Figure 5). A second north-south route probably follows the Banbury Road line from Kings Sutton through the centre of Oxford and possibly continuing on south. Two broadly east-west routes cross the LAA area from the main Dorchester Road to Frilford, south-west of Oxford. The line of the southern route passes through Rose Hill and heads towards Abingdon and Frilford while the northern routes passes through Oxford city crossing the Banbury Road line before heading west through Cumnor and Frilford. For the most part this network remains conjectural. See also Young (1986: 59; 2000: 3-7).

The Dorchester-Alchester Roman route has been recorded at three locations within the LAA, at Brasenose Wood (Linington 1959), Bayards Hill Primary School, Barton (Lewis 2009) and Stowford Road, Barton (Pine 2003). A substantial section of the road at Open Magdalen Wood (now Brasenose Wood) was recorded during construction of the bypass. Here a wide road with a small stone ditch along the west side was noted; the road had been resurfaced by the 4th century with ditches on each side and a smaller branch road on the western side (Linnington 1959). More recently a section of the road has been recorded at Bayards Hill Primary School more or less on its projected path. The road was heavily truncated but ditches were noted on both sides (Lewis 2009). Further north at the bottom of Bayswater Hill an excavation at Stowford Road, Barton identified a metalled trackway, running north-south towards Bayswater Brook. This heavily rutted metalled 4th century trackway was repaired on several occasions and runs parallel to the projected route of the Alchester-Dorchester road, leading the excavator to suggest that the trackway may represent a local diversion to the earlier Alchester-Dorchester route, resulting from severe erosion on the steep slope down to the brook (Pine 2003: 277).

As noted above a possible side road or track to the Alchester-Dorchester Road was recorded adjacent to Northfield Brook during a watching brief at Windale First School, Blackbird Leys, in 1994 (Oxford Archaeological Unit 1995a). Elsewhere a small excavation on the Cumnor-Hinksey parish boundary was carried out in 1939 by the Oxford University Archaeological Society in an attempt to locate the east-west road but no evidence of the road was located (anon,1937: 196).

One difficulty with the proposed Roman network of roads is identifying the ford, or fords, by which the roads crossed the River Thames. To-date, several potential sites have been proposed for a ford. The most commonly held theory places a ford on the site of the Grandpont at St Aldates; however the significant amount of redevelopment along this area since the Roman period may have destroyed any early trace of this. H.E. Salter suggested an alternative route heading out from Westgate across to Osney Mead (Dodd 2003: 5). An east-west route across the Thames Floodplain to the south of the city is hinted at by evidence of a possible ford east of the Abingdon Road noted by Durham (1984). Blair has suggested that the stone built culvert arches along the Old Abingdon Road on this projected route 'could just possibly' be Roman noting that somewhere near this point the late Anglo-Saxon bounds of Kennington and Hinksey mention a 'stone ford' (Stanford) (Blair 1994: 87).

The transportation of wares produced by the East Oxford kilns appears to have been by road as there is currently no convincing evidence for the use of the Thames as a transport route, although this has previously been suggested (Fulford and Hodder 1974). The orientation of the east Oxford kilns on the Alchester-Dorchester road and the absence of Roman evidence from riverside locations is distinct. Isolated Roman

finds near the Thames e.g. at Iffley (OHER 6154) are insufficient to draw wider conclusions. At Oxford, where the evolution of the Thames has been studied in some detail the Roman period appears to have been characterised by 'large areas of shallow water with little flow' and also increased alluvial deposition (Robinson 2003: 78). However the most recent overview of the evidence from the Thames Valley does not rule out the use of the Thames for transportation over short distance (Dodd ed. 2003: 315).

Material culture

Pottery

A fabric series for Oxford Roman pottery industry was first established in the 1970s by Young following the discoveries at the Churchill Hospital site and a detailed classification of the Oxford wares produced (Young 1977). Fabrics are divided first into ware types based on their most common characteristics, in the first instance fine and specialist wares or coarse wares, they are then further divided into the principal subdivisions or to individual fabrics/wares (See Booth, Boyle and Keevill 1993: 134-7; Booth 2008). Thus fine and specialist wares include fine wares, white wares, Samian wares, and mortaria while coarse wares include oxidised coarse wares, reduced coarse wares, black burnished wares and shell tempered wares.

Young noted considerable variation in production of vessel types with sites west of the Thames producing mainly kitchen vessels whilst those on the Oxford side produced more ambitious mortaria designs and their own versions of Samian like red-colour coated wares (Young 1972a: 107). The 3rd century saw a significant change in production as Parchment and colour coated wares became common. Geographical divisions were now more noticeable on a north-south divide as the abundance of white clay with low iron content at Shotover encouraged the specialisation in white wares in the north while the south employed a wider variation of colour (*ibid*.).

Away from the pottery production areas on the gravel terrace rural settlements provide an insight into hinterland consumption of Oxford wares. Sizable assemblages have been recovered from the new chemistry research laboratory and neighbouring Mansfield College sites (Biddulph 2005). Here continental imports of central and east Gaulish Samian were present on both sites, but in small quantities, with no amphora wares or southern Gaulish products represented. The assemblages were dominated by locally produced wares with pink grogged storage jars of 3rd-4th century date from western Buckinghamshire also present.

The summary of pottery from the Chemistry Research Laboratory site provides the most expansive discussion of pottery supply for a low status rural settlement on the Summertown-Radley gravel terrace (ibid.). Biddulph notes that coarse ware producing kilns at Cassington, or from a wider 'west Oxfordshire industry' centred in the Witney area (pers. comm. Paul Booth), were able to successfully compete with more local production sites as their wares are present in the South Park road complex. There is also a noticeable increase in the use of fine and specialist Oxfordshire products over time corresponding to a decrease in greyware products at the South Parks road complex, but this may simply be linked to their local availability rather than indicating an increase in status or wealth. Also small amounts of misfired white ware were recovered from South Parks road, similar to the Churchill hospital products, indicating that there may have been a local market in damaged 'seconds'. Both the Mansfield and chemistry lab sites were noticeable for the prevalence of mortaria sherds in far greater numbers than at comparable rural settlements elsewhere in the county. Booth has suggested that this is due to the proximity of production centres and that mortaria may have served a wider ranger of functions at these sites than was usual (Booth and Hayden 2000: 313). This was also suggested by traces of burning and sooting on some mortaria indicating they had not just been used for mixing and pounding ingredients. At the Manor Ground site in Headington over half the Roman fabrics were locally produced Oxfordshire wares including mortaria and oxidised wares. An increase in activity in the 3rd to 4th century was also noted in the pottery assemblage in parallel with the results of the new chemistry lab site (Biddulph 2000: 39).

The fabric/type series, developed in the 1970s by Young, has remained the framework by which more recently excavated pottery has been dated. Significant quantities of pottery from recent investigations such as at Headington and Blackbird Leys could potentially contribute to a more detailed fabric series (for updated fabric descriptions see Booth, Boyle and Keevill 1993). However the further detailed splitting of fabrics in relation to individual production sites may not be productive or helpful unless very specific or distinctive fabrics are localised, because the differences are insufficient to allow them to be identified in an analysis of pottery assemblages at the consumer site end. For the purpose of the latter, identification of fabrics as 'Oxford' products (and it can be difficult even to be this specific in the case of some of the reduced coarse wares) will almost invariably be adequate (pers. comm. Paul Booth).

Small amounts of regional imports found their way to the Oxford settlements, e.g. Dorset black burnished ware, Nene Valley colour-coated ware, Midlands Shelly ware and Alice Holt wares.

Other ceramic objects

The chemistry lab site produced a number of fired clay fragments or discs, speculatively interpreted as possible lids to cover cooking vessels or plates (Biddulph 2005b). However the discs may be associated with food preparation given their heavy weight which could make their use as lids impractical (pers. comm. P. Booth).

Metalwork

Of the coins recorded in the OHER/UAD, four bare a 1st century date, the earliest being from the Roman Conquest (OHER 3515). A further ten coins date to the 2nd century, at least 27 to the 3rd century including a coin hoard of 16 Roman coins from the reigns of Gallenius to Constantine II (OHER 3644) and a further 25 date to the 4th century. The remaining 24 coins have no known date. This bias towards the 3rd and 4th centuries is typical of sites in southern Roman Britain. A further six coins at least are recorded in the OHER based on 19th and early 20th century documentary sources, but the available information was insufficient to reliably plot them within the LAA. Two Roman coins of the 3rd-4th century were identified at Seacourt deserted medieval village as residual finds in medieval contexts (Biddle 1961/2: 182).

Small amounts of iron slag consistent with rural smithing were recovered from Stowford Road, Barton (Salter 2003). Small amounts of Iron work have been recorded from sites in Oxford; the collections are generally unexceptional (Scott 2000; Powell 2003; Allen 2005).

Animal bone assemblages

No exceptional bone assemblages have been produced to date. The Mansfield College excavation demonstrated the predominance of cattle, with fewer sheep then pigs. The cattle were mostly young perhaps indicating they were mainly kept for meat with a few older animals kept for breeding (Charles 2000). The nearby new chemistry laboratory site produced similar results, with limited evidence for red deer and chicken and domestic geese (Evans 2005).

The bone assemblage from the Blackbird Leys sites C and D were poor quality and not subject to detailed analysis (Charles 2003). At Stowford Road, Barton a small sample provides a limited insight into animal exploitation at this road-side settlement; here meat was supplied by beef from good sized animals. Sheep were much in evidence with evidence for local breeding. Horse and pig were also present (Hamilton-Dyer 2003).

Legacy

The end of the Roman period was not marked by a sudden change, but rather a gradual desertion of the Roman system of government followed by its replacement with Germanic settlers and the formation of new tribal or ethnic groupings and affiliations. The impact of the end of the empire on the landscape is problematic; the archaeological record currently indicates little direct continuity between Roman and early 5th century Saxon sites in the LAA, although there is evidence that Roman pottery continued to be re-used. The environmental evidence, however, indicates open landscapes were maintained suggesting that although systems of Roman government and settlement sites were abandoned, there was less significant change at a local level in terms of land use (Booth 2009: 18).

The proximity of Saxon artefacts suggesting burials and areas of Roman activity and burial on the Summertown-Radley terrace can be noted, but no direct continuity or inherited influence of burial sites can be demonstrated at present. The deliberate collection and re-use of Roman pottery at the Anglo-Saxon site at Oxford Science Park is discussed in the Anglo-Saxon Assessment.

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Further resources:

Geology

Geological Conservation Review

Summary descriptions of site evaluation of geological stratification for the county: http://www.jncc.gov.uk/default.aspx?page=2947)

 British Geological Survey Online Maps: http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html

Archaeological Evidence

Oxford Urban Archaeological Database, Oxford City Council

A database of archaeological records for the historic city centre area. For a map of the area covered by the UAD see visit:

http://www.oxford.gov.uk/PageRender/decP/UrbanArchaeologicalDatabase.htm To search a version of the database visit:

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

Oxfordshire Historic Environment Record, Oxfordshire County Council

A database of archaeological records for the County of Oxfordshire. To search the database visit the Heritage Gateway:

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

or Oxfordshire Heritage Search:

http://publicapps.oxfordshire.gov.uk/wps/portal/publicapps/applications/heritage

Oxford History Centre (formerly the County Records Office)

Holds large collection of historic maps and historic documents from the medieval period to the present.

http://www.oxfordshire.gov.uk/cms/public-site/oxfordshire-history-centre

Oxoniensia

Archaeological and architectural journal for Oxfordshire http://www.oahs.org.uk/oxof.php

Archaeology Data Service.

Holds archive of grey literature by participating archaeological units from c2000 onwards. Also holds complete catalogue of several archaeological journals including Medieval Archaeology as well as complete archive of CBA publications: http://ads.ahds.ac.uk/.

• Portable Antiquities Scheme

Voluntary scheme recording archaeological objects recorded by members of the public including those by metal-detector users http://www.finds.org.uk/

Museum Archives

• The Ashmolean Museum:

http://www.ashmolean.org/

Also for ceramics online see the Ashmolean Potweb:

http://potweb.ashmolean.org/PotChron7g.html

• The Pitt Rivers Museum:

http://www.prm.ox.ac.uk/

The Collection of Flints from Iffley have been reviewed by Nicholas, M, (undated). See http://england.prm.ox.ac.uk/englishness-Iffley-Bell.html (accessed July 2011)

Oxfordshire County Museums:

http://www.oxfordshire.gov.uk/cms/public-site/oxfordshire-museum

Appendix 1: Roman Site Gazetteer

24a St Michaels Street 1985 (UAD 6)

Roman plough soil recorded excavations

Twinings Building, George Street 1925 (UAD 22)

Quantity of Roman pottery sherds two Roman pots were found recorded during construction

Physiology and Zoology Dept South Parks Road 1949 (UAD 143) recovered.

Romano-British pottery and animal bone were found about 2 m down during excavations

4. Town Hall, St Aldate's 1894 (UAD 148)

Roman bronze coin recorded during construction

Examinations Schools, 1870s (UAD 159)

A large brass coin of Claudius and a quern fragment were recovered during construction

6. St Mary's Entry 1894-5 (UAD

Two skeletons recorded, thought to be Roman. Also a small brass coin of Antonius Pius, some decayed oyster shell, a pot and some sherds

Magdalen College School, 1958 (UAD 171)

Some Roman pottery recorded within a Civil War mound during excavations

Logic Lane, 1960-61 (UAD 181) A few pieces of Romano-British pottery were found during excavations

Parks Road 1962-3 (UAD 201) Some Roman pottery and ditches

10. Church Street, St Ebbe's, 1968 (UAD 210)

Residual Roman pottery and tile

11. 79-80 St Aldate's 1970 (UAD 233)

Two large ditches, possible boundaries, several smaller ditches and some post holes, mid 2nd Century pottery. 1 inhumation, two complete skeletons

12. University Museum, 1855 (UAD

A bronze fibula, an urn fragment and a number of coins, all from the Roman period, were found.

13. 2 South Parks Road 1862 (UAD

in A piece of Roman quern and part of a mortarium were recorded in 1871.

14. Mansfield College 1887 (UAD 238)

15. Keble College, 1971 (UAD 247) Romano-British pottery sherds were

16. St Frideswide's Cloister 1985 (UAD 296)

Roman coin

17. Christ Church Meadow 1863 (UAD 298)

Roman skate??

18. Magdalen College 1986-8 (UAD 301)

Roman pottery

19. Whitehouse Road 1992 (UAD 302)

Roman pottery

20. New College 1993 (UAD 303) Roman pottery

21. Jowett Walk 1993 (UAD 304) Roman pottery

22. Rex Richards Building, **University Science Area, 1993** (UAD 308)

Roman ditch, pit and pottery

23. Holywell Ford 1993 (UAD 312) Roman pottery

24. Paradise Square 1994-5 (UAD 315)

Roman pottery

25. Ashmolean Museum Forecourt 1994 (UAD 316)

Roman pottery

26. Walton Street 1975 (UAD 318)

Roman pottery

27. 82 Walton Street 1996 (UAD 319) Roman pottery

28. Longwall Quadrangle, Magdalen College in 1995 (UAD 321)

Roman pottery

29. 64-66 St Thomas's Street 1997 (UAD 322)

Roman coin

30. 89-91 St Aldate's in 1982 (UAD 340)

Roman ecofact layer

31. 89 St Aldate's in 1985 (UAD 345)

Roman layer

32. St Aldate's BT Tunnel 1991 (UAD 355)

Roman pottery

33. Mansfield College 1992 (UAD 362)

Roman pottery

34. 113-119 High Street 1992 (UAD 365)

Roman pottery and coins

35. St Antony's College in 1994 (UAD 375)

Roman pottery and coins

36. Mansfield College 1998 (UAD 403)

3rd - 4th century Roman features although some late 1st or early 2nd century ditches were found. Parallel ditch alignments flanking post holes and gullies suggested rectilinear enclosures during both periods. One possible timber structure from the later Roman period was identified. An infant burial from that Roman fibula period was also recovered. Finds. including charred grain and peas, suggested a low status rural site.

- 37. Christ Church in 1965 (UAD 420) Roman pottery
 - 38. Department of Earth Sciences in 1990 (UAD 507)

Roman ditch

39. Christ Church Meadows 1975 (UAD 532)

Roman coin

40. Bear Lane c 1918 (UAD 641) Roman pottery

41. Bevington Road 1820s (UAD 642)

Roman coin

42. Find from Cripley Allotments c1920 (UAD 675)

Roman coin

43. St Bernard's Road 1871 (UAD

Roman quernstone

44. Woodstock Road (UAD 679)

Roman skeleton, structural remains and coin

45. Brasenose College 1887-8 (UAD 681)

Roman coin

46. St Ebbe's Street 1882-96 (UAD 684)

Roman coins

47. High Street, 1896 (UAD 685)

Roman coin

48. Methodist Chapel, New Inn Hall Street, 1870 (UAD 686)

Roman urn

49. Broad Street (UAD 687)

Roman coin

50. George Street 1879 (UAD 688)

Roman patera, quernstone

51. Martyr's Memorial 1840s (UAD 689)

Roman coin

52. Gloucester Green 1841 (UAD 690)

Roman figurine

53. Little Clarendon Street 1890 (UAD 691)

Roman coin

54. Carfax 1712 (UAD 692)

Roman coin

55. New College 1879 (UAD 695)

Roman coin

56. Littlegate c1869 (UAD 700)

57. Osney Mill (UAD 702)

Roman coin

58. High Street, St Thomas' (UAD 703)

Roman coin

59. Tidmarsh Lane 1876 (UAD 704) Roman horseshoe

60. Walton Street 1884 (UAD 705)

Roman coin

61. 56 Banbury Road c1894 (UAD 706)

Roman pottery, burnt stone

62. St Clement's Church 1826 (UAD 709)

Roman weight

63. St Aldate's 1897 (UAD 720)

Roman coin

64. Gas Works 1923 (UAD 721)

Roman coin

65. Parks Road 1970 (UAD 726)

Roman pottery

66. Beaumont Palace c1713 (UAD 732)

Roman coin

67. University Parks (UAD 735)

Roman coin

68. University Parks UAD 736)

Roman pottery

69. Radcliffe Science Library 1933 (UAD 740)

Roman ditch

70. Speedwell Street c1875 (UAD 769)

Roman shoesole

71. River Cherwell 1885-6 (UAD 770) Roman bowl

72. New Electric Light works, Arthur Street, in 1892 (UAD 790) Roman coin

73. Kingston Road 1963 (UAD 924) Roman pottery

74. Balliol College 1874 (UAD 1153) Roman vessel

75. Brasenose College 1883 (UAD 1183)

Roman key

76. Physiology Building 1885 (UAD

Roman urn and fibula

77. Broad Street 1892 (UAD 1221) Roman key

78. Brasenose College in 1892 (UAD 1227)

Roman coin

79. St Clement's 1821 (UAD 1351) Roman animal remains and harness

80. South Parks Road and Mansfield Road, (UAD 1596)

Roman enclosure, burial and pottery evidence

81. Halifax House South Parks Road Oxford. (UAD 1621)

Roman field boundary

82. New Chemistry labs, South Parks Road, in 2001 (UAD1659) Roman structural remains

83. Oxfordshire Ambulance Service, Churchill Hospital, (UAD

Roman evidence

84. Memorial Garden, Rothermere Centre, South Parks Road (UAD 1678)

Roman ditch

85. 16 Kingston Road (UAD 1682) Roman grave

86. Biochemistry, South Parks Road, 2006 (UAD 1693)

Roman field boundary

87. Pitt Rivers Museum (UAD 1735) Roman ditch

88. Windale First School, Blackbird Leys,. OXFORD ARCHAEOLOGICAL UNIT

An evaluation and watching brief were Roman pottery and mortaria carried out at Windale First School in

advance of development of a new primary school at the new housing estate Blackbird Leys (OXFORD ARCHAEOLOGICAL UNIT. 1994; 1995). The watching brief revealed evidence of a Roman track way on an east-west alignment similar to those recorded along the Oxford to Didcot pipeline.

89. Garsington Road 'J' Block Cowley,. Tesco 1994

Roman pottery

90. Garsington Road 'J' Block Cowley, Oxford. Fenchurch **Estate 1994**

Roman pottery

91. Site adjoining Cowley Road Police Station 1989

Roman mortaria, pottery and feature

92. 102 Bayswater Road, Barton 1994

Roman pottery, mortaria

93. Former Joinery Works, 77 Temple Road, Cowley 1993

Roman kiln debris and stokehole, large quantity of Roman pottery

94. Sandford Road, Littlemore, 1993 Roman mortaria, trackway

95. Littlemore Hospital, Yamanouchi Site Redevelopment 1995

Roman pottery, mortaria

96. Paint Shop Building, Garsington Way, 1995

Roman plough soils

97. Site D and D Extension, Blackbird Leys, 1995

3 areas of archaeological features of a Romano-British nature were recorded. A possible enclosure arrangement at T8, more scattered layout of ditches and a possible roundhouse gully around T5,9,11 may represent settlement activity. More limited evidence of activity at T6. Possible roundhouse gully, regular layout of ditches, large quantities of pottery and mortaria

98. Blackbird Leys Peripheral Road 1995

Kiln site, large quantities of pottery and mortaria

99. Peripheral Road and Housing Area C2, Blackbird Leys, Oxford 1995

100. British Biotech, Booker Site, 1996

Roman pottery and mortaria

101. League of Friends Office, **Ashurst Clinic Site, Littlemore** Roman pottery

102. Archaeological Zones E and D Blackbird Leys, 1996

Kiln sites, large quantities of pottery and mortaria

103. Blackbird Leys Zone C, 1996 Roman enclosure, ditch system, kiln quantities of pottery and mortaria

104. Community Support Unit, **Littlemore Hospital**

Roman pottery

105. Oxford United Football Club Stadium Volume 1 1996

Three kiln sties, 8 inter-connecting ditches, ploughsoils, enclosures, post Burial pit and several inhumations holes and clay spread. large quantities of pottery and mortoria

106. ACE Centre, Nuffield **Orthopaedic Centre, 1997**

Roman pottery

107. Land to the north and south of Heyford Hill Lane, Littlemore, 1997

Roman pottery

108. Grenoble Road, 1998

Roman pottery

109. Medium Secure Unit 1998 Roman pottery

110. Stowford Road/Bayswater Road, Barton, 1998

Possible occupation layer, ditch and Possible watercourse and some Roman posthole, Roman pottery

111. Relocation of ACE Centre, **Nuffield Orthopaedic Centre, 1998** Roman plough soils

112. Fry's Hill Gas Trench, Guelder Road, Blackbird Leys 1999

Roman guarry, bowl pits, postholes and gullies, large quantities of pottery and mortaria

113. Transco site, Watlington Road, Oxford 2000

Roman pottery

114. Fry's Hill, Blackbird Leys, Oxford 2000

Roman pottery

115. Slade Hospital, Horspath Driftway 2000

Roman pottery

116. Integrated Disability Centre, **Nuffield Orthopaedic Centre, 2001** Roman pottery

117. Proposed Musculoskeletal Science Centre, Nuffield Orthopaedic Centre, Oxford 2001 Roman pottery

118. Oxford Science Park, Littlemore, Oxford 2001

large quantities of pottery and mortaria

119. Oxford United Football Stadium, Minchery Farm 2001

base, pits, possible roundhouse, large Kiln sites, ditches, gullies, stakeholes, postholes, large quantities of pottery and mortaria

> 120. Speedwell First School Site, Sandford Road, Littlemore 2002 Roman pottery

121. Bernwood First School site. North Way, Barton Oxford

122. Eastfield House, Brasenose Driftway, Oxford 2002

Gullies and some Roman pottery

123. Hotel Site, Minchery Farm, **Grenoble Road, Oxford 2002**

Large shallow feature, several pits, Roman pottery

124. Southfield Road, Oxford 2002 Roman pottery

125. Manor Ground, London Road, Headington, Oxford 2003

Roman pottery

126. The Priory PH, Kassam Stadium, Grenoble Road, Littlemore 2004

pottery

127. Speedwell first school, Sandford Road, Littlemore, 2005

Roman plough soil, 1 sherd Roman pottery

128. Morris Motors Sports and Social Club, Barracks Lane phase II 2005

2 sherds Roman pottery

129. Windmill First School, Headington 2005

3 sherds Roman pottery

130. Armstrong Road, Littlemore, 2006

2 sherds Roman pottery

131. Minchery Farm Paddock, Littlemore,. 2006

Roman ditch and plough soils

132. Warneford Meadow, Headington, Oxford

Several ditches, some Roman pottery 133. Walled Garden, Middle Way, 2007 (OHER)

2 possible Late Iron Age to Roman ditches and features. Structural evidence of 1 building in the form of 2 postholes and a gully, structural evidence of 2nd building 10 postholes and a gully. Large 2 sherds Roman pottery quantities of Roman pottery

134. A34 Wolvercote Viaduct Replacement, Oxford 2008

Ditches from 1st century AD and some Roman pottery

135. King of Prussia, Rose Hill, 2008 Roman pottery and 2 pits

136. Littlemore Park, Littlemore 2008 Ditch and some Roman pottery

137. New Music Building, Headington School, Oxford 2008a Two ditches and gully, some Roman

pottery

138. New Music Building, Headington School, Oxford 2008b Roman pottery

139. Beenhams Railway Lane, Littlemore, Oxford 2009

140. Bayards Hill School, Waynflete Road

Roman roads and roadside ditches, also pits and gullies

141. Warneford Hospital 2009 Roman ditch and some pottery

142. Oxford Community School, site B, Barracks Lane 2008

Roman ditch and gully and some pottery

Appendix 2: Gazetteer of kiln sites in Oxford

Site	Name	Evidence	NGR	Source
1 G	Wick Farm	Mask, vitrified floor, clay	5526	Salzman, 1939
	(outside LAA)	Possible kiln site	0854	Young, 1977
		Limited excavation (1849)		OHER
2a	Harry Bear's	Several circular, clay-lined	5510	Manning, 1898
G	Pit, Headington	hollows,	0610	OHER 3620 Kiln
		Shallow flues and pottery debris		site
		Possible multiple kiln site		
2b	South of Harry	Not excavated Reference to Roman pottery,	5481	Manning, 1898
20	Bear's Pit	coins	0594	Young, 1977
	Dear 3 i it	Possible multiple kiln site (4	0004	OHER 3616 Kiln
		possible)		site
		Not excavated		
3	Cemetery	3 rd -4 th century pottery, mortaria	5421	Salzman, 1939
	Road,	Possible kiln site	0771	No OHER?
	Headington	Not excavated		
4	The Rookery,	Sandford type ware, coarse	5429	Sturdy and
	Headington	pottery	0780	Sutermeister 1964-
		Possible kiln site (1964)		5; Dodd, 2008
		Excavation recorded late Roman		No OHER?
		mortaria in the area (2008)		
5	Cherwell Drive,	3 rd -4 th century coarse pottery	529	Case and Sturdy
G	Marston	Possible kiln site. Not excavated	082	1960,133
				Young, 1977
6	Manor Ground,	3 rd -4 th century mortaria	5423	OHER 6142 Hart, 2003
0	Headington	Possible kiln site	0717	OHER 16974 Find
	ricadington	Excavations did not reveal a kiln	0717	Spot
7	Bayswater Hill,	3 rd -4 th century pottery including	5578	Atkinson, 1946-7;
	Barton	Samian and much coarse ware	0780	1948
		Possible kiln site		Young, 1977
		Excavated but no kiln recorded		OHER 3664
				Occupation Site
8a	Wingfield	Pottery evidence including	5483	Sturdy and Case,
G	Hospital,	Sandford wares	0639	1964, 92
	Headington	Possible kiln site		Sturdy and
				Sutermeister 1966, 92
				92 Young, 1977
				OHER 3670
8b	Nuffield Centre,	3 rd century kiln waste	5474	Bashford, 2001
	Headington	Possible kiln site	0659	OHER 3670 Kiln
				site
9a	Churchill	4 th century kiln evidence, pottery	5465	Case, 1952-53
G	Hospital	2 kilns excavated 1953, 1959	0578	Young, 1977
	Headington			OHER 3615 Kiln
				site
9b	Churchill	4 th century Kiln [F.101/102]	5465	Young 1972b
	Hospital	One kiln (re-excavation of 9a)	0578	Young, 1977
	Area I			OHER 3615 Kiln
9c	Churchill	3 rd century Kiln [Group F.307]	5465	site

	Hospital Area II	Four kilns excavated	0578	
9d	Churchill Hospital Area IV	4 th century kiln One kiln excavated	5465 0578	Young 1973b Young, 1977 OHER 3615 Kiln site
9e	Churchill Hospital Area V	3 rd century kiln, 4 th century kiln Two kilns excavated	5465 0578	
9f	Churchill Hospital Area VI	4 th century kiln One kiln excavated	5465 0578	
9g	Churchill Hospital Area VII	Kiln [F.703], 4 th century One kiln excavated	5465 0578	Young 1974 Young, 1977 OHER 3615 Kiln
9h	Churchill Hospital Area VII	Oven or surface kiln, possible 1 st century date Two kilns excavated	5465 0578	site
10	Cowley Marsh, Cowley	Roman pottery, clay lining Possible kiln site, not excavated Not recorded as kiln site	5470 0537	Manning, 1898 OHER 3618 Find Spot
11	Horspath Driftway, Cowley	Roman pottery, wasters, mould (1952) Late 3 rd –4 th century mortarium (2000) Possible kiln site Excavated but no kiln evidence	5552 0512	Hassall, 1952-53 Moore, 2000 OHER 16300 Kiln site
12 G	Southfield (Oxford) School	Large quantities of pottery including grey, white and red colour coated wares Possible kiln site Not excavated	539 053	Atkinson, 1948 Young, 1977 OHER 3630 Kiln site
13	Former Joinery Works, Cowley	2 nd century stoke hole, waster dump Excavated kiln evidence	5454 0441	Hardy 1993 OHER 15947 Kiln site
14a	Annesley Road, Rose Hill	2 nd - 3 rd century kiln Evidence to suggest later 4 th -5 th century kiln. One excavated kiln and one possible kiln. Large number of pits, hut floors and ditches observed.	5346 0372	Harden 1936 Young, 1977 OHER 3646 Kiln site
14b	Ellesmere Road, Rose Hill	Pottery evidence, kiln debris One possible kiln	5343 0381	anon, 1937 OHER 3647 Kiln site
15a G	St Luke's Road, Cowley	1 st -4 th century evidence including 2 kilns, puddling holes, waster dumps, clay dumps, pottery evidence, occupation Two excavated kilns (1939)	5441 0406	Atkinson, 1941 Young, 1977 OHER 3817 Kiln site
15b	St Luke's Road, Cowley	3 rd century possible stokehole and flue 1 probable kiln Excavated (1973)	5442 0404	Young 1973b OHER 3817 Kiln site
15c	Between Towns	1 2 nd century kiln, 1 3 rd century kiln	5442	Green 1983

	Road, Cowley	2 probable kiln sites waster dumps, stokeholes Excavated (1983)	0404	OHER 3817 Kiln site
16 G	Mountpleasant, Littlemore	Pottery debris, possibly from kiln dump. Possible kiln site	5347 0299	OHER 6191 Marshall 1874, 156; sturdy, case 1964, 89.
17	Littlemore Hospital (Ashurst Clinic) Littlemore	1 st -2 nd century pottery evidence Recorded kiln site Not fully excavated	5329 0239 5330 24	Case and Kirk, 1955 Young, 1977 OHER 8017 Kiln site
18	Sandford Road, Littlemore	Single piece of fired clay Possible kiln site	5372 0265	TVAS, 1995 OHER 15837 Find Spot
19	Armstrong Road, Littlemore	Pottery evidence, kiln waste Possible kiln site Excavated but certain evidence	5363 0221	Williams 2007 OHER 26121
20	Garsington	Roman pottery, enclosure ditches Recorded kiln site	561 030	Case, 1956 OHER 1865 Pottery manufacture site
21a G	Long Lane, Eastern Bypass	Pottery, foundation trenches, clay Recorded observation of kiln site Not Excavated	5425 0317 (rep ort says 5470 33	Case 1958 Young, 1977 OHER 6191 Find Spot
21b	Henley Road, Eastern Bypass	Pottery, foundation trenches, clay Recorded observation of kiln site Not Excavated	5350 0310	Case 1958 OHER 6191 Find Spot
22a	Minchery Farm, Littlemore	Early-mid 2 nd century 4 kilns excavated in 1879	5540 0228	Salzman, 1939 Young, 1977 OHER 3845 Kiln site
22b	Kassam Stadium, Minchery Farm	Kiln [533] 2 nd century Kiln [518] 3 rd century Kiln [573] 4 th century	5483 0225	RPS 1996 OHER 16787 Kiln site
23a	Sawpit Farm, Blackbird Leys	3 rd -4 th century Recorded kiln site 3 kilns salvaged in 1961	5532 0264	Sturdy and Case 1963,337 Young, 1977 OHER 6143 Kiln site
23b	Recreation area, Blackbird Leys	3 rd century Flue, drying area, pottery Possible kiln site	5513 0232	Tempus, 1995b OHER 26338 Kiln site
23c	Area C2 and Peripheral Road	Kiln debris Possible kiln site	5511 0193	OXFORD ARCHAEOLOGICA L UNIT, 1995b
23d	Zone C	Late 3 rd -4 th century kiln [Context 10] Possible kiln site	554 022	OXFORD ARCHAEOLOGICA L UNIT. 1996
23e	Zone D	Kiln D4 [558]; D7 [606] Two kilns excavated	5528 0198	Kiberd, 1996 OHER 26337 Kiln

23f	Zone E	3 rd -4 th century Kilns K2 [376]; K3;	5510	site
		K4	0223	
		Three kilns excavated		
23g	Fry's Hill	Pottery waste	5050	Ford, 1999
		Possible kiln site	2235	OHER 16306 Kiln
				site
24	Littlemore Old	Kiln recorded located in Littlemore	5330	Young, 2000
	Quary	Quary in 19 th century. No pottery	28	Gazeteer.
		survives.		Manning, 1898,22
25	King of Prussia,	Small kiln partially excavated in		JMHS , forthcoming
	Rose Hill	2011.		

Table 1: Recorded kilns and possible kiln sites in Oxford

Codes for pottery types recovered (Young 2000)

White colour-coated - WCC

Red and brown colour-coated - RB

Reduced ware - RW

Mortaria – M

White wares - WW

Parchment ware - PW

Oxidised ware - OW

Burnt white ware - BWW

Gritted white ware - GWW

List of pottery types by site (Young 2000)

Blackbird Leys - SP553026

K1 M WW RW

K2 M WW RW

K3 M WW RW

Churchill

By phase

2 OW RW

4a M PW WW BWW RB OW RW

4b M PW WW BWW GWW RB OW RW

4ab M PW WW WCC OW RW

Cowley St Lukes

1936 M WW RB

1940 M PW WW WCC RB OW RW

1972 M WW RB OW RW

Littlemore Ashurst Clinic

Finds M WW OW RW

Littlemore Mount Pleasant

Pottery types M WW OW RW

Marston Cherwell Drive

Pottery types M PW

Nuffield OC

Pottery types
M PW RW
Old Headington
M PW RW
Oxford School
Pottery types M PW OW
Rose Hill
Ki M PW WW BWW RB OW RW
K2 M PW WW WCC

Appendix 3 Figures

K3 M PW WCC RB OW RW

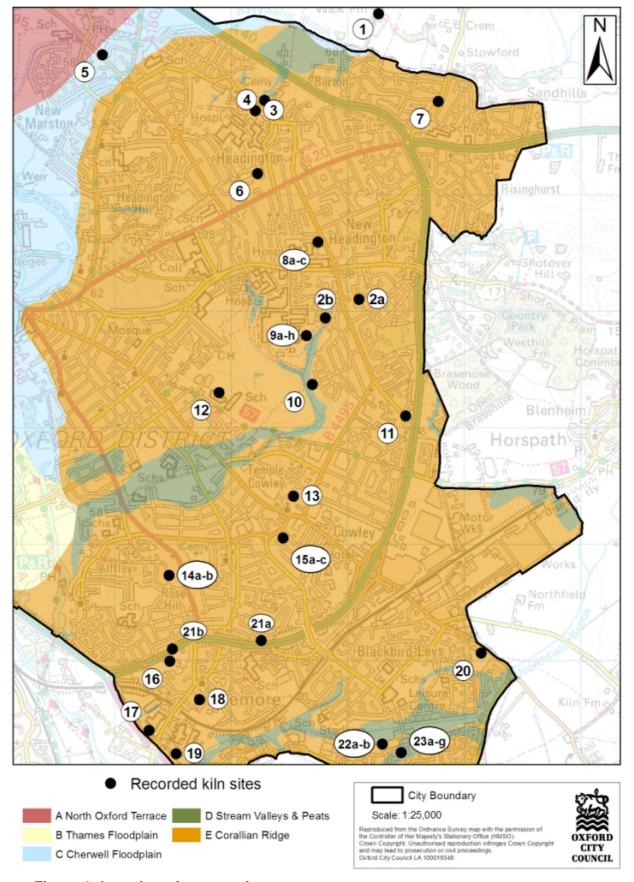


Figure 1: Location of pottery sites

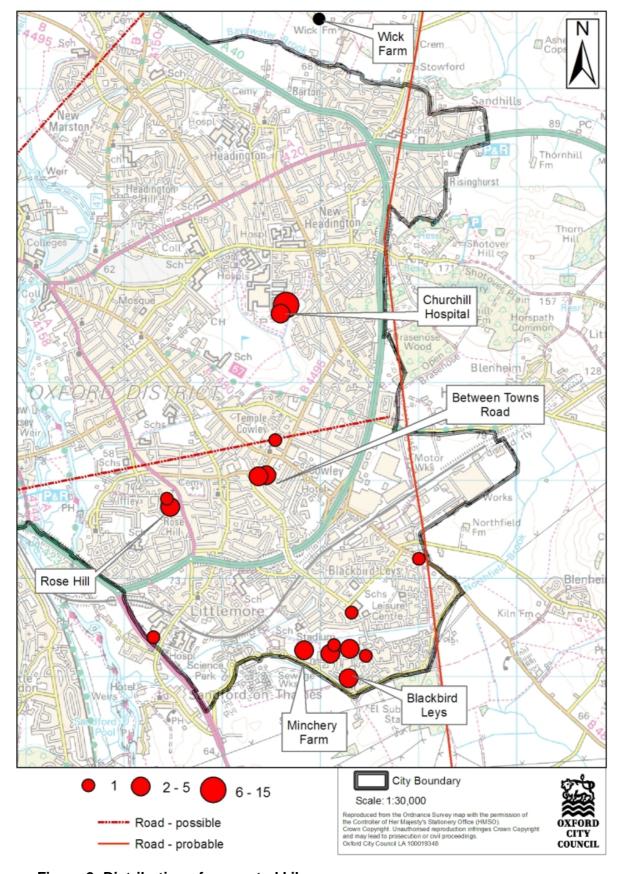


Figure 2: Distribution of excavated kilns

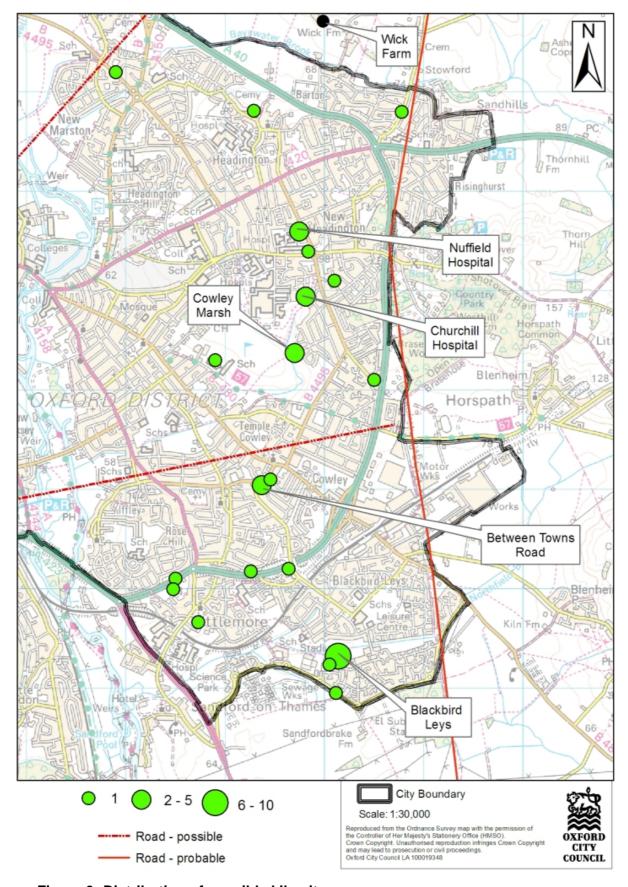


Figure 3: Distribution of possible kiln sites

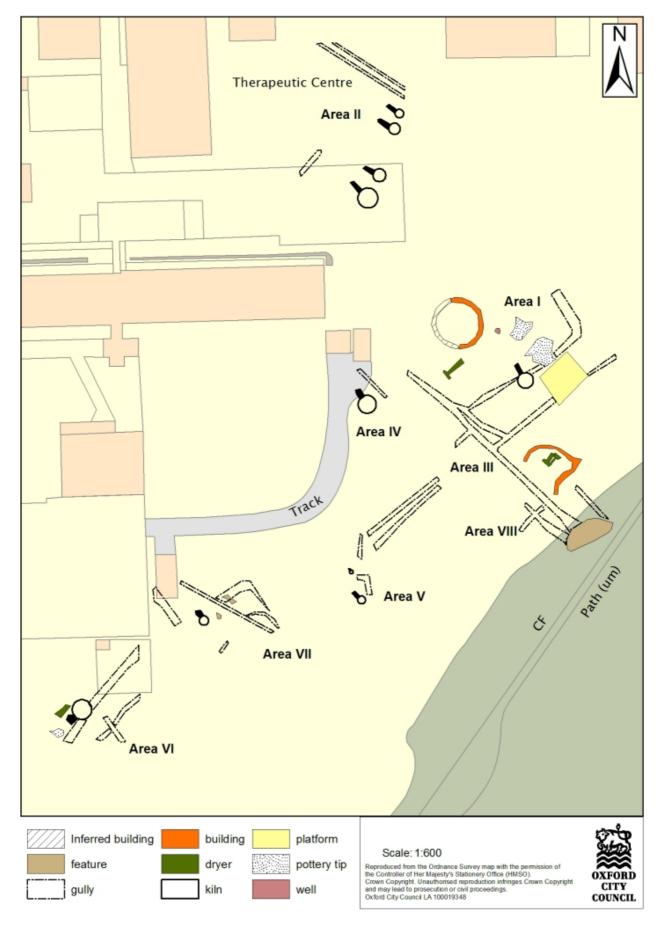


Figure 4: Churchill hospital excavations results (after Young 1974)

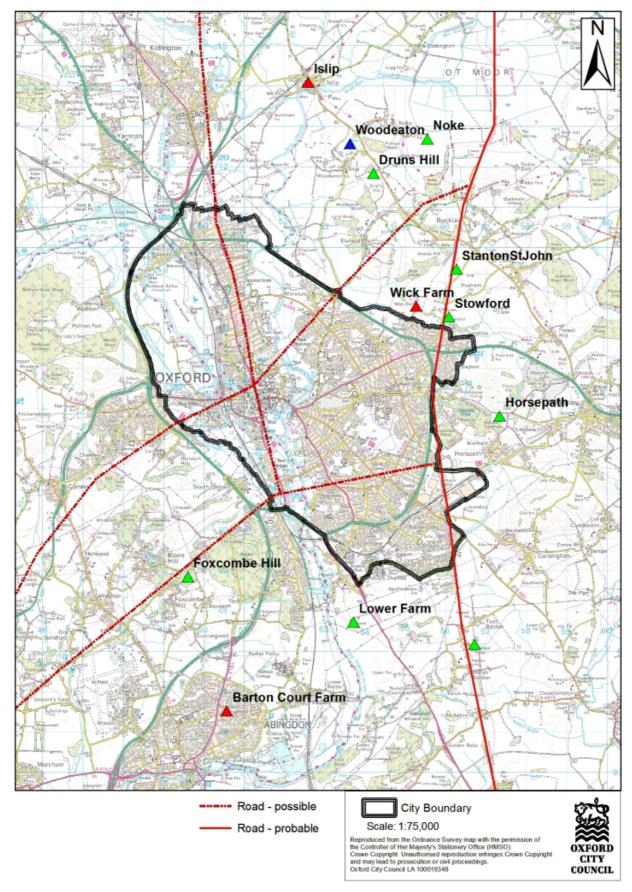


Figure 5: Roman Oxford in the wider landscape

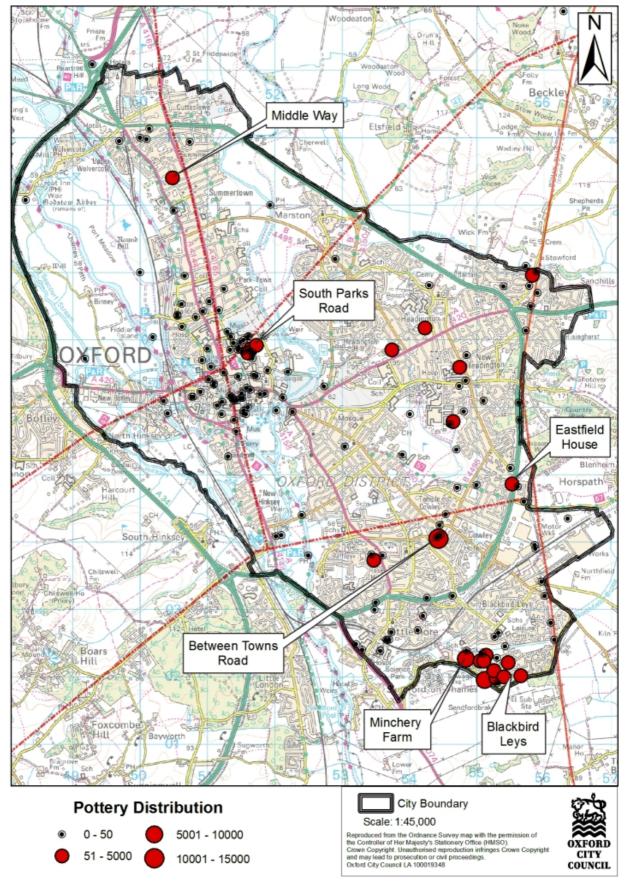


Figure 6: Distribution of Roman artefacts

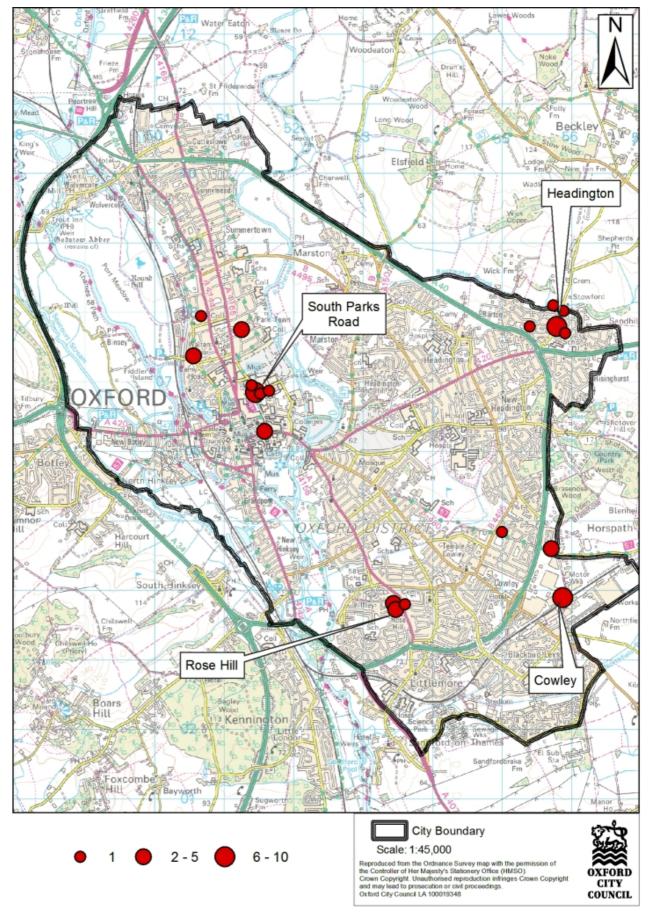


Figure 7: Distribution of burials and cremations

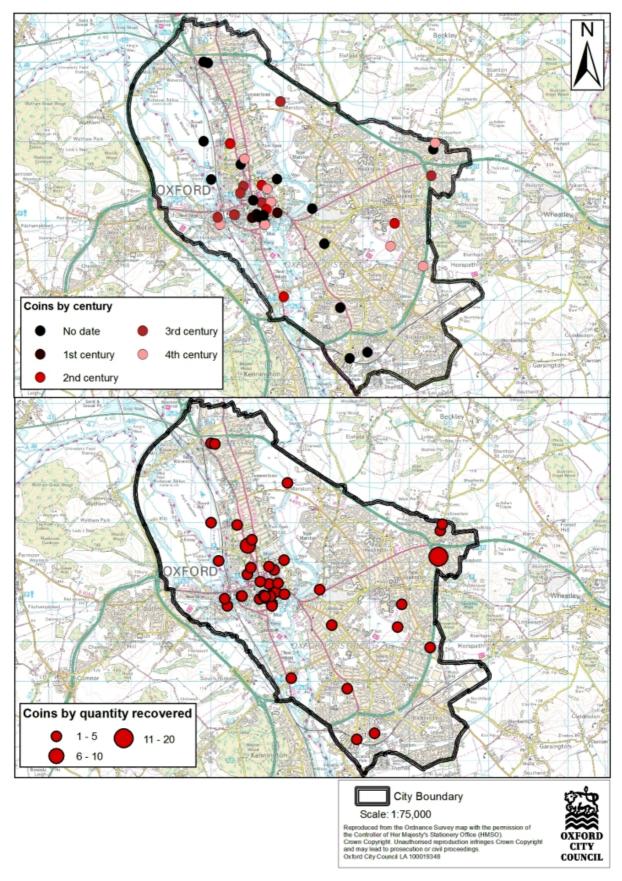


Figure 8: a) Distribution of coins by approximate century; b) Distribution of coins by quantity recovered